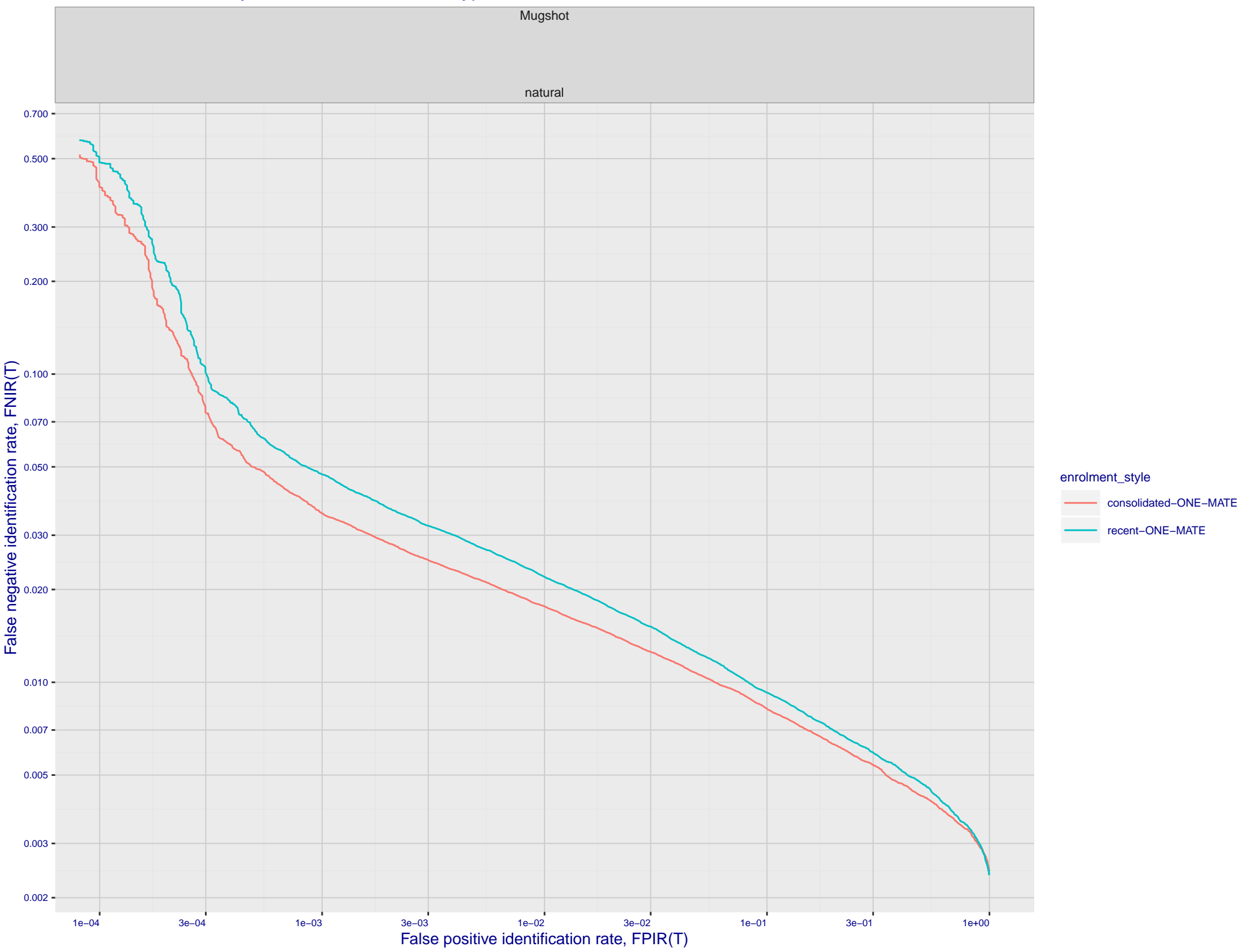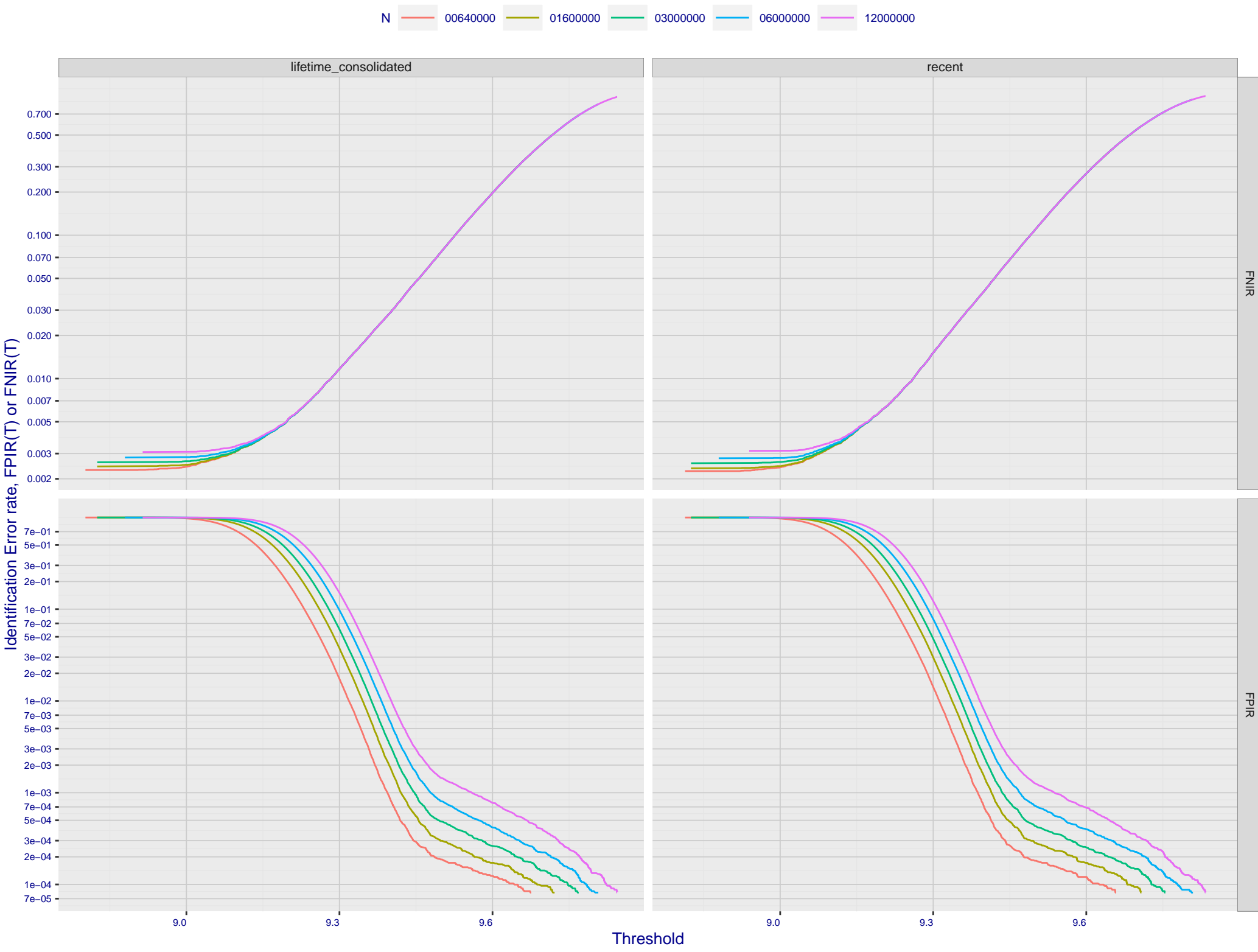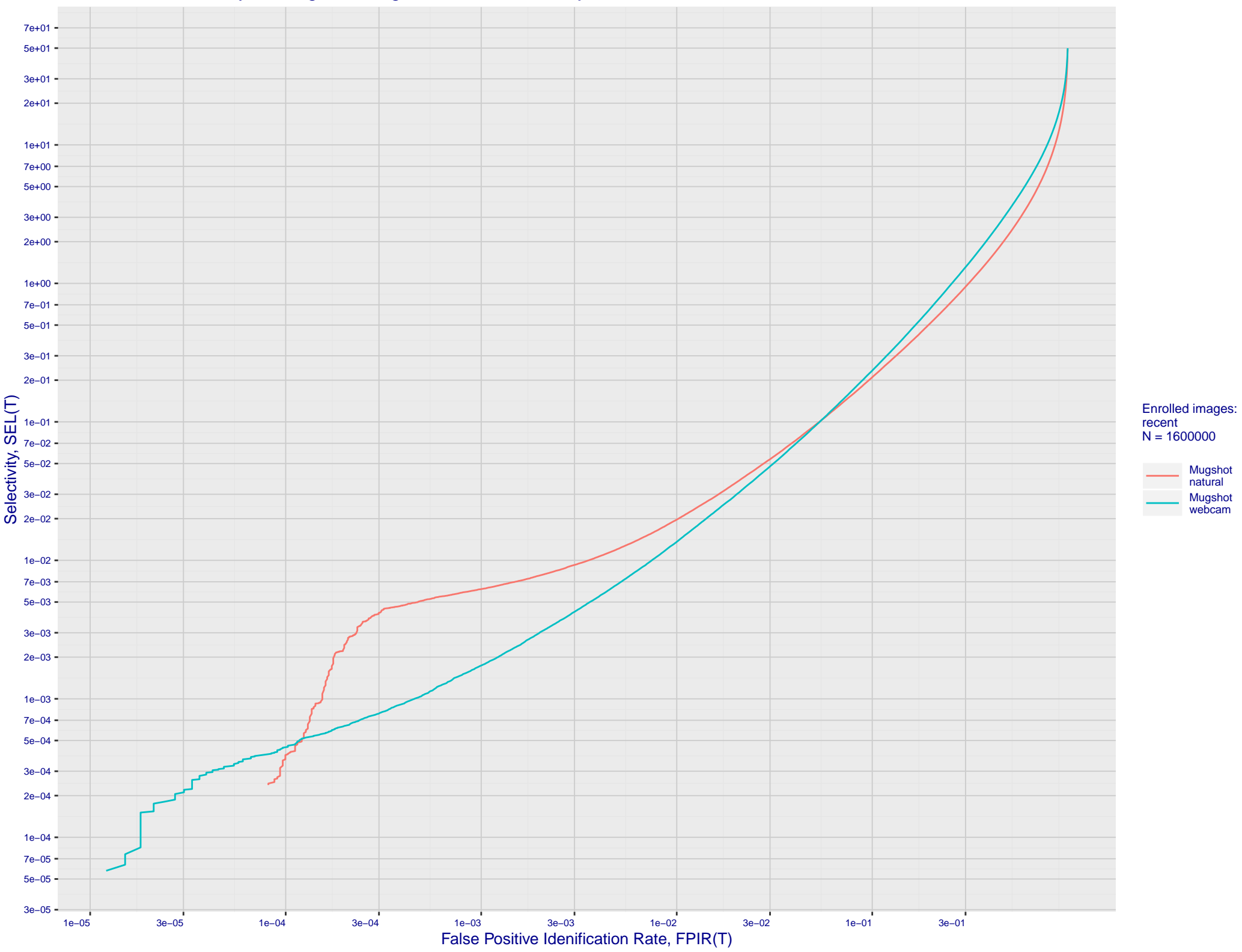A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
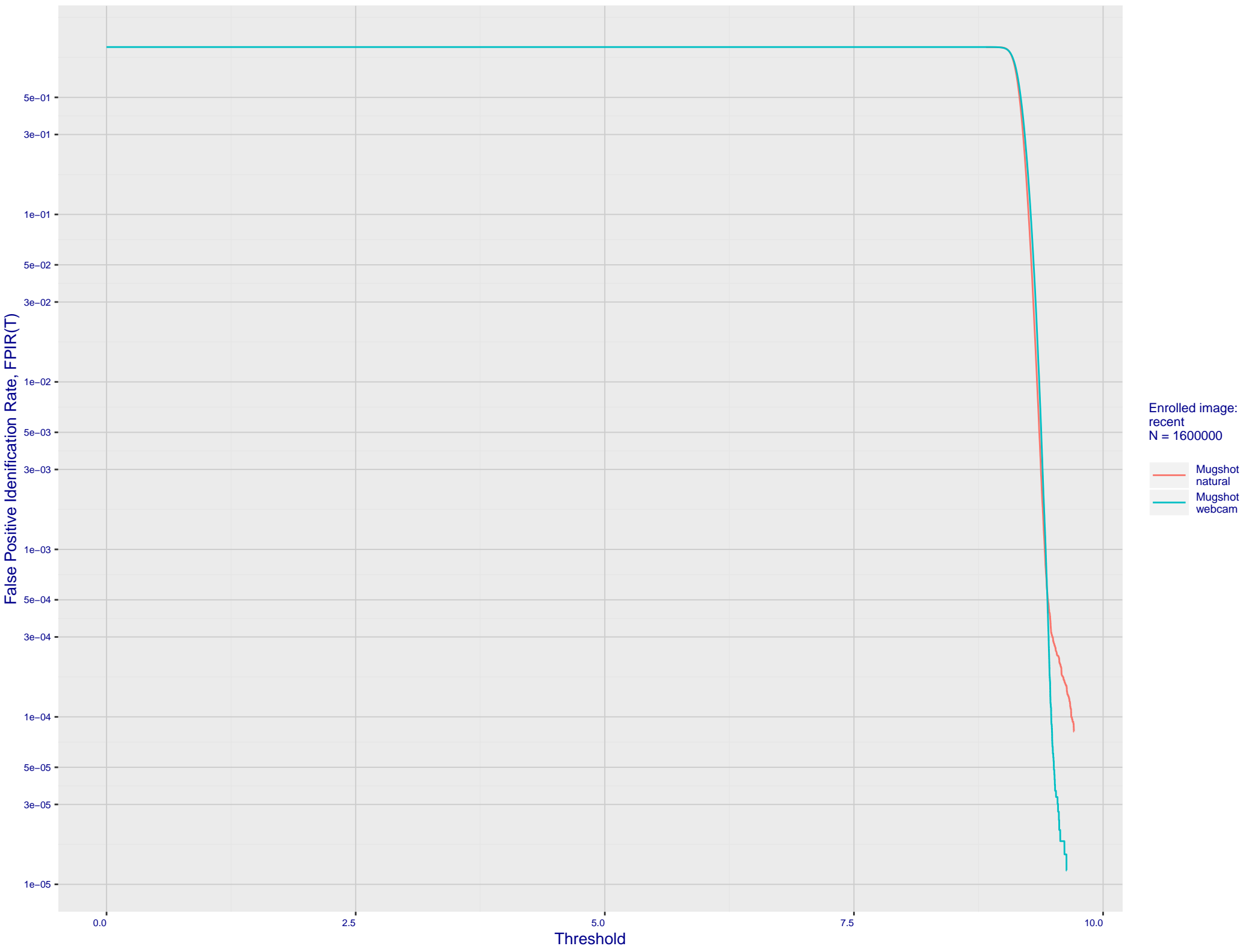
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

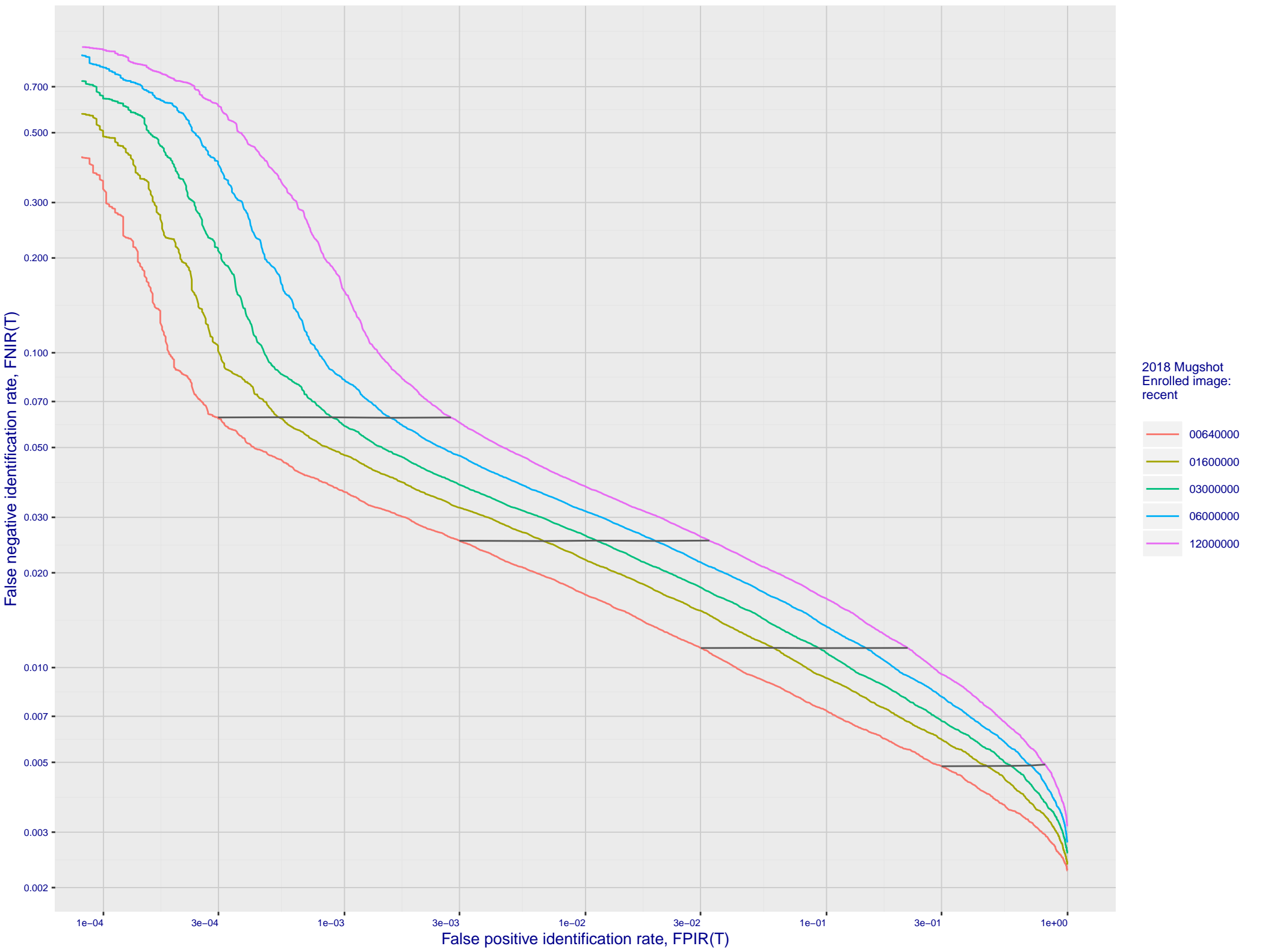N ⸺ 00640000 ⸺ 01600000 ⸺ 03000000 ⸺ 06000000 ⸺ 12000000

C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate
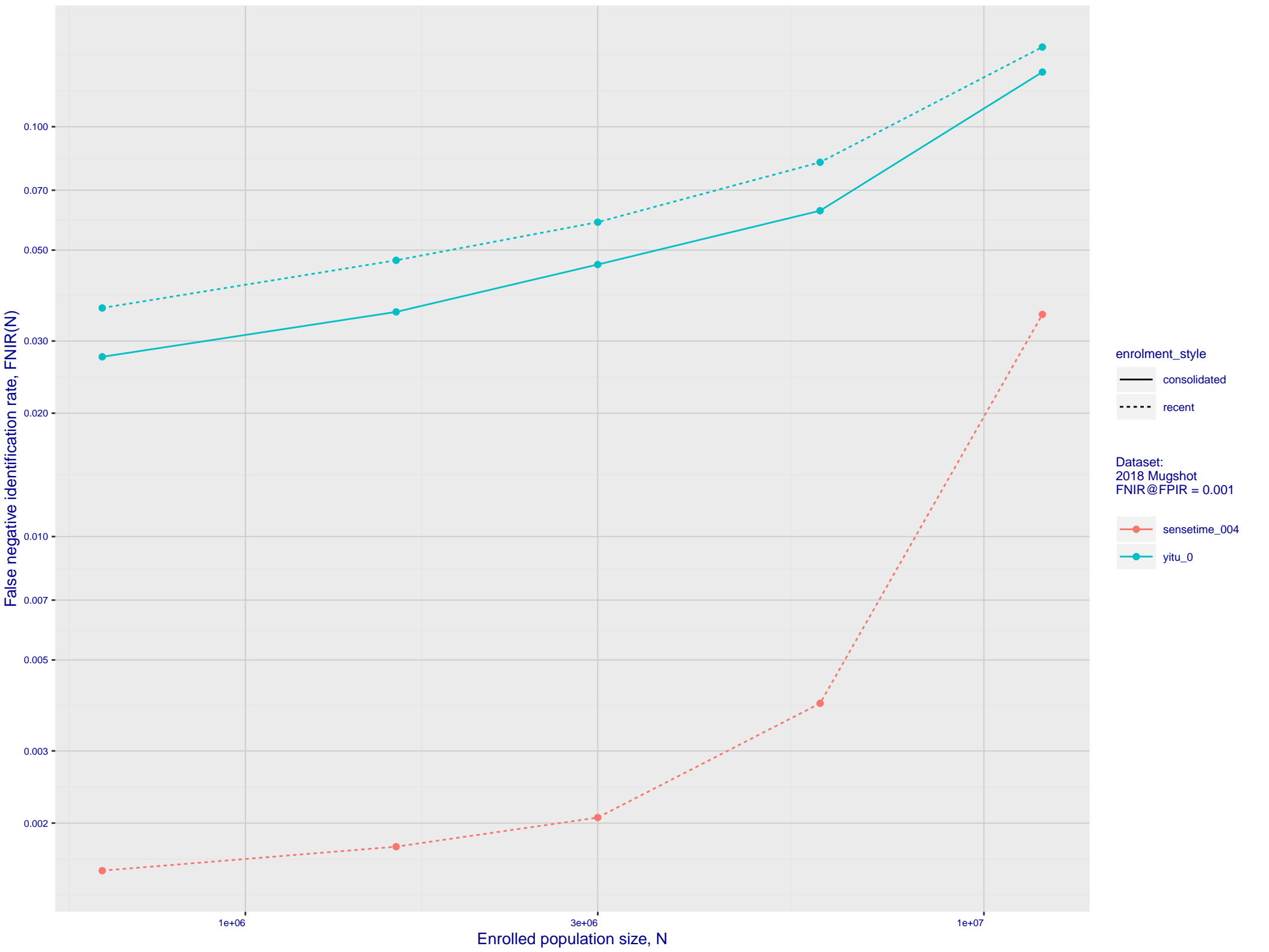
D: FPIR dependence on T by probe type for N = 1600000 subjects

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

False negative identification rate, FNIR(T) (y-axis)

False positive identification rate, FPIR(T) (x-axis)

2018 Mugshot
Enrolled image:
recent

- 00640000
- 01600000
- 03000000
- 06000000
- 12000000

F: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)

G: Datasheet

Algorithm: yitu_0

Developer: Shanghai Yitu Technology

Submission Date: 2018_02_12

Template size: 4136 bytes

Template time (2.5 percentile): 623 msec

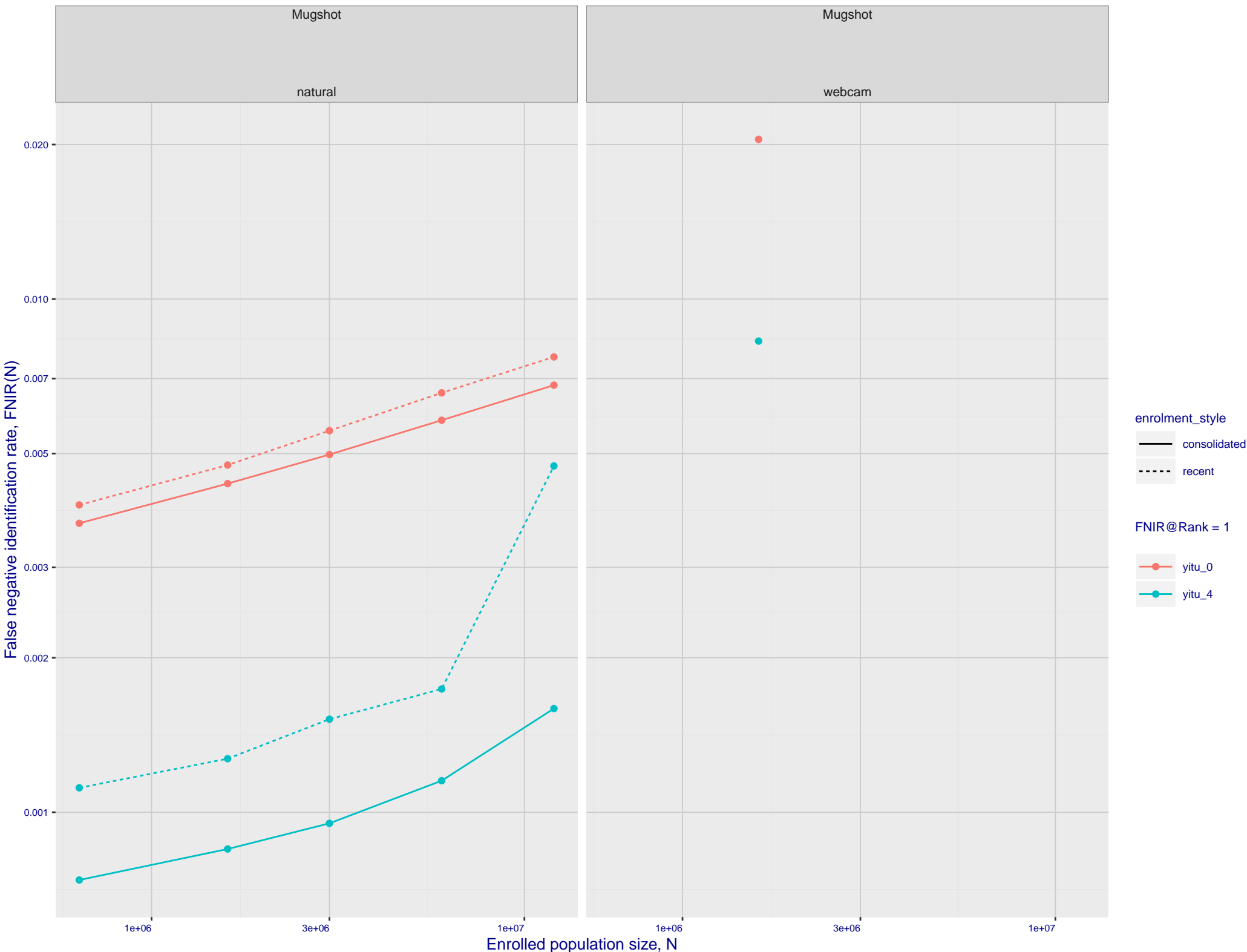Template time (median): 624 msec

Template time (97.5 percentile): 700 msec

Frontal mugshot investigation rank 68 –– FNIR(1600000, 0, 1) = 0.0047 vs. lowest 0.0010 from sensetime_004

natural investigation rank 62 –– FNIR(1600000, 0, 1) = 0.0205 vs. lowest 0.0067 from sensetime_003

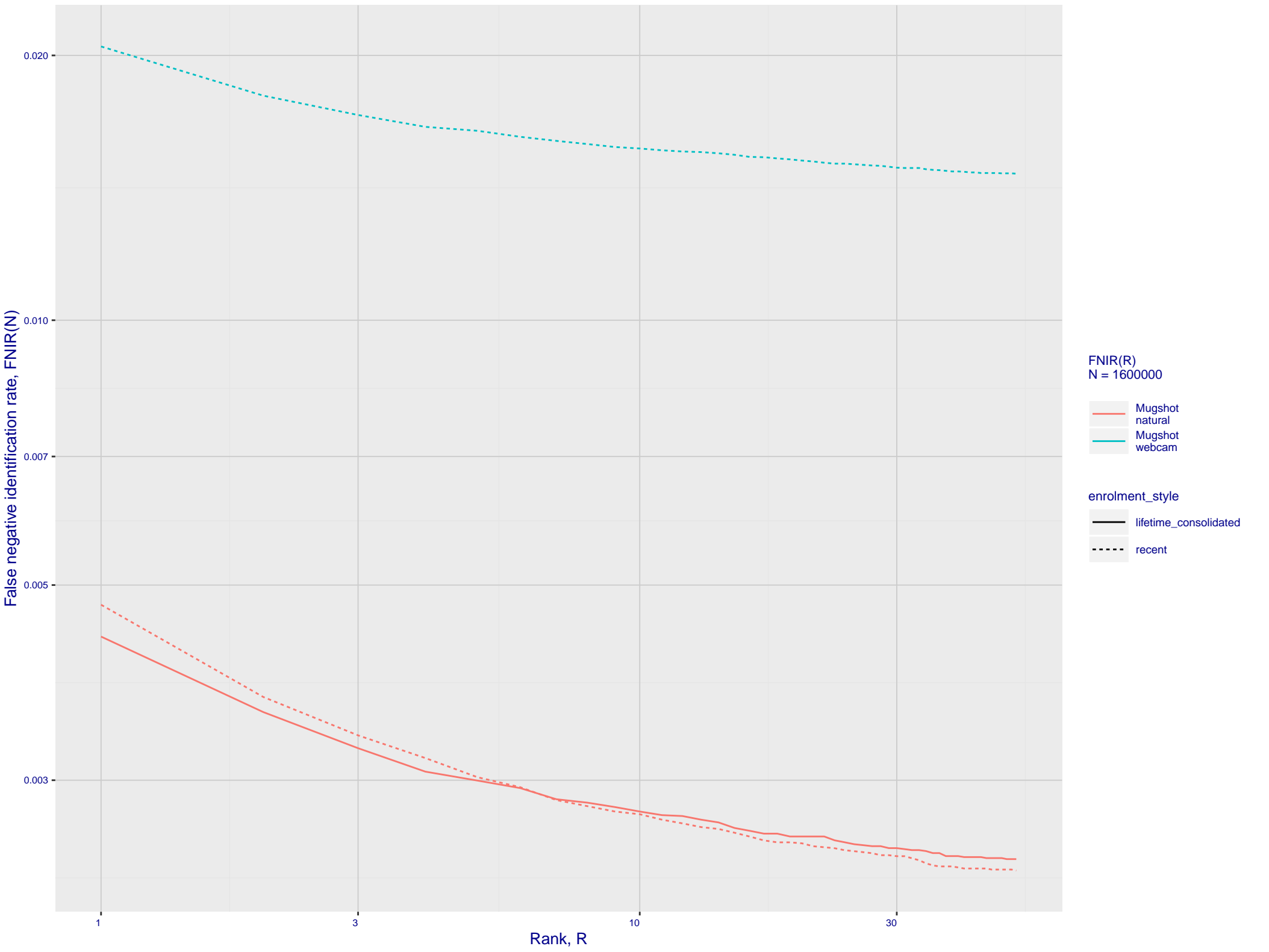Frontal mugshot identification rank 66 –– FNIR(1600000, T, L+1) = 0.0472 vs. lowest 0.0018 from sensetime_004

natural identification rank 40 –– FNIR(1600000, T, L+1) = 0.0901 vs. lowest 0.0122 from sensetime_003

H: Investigational mode: FNIR(N, 1, 0) vs. most accurate (yitu_4)

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

False negative identification rate, FNIR(N)

Rank, R

FNIR(R)
N = 1600000

Mugshot
natural

Mugshot
webcam

enrolment_style
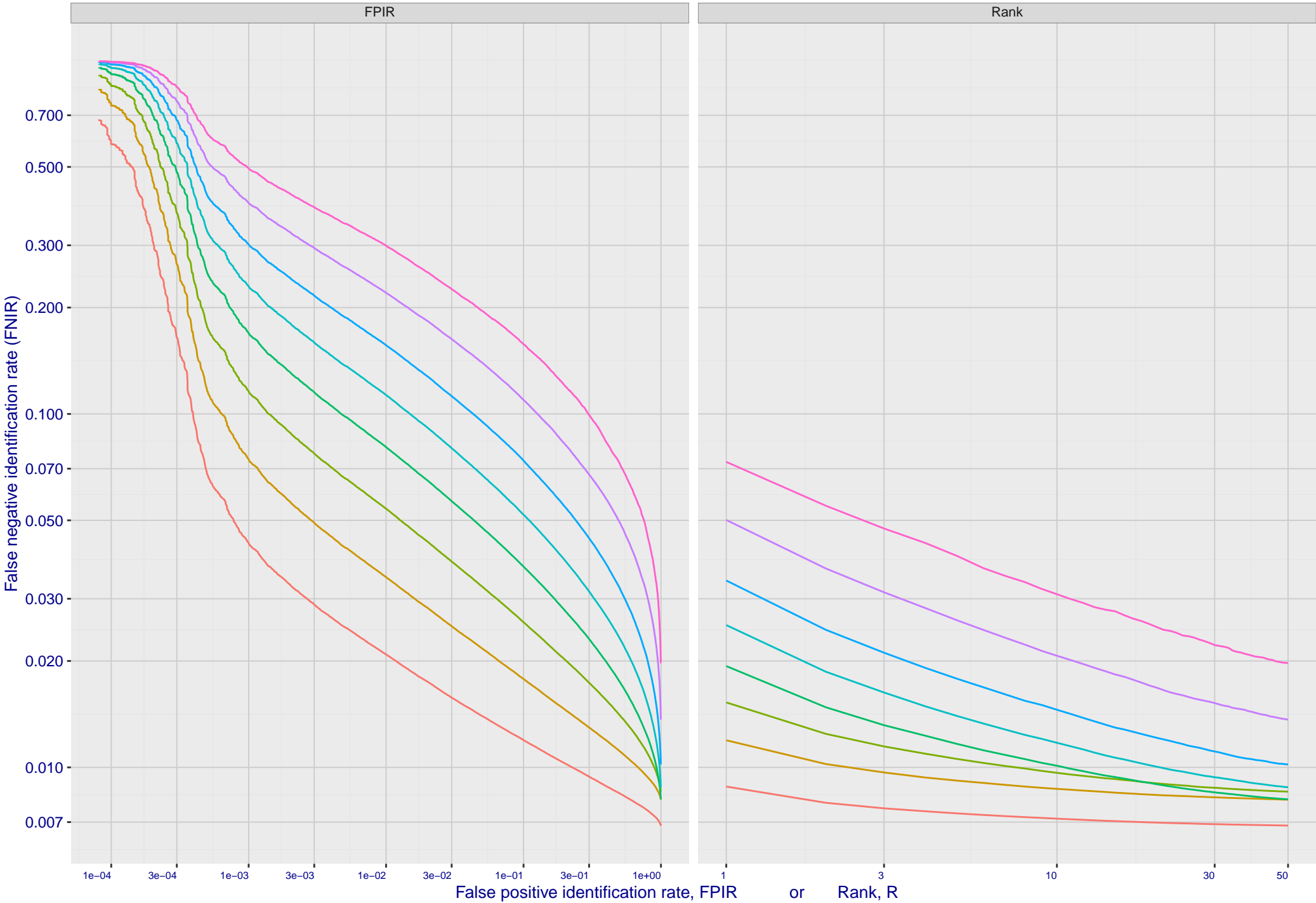
lifetime_consolidated

recent

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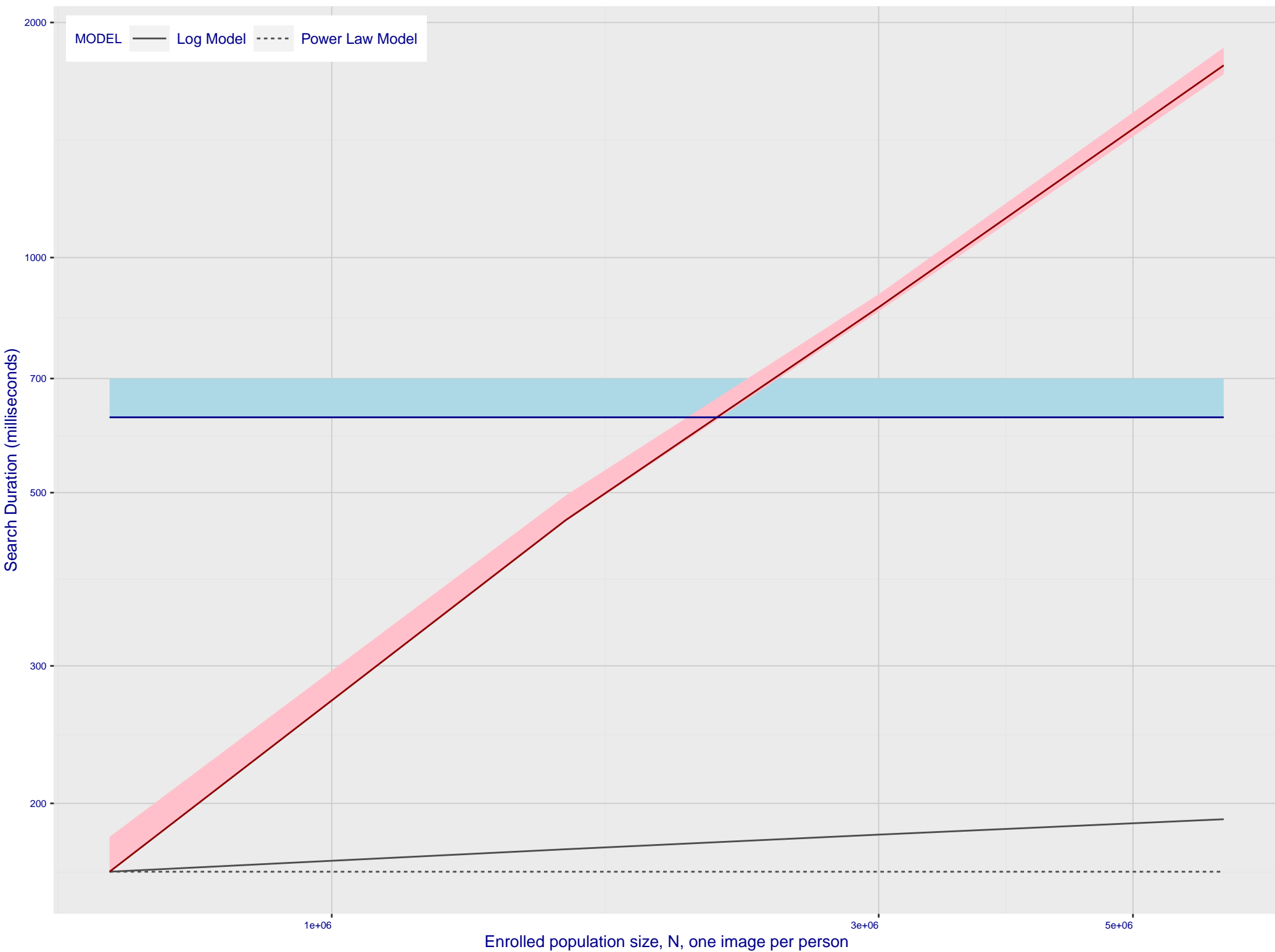
M: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

N: Decline of genuine scores with ageing