# A: Datasheet

Algorithm: anke_0

Developer: Anke Investments

Submission Date: 2018_10_30

Template size: 2072 bytes

Template time (2.5 percentile): 367 msec

Template time (median): 430 msec

Template time (97.5 percentile): 508 msec

Investigation:

Frontal mugshot ranking 146 (out of 265) –– FNIR(1600000, 0, 1) = 0.0132  vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 124 (out of 227) –– FNIR(1600000, 0, 1) = 0.0378  vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 125 (out of 196) –– FNIR(1600000, 0, 1) = 0.9309  vs. lowest 0.0591 from sensetime_005

Immigration visa–border ranking 145 (out of 148) –– FNIR(1600000, 0, 1) = 1.0000  vs. lowest 0.0013 from visionlabs_010

Immigration visa–kiosk ranking 143 (out of 145) –– FNIR(1600000, 0, 1) = 1.0000  vs. lowest 0.0568 from hr_000

Identification:

Frontal mugshot ranking 142 (out of 265) –– FNIR(1600000, T, L+1) = 0.1169, FPIR=0.001000  vs. lowest 0.0018 from sensetime_004

Mugshot webcam ranking 132 (out of 225) –– FNIR(1600000, T, L+1) = 0.2195, FPIR=0.001000  vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 90 (out of 195) –– FNIR(1600000, T, L+1) = 0.9937, FPIR=0.001000  vs. lowest 0.1331 from hr_000

Immigration visa–border ranking 141 (out of 146) –– FNIR(1600000, T, L+1) = 1.0000, FPIR=0.001000  vs. lowest 0.0049 from hr_000

Immigration visa–kiosk ranking 136 (out of 141) –– FNIR(1600000, T, L+1) = 1.0000, FPIR=0.001000  vs. lowest 0.0996 from hr_000
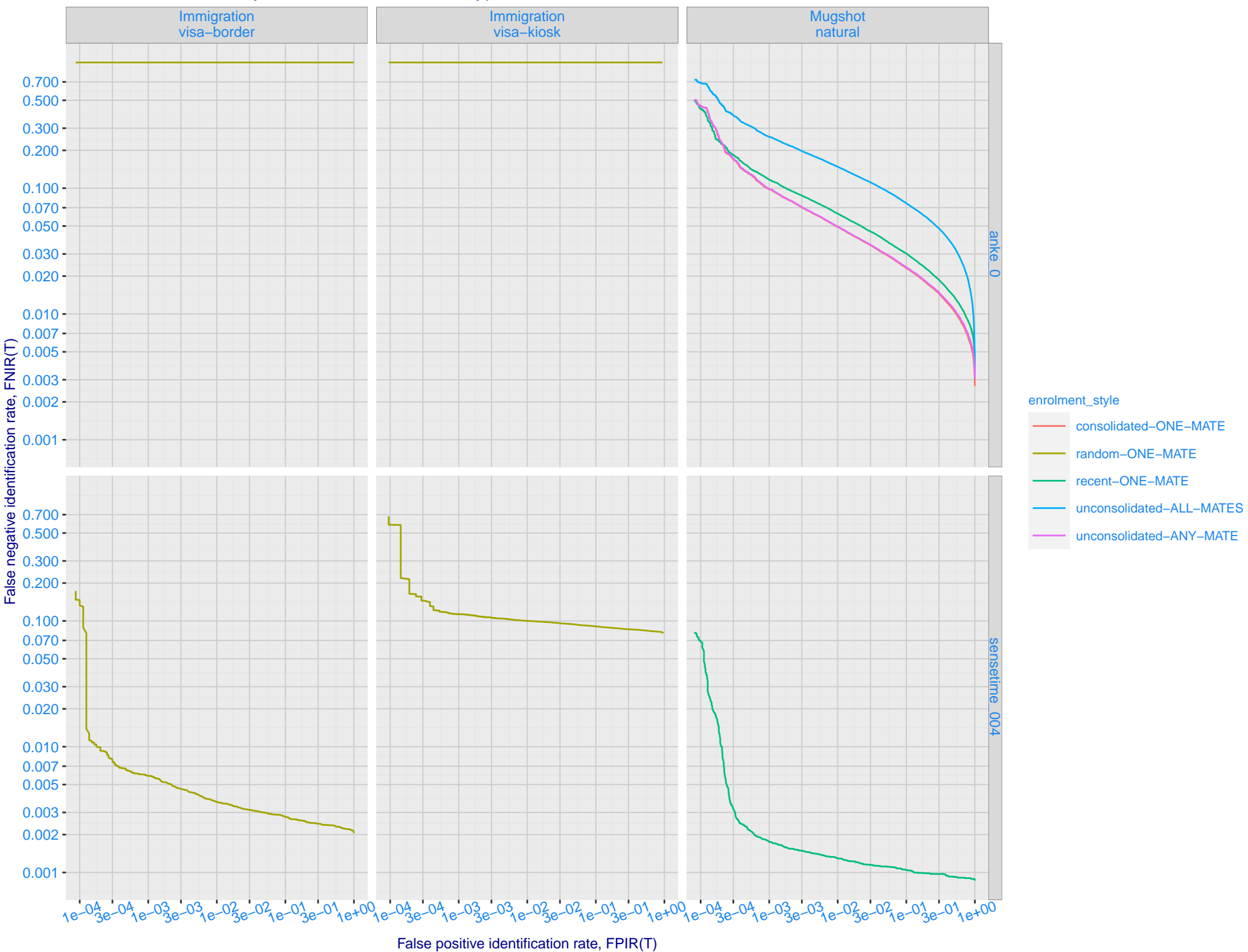
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
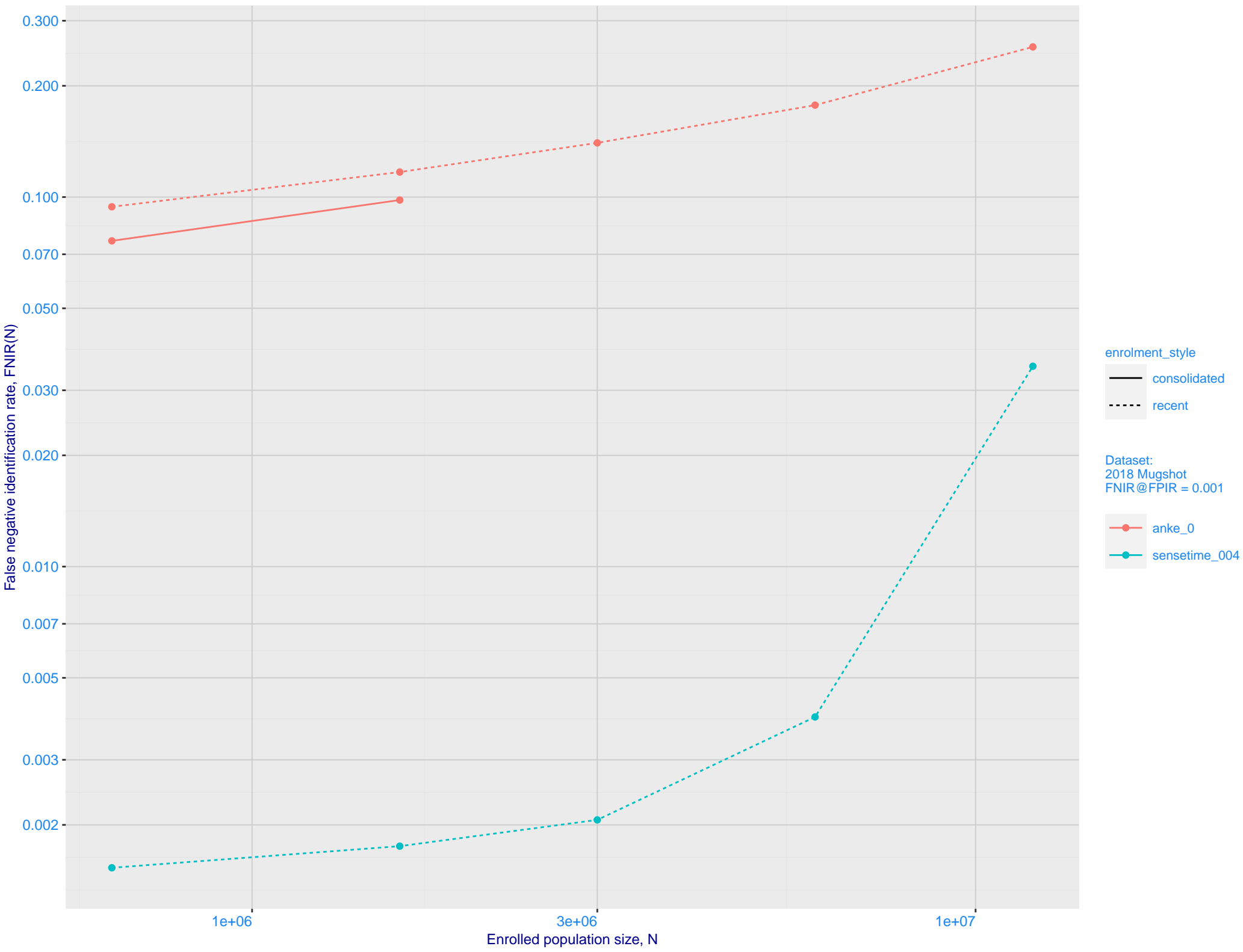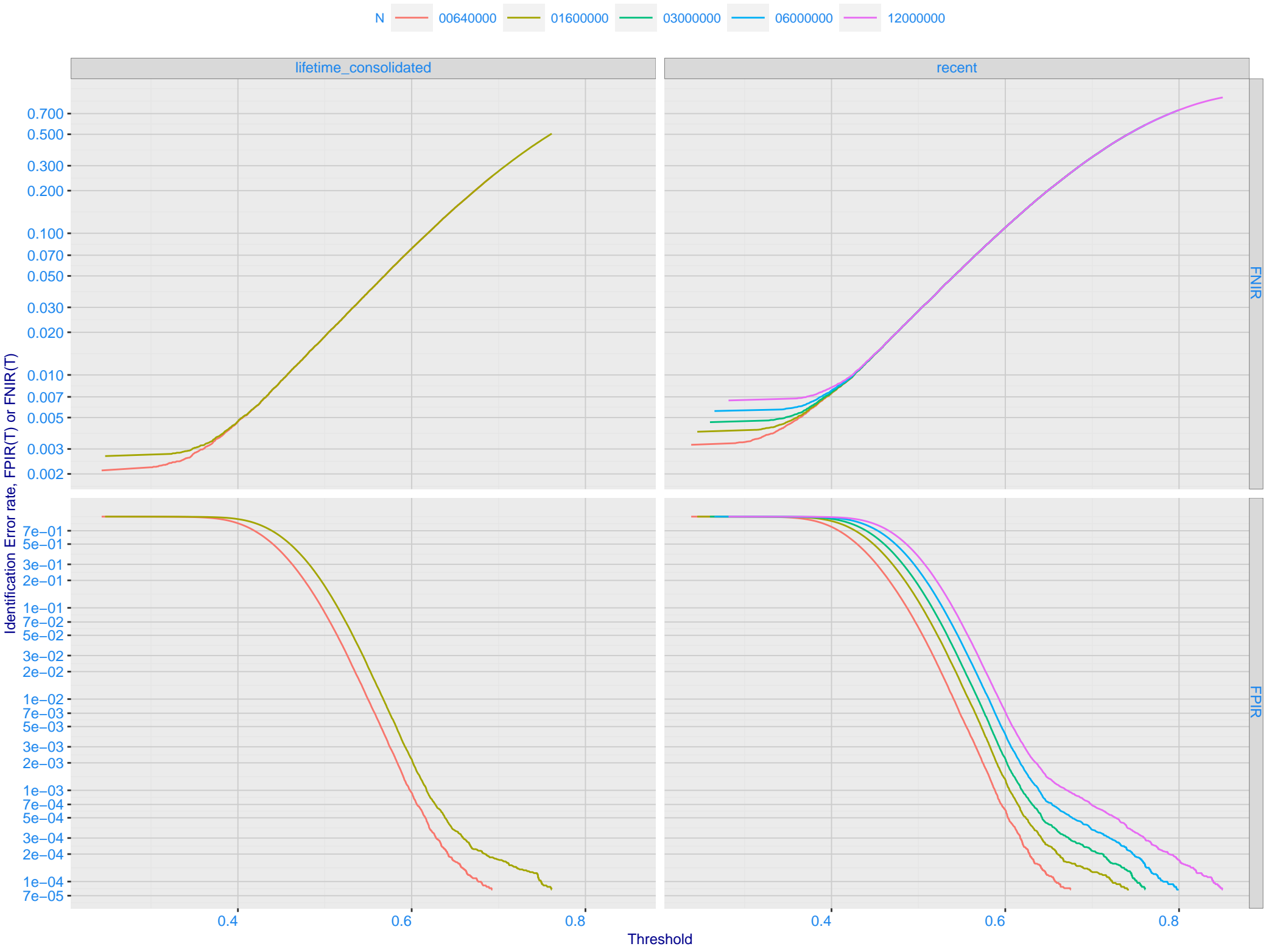
C: Evolution of accuracy for ANKE algorithms on three datasets 2018 – present
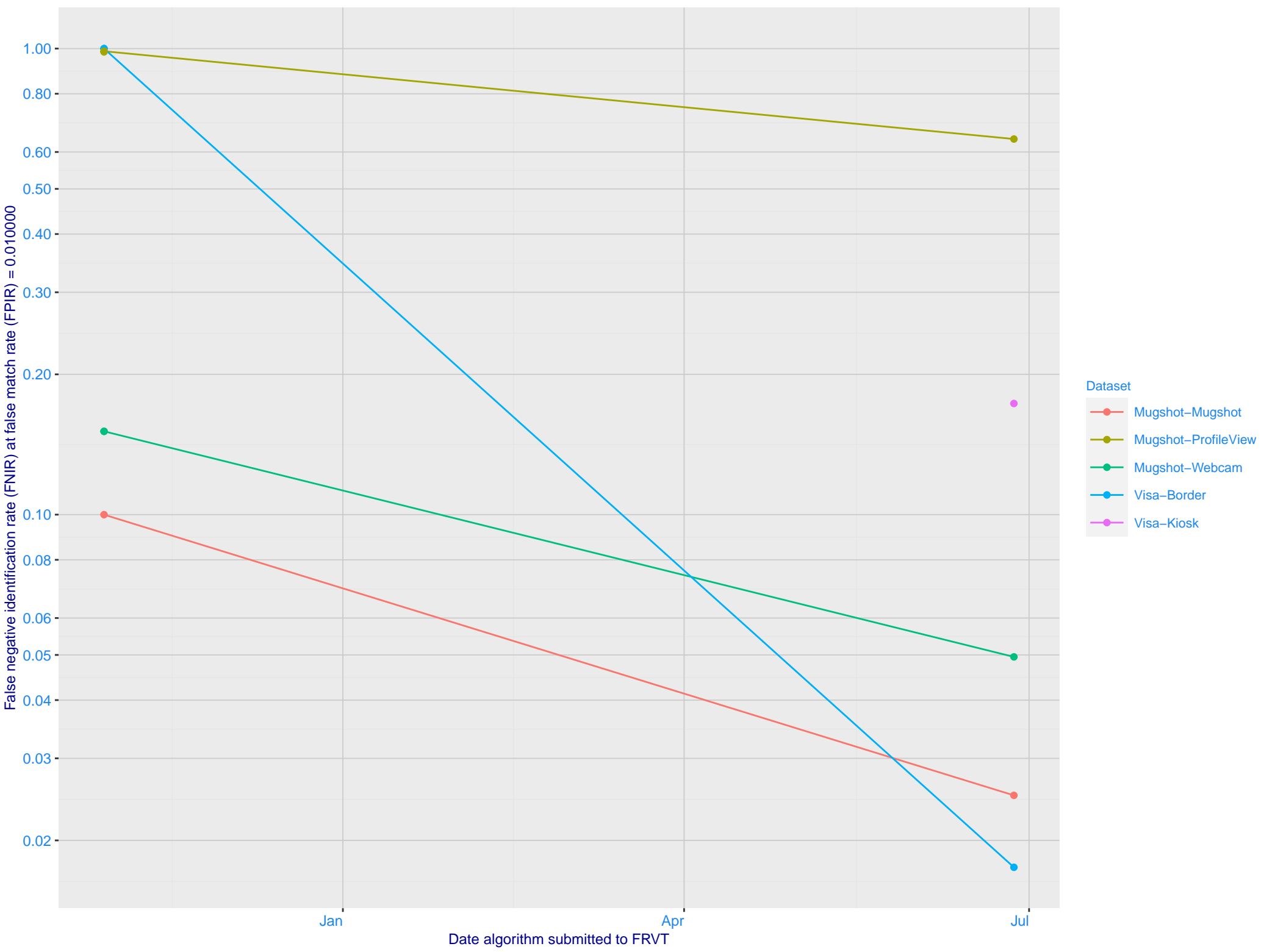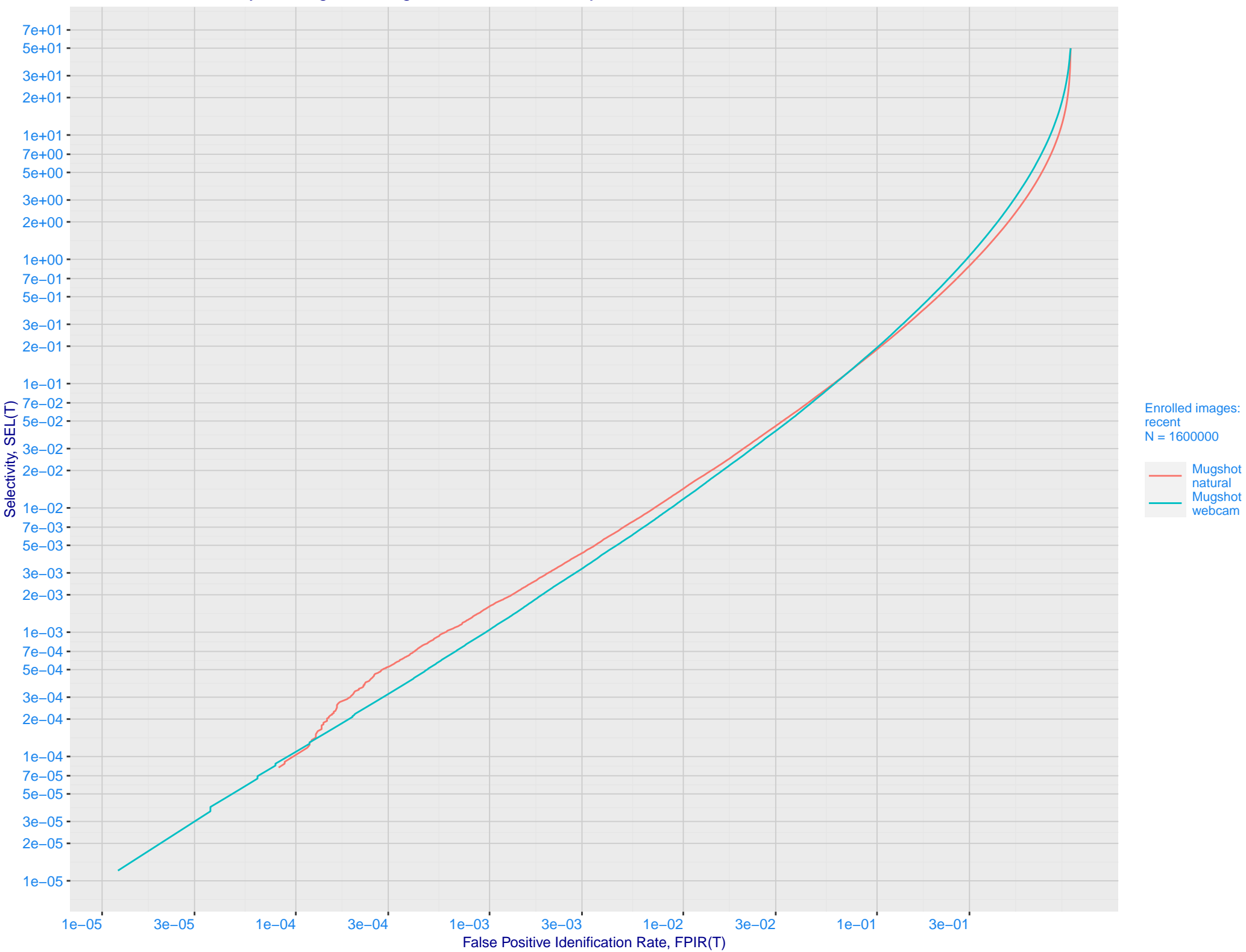
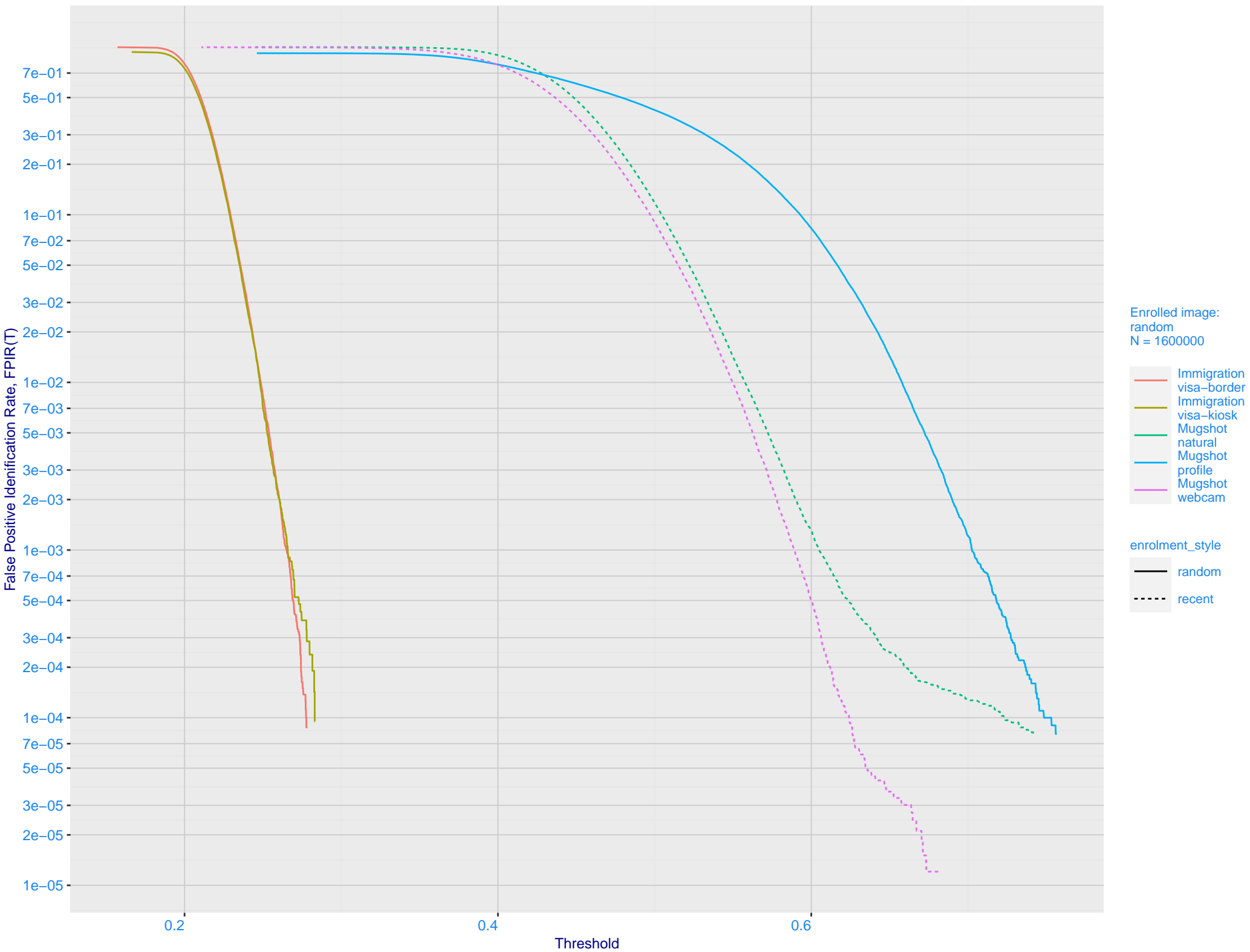D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images
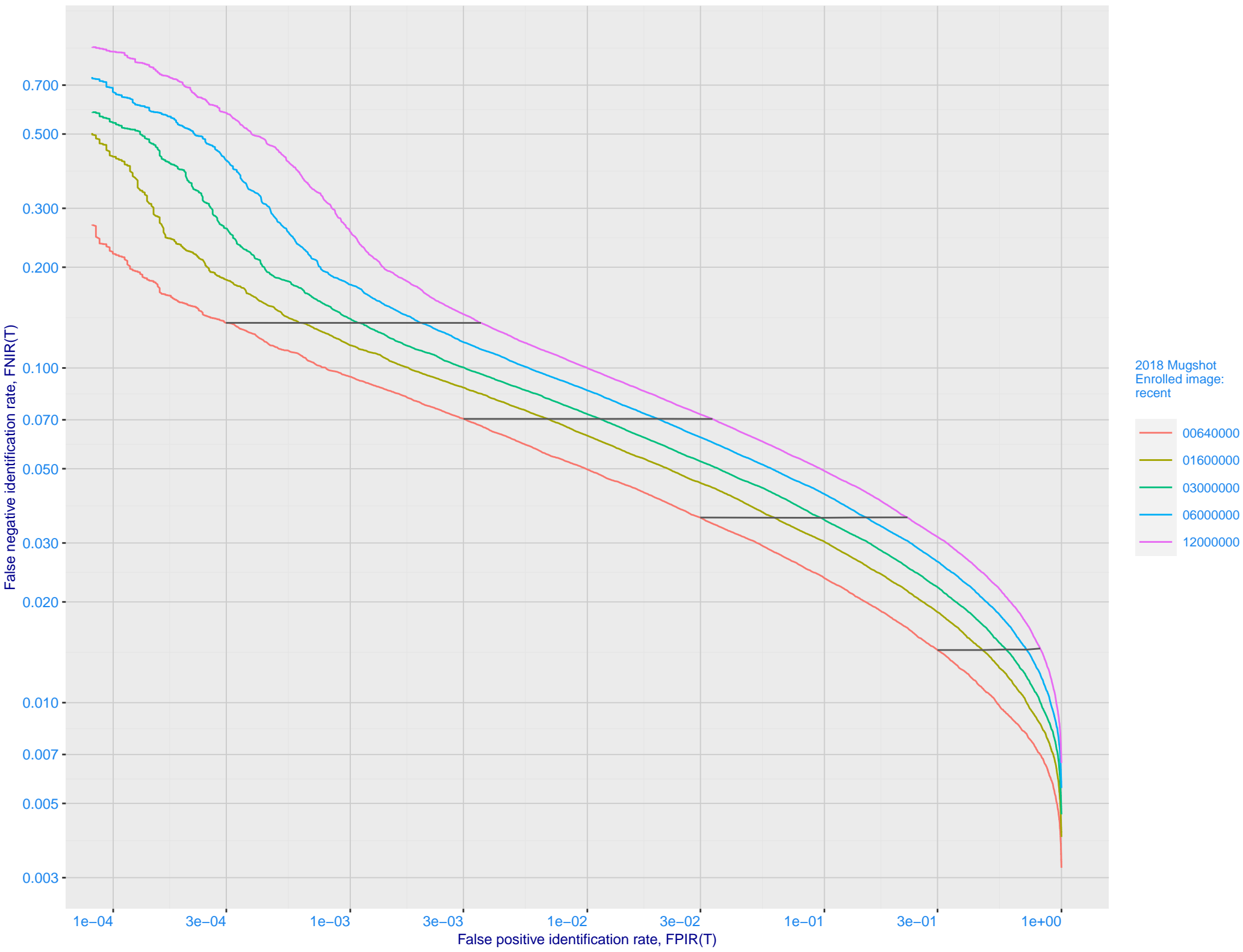
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

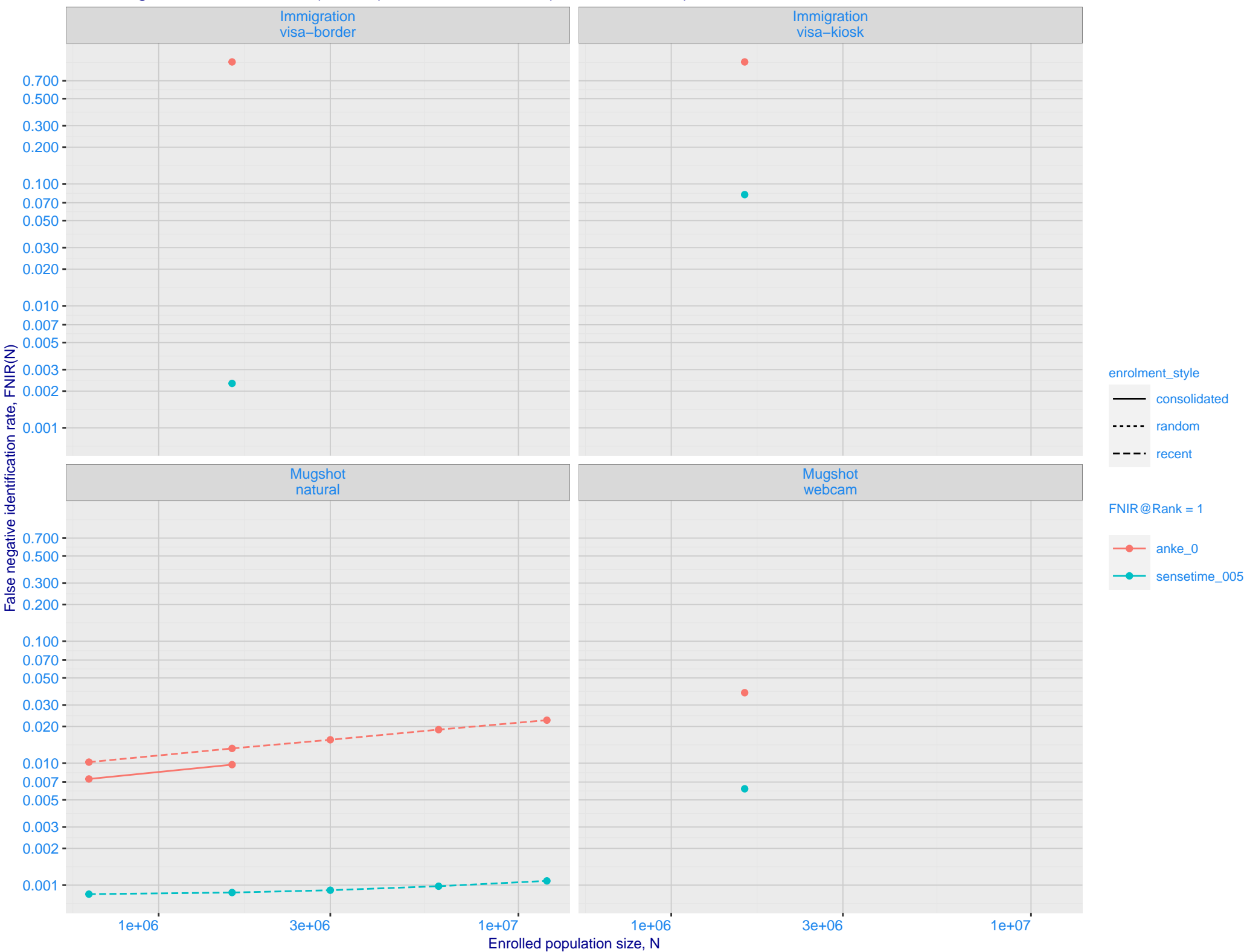G: FPIR dependence on T by probe type for N = 1600000 subjects

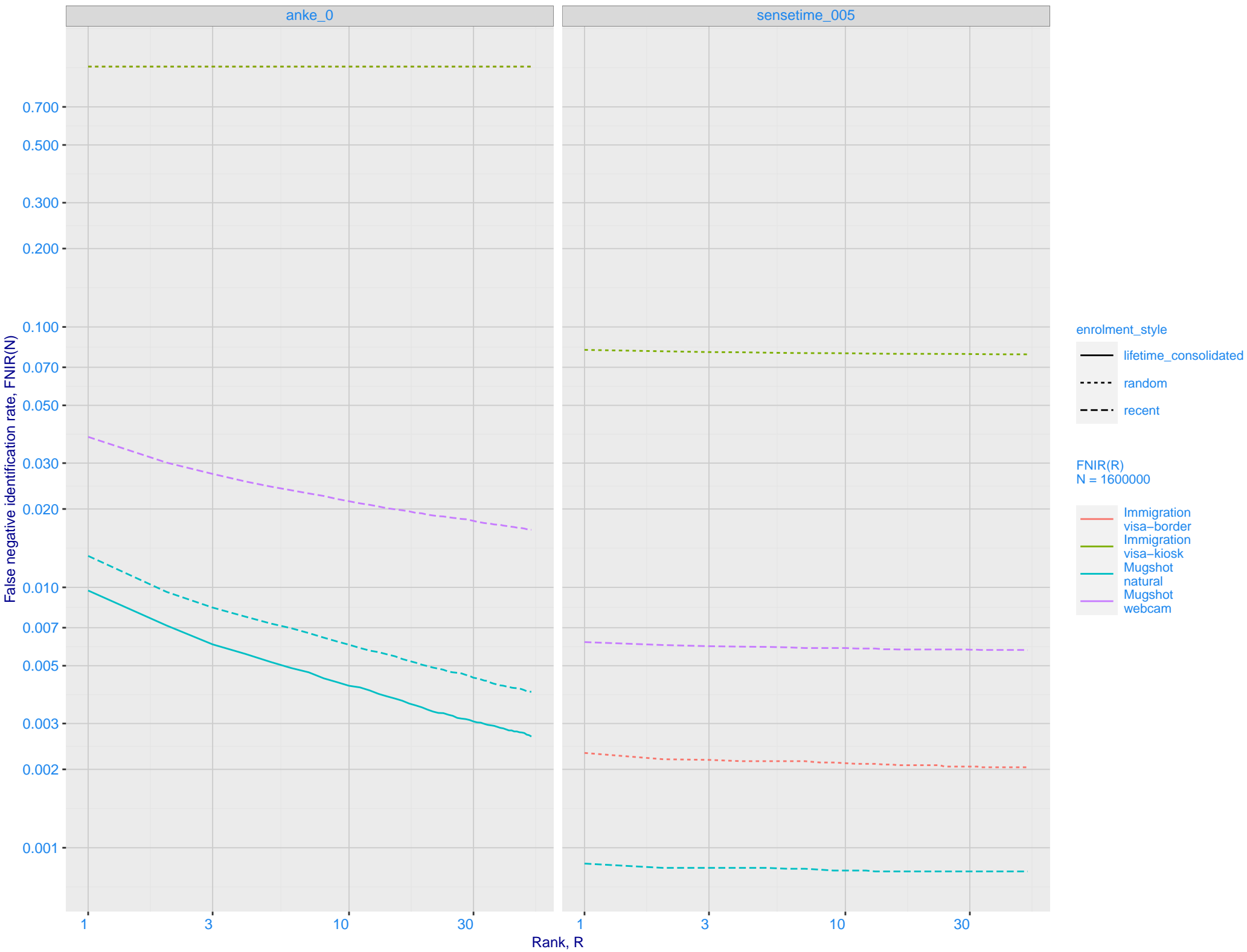H: DET for Mugshot natural images and various N. Links connect points of equal threshold.

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

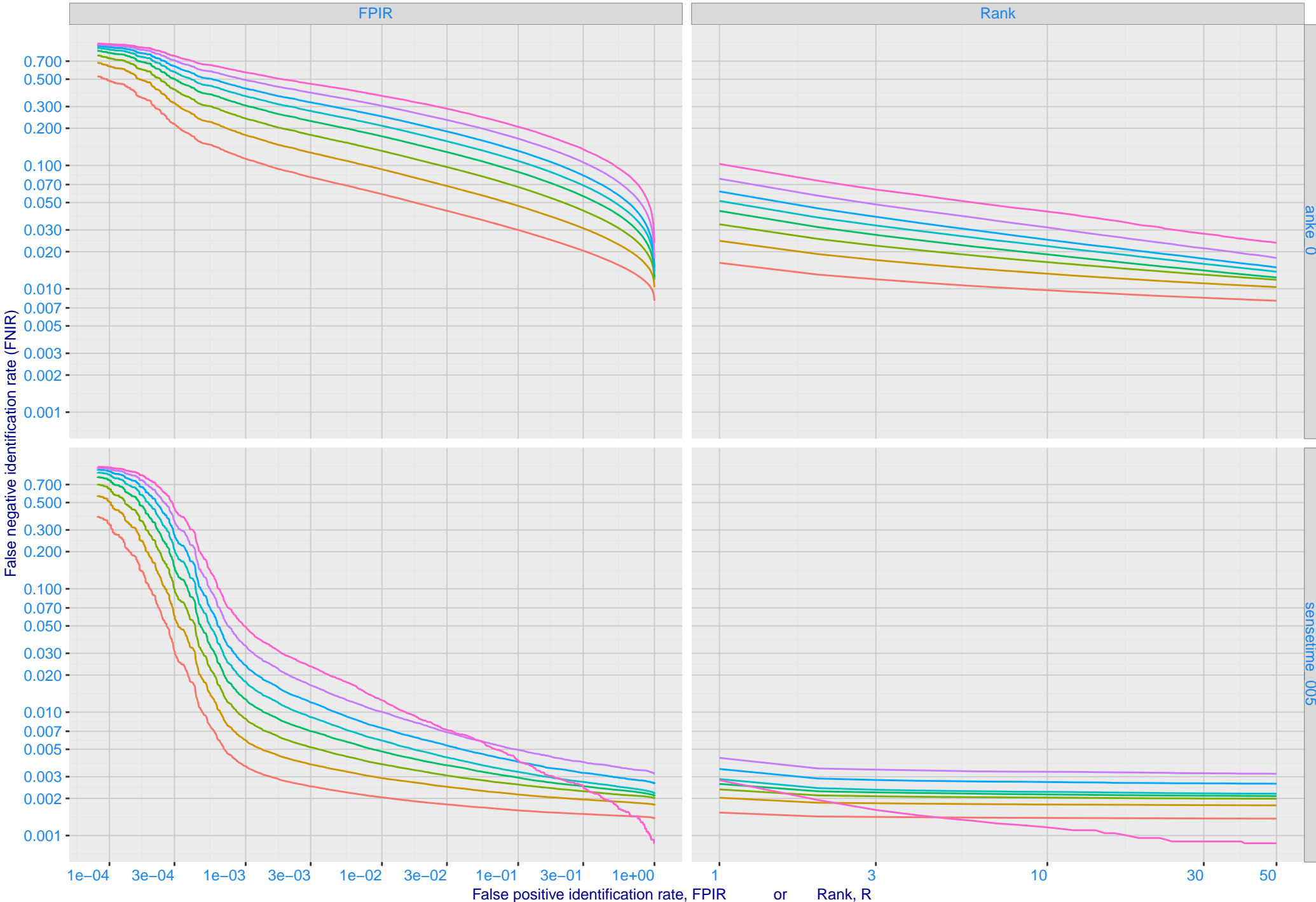J: Investigational mode: FNIR(1600000, R, 0) by probe type

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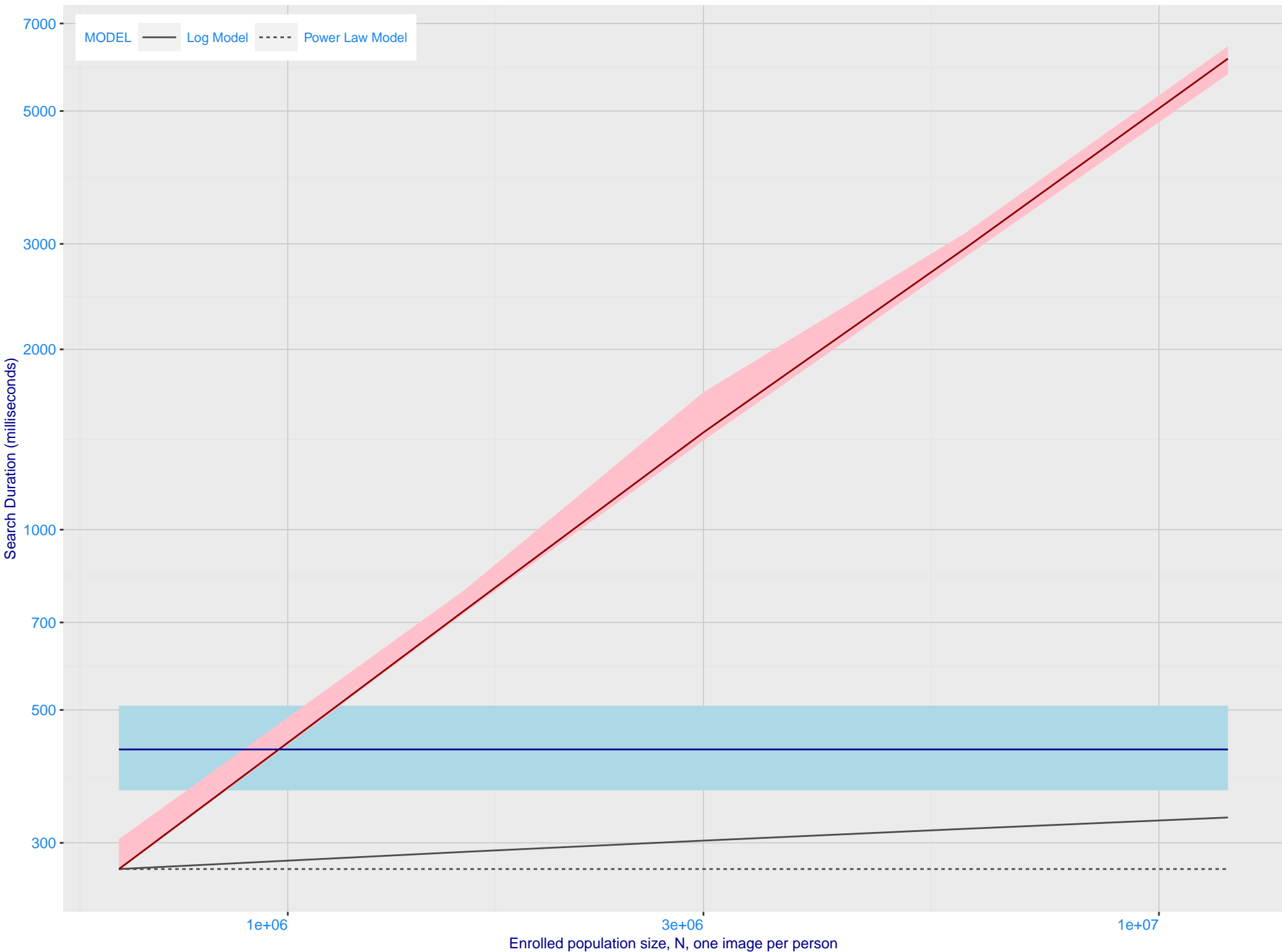
# M: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

N: Decline of genuine scores with ageing

Score (y-axis)

Time lapse between search and initial encounter enrollment (years) (x-axis)

x-axis categories: (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