A: Datasheet

Algorithm: microfocus_5

Developer: MicroFocus

Submission Date: 2018_10_29

Template size: 256 bytes

Template time (2.5 percentile): 225 msec

Template time (median): 263 msec

Template time (97.5 percentile): 312 msec

Investigation:

Frontal mugshot ranking 248 (out of 259) –– FNIR(1600000, 0, 1) = 0.4242 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 213 (out of 221) –– FNIR(1600000, 0, 1) = 0.6010 vs. lowest 0.0062 from sensetime_005

Immigration visa–border ranking 125 (out of 142) –– FNIR(1600000, 0, 1) = 0.4943 vs. lowest 0.0014 from visionlabs_009

Immigration visa–kiosk ranking 125 (out of 139) –– FNIR(1600000, 0, 1) = 0.7774 vs. lowest 0.0694 from cib_000
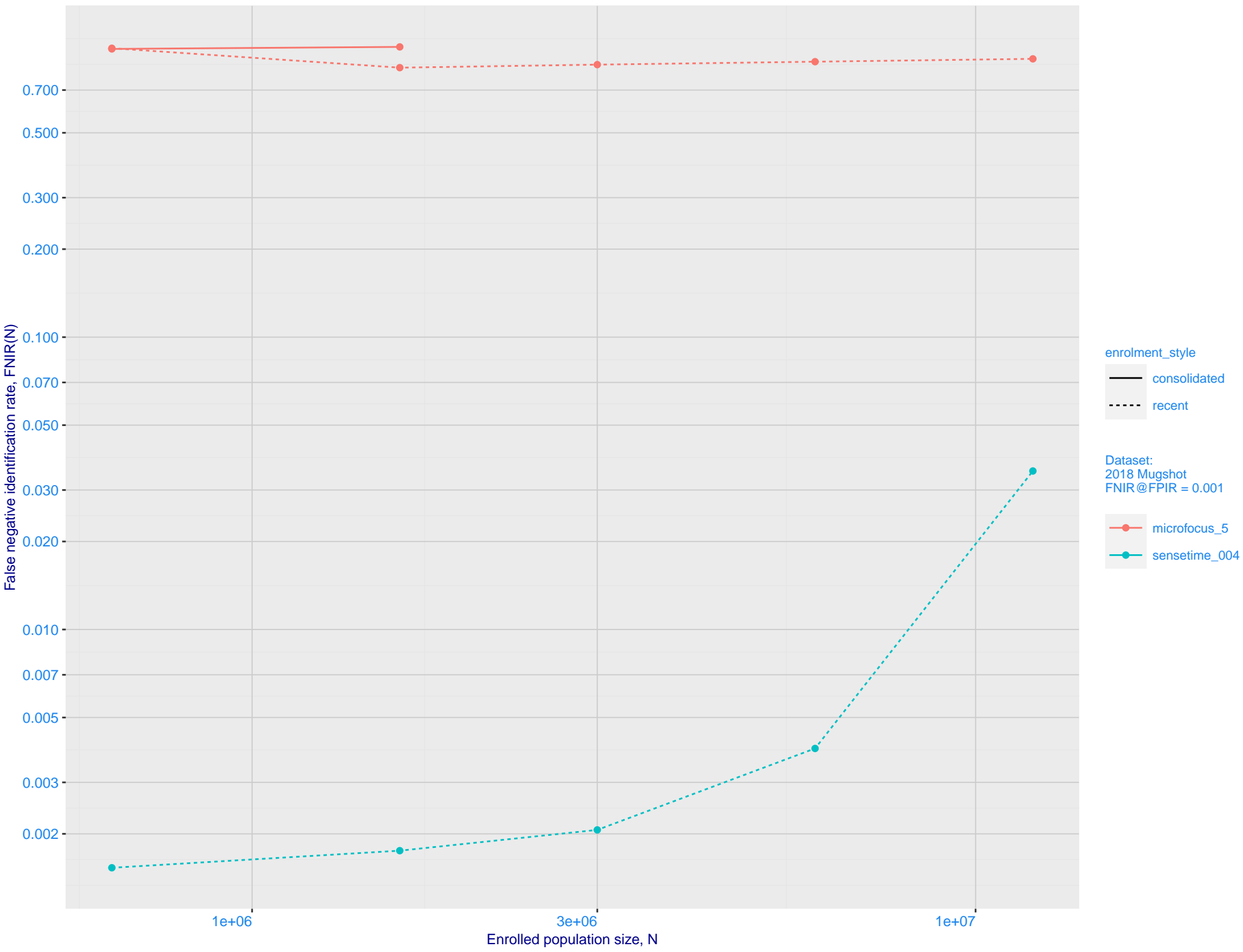
Identification:

Frontal mugshot ranking 241 (out of 259) –– FNIR(1600000, T, L+1) = 0.8352, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

Mugshot webcam ranking 205 (out of 219) –– FNIR(1600000, T, L+1) = 0.9281, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003
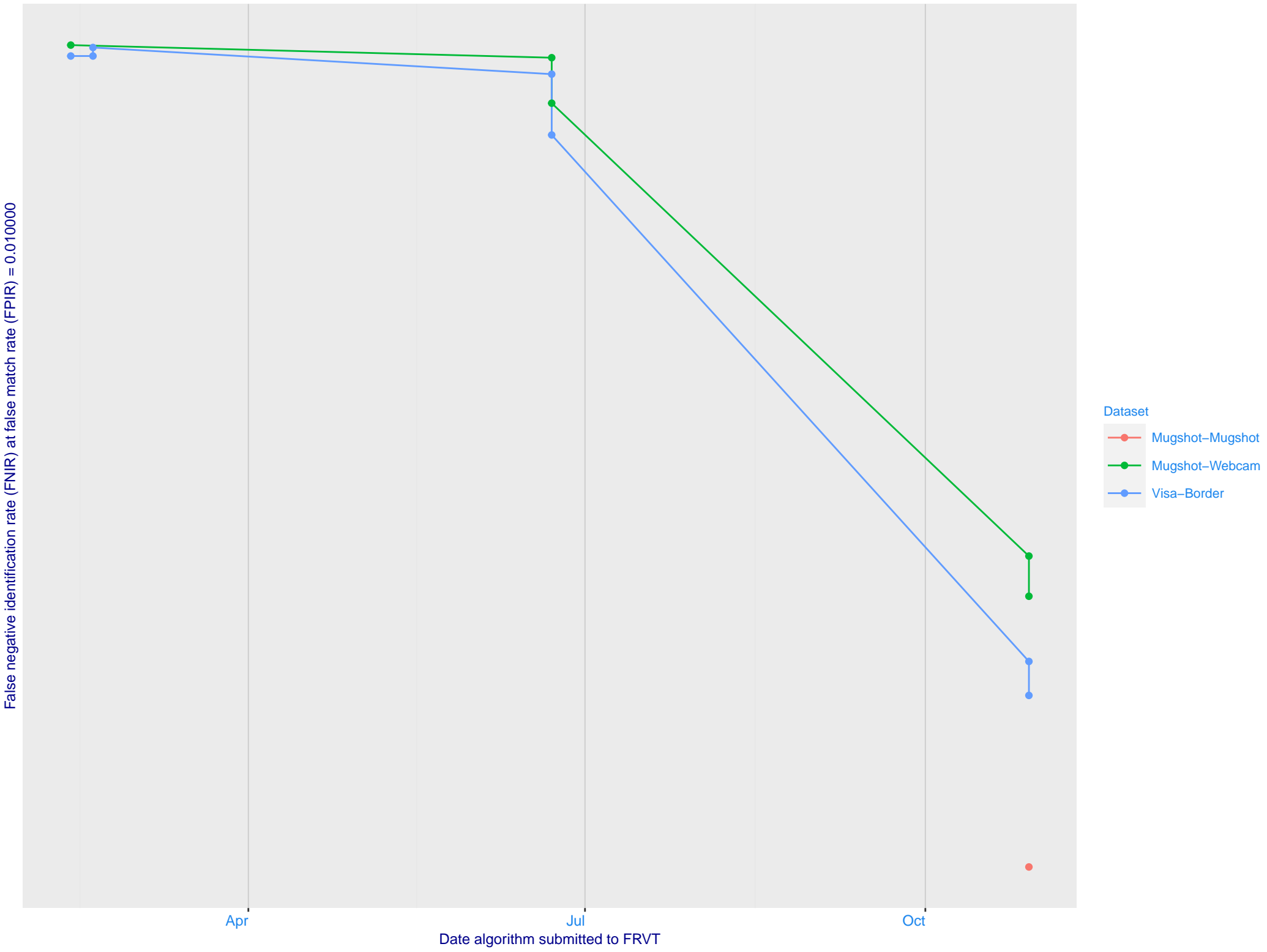
Immigration visa–border ranking 119 (out of 139) –– FNIR(1600000, T, L+1) = 0.9348, FPIR=0.001000 vs. lowest 0.0059 from sensetime_004

Immigration visa–kiosk ranking 114 (out of 134) –– FNIR(1600000, T, L+1) = 0.9848, FPIR=0.001000 vs. lowest 0.1048 from sensetime_005
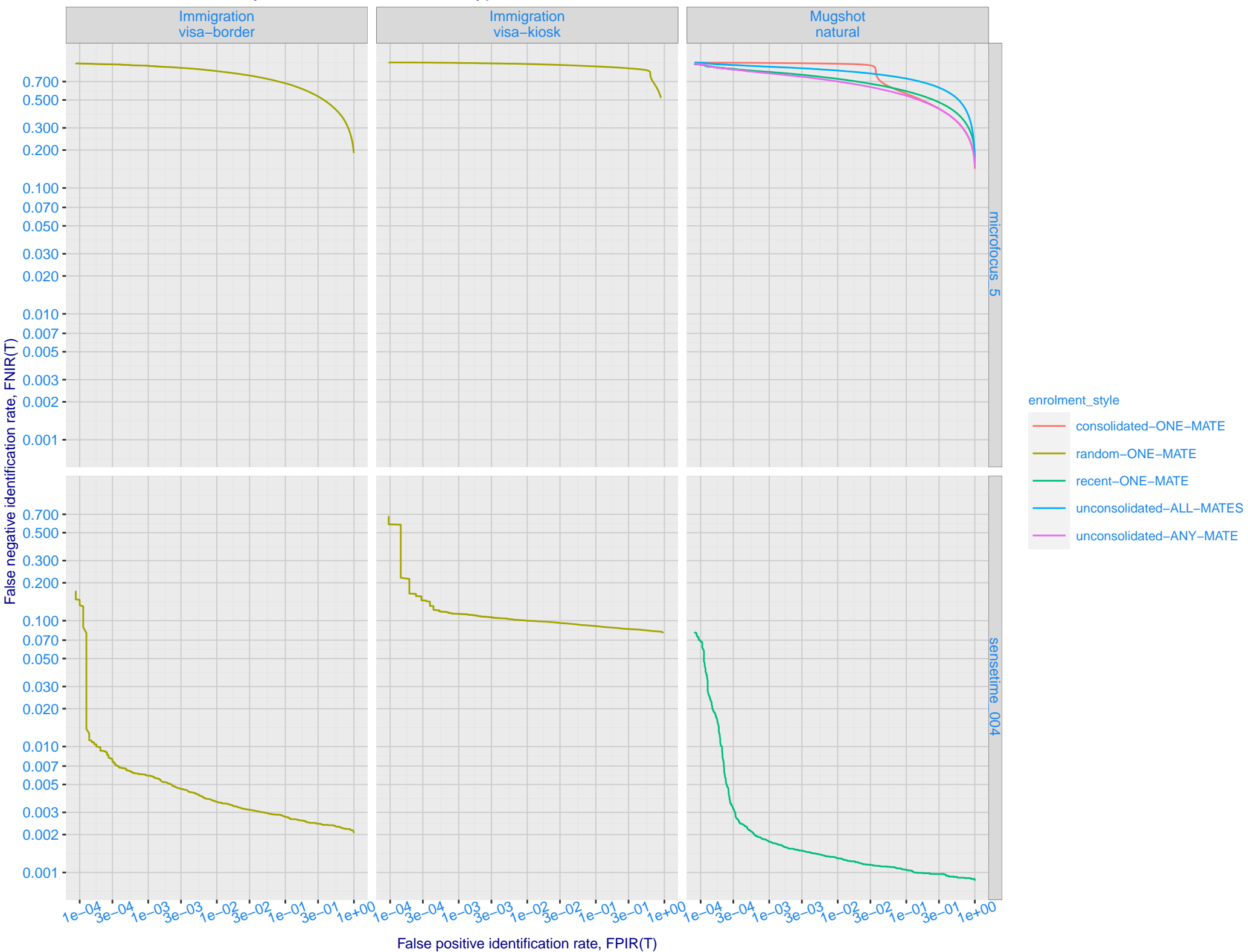
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
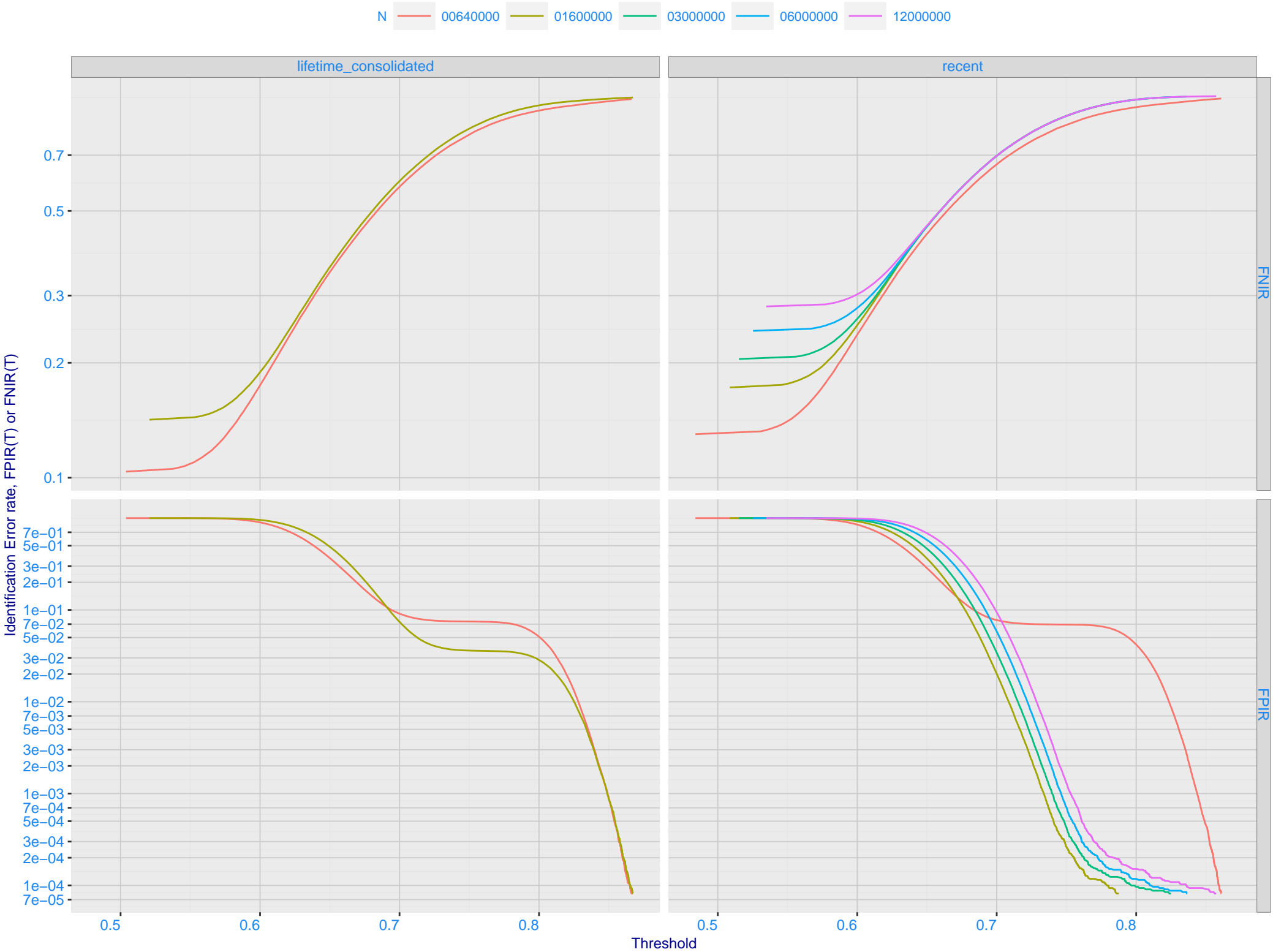
C: Evolution of accuracy for MICROFOCUS algorithms on three datasets 2018 – present

False negative identification rate (FNIR) at false match rate (FPIR) = 0.010000

Date algorithm submitted to FRVT

Dataset
- Mugshot−Mugshot
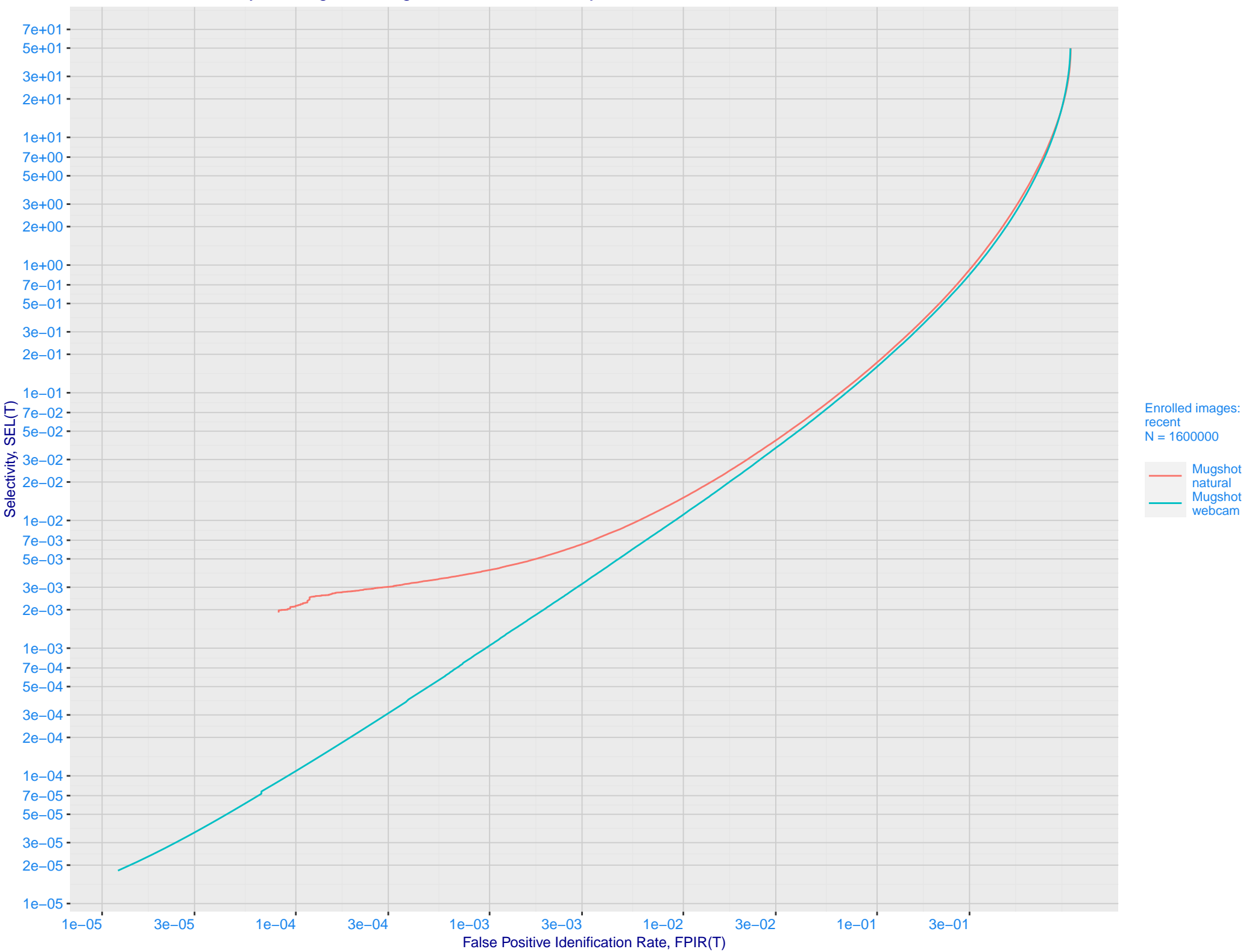- Mugshot−Webcam
- Visa−Border

Apr

Jul

Oct

D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
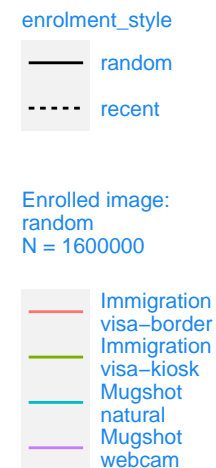
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images
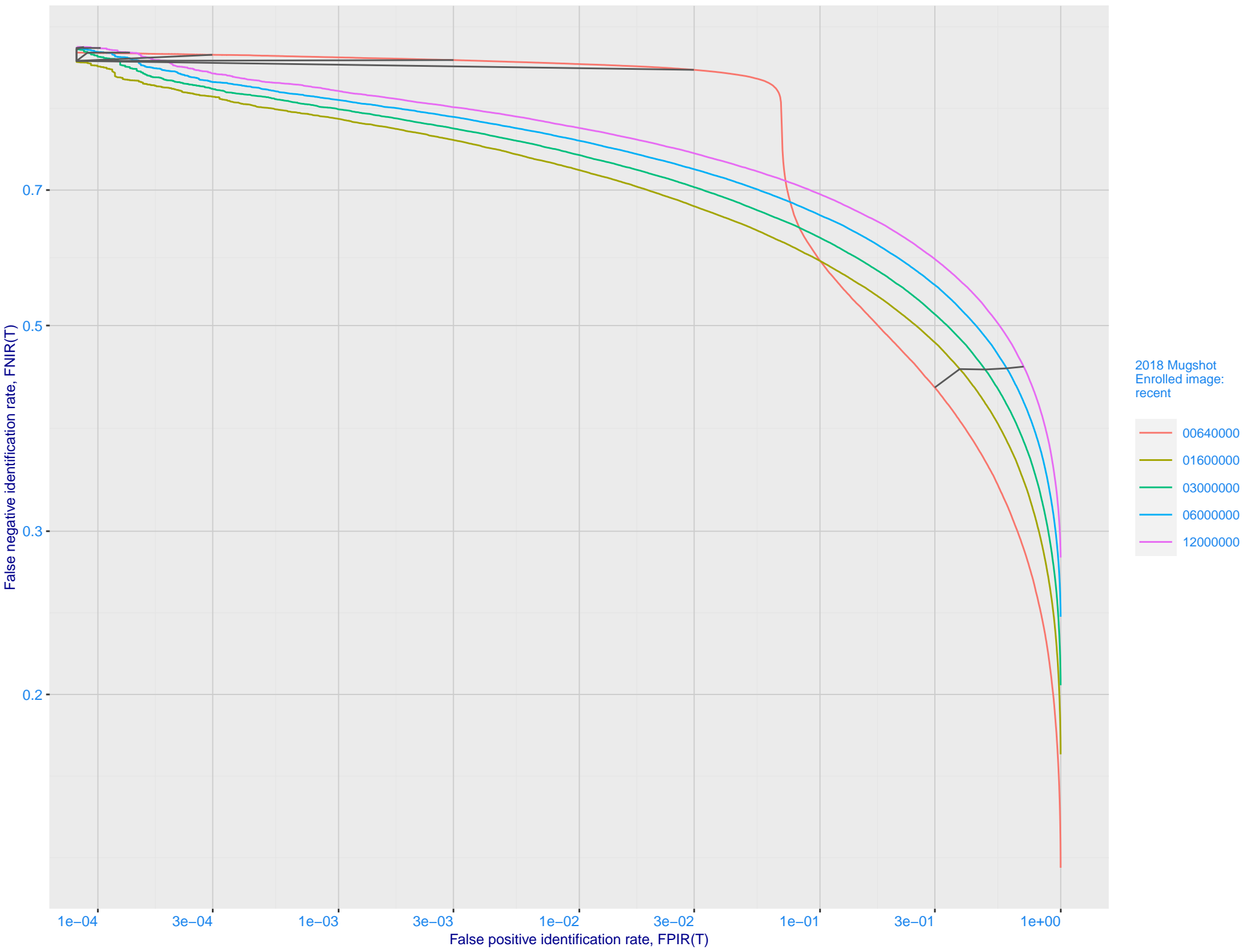
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

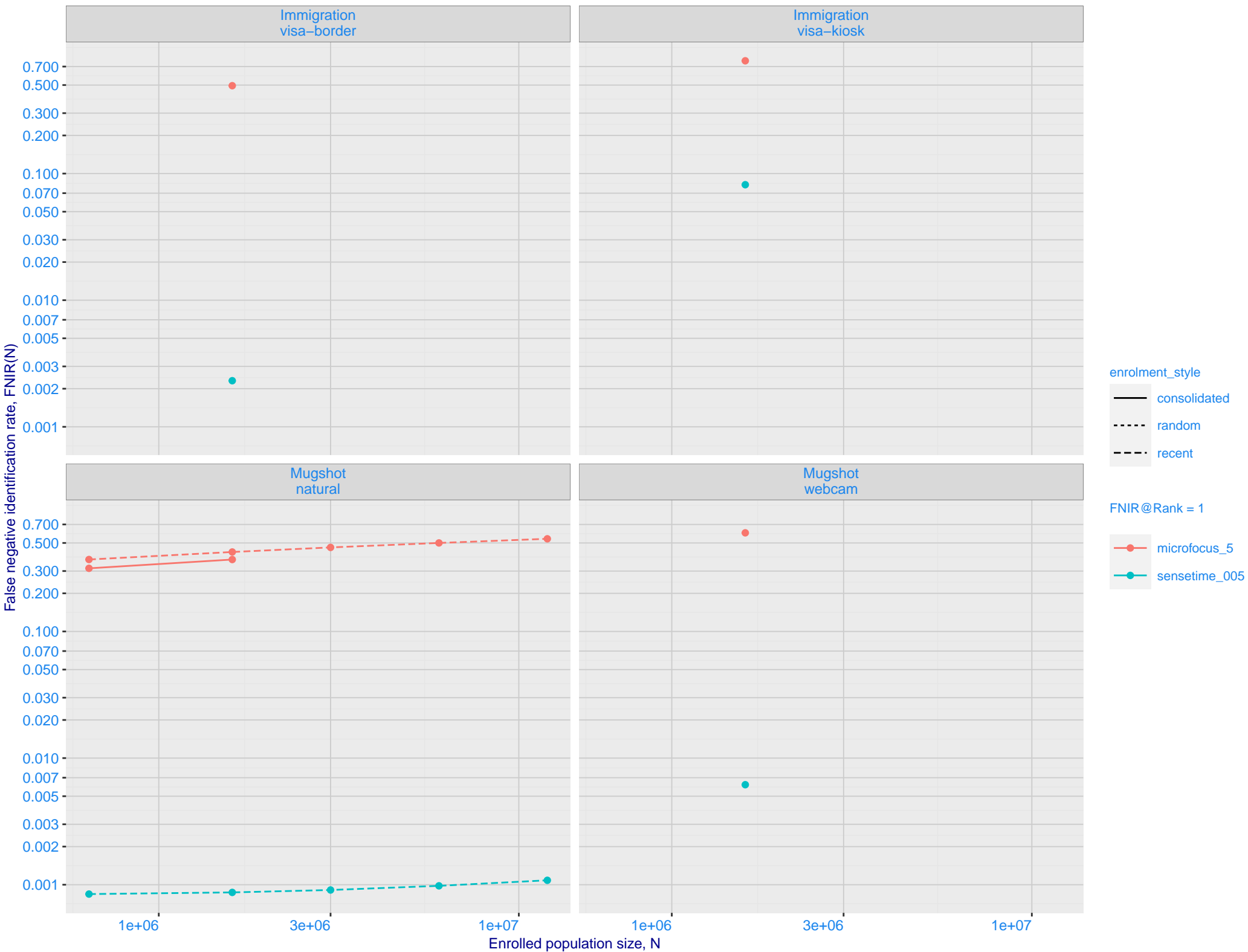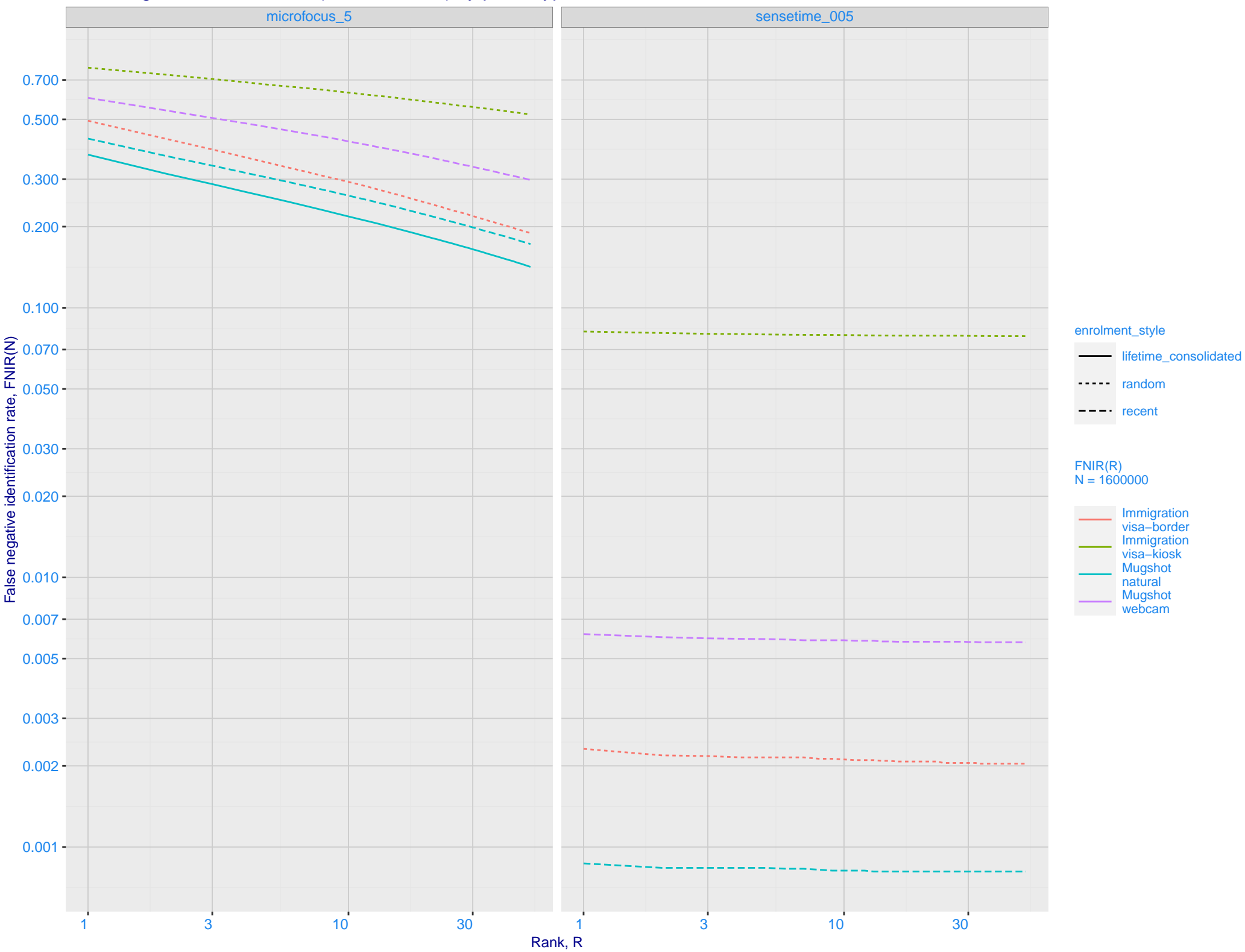G: FPIR dependence on T by probe type for N = 1600000 subjects

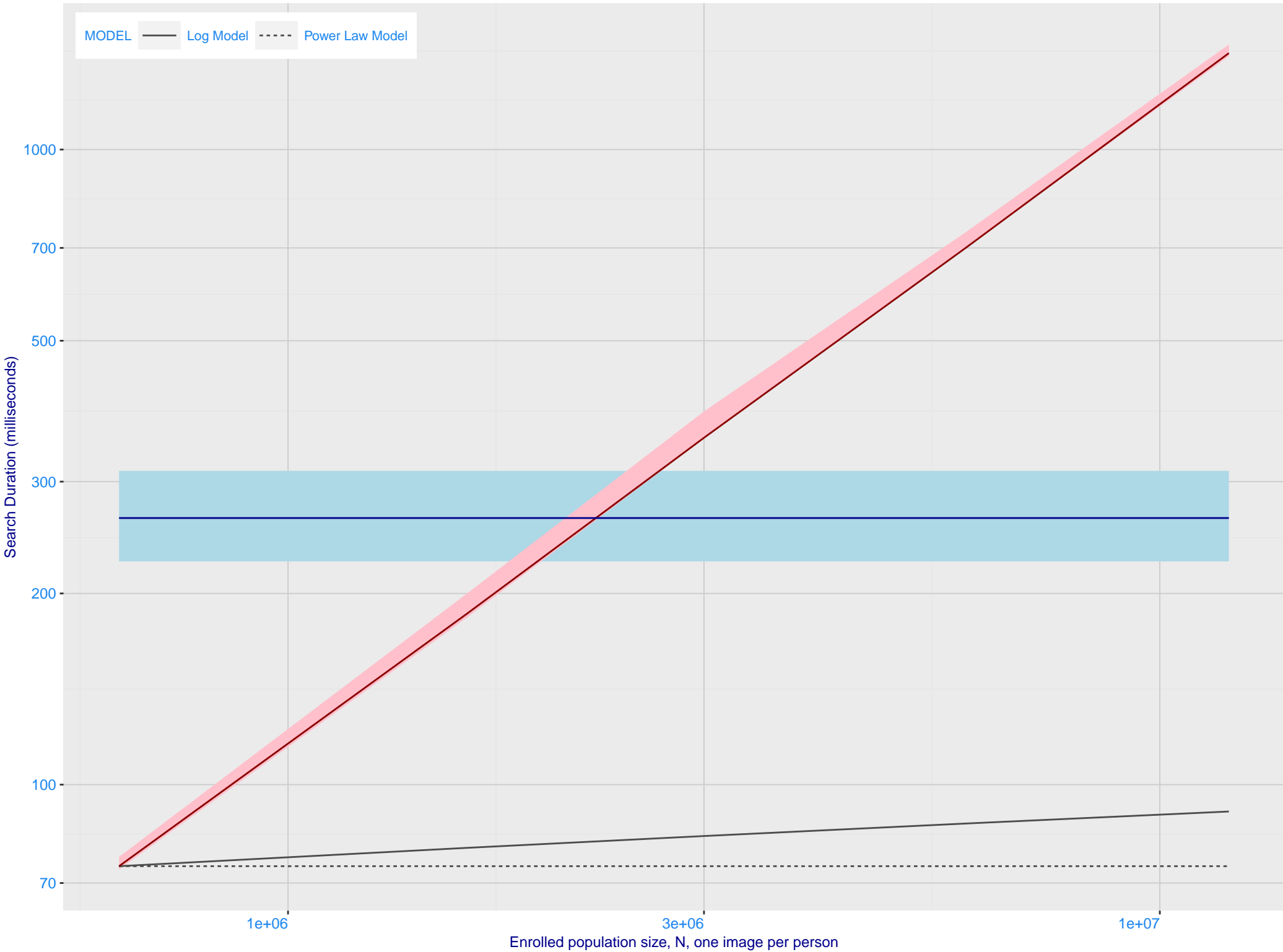H: DET for Mugshot natural images and various N. Links connect points of equal threshold.

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

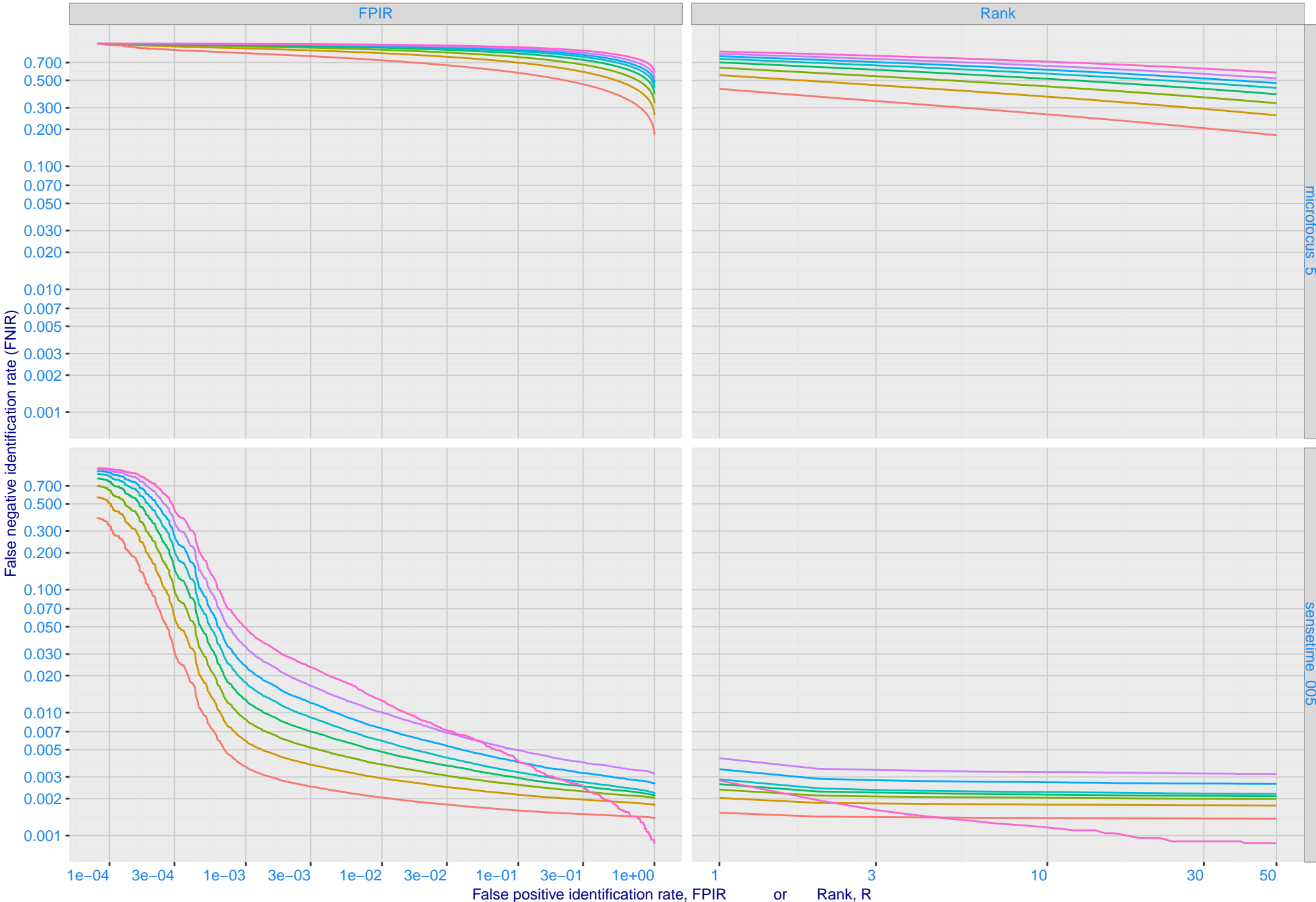J: Investigational mode: FNIR(1600000, R, 0) by probe type

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

N: Decline of genuine scores with ageing

Score

Time lapse between search and initial encounter enrollment (years)

(00,02]   (02,04]   (04,06]   (06,08]   (08,10]   (10,12]   (12,14]   (14,18]

Dataset:
2018 Mugshot
N= 3.1M
FNIR (Rank = 1)

0.20
0.15
0.10
0.05
0.00

TVAL

FPIR = 0.001
FPIR = 0.003
FPIR = 0.010
FPIR = 0.030