A: Datasheet

Algorithm: gorilla_2

Developer: Gorilla Technology

Submission Date: 2018_10_29

Template size: 1132 bytes

Template time (2.5 percentile): 312 msec

Template time (median): 339 msec

Template time (97.5 percentile): 384 msec

Investigation:

Frontal mugshot ranking 158 (out of 259) –– FNIR(1600000, 0, 1) = 0.0197 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 133 (out of 221) –– FNIR(1600000, 0, 1) = 0.0438 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 80 (out of 190) –– FNIR(1600000, 0, 1) = 0.7534 vs. lowest 0.0591 from sensetime_005
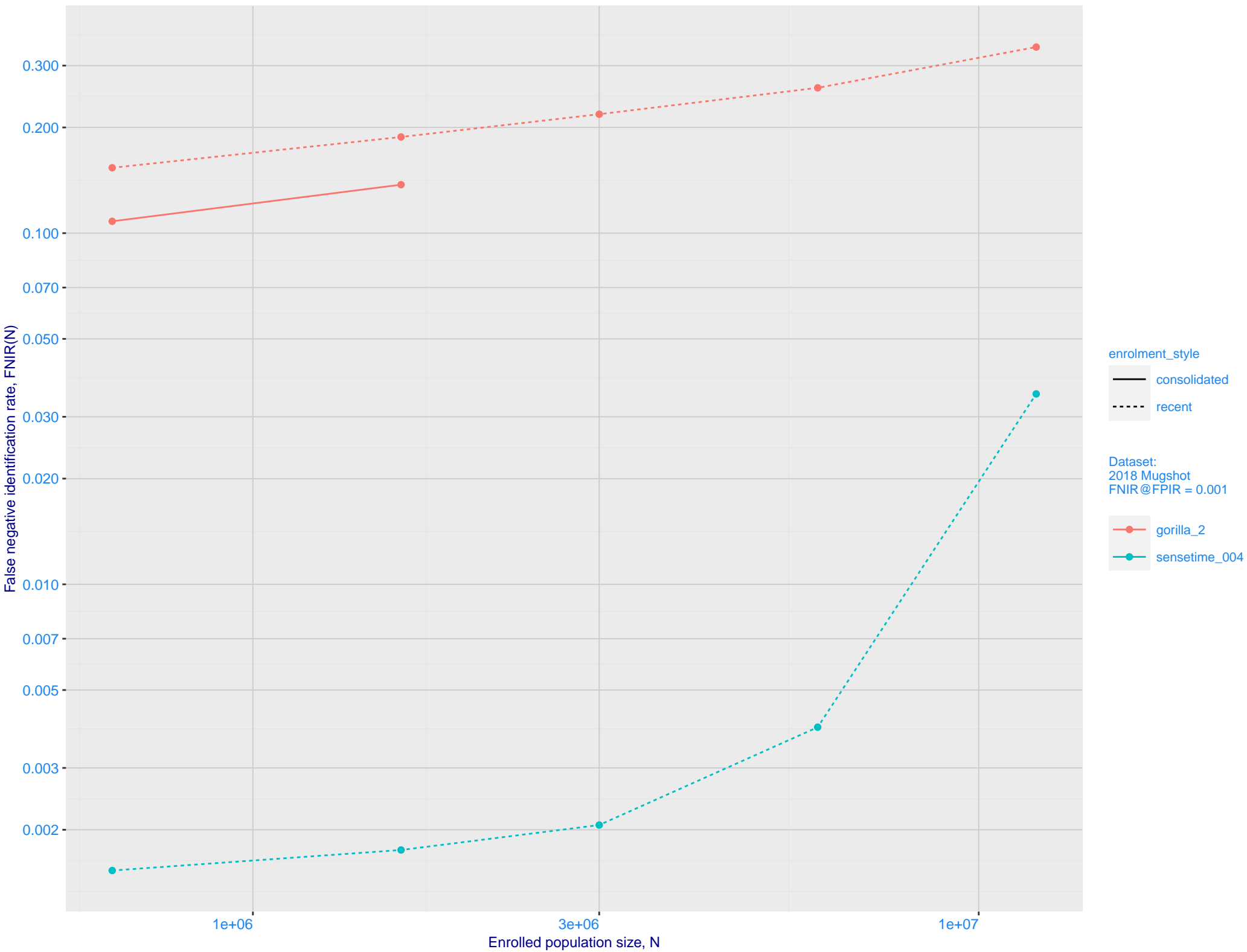
Identification:

Frontal mugshot ranking 165 (out of 259) –– FNIR(1600000, T, L+1) = 0.1879, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004
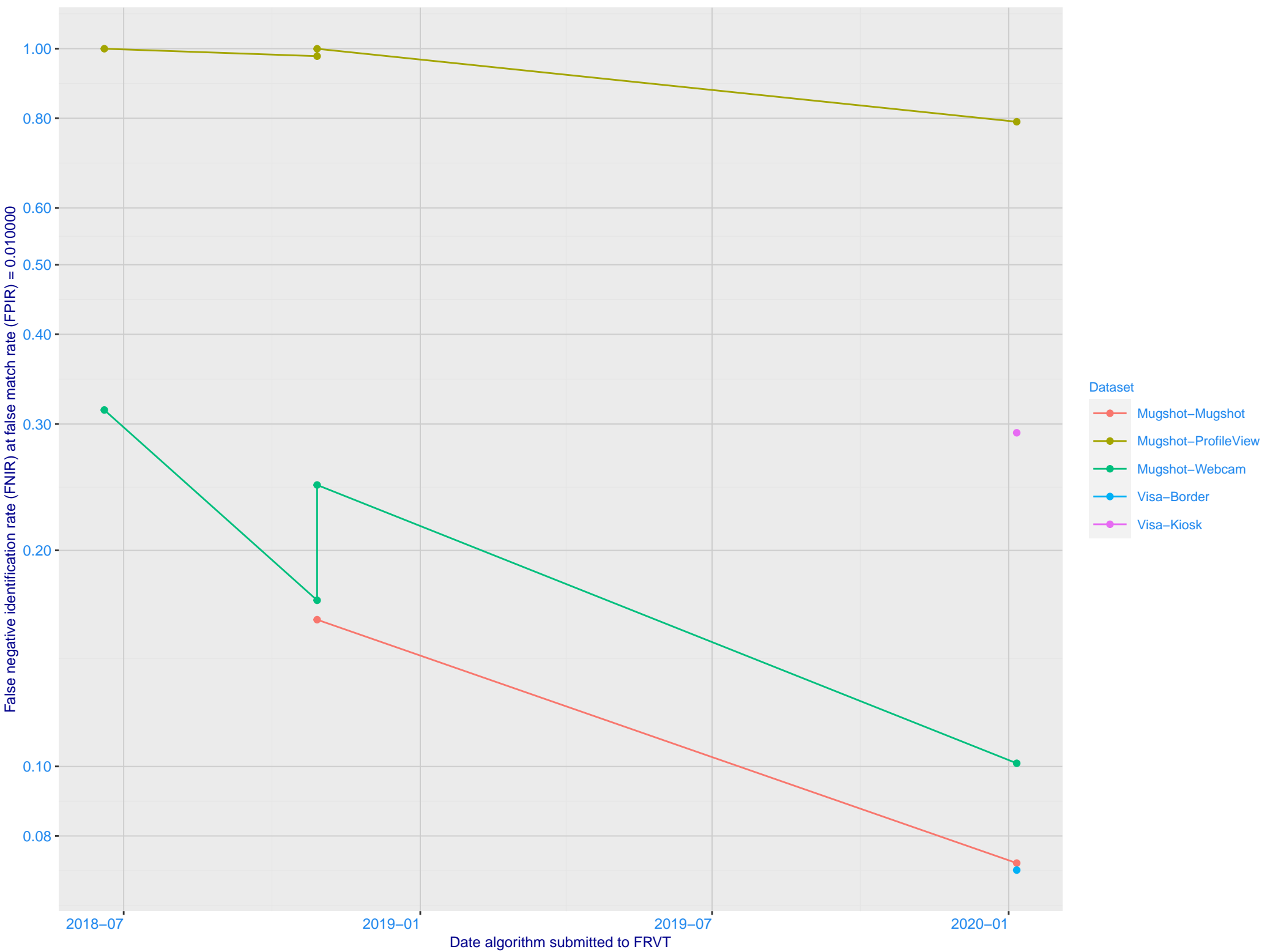
Mugshot webcam ranking 145 (out of 219) –– FNIR(1600000, T, L+1) = 0.2684, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 170 (out of 189) –– FNIR(1600000, T, L+1) = 0.9999, FPIR=0.001000 vs. lowest 0.1733 from sensetime_005
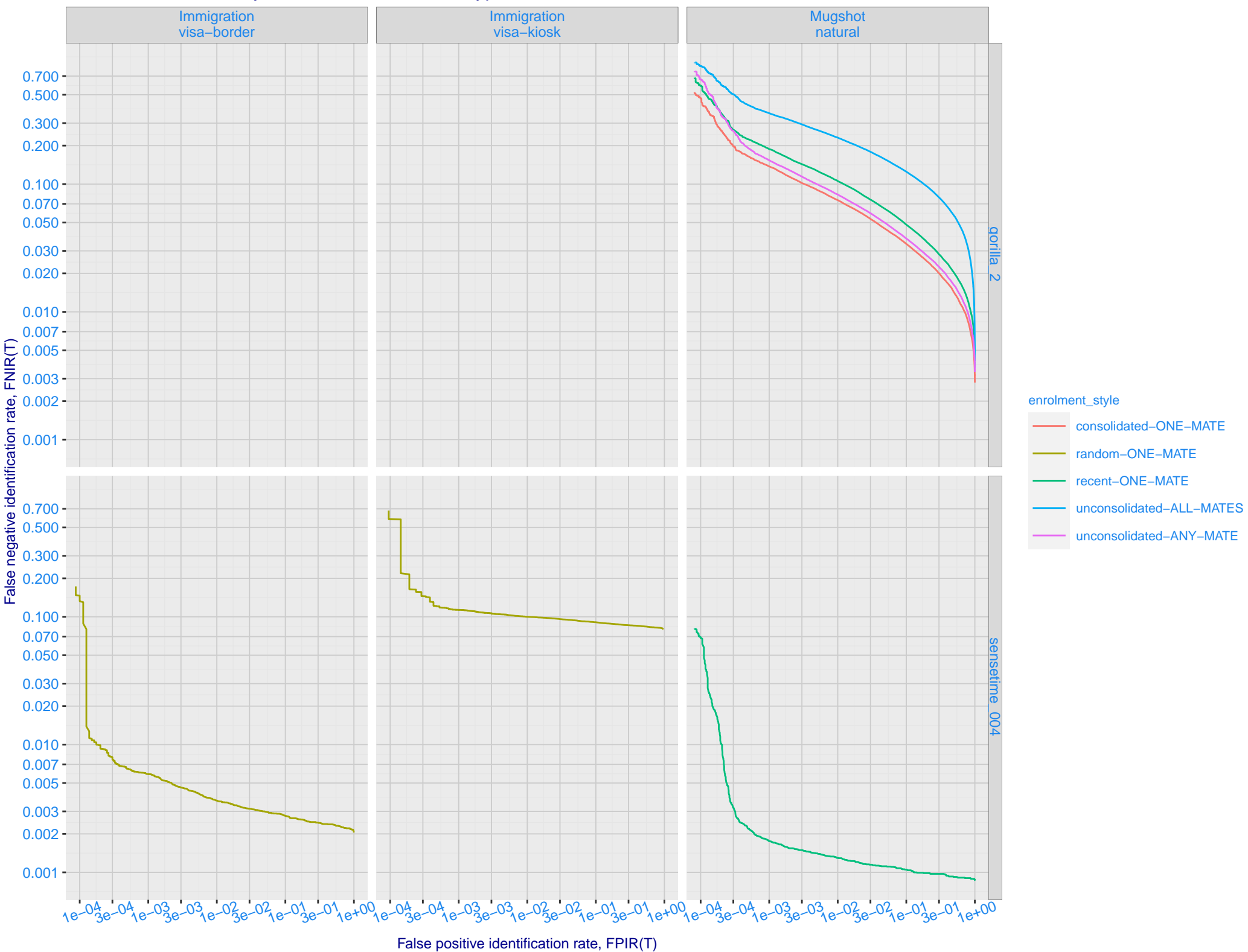
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
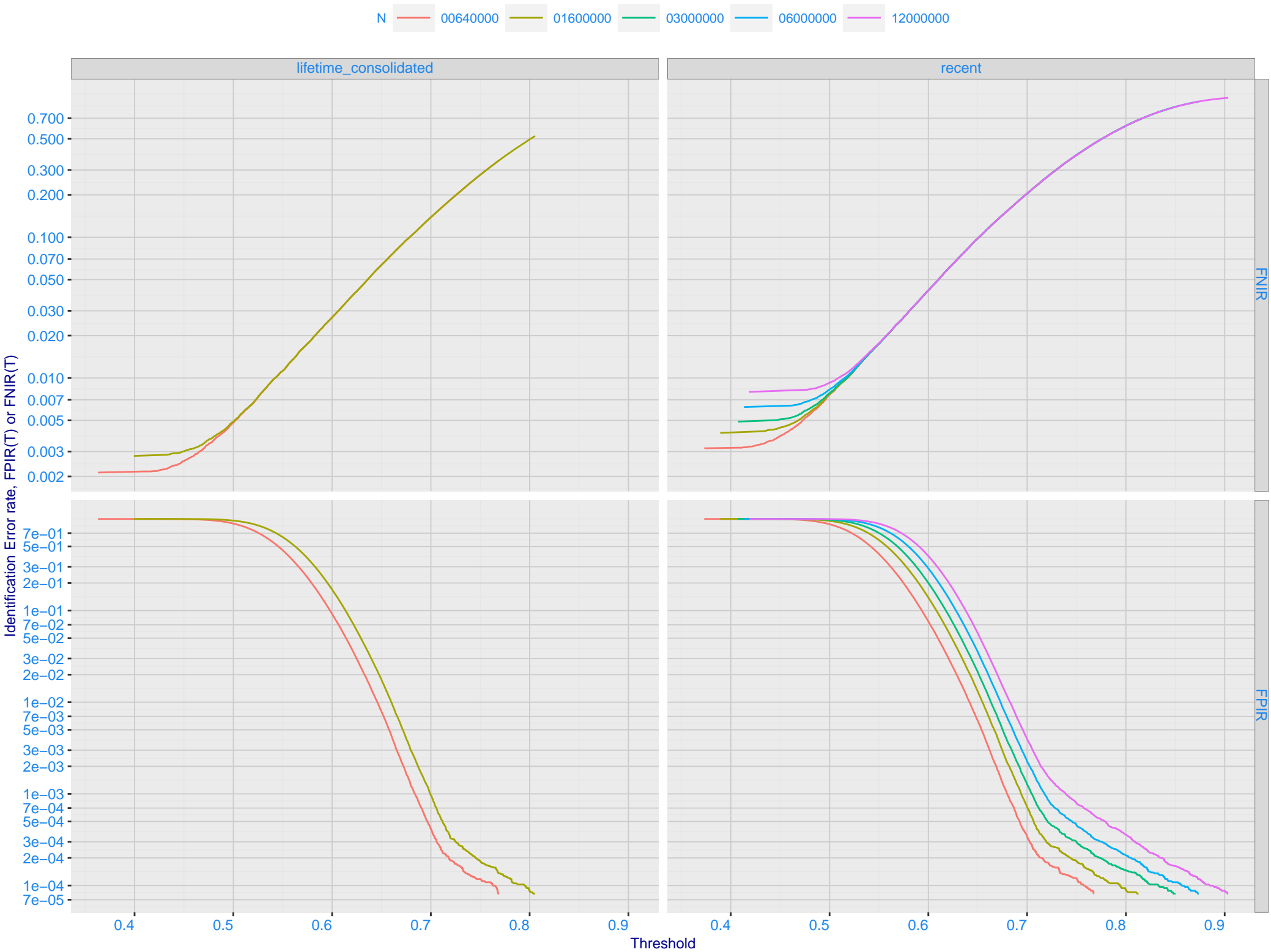
C: Evolution of accuracy for GORILLA algorithms on three datasets 2018 – present
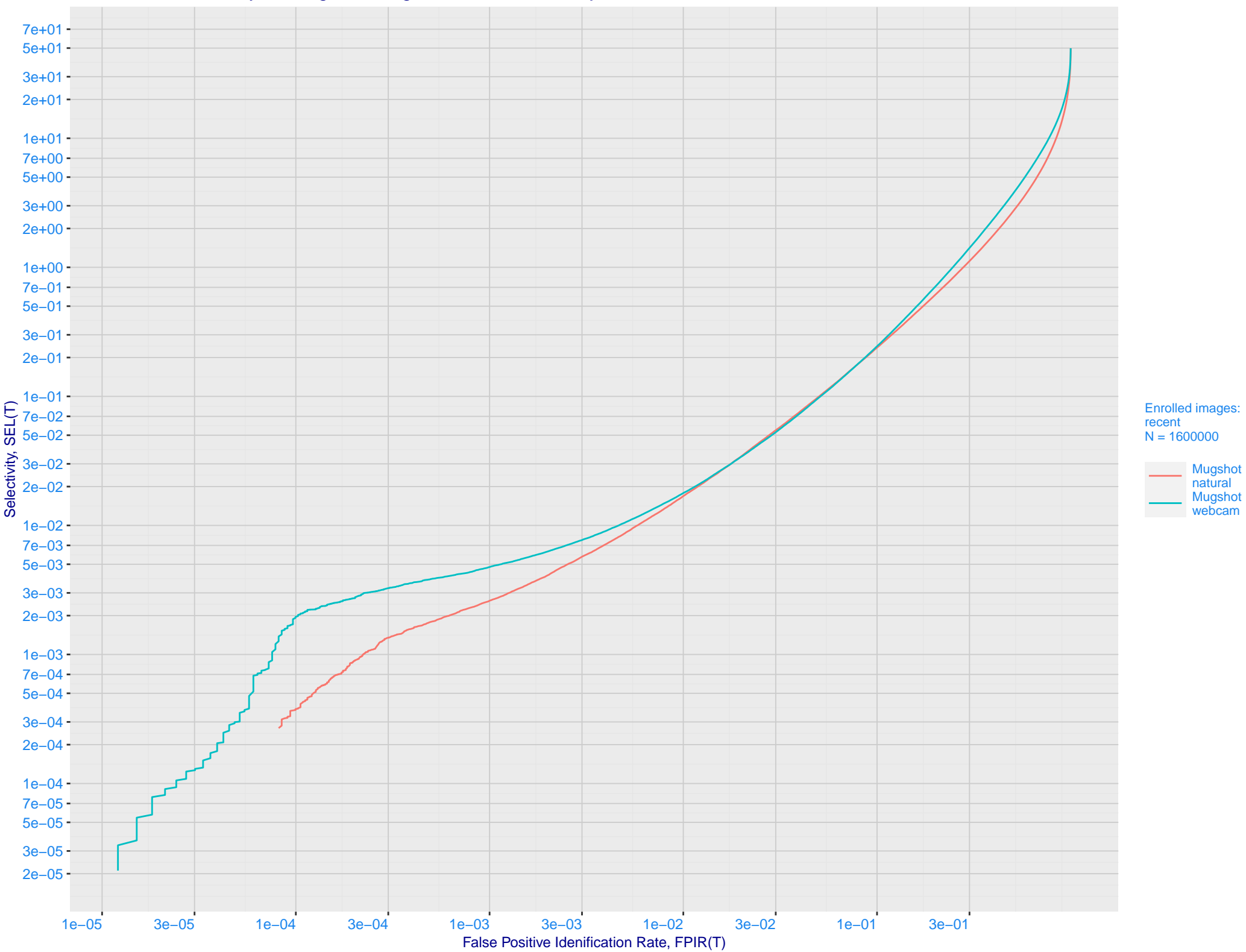
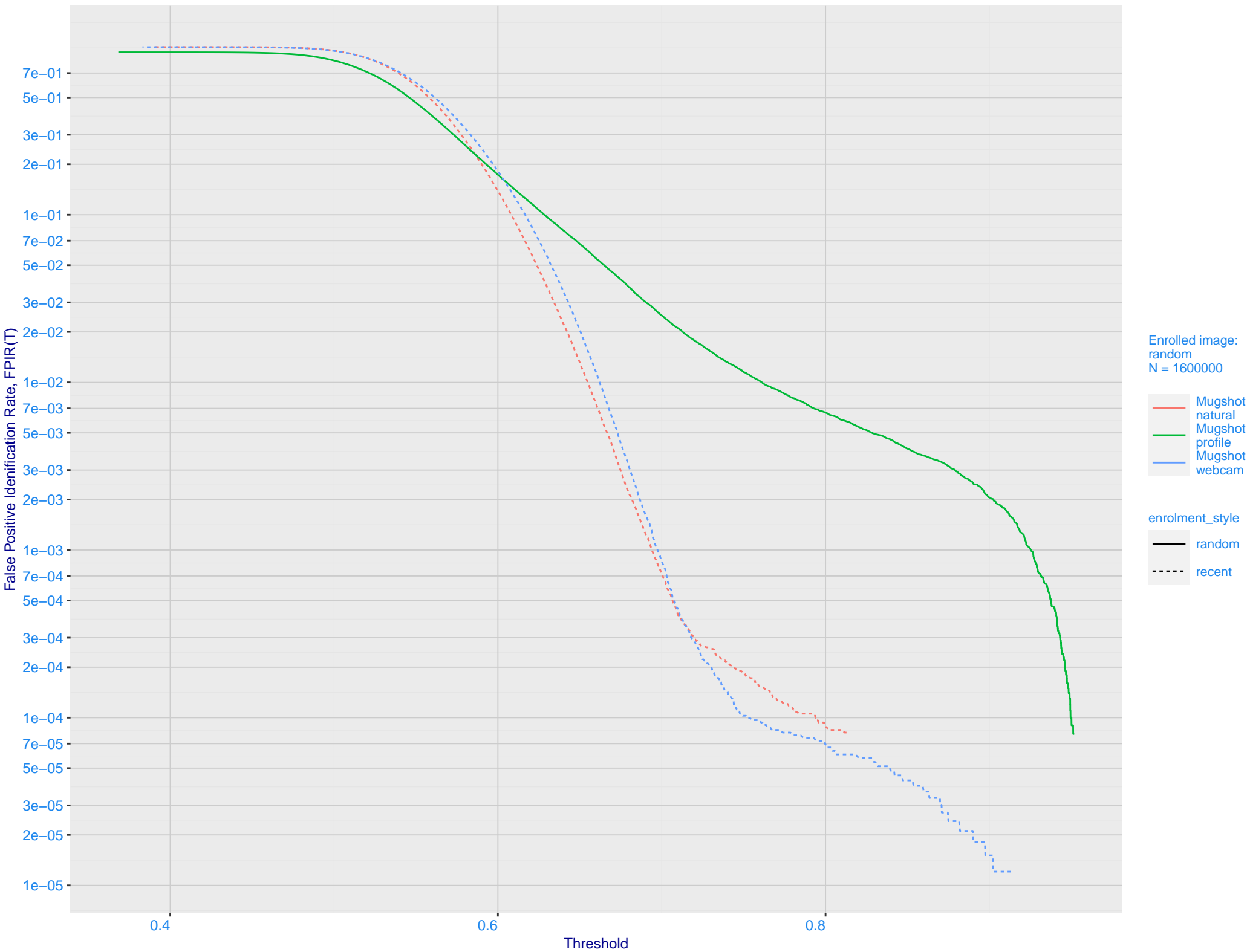D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

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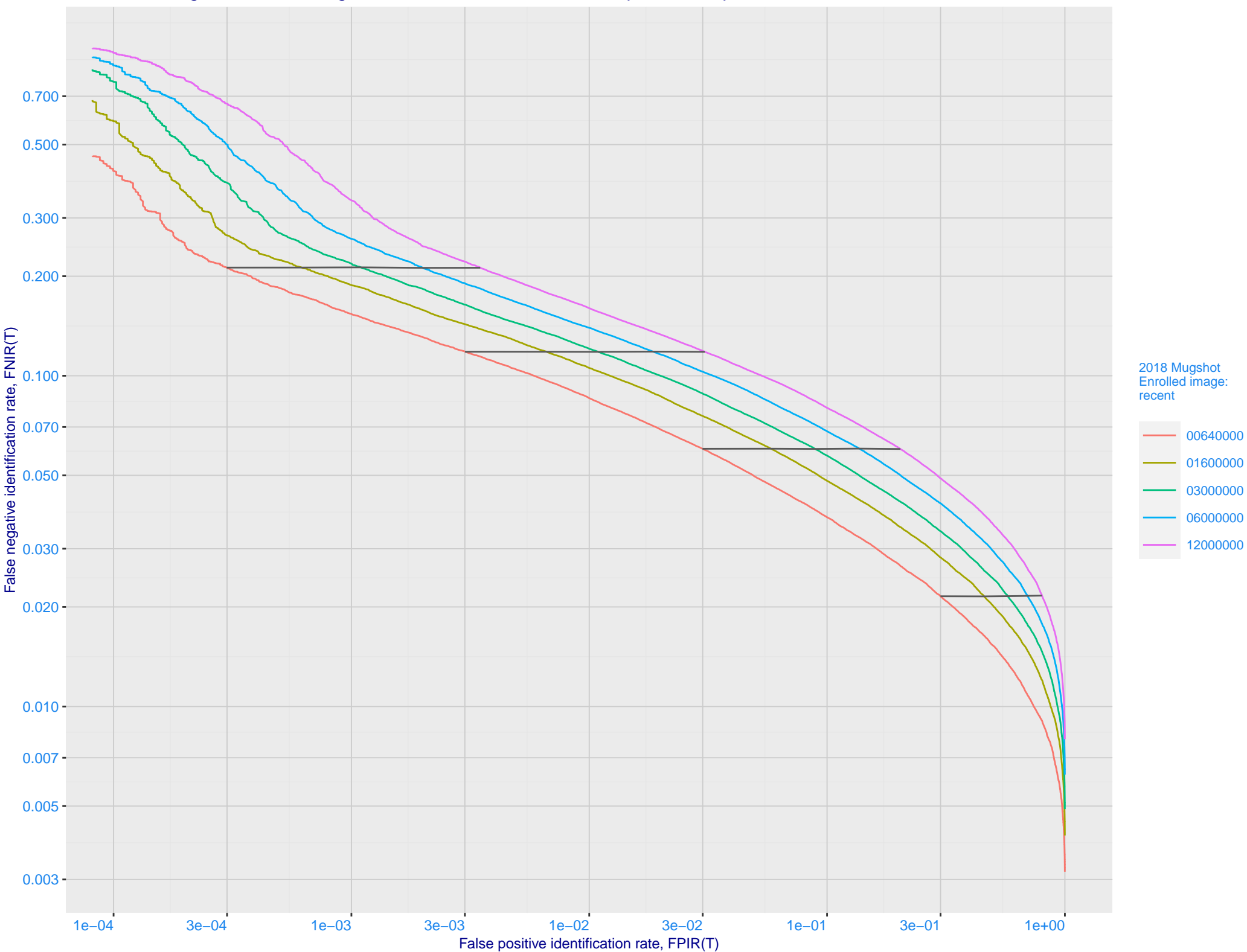
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

Enrolled images: recent
N = 1600000

Mugshot natural
Mugshot webcam

Selectivity, SEL(T)

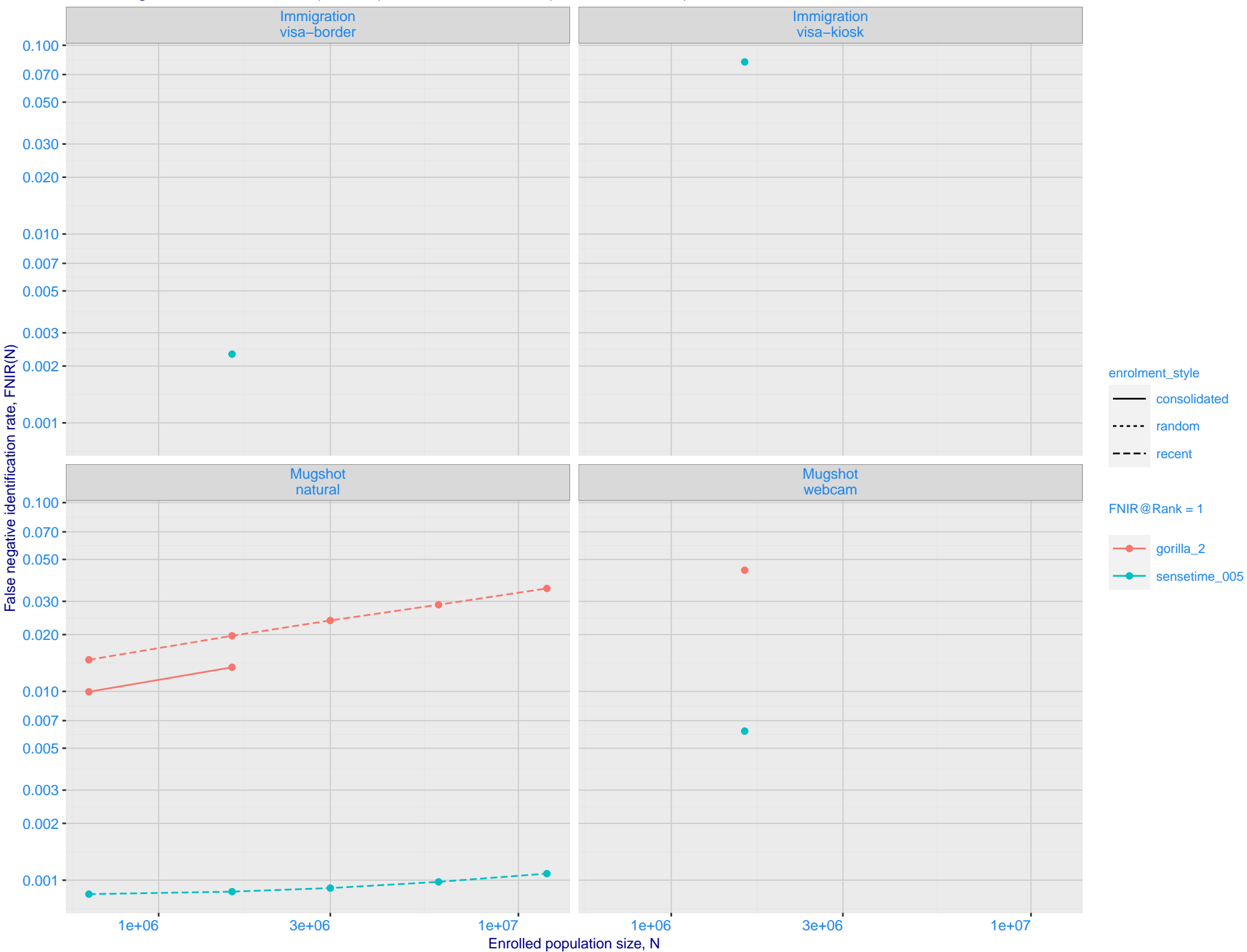False Positive Idenification Rate, FPIR(T)

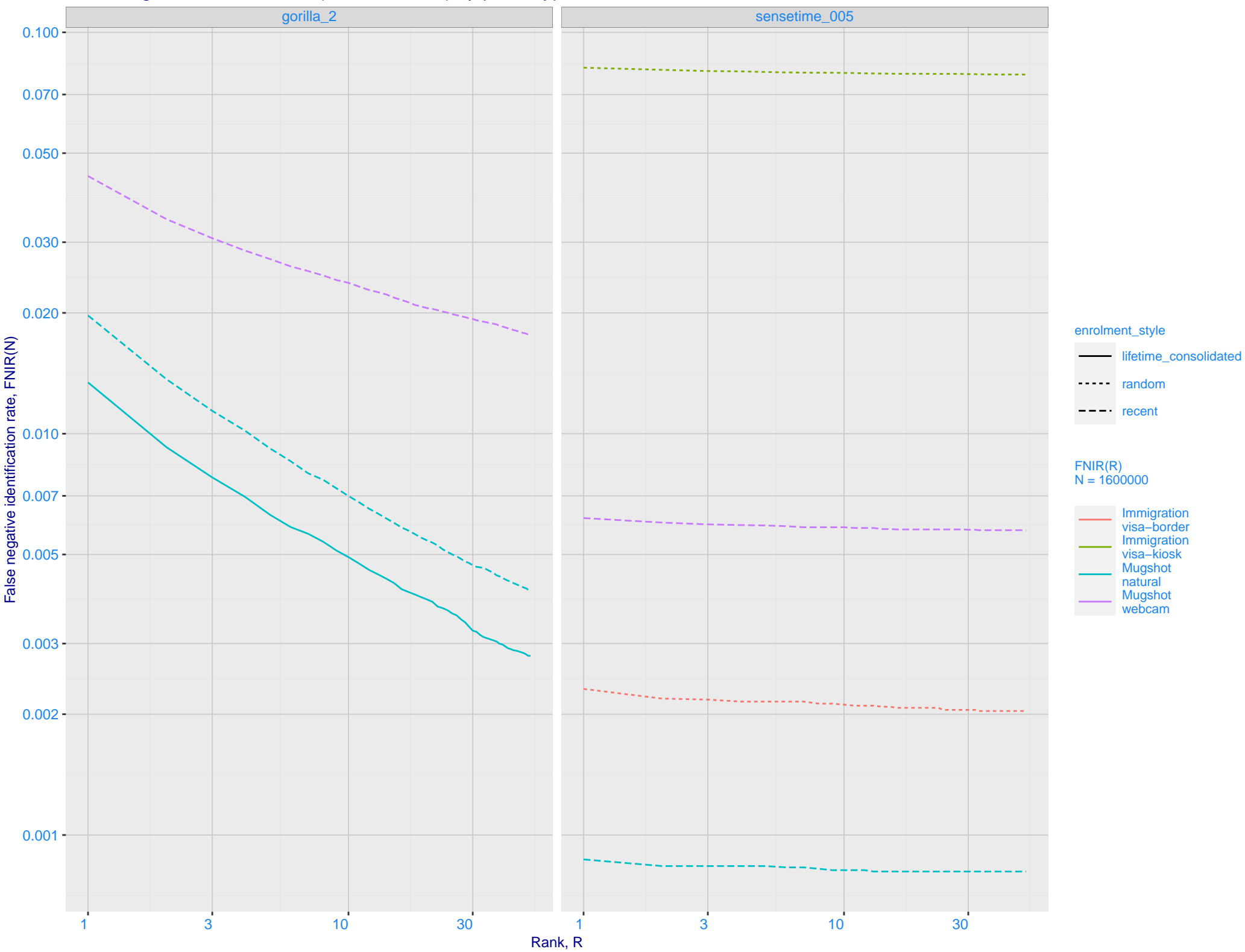G: FPIR dependence on T by probe type for N = 1600000 subjects

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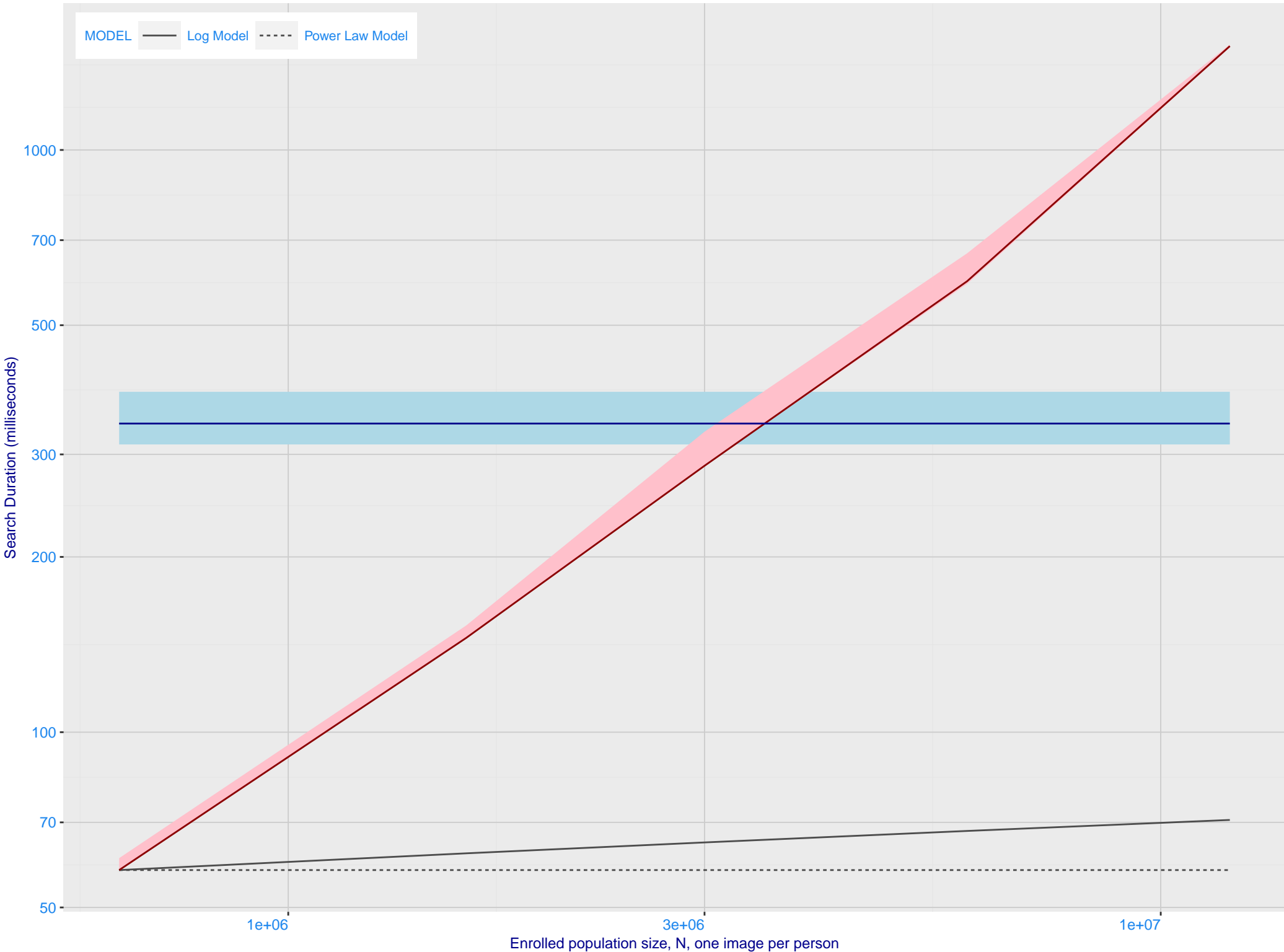
I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

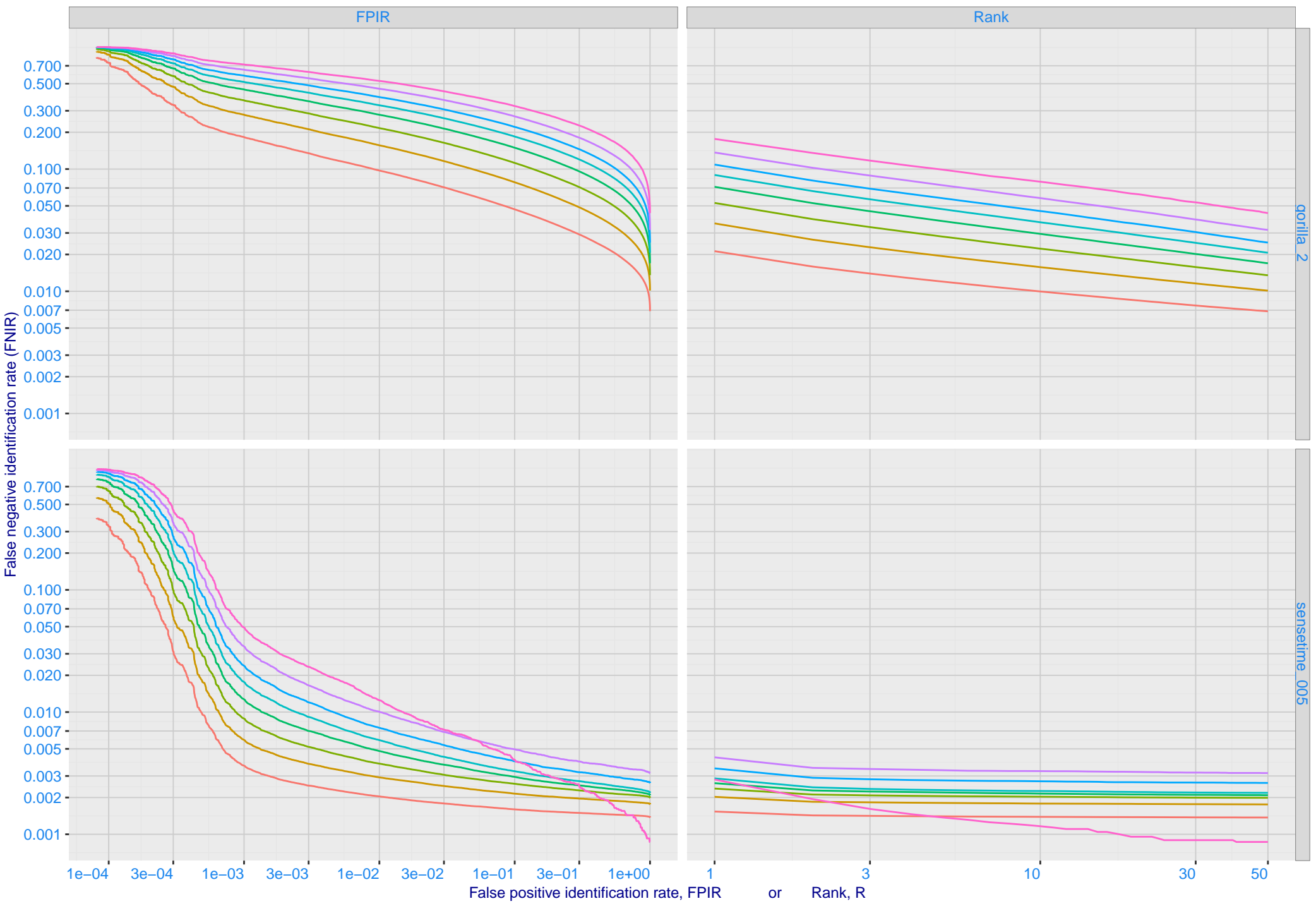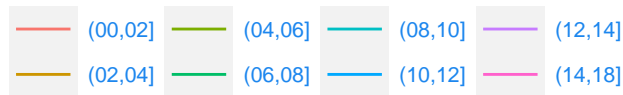J: Investigational mode: FNIR(1600000, R, 0) by probe type

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