A: Datasheet

Algorithm: idemia_0

Developer: Idemia

Submission Date: 2018_02_16

Template size: 364 bytes

Template time (2.5 percentile): 404 msec

Template time (median): 415 msec

Template time (97.5 percentile): 433 msec

Investigation:

Frontal mugshot ranking 127 (out of 279) –– FNIR(1600000, 0, 1) = 0.0088 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 130 (out of 241) –– FNIR(1600000, 0, 1) = 0.0343 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 142 (out of 210) –– FNIR(1600000, 0, 1) = 0.9353 vs. lowest 0.0587 from xforwardai_002
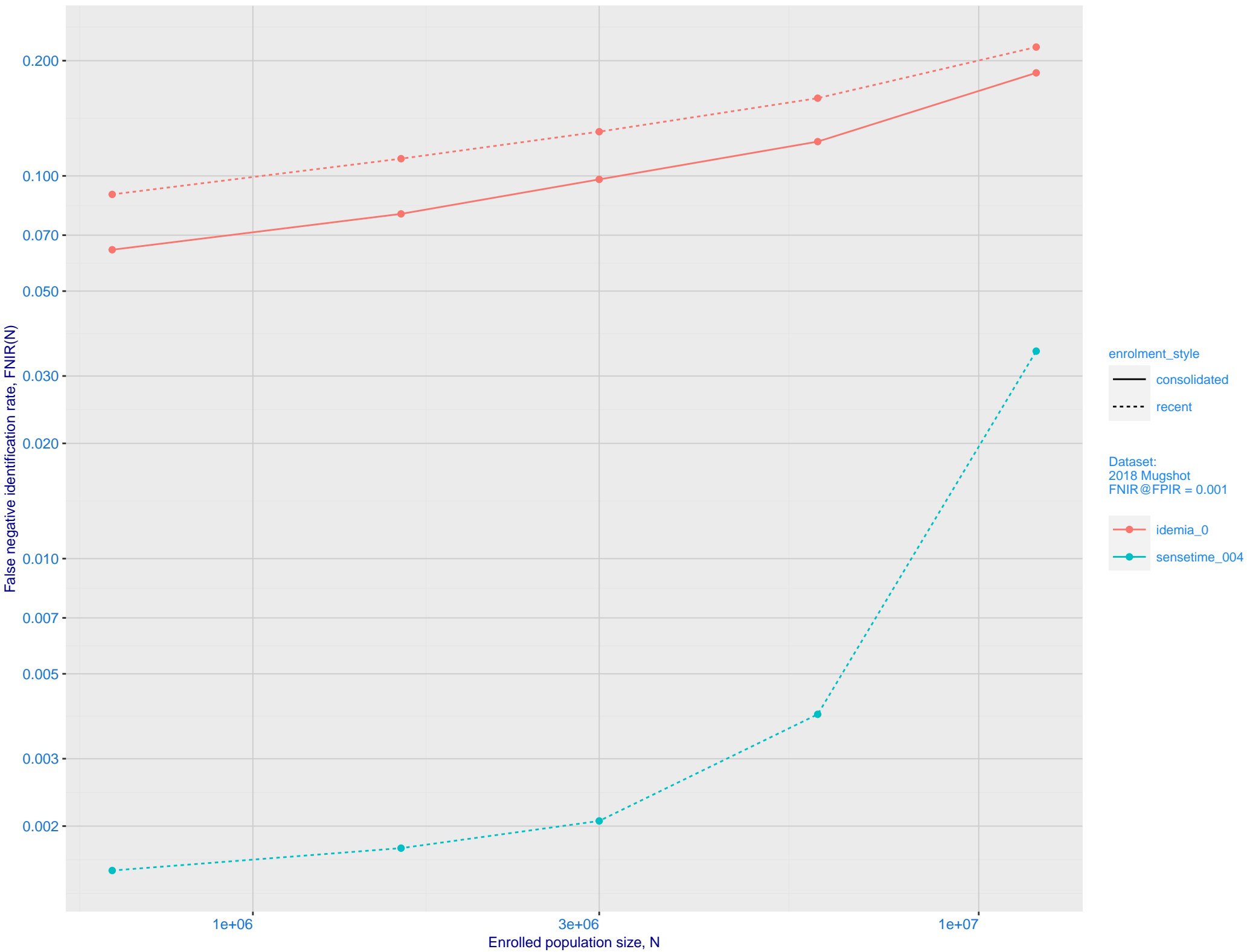
Identification:

Frontal mugshot ranking 152 (out of 279) –– FNIR(1600000, T, L+1) = 0.1109, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004
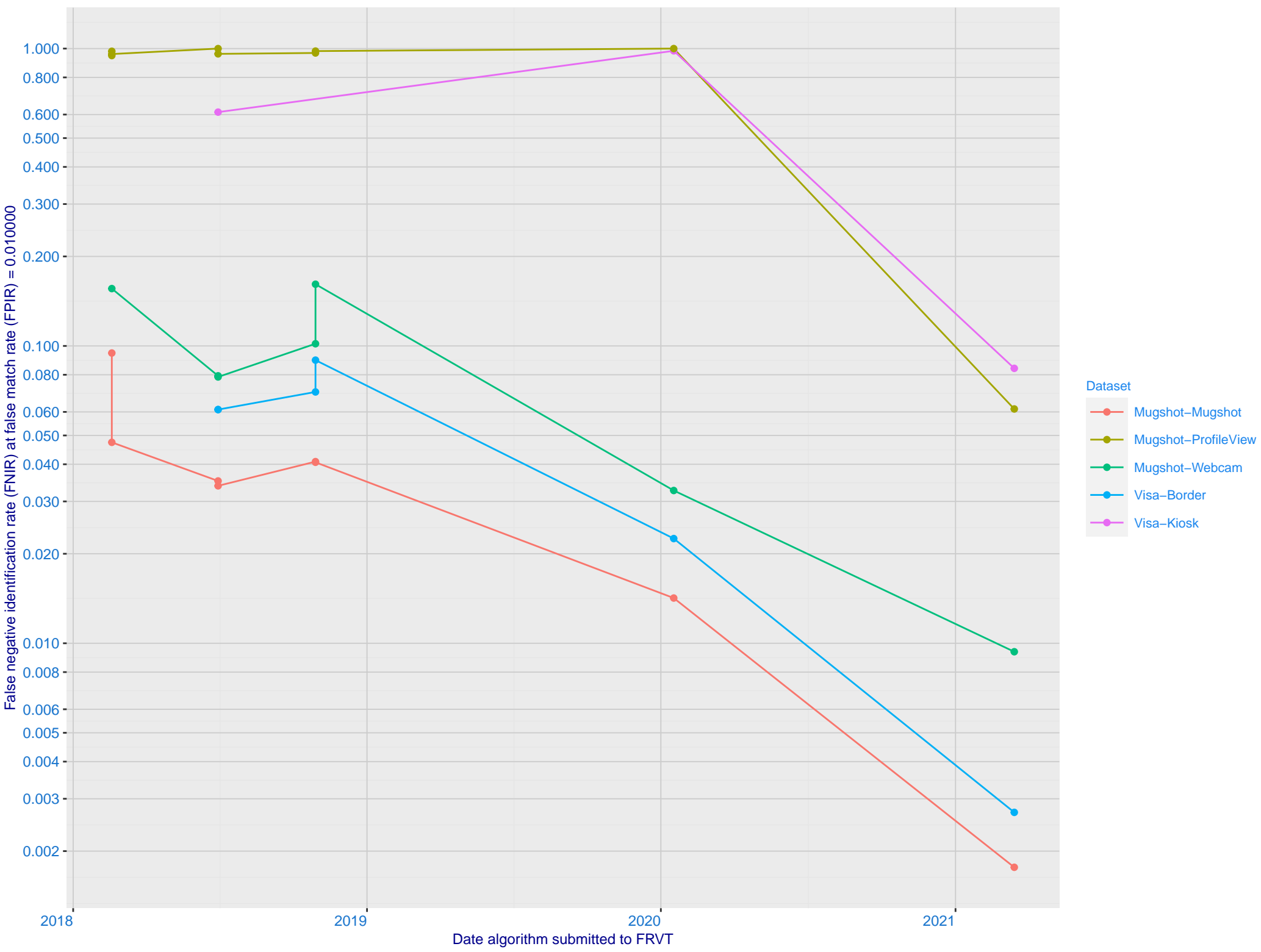
Mugshot webcam ranking 150 (out of 236) –– FNIR(1600000, T, L+1) = 0.2393, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 81 (out of 209) –– FNIR(1600000, T, L+1) = 0.9900, FPIR=0.001000 vs. lowest 0.1331 from cloudwalk_hr_000
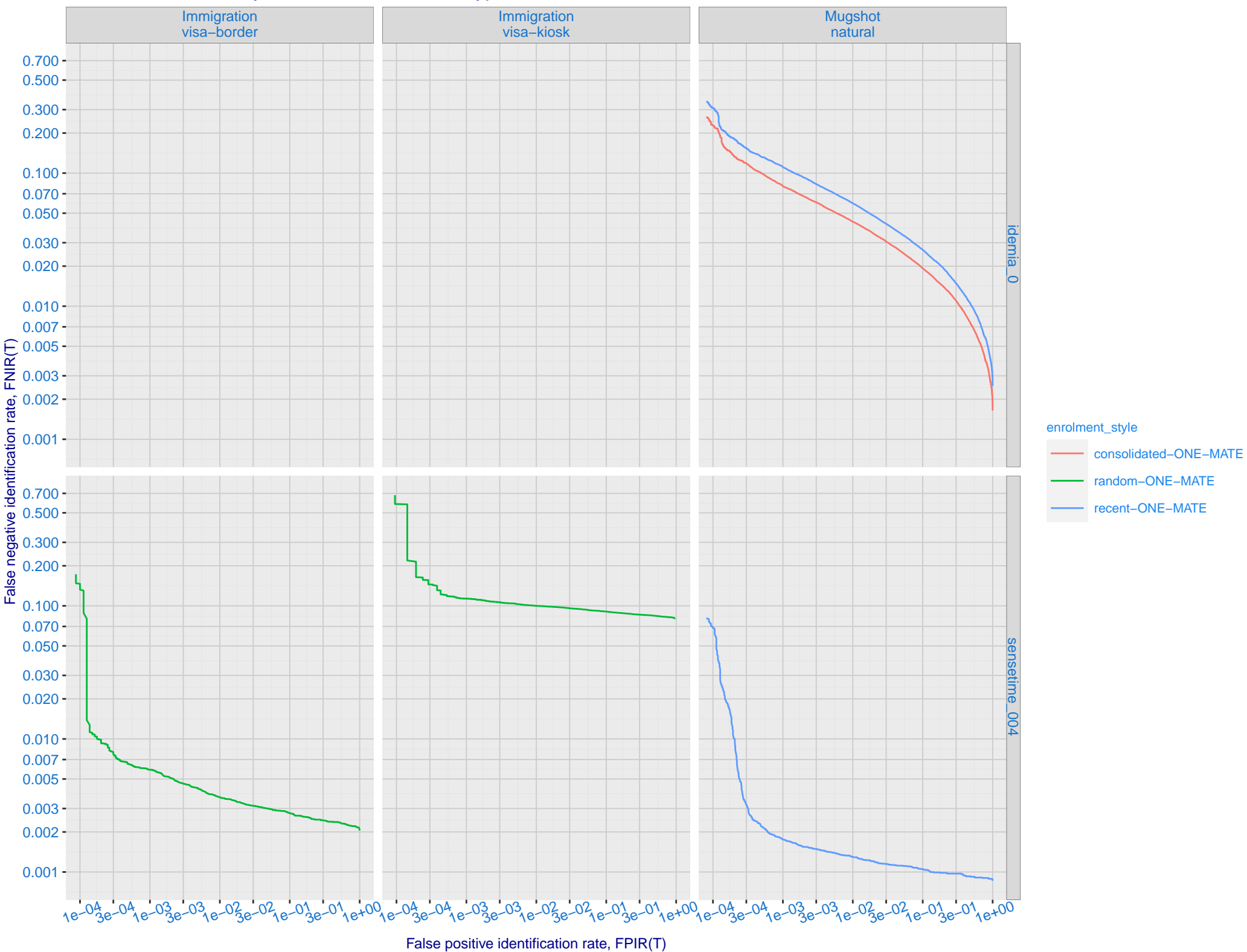
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)
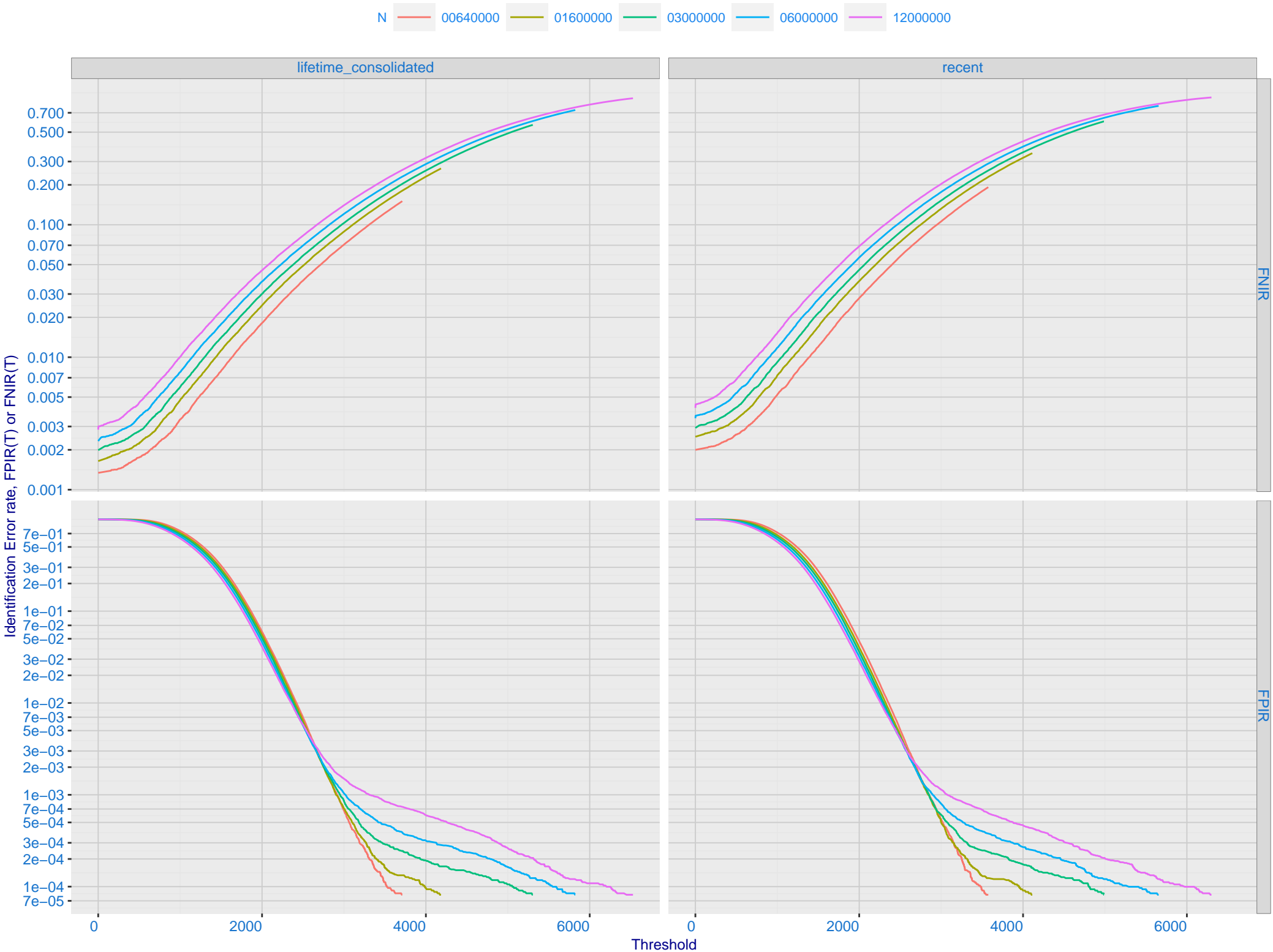
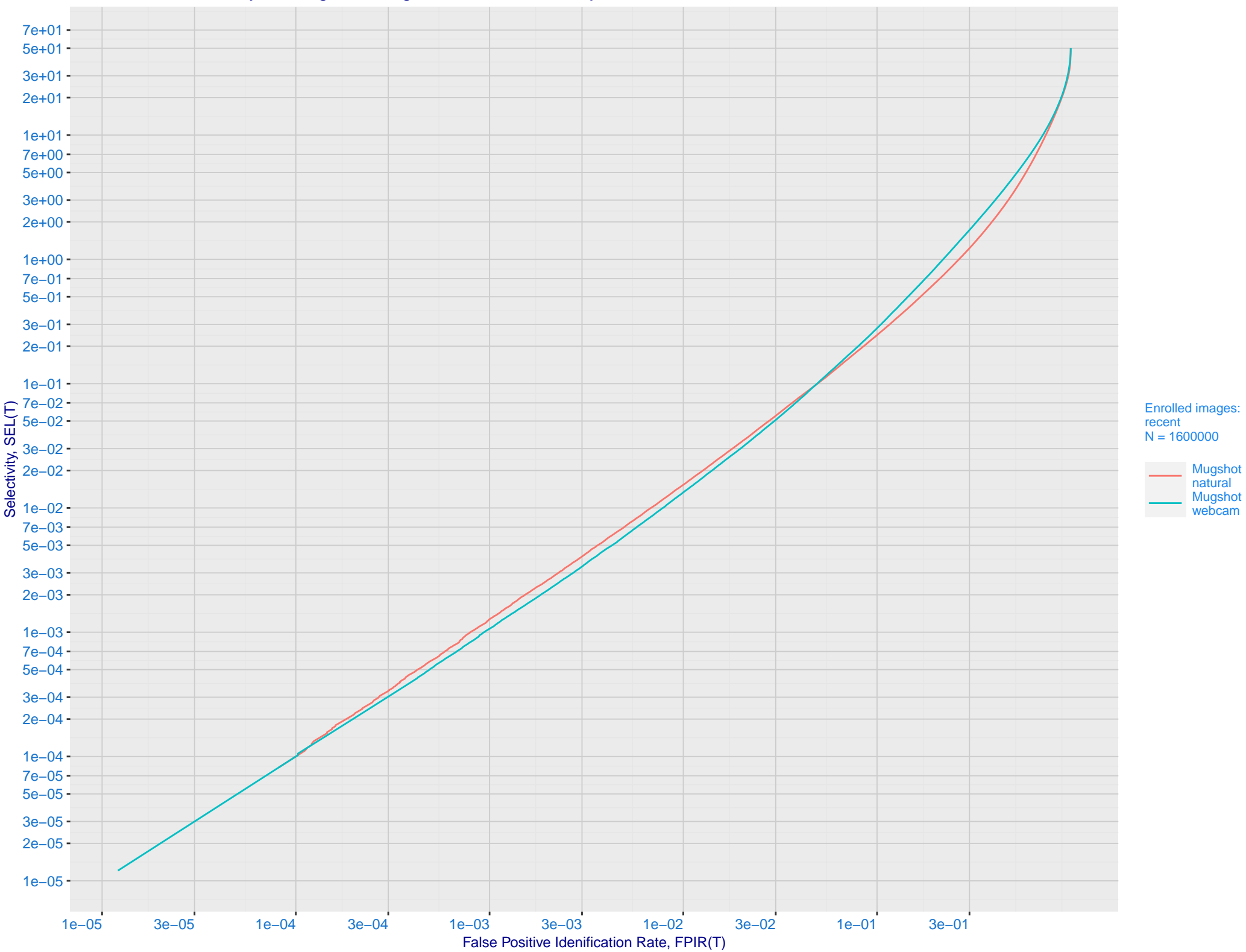C: Evolution of accuracy for IDEMIA algorithms on three datasets 2018 – present

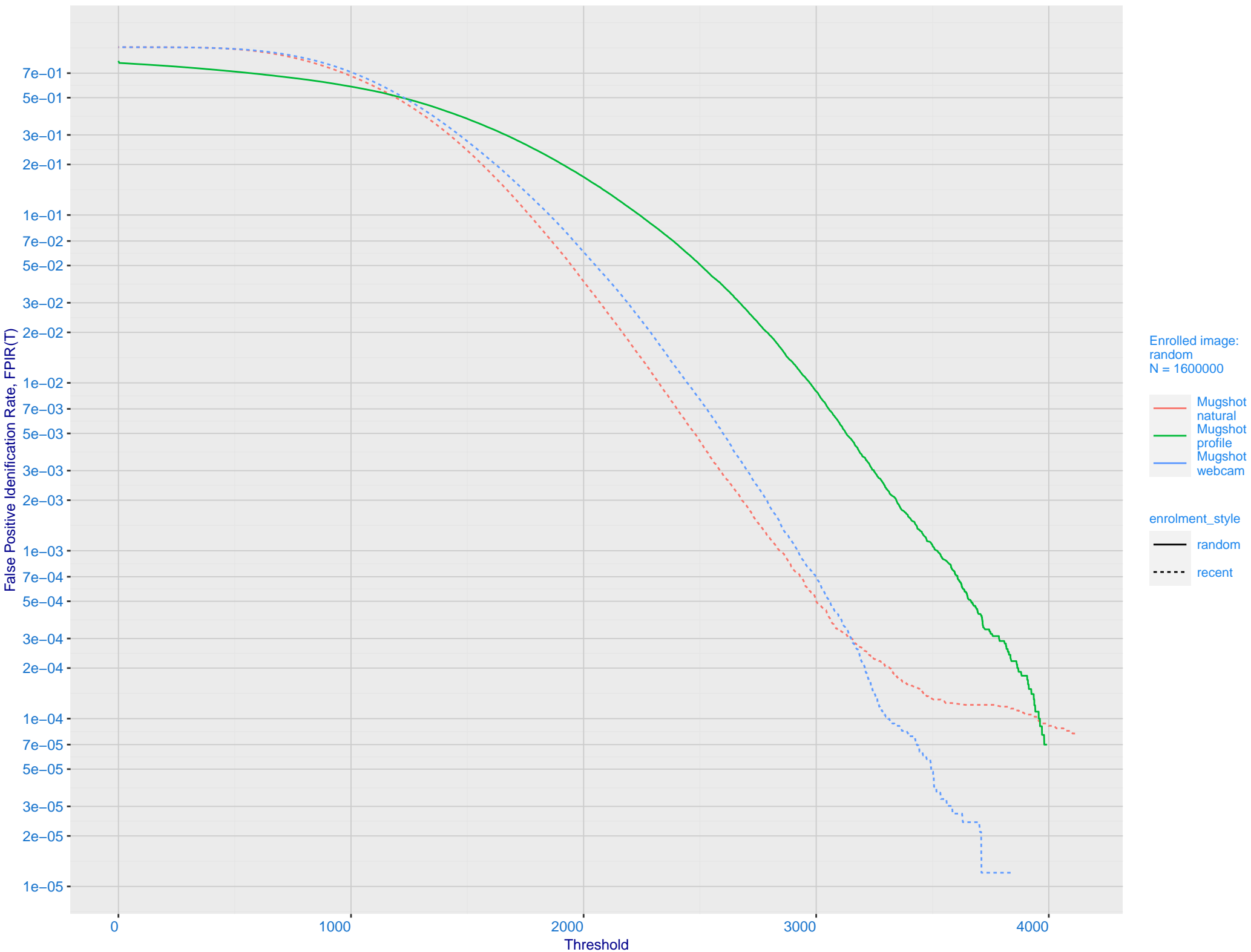D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

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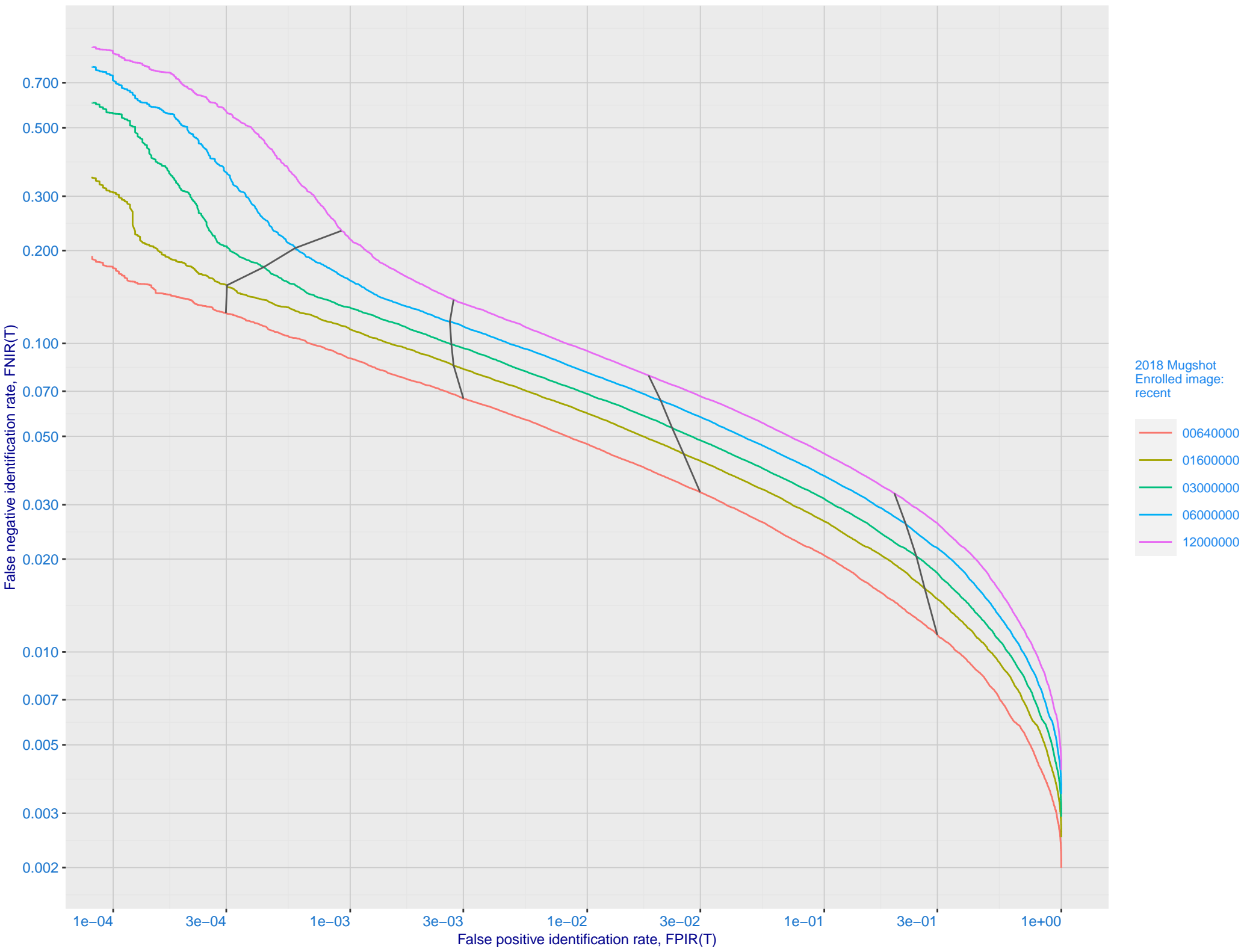
F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate
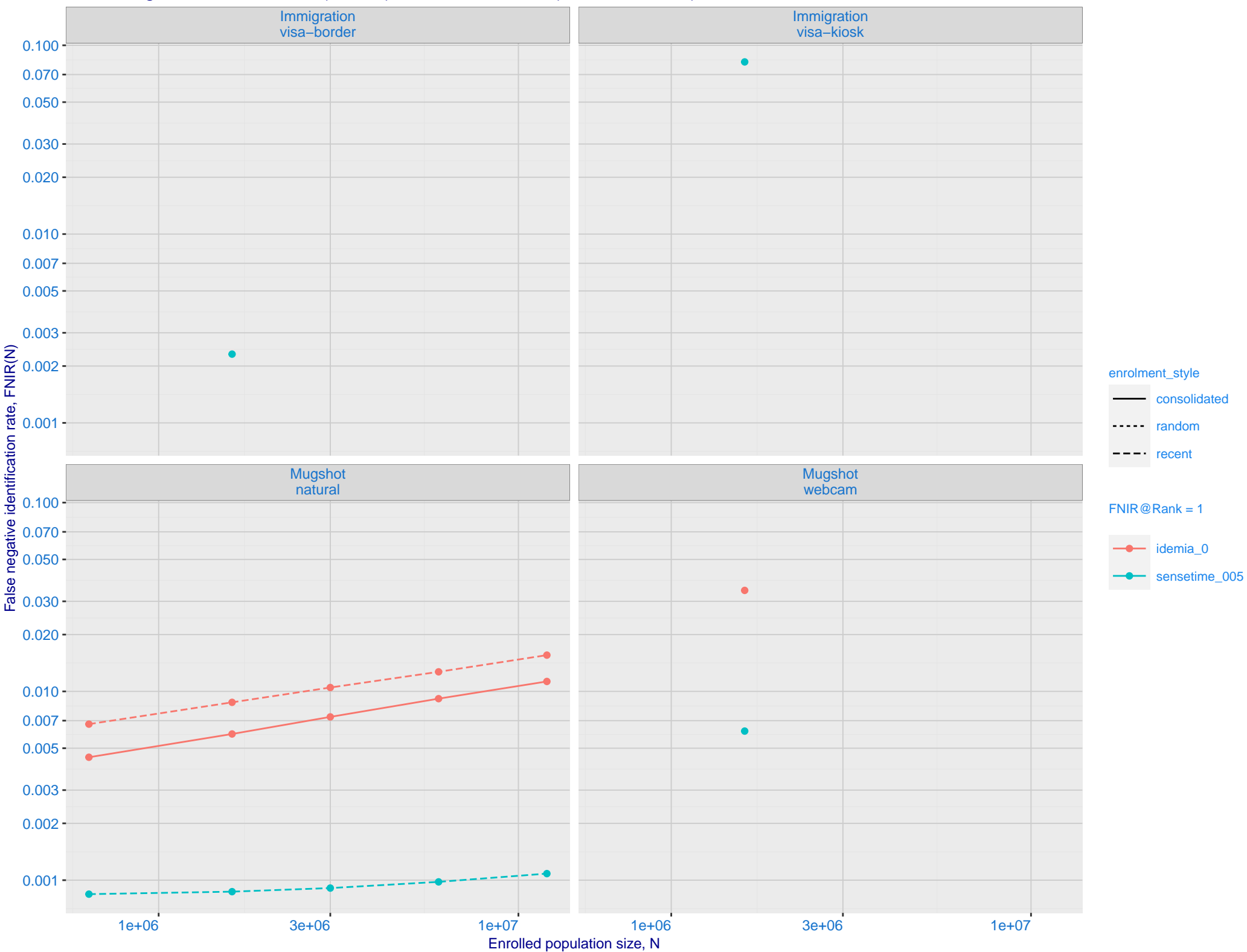
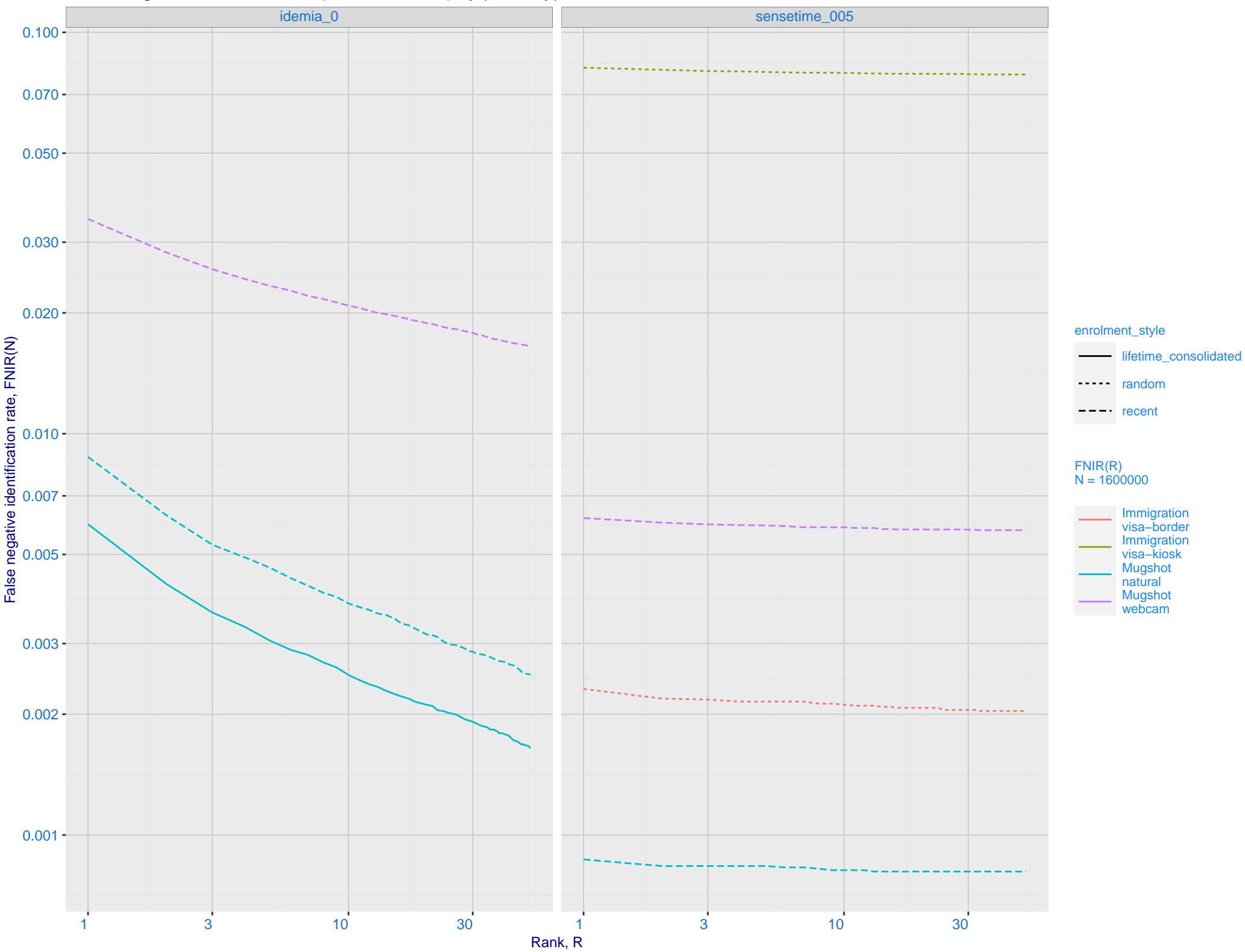G: FPIR dependence on T by probe type for N = 1600000 subjects

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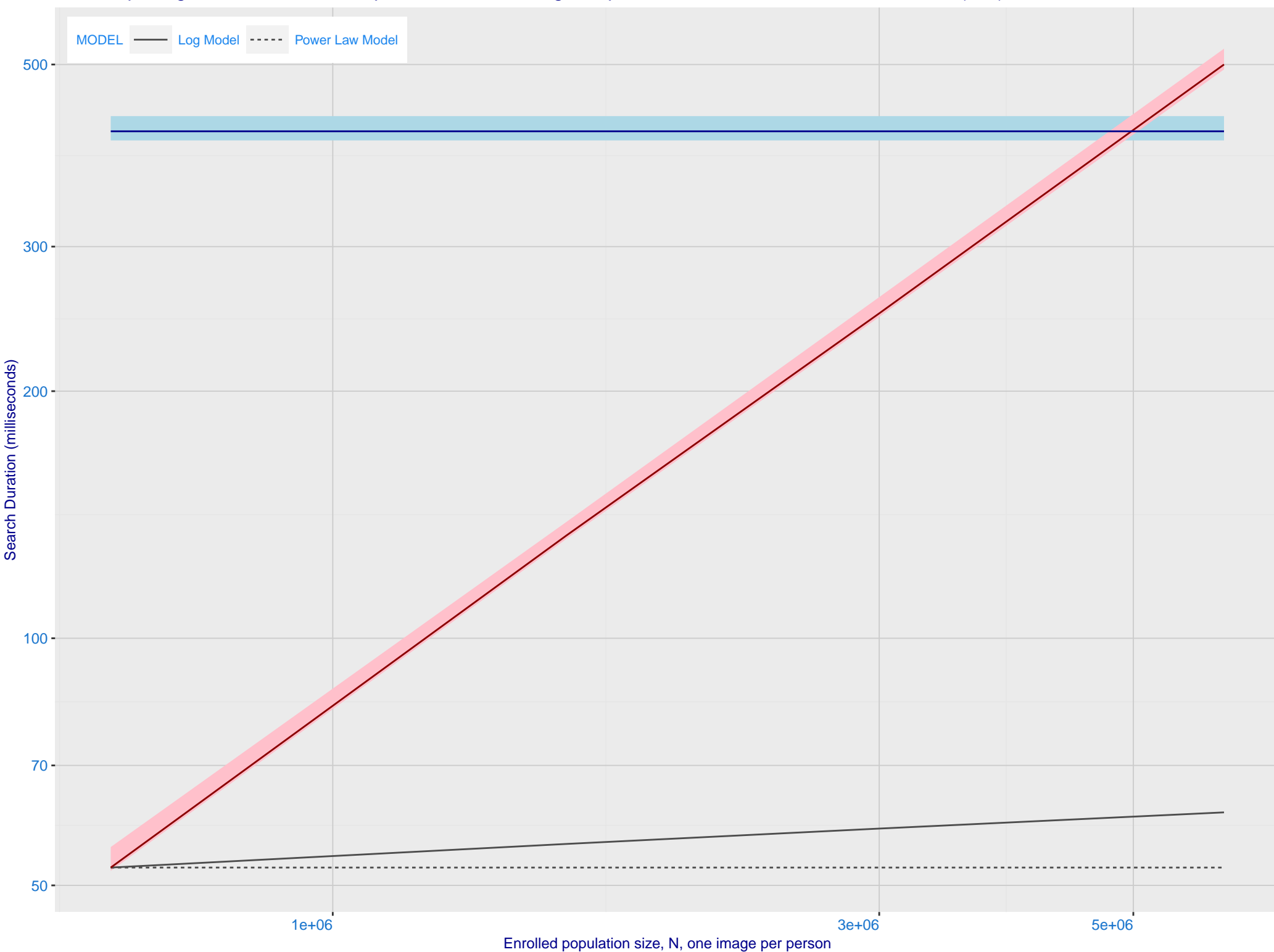
K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005)

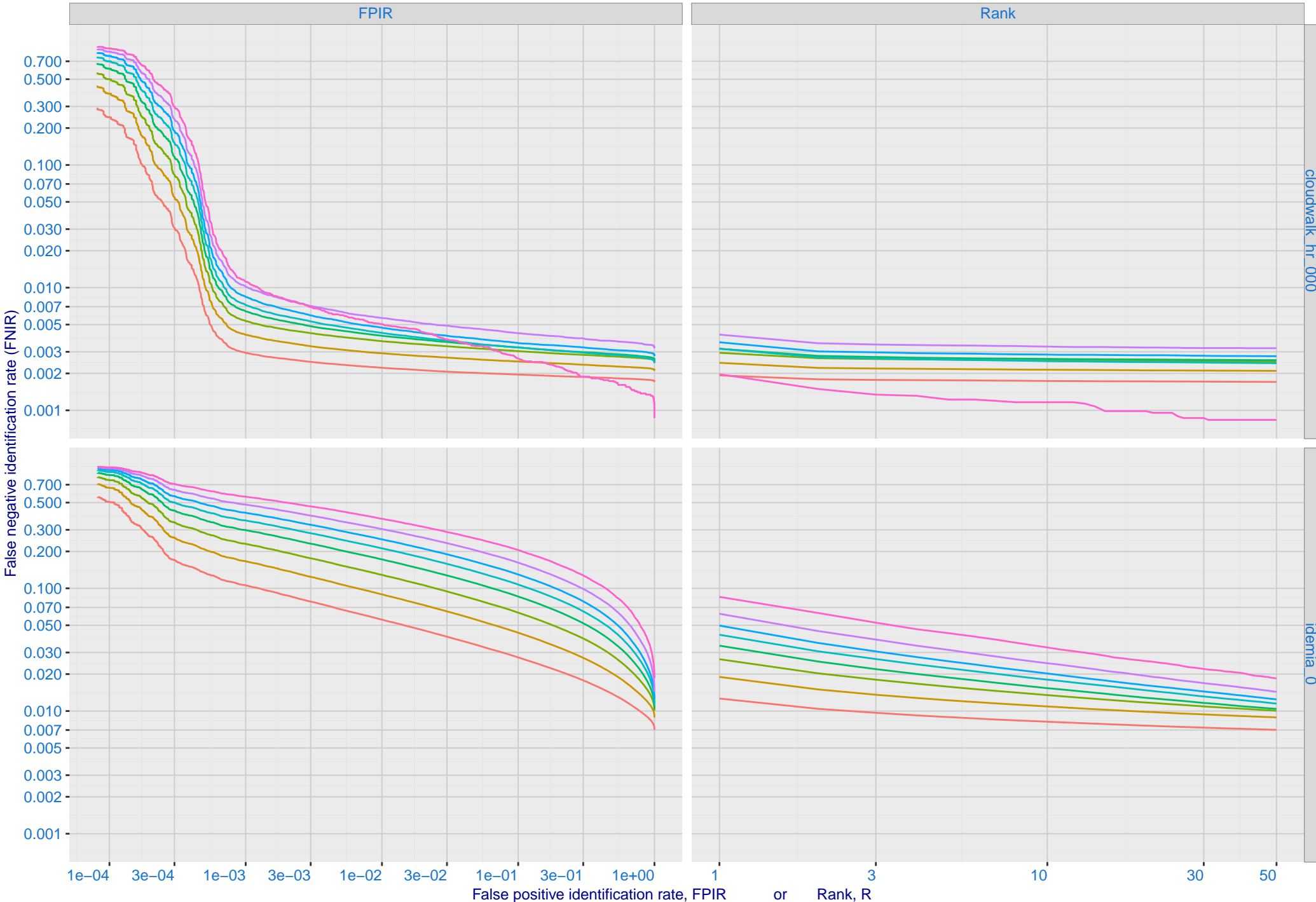L: Investigational mode: FNIR(1600000, R, 0) by probe type

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