A: Datasheet

Algorithm: yitu_0

Developer: Shanghai Yitu Technology

Submission Date: 2018_02_12

Template size: 4136 bytes

Template time (2.5 percentile): 623 msec

Template time (median): 624 msec

Template time (97.5 percentile): 700 msec

Investigation:

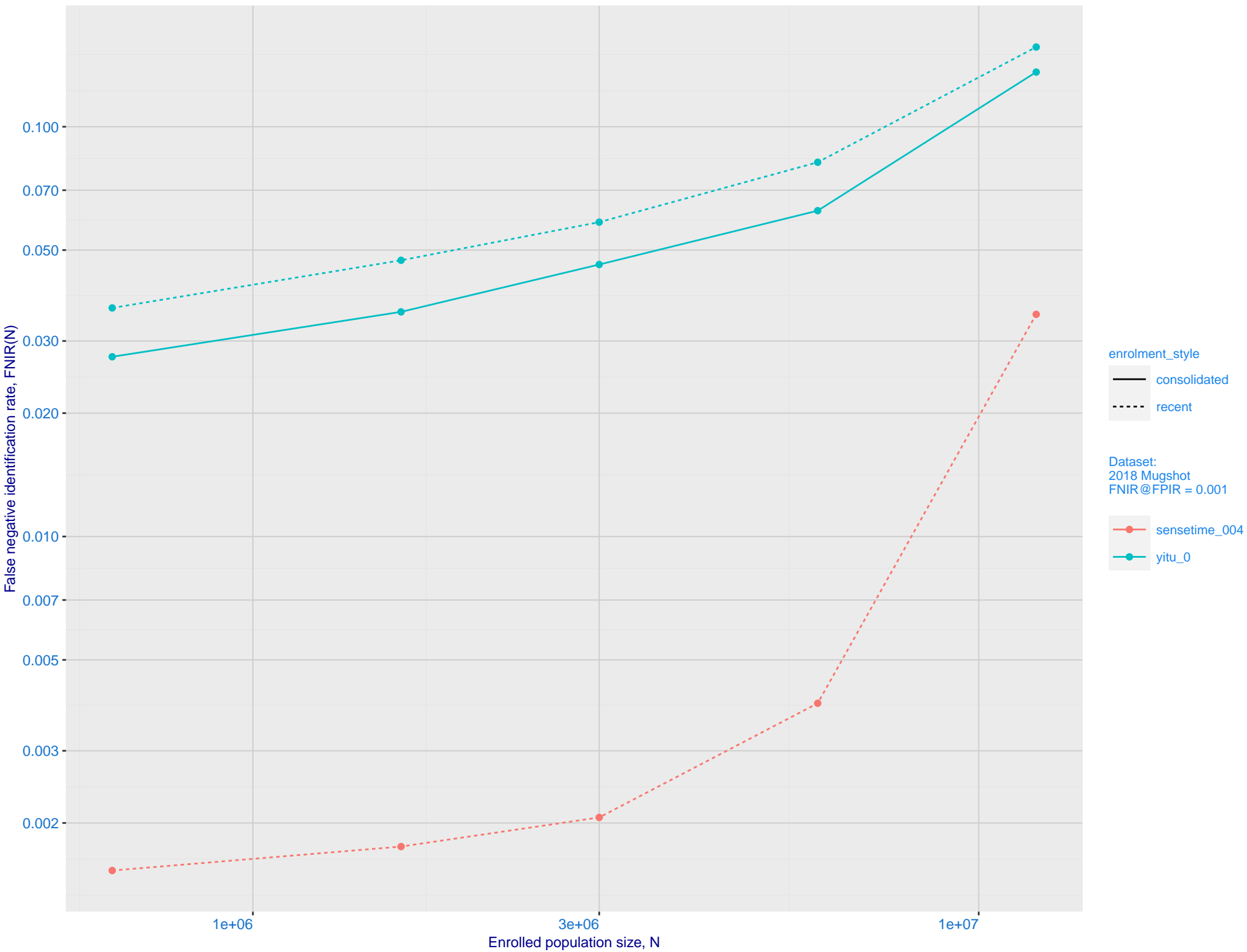Frontal mugshot ranking 92 (out of 279) –– FNIR(1600000, 0, 1) = 0.0047 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 87 (out of 241) –– FNIR(1600000, 0, 1) = 0.0205 vs. lowest 0.0062 from sensetime_005
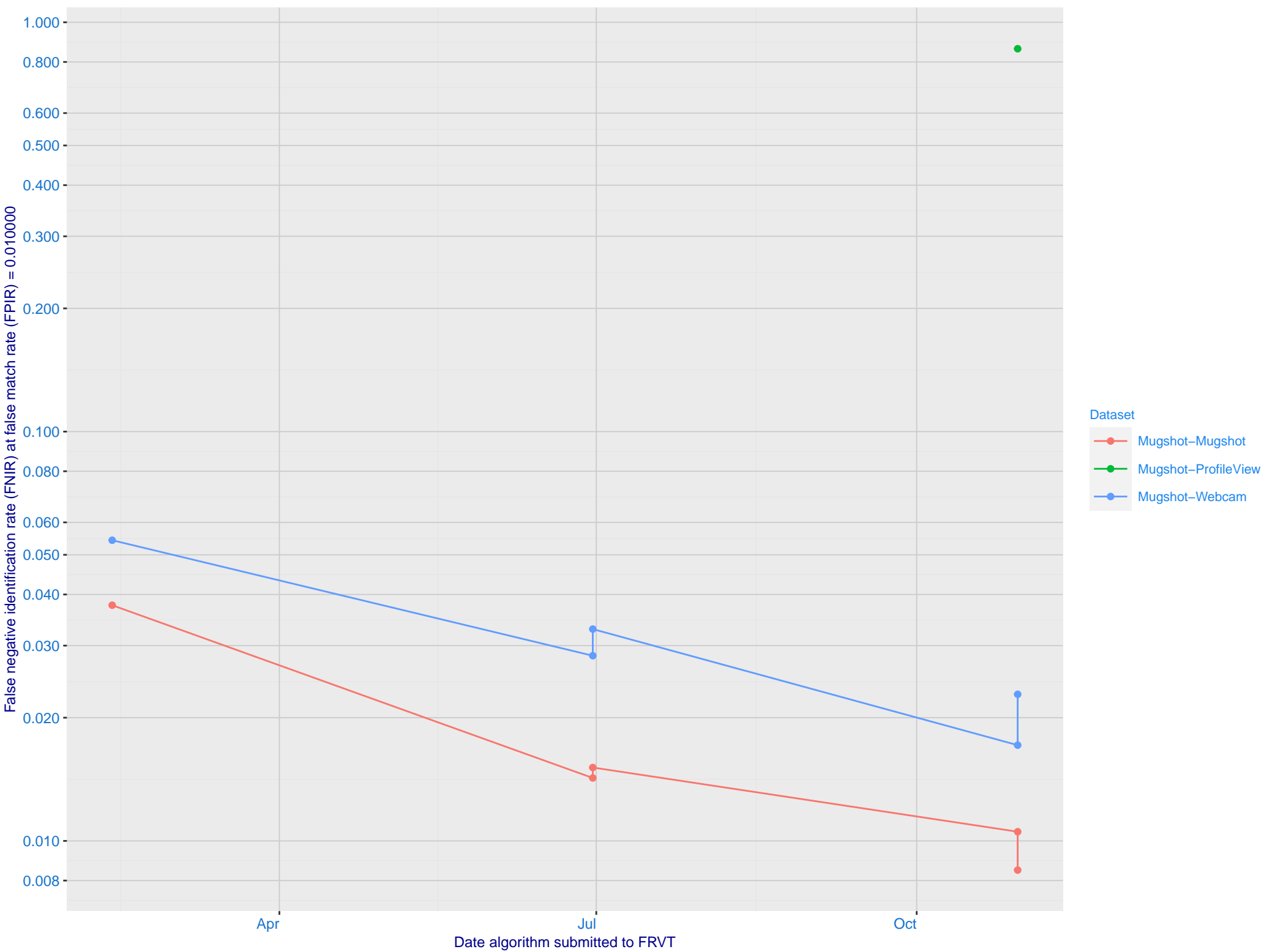
Identification:

Frontal mugshot ranking 88 (out of 279) –– FNIR(1600000, T, L+1) = 0.0472, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

Mugshot webcam ranking 61 (out of 236) –– FNIR(1600000, T, L+1) = 0.0901, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003
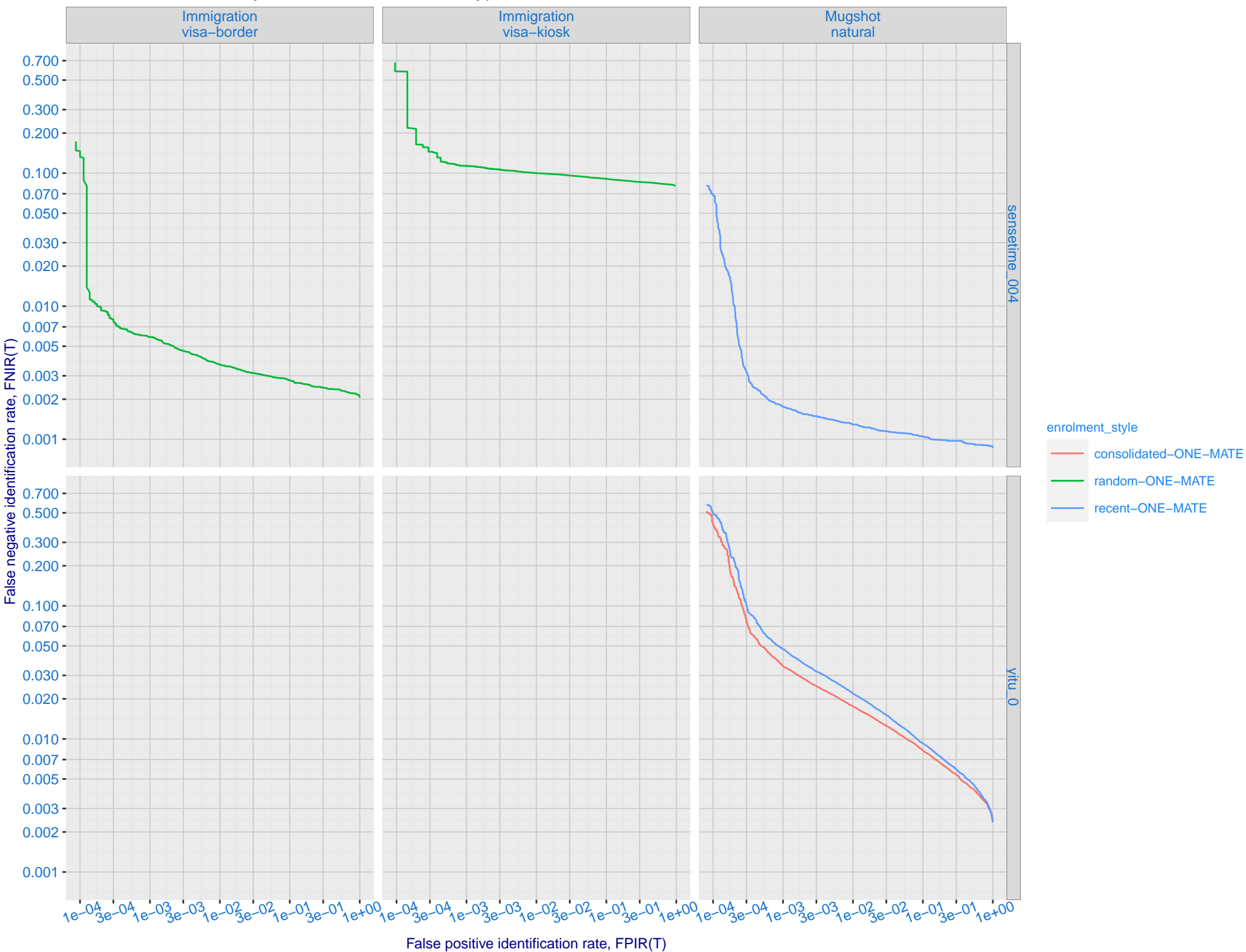
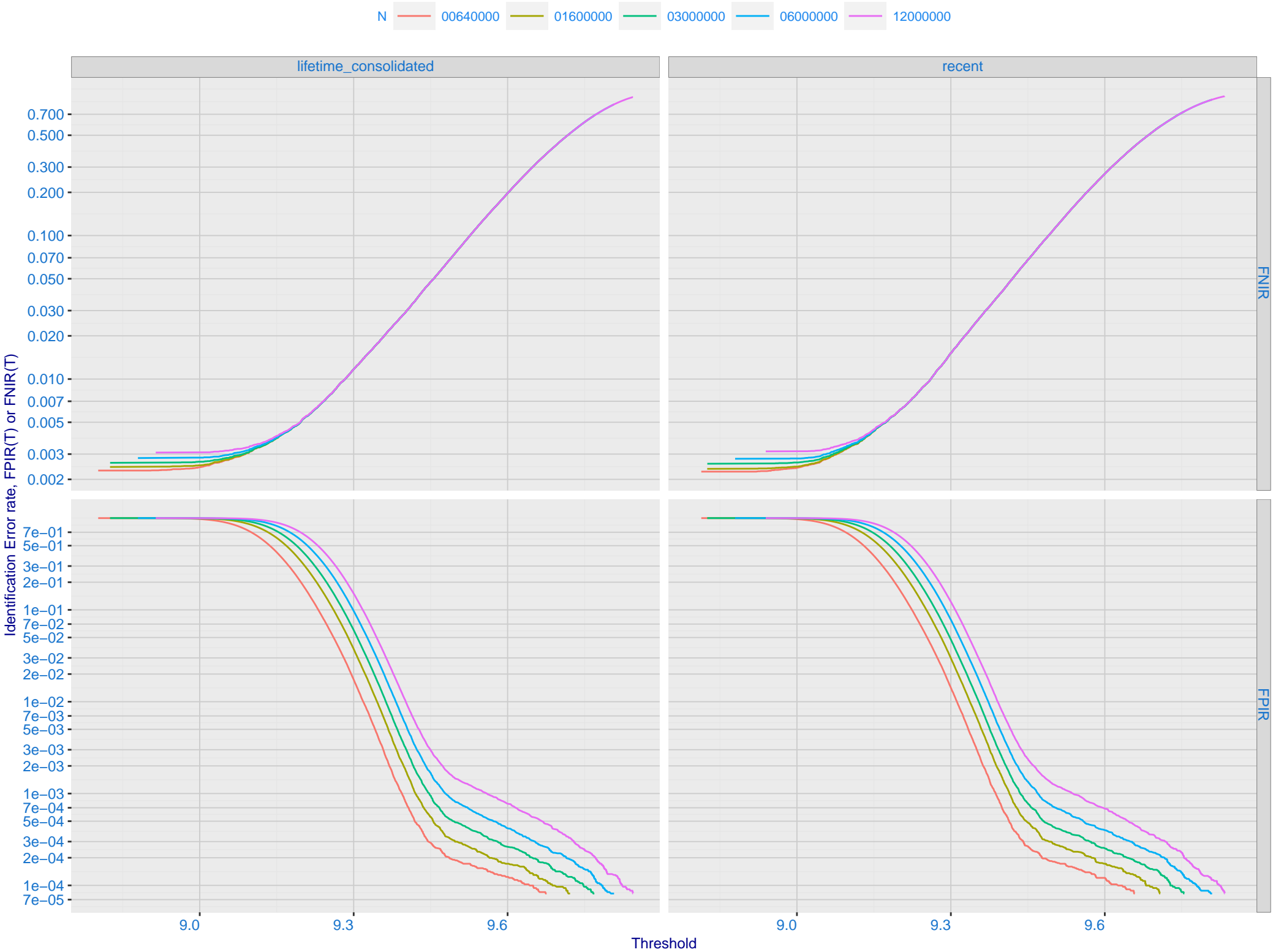B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)

C: Evolution of accuracy for YITU algorithms on three datasets 2018 – present
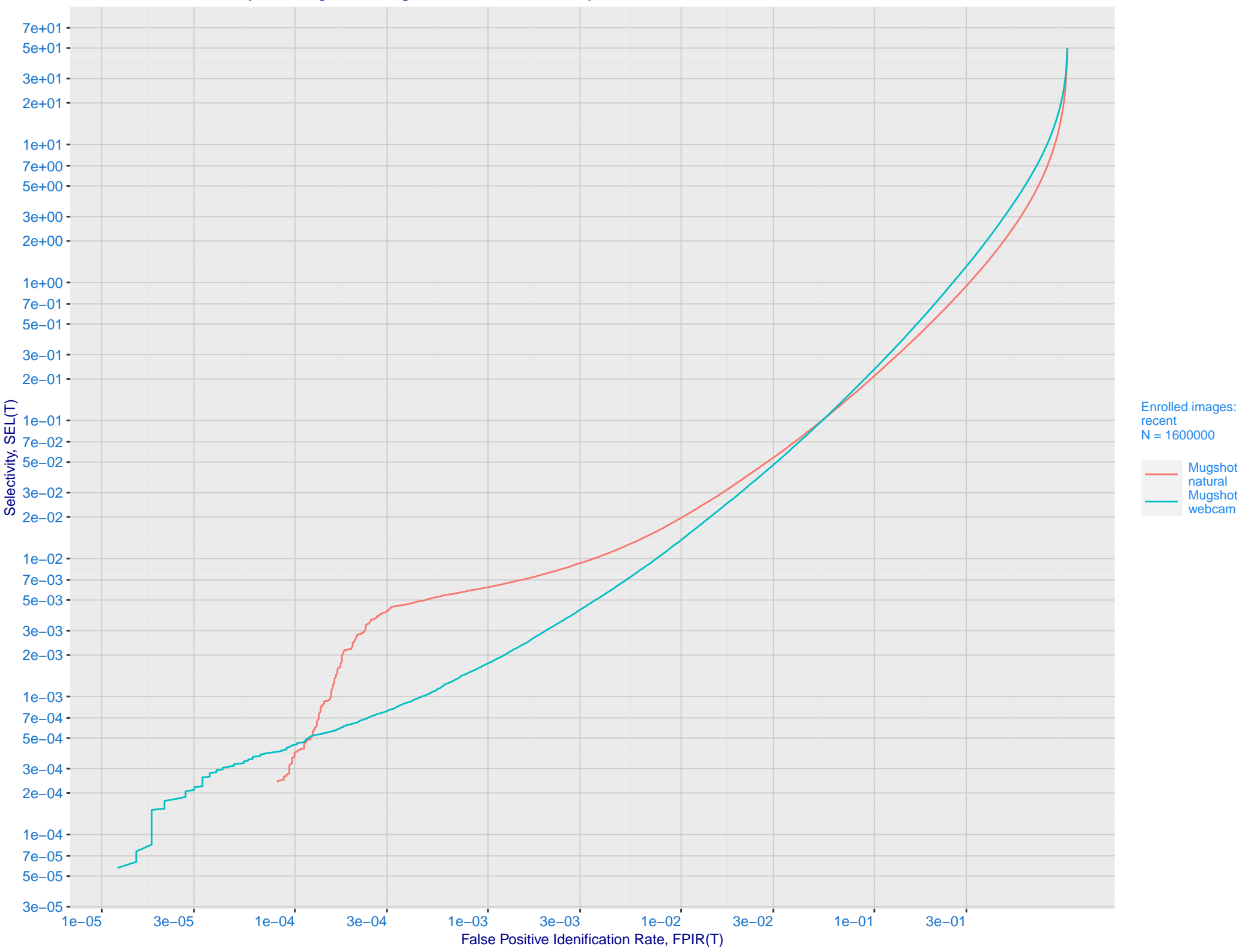
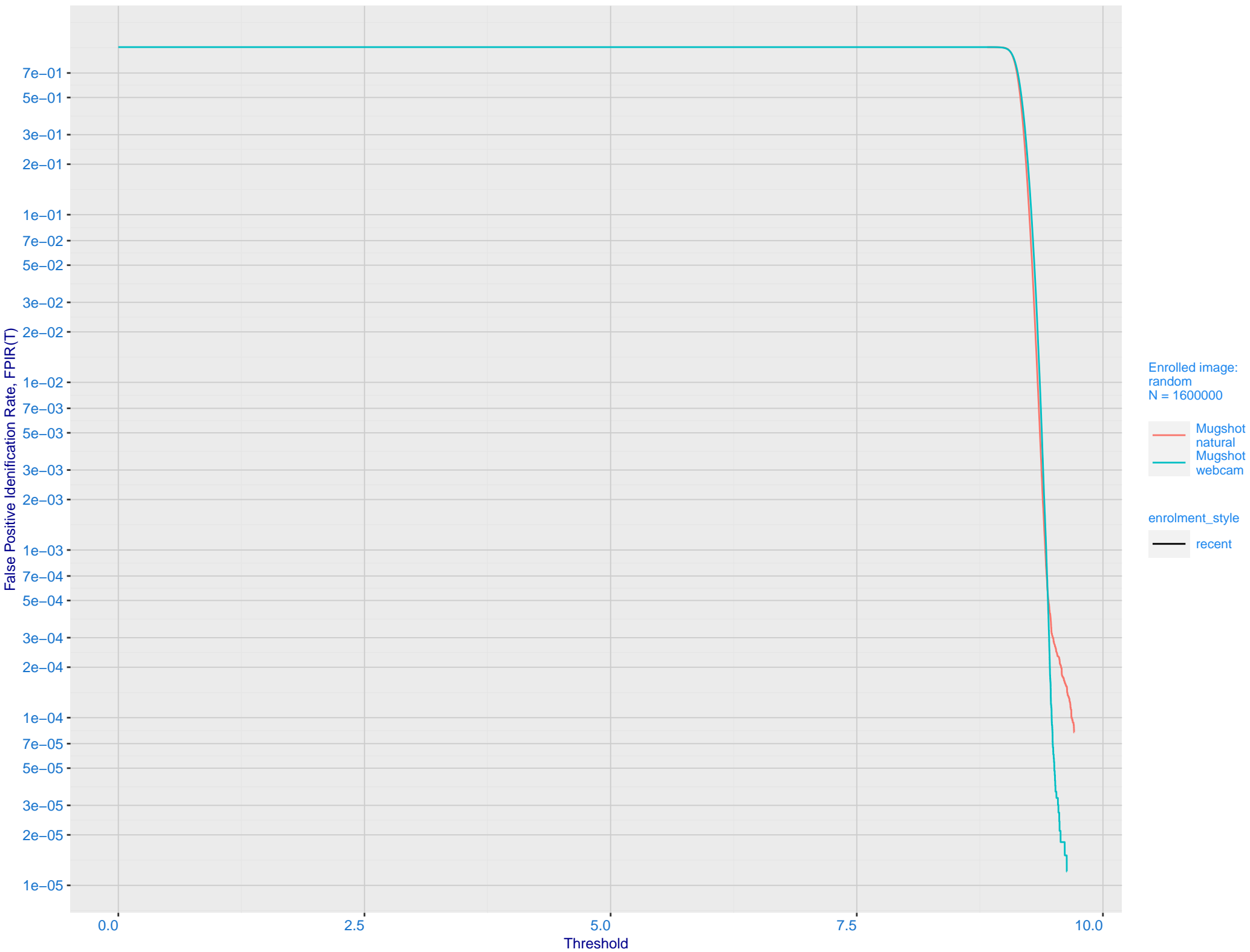D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

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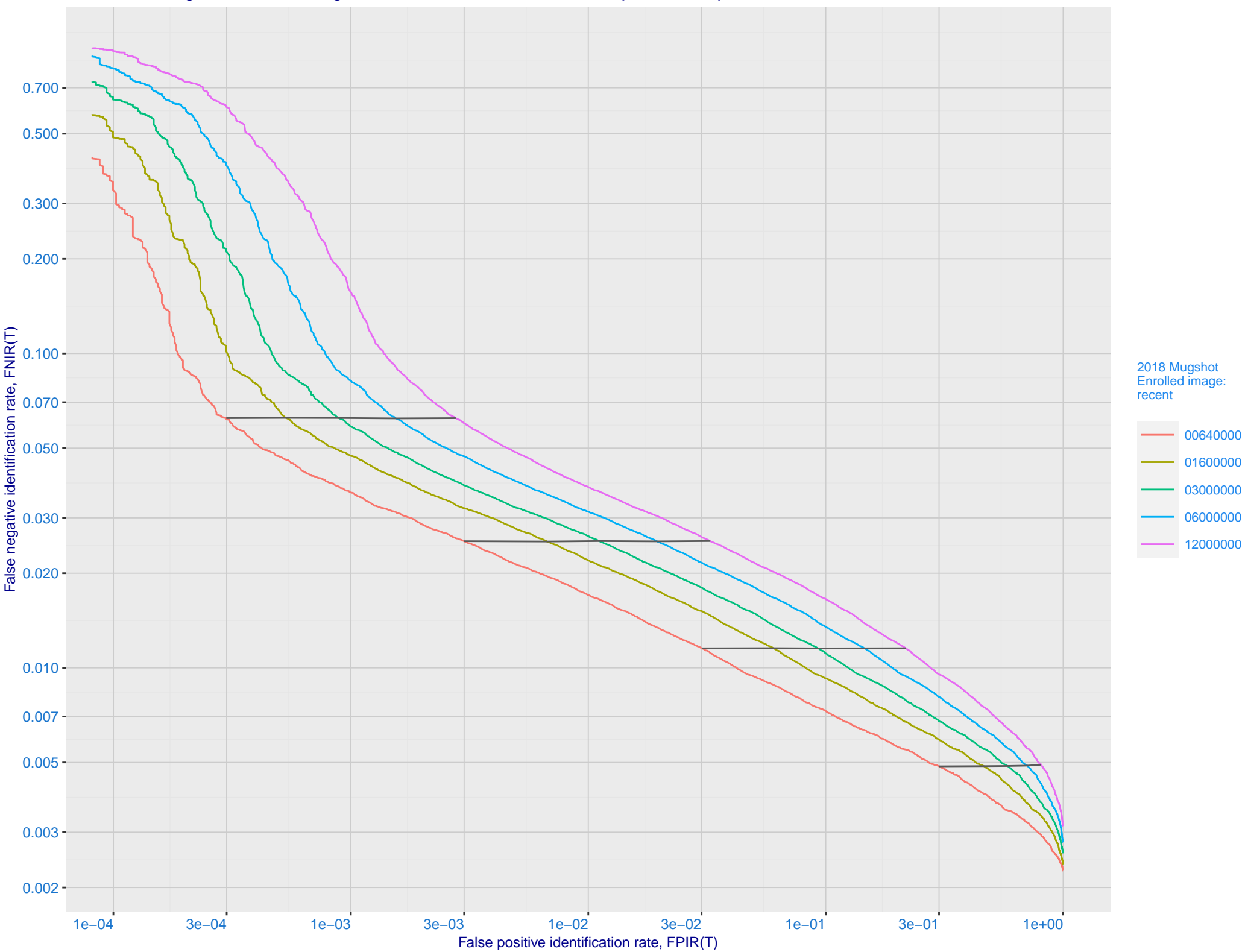
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

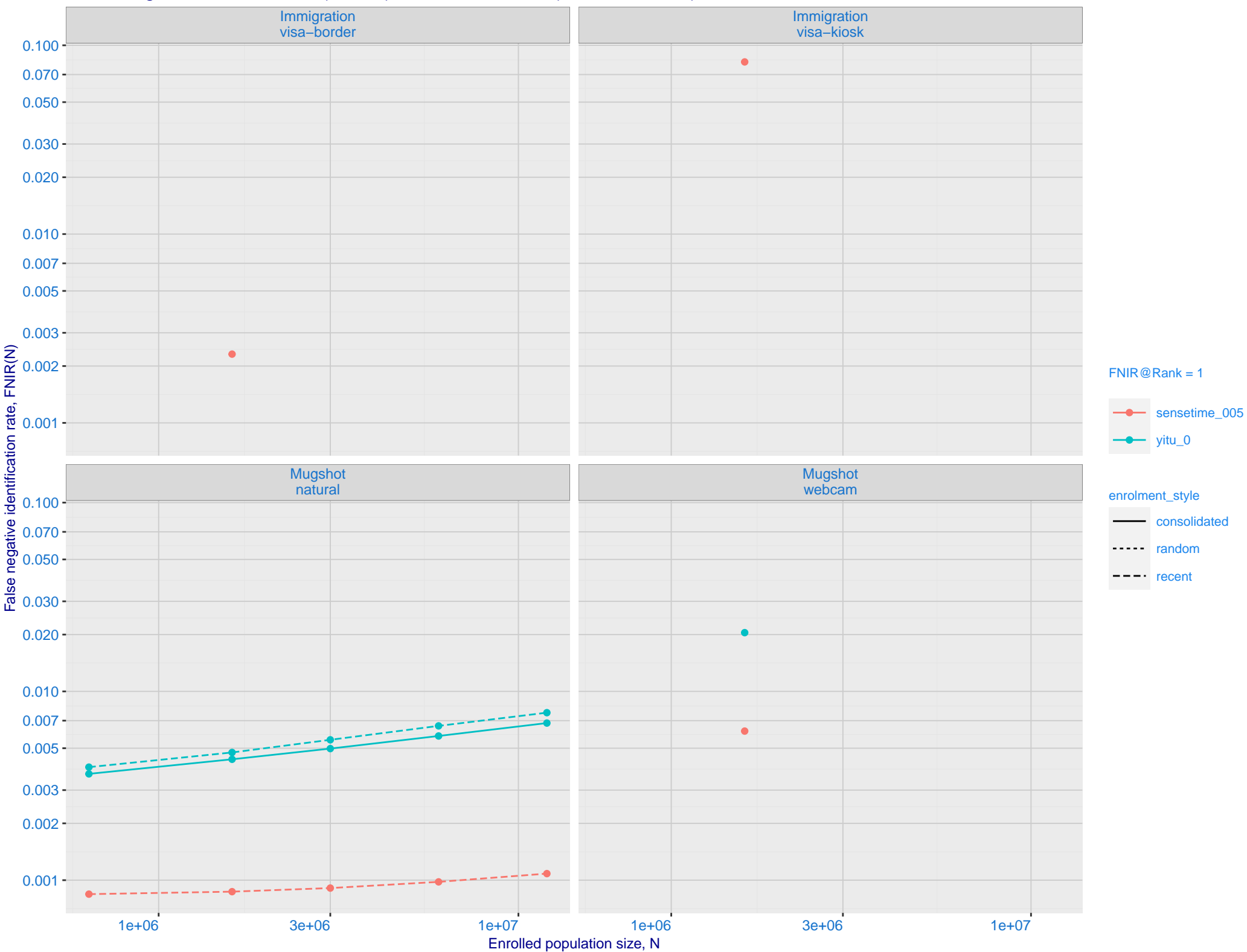G: FPIR dependence on T by probe type for N = 1600000 subjects

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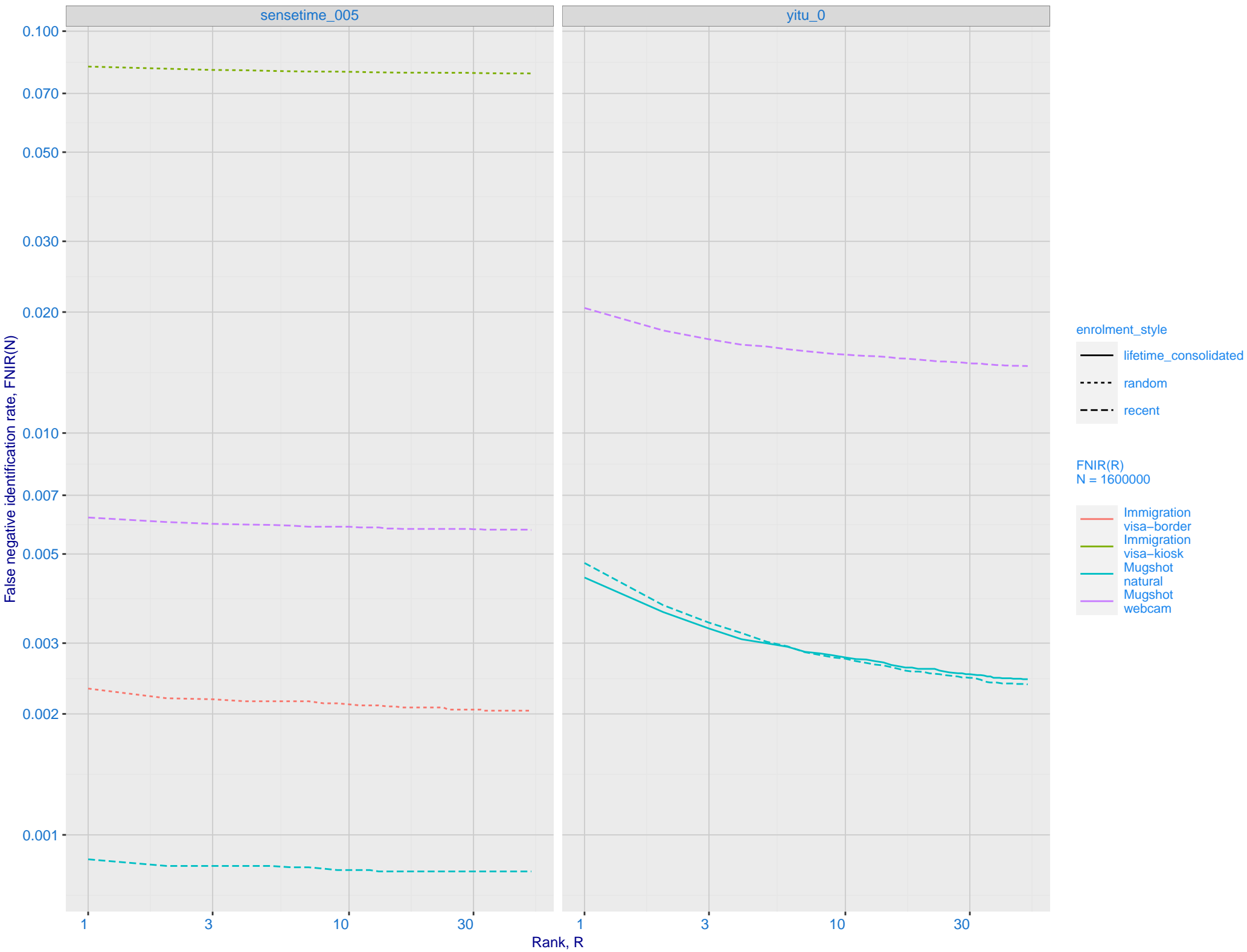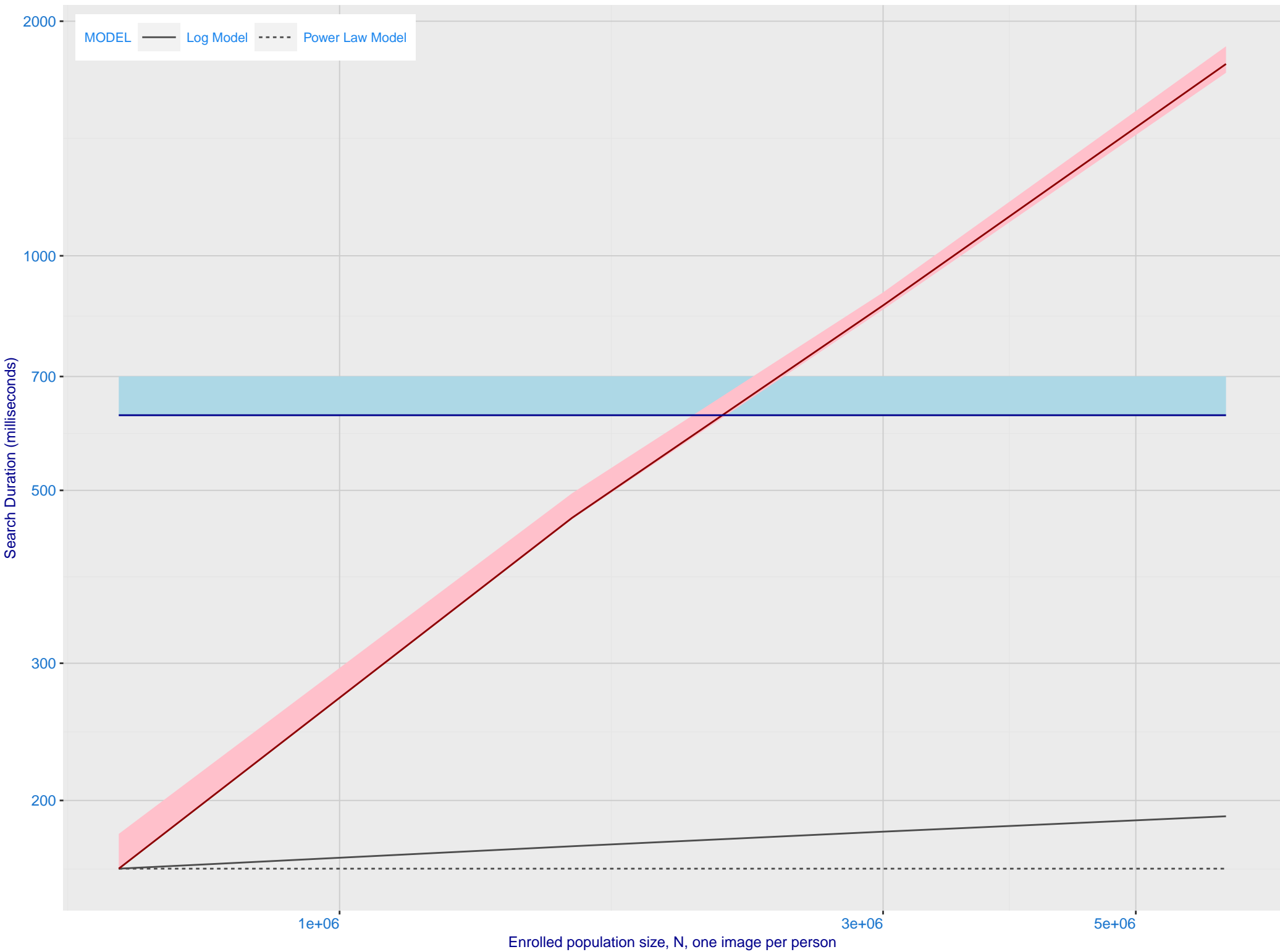
K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

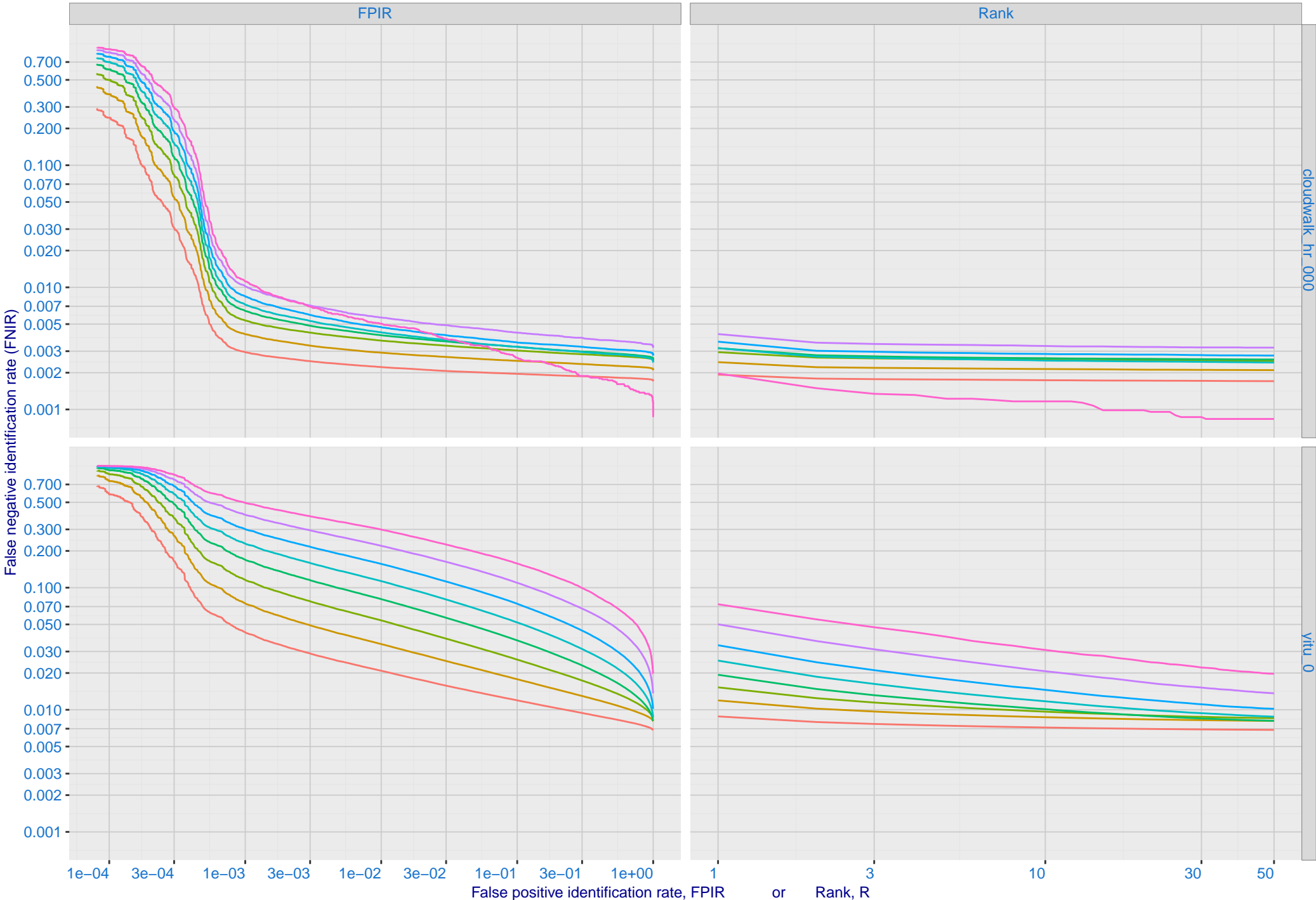L: Investigational mode: FNIR(1600000, R, 0) by probe type

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

R: Decline of genuine scores with ageing, with some eventually dropping below typical thresholds shown by the horizontal lines