A: Datasheet

Algorithm: dermalog_2

Developer: Dermalog

Submission Date: 2018_02_16

Template size: 256 bytes

Template time (2.5 percentile): 305 msec

Template time (median): 340 msec

Template time (97.5 percentile): 401 msec

Investigation:

Frontal mugshot ranking 239 (out of 279) –– FNIR(1600000, 0, 1) = 0.1355 vs. lowest 0.0009 from sensetime_005

Mugshot profile ranking 140 (out of 210) –– FNIR(1600000, 0, 1) = 0.9332 vs. lowest 0.0587 from xforwardai_002

Immigration visa–border ranking 128 (out of 168) –– FNIR(1600000, 0, 1) = 0.1460 vs. lowest 0.0013 from visionlabs_010

Immigration visa–kiosk ranking 136 (out of 165) –– FNIR(1600000, 0, 1) = 0.4818 vs. lowest 0.0568 from cloudwalk_hr_000
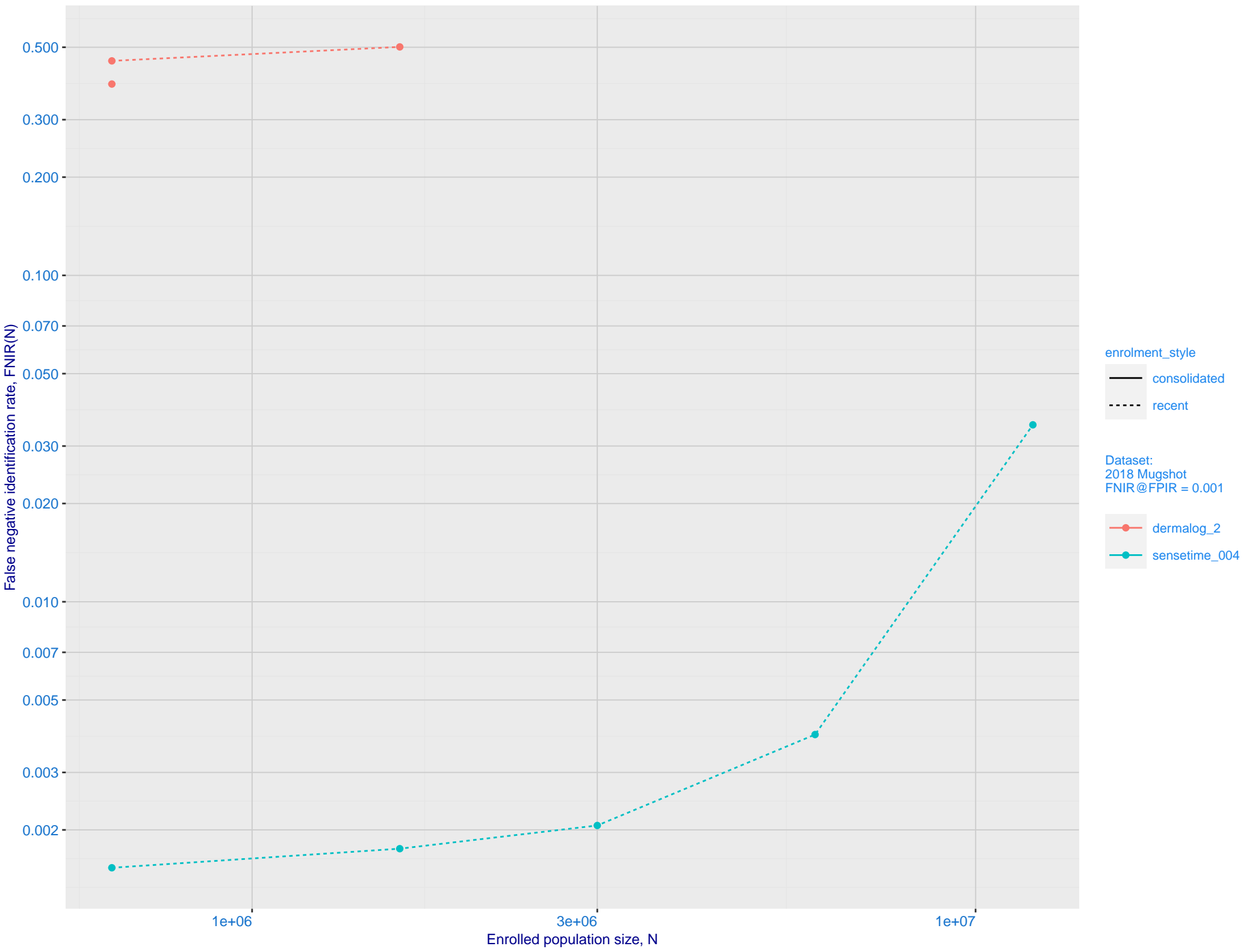
Identification:

Frontal mugshot ranking 232 (out of 279) –– FNIR(1600000, T, L+1) = 0.5013, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

Mugshot profile ranking 82 (out of 209) –– FNIR(1600000, T, L+1) = 0.9900, FPIR=0.001000 vs. lowest 0.1331 from cloudwalk_hr_000
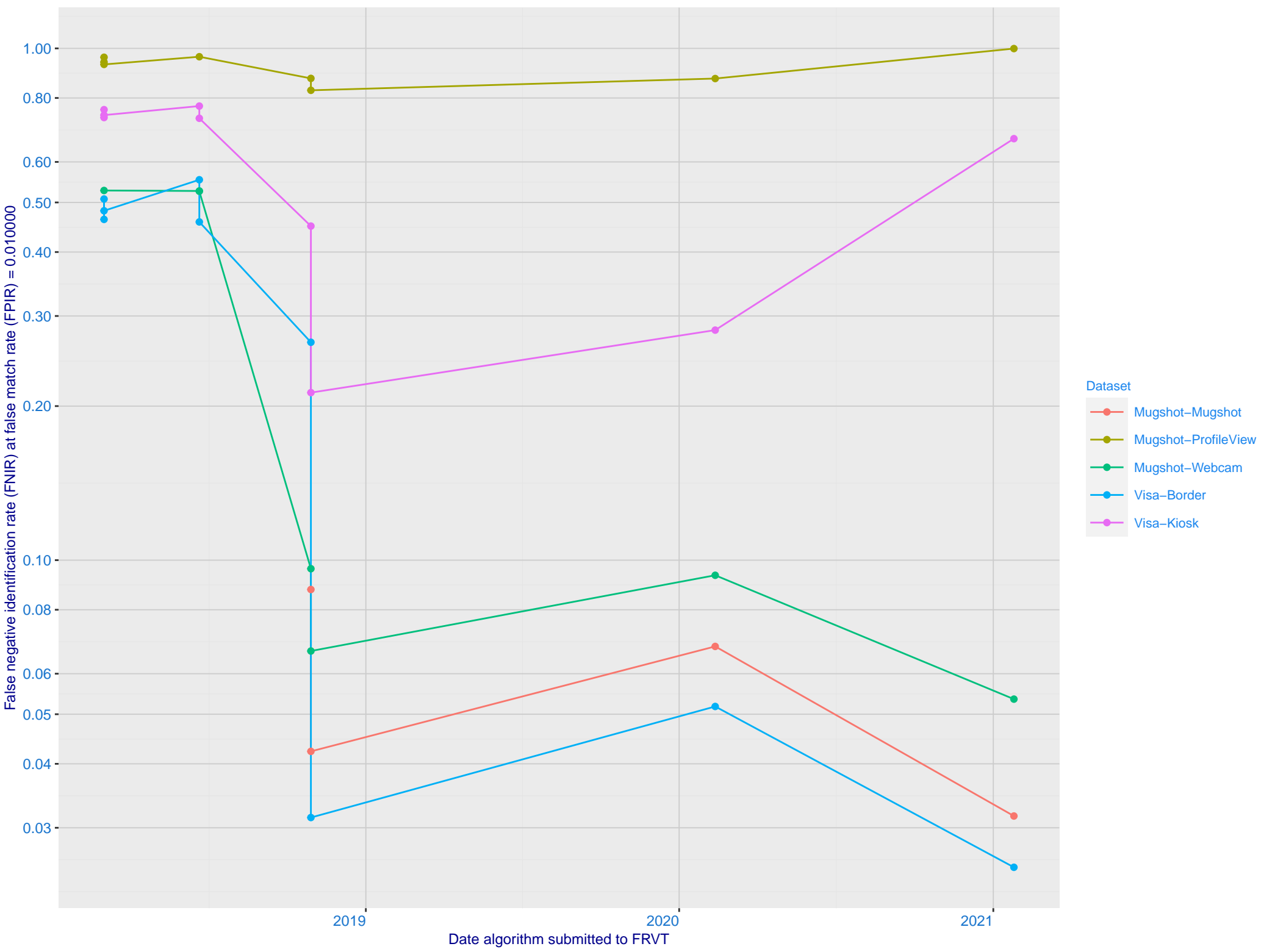
Immigration visa–border ranking 129 (out of 167) –– FNIR(1600000, T, L+1) = 0.6223, FPIR=0.001000 vs. lowest 0.0047 from idemia_008

Immigration visa–kiosk ranking 108 (out of 162) –– FNIR(1600000, T, L+1) = 0.8643, FPIR=0.001000 vs. lowest 0.0996 from cloudwalk_hr_000
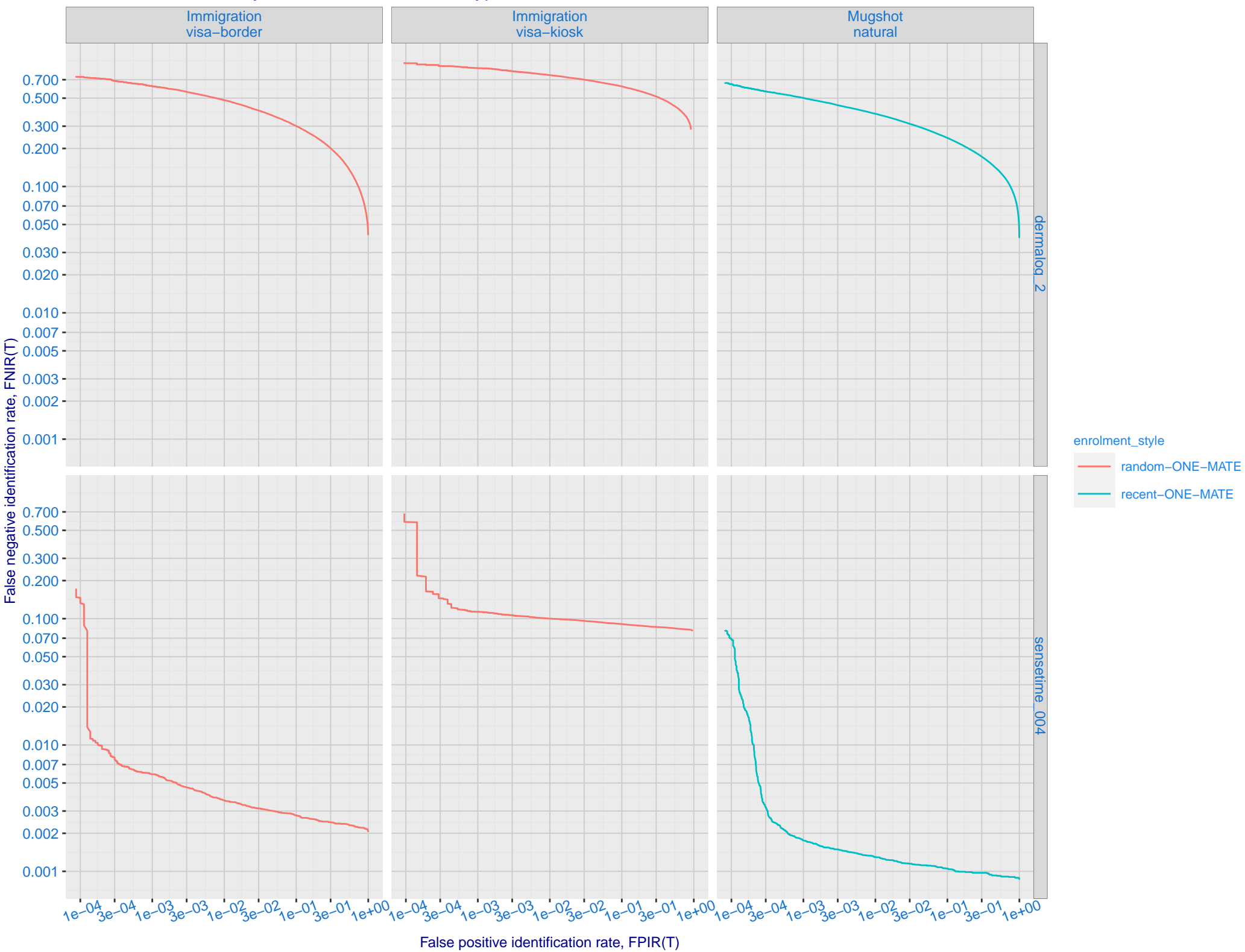
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
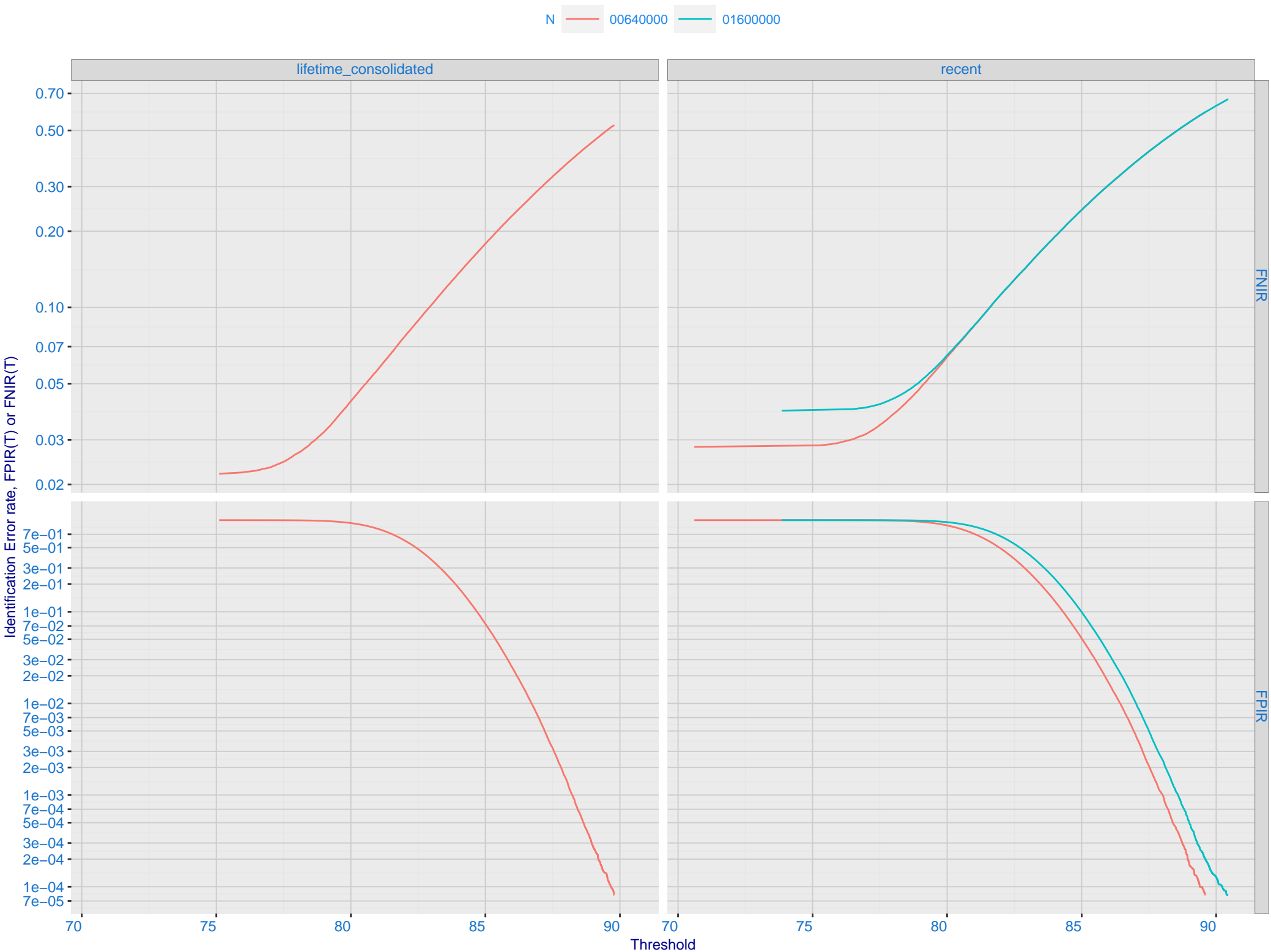
C: Evolution of accuracy for DERMALOG algorithms on three datasets 2018 – present
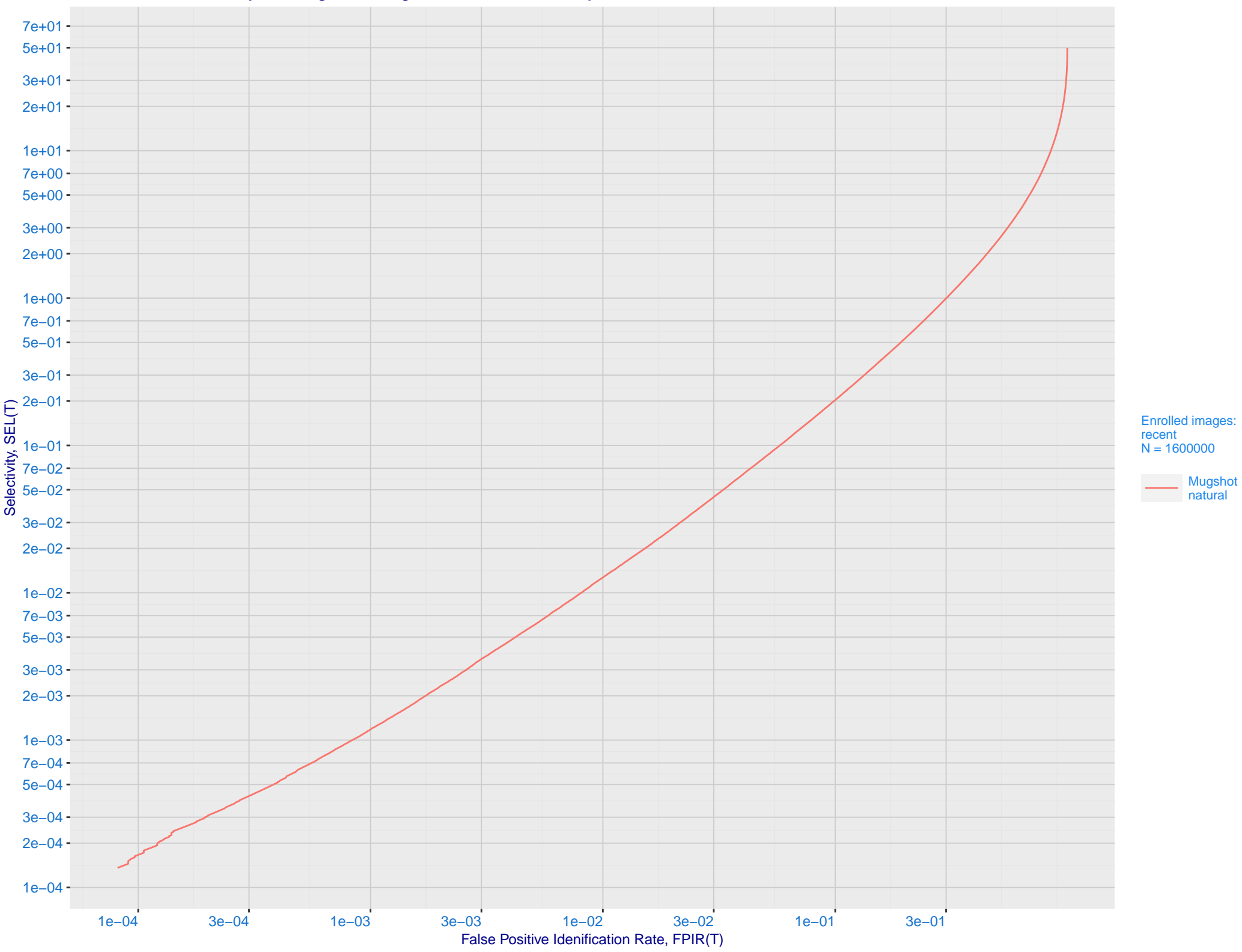
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
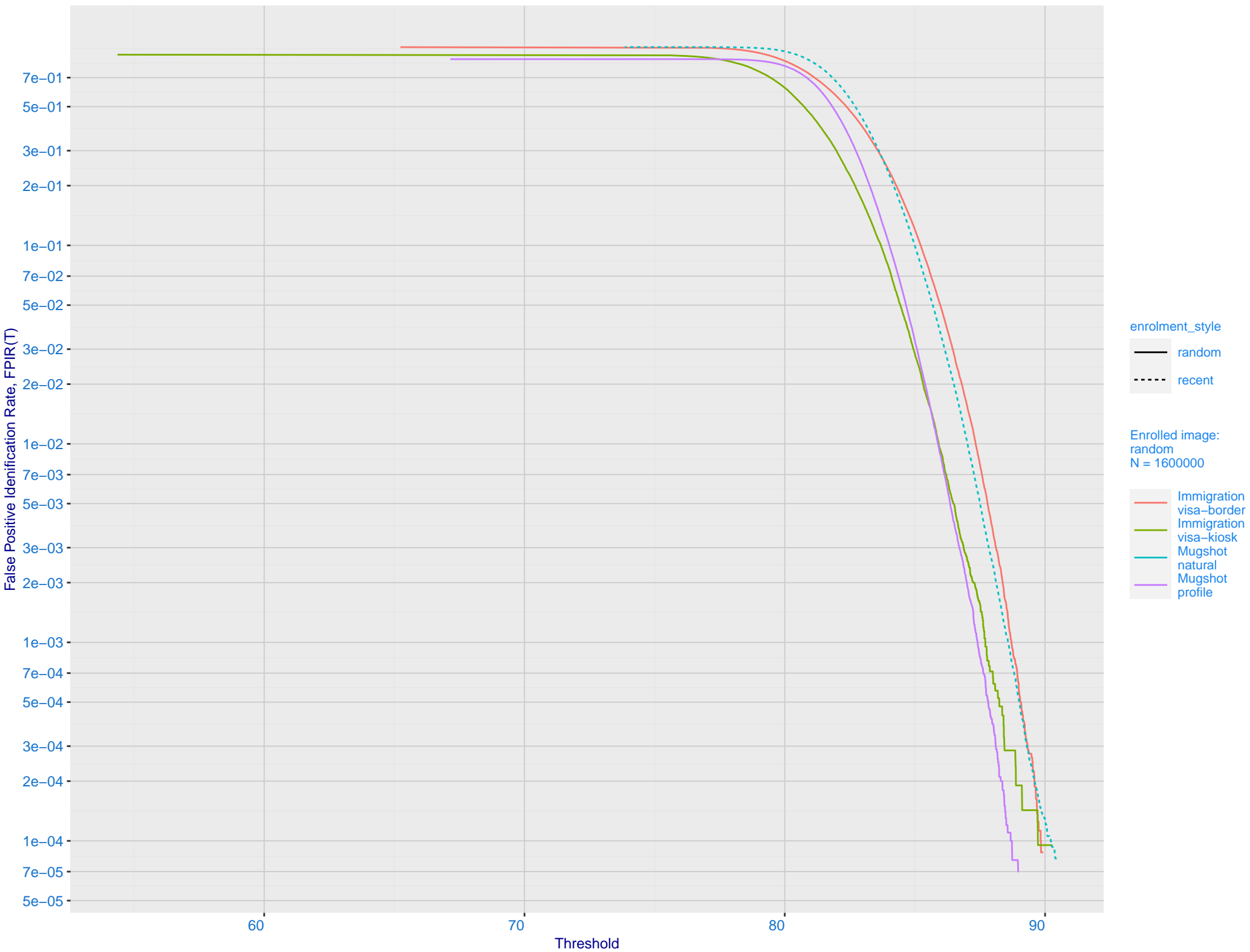
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images
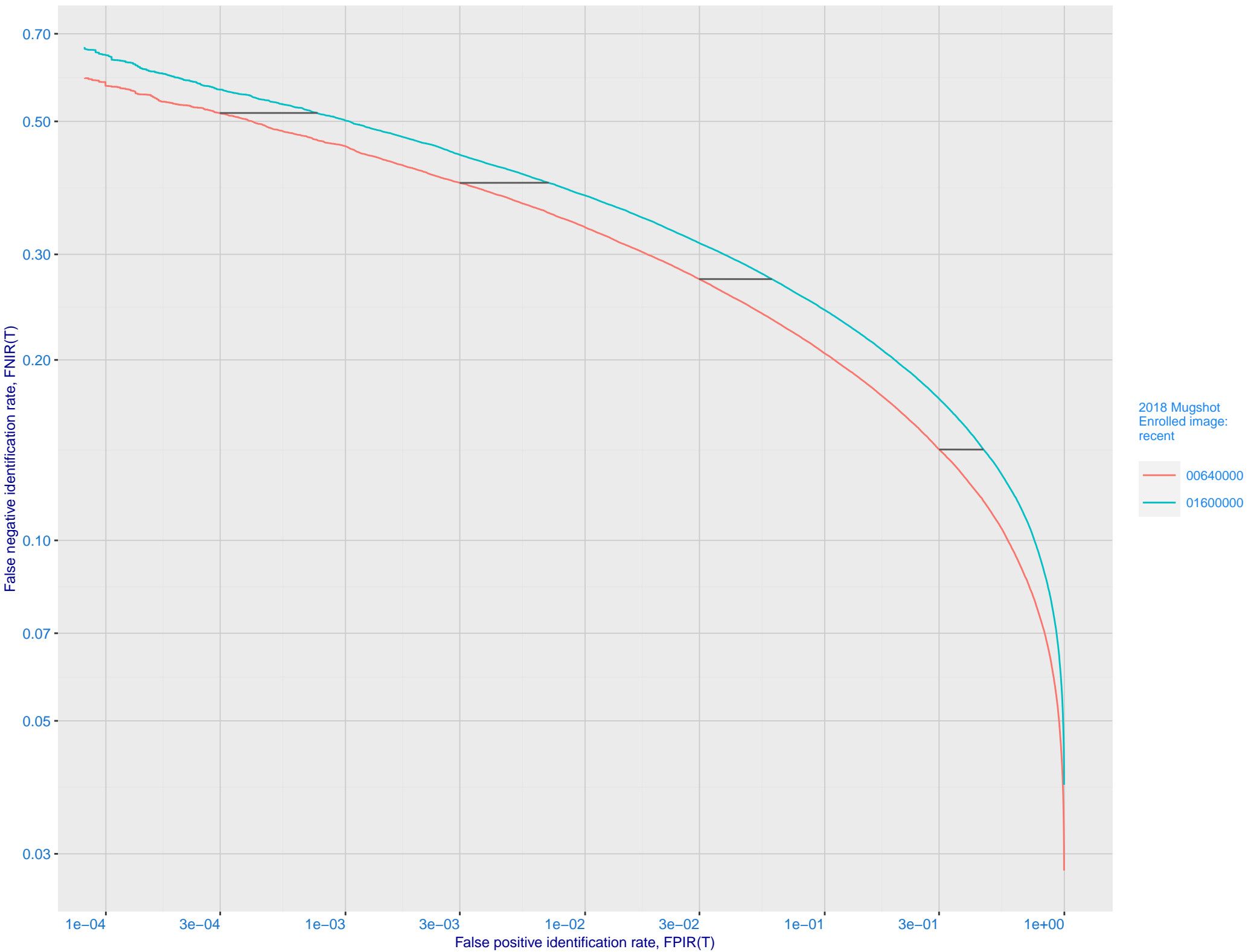
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

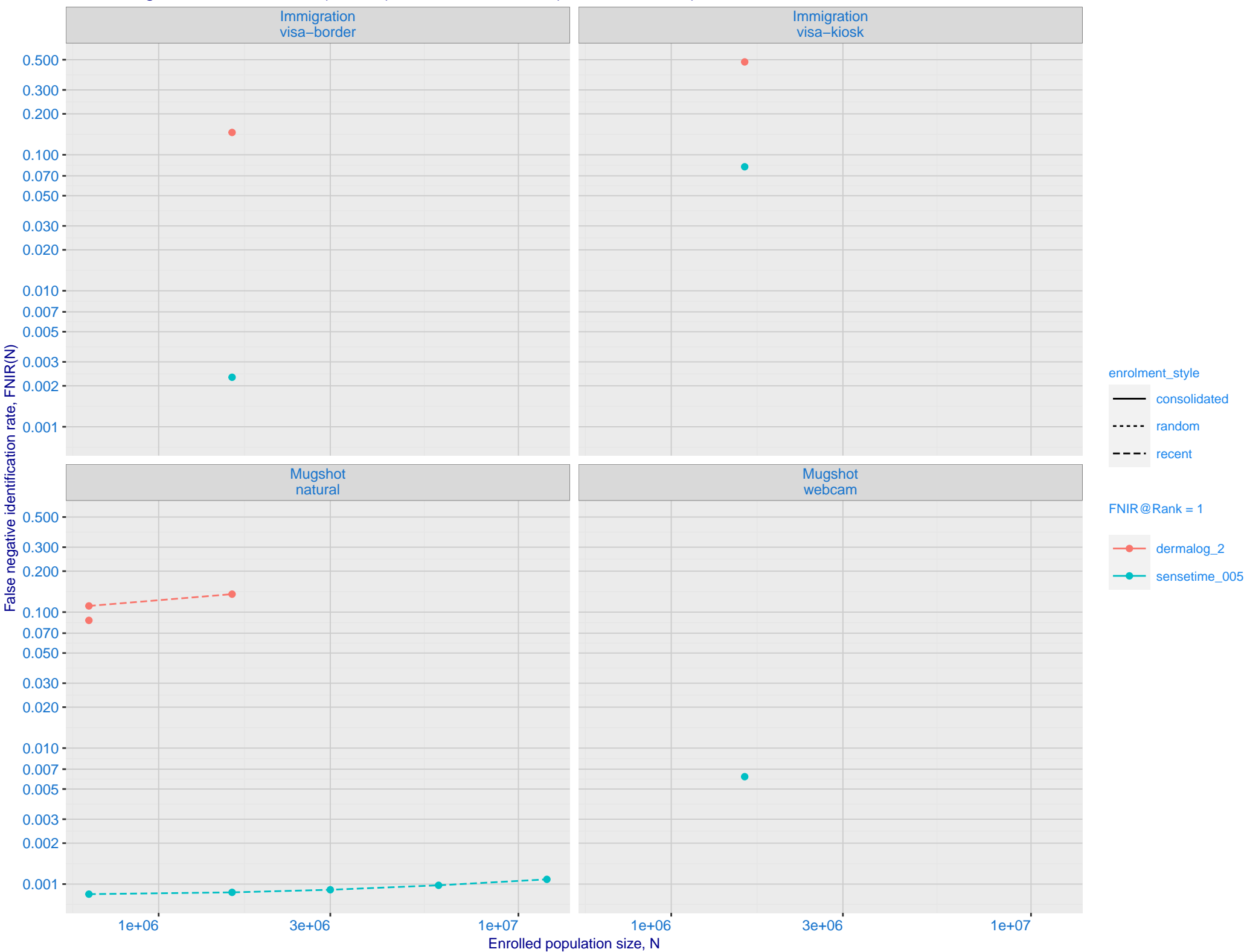G: FPIR dependence on T by probe type for N = 1600000 subjects

J: DET for Mugshot natural images and various N. Links connect points of equal threshold.
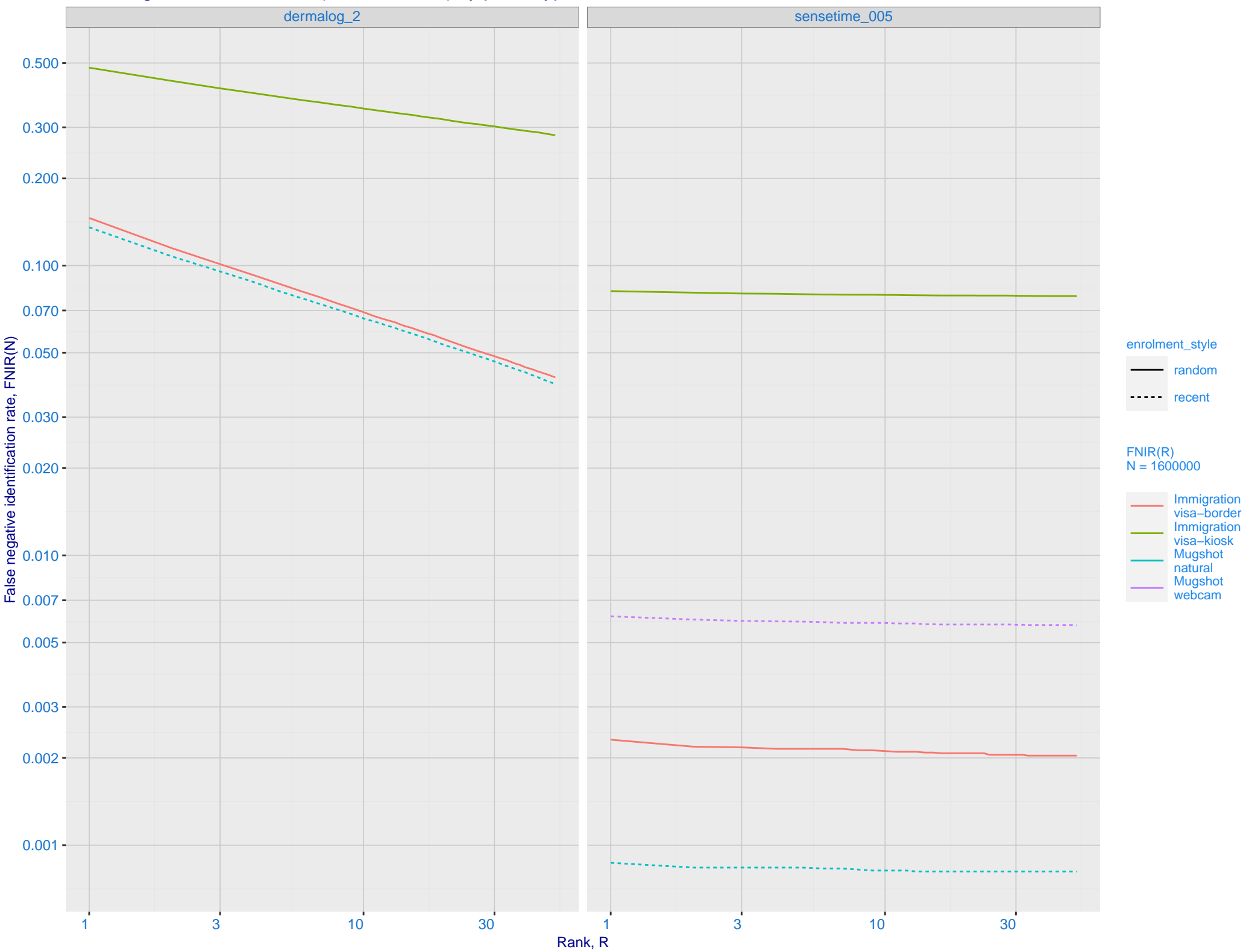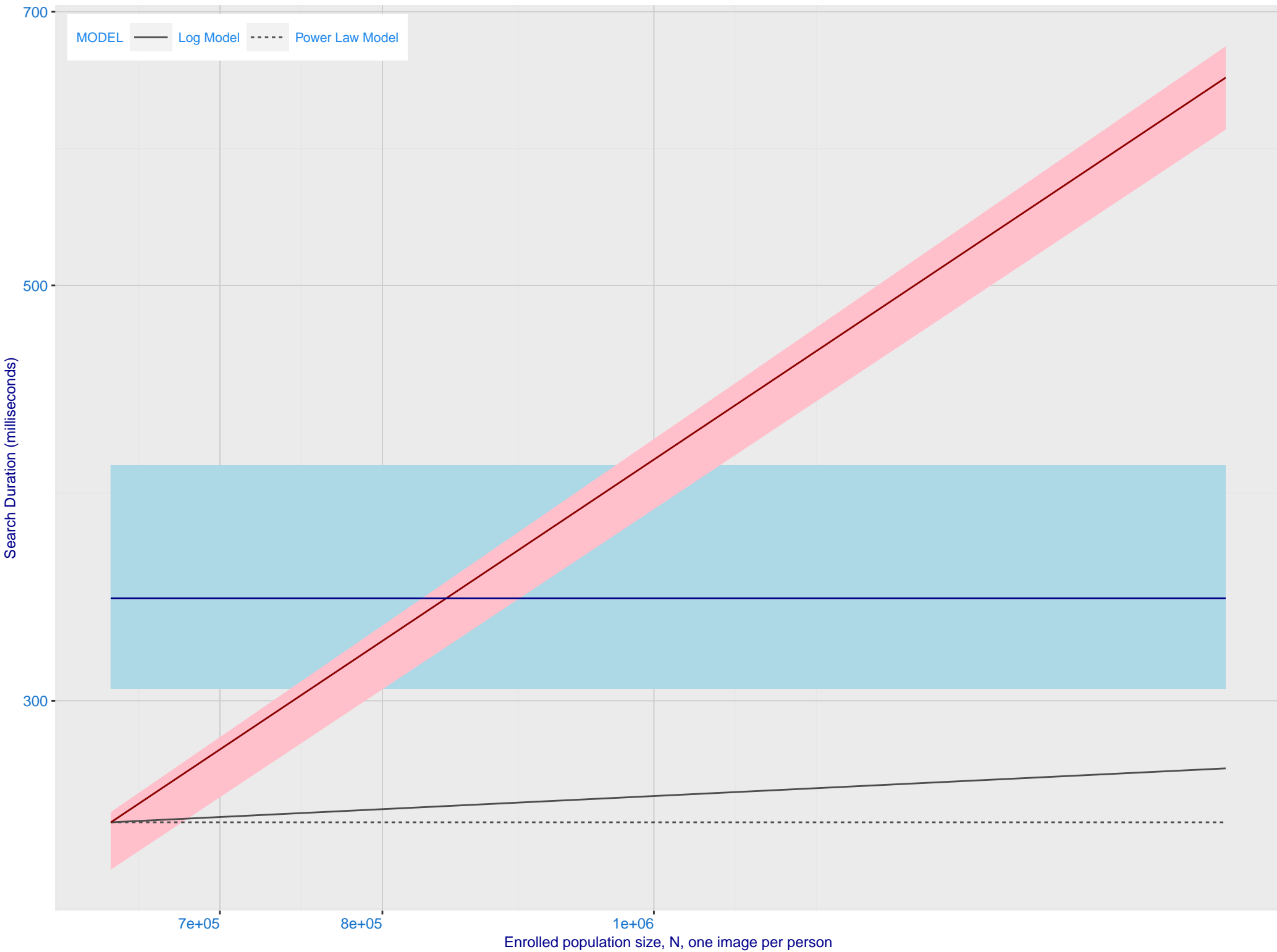
K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

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