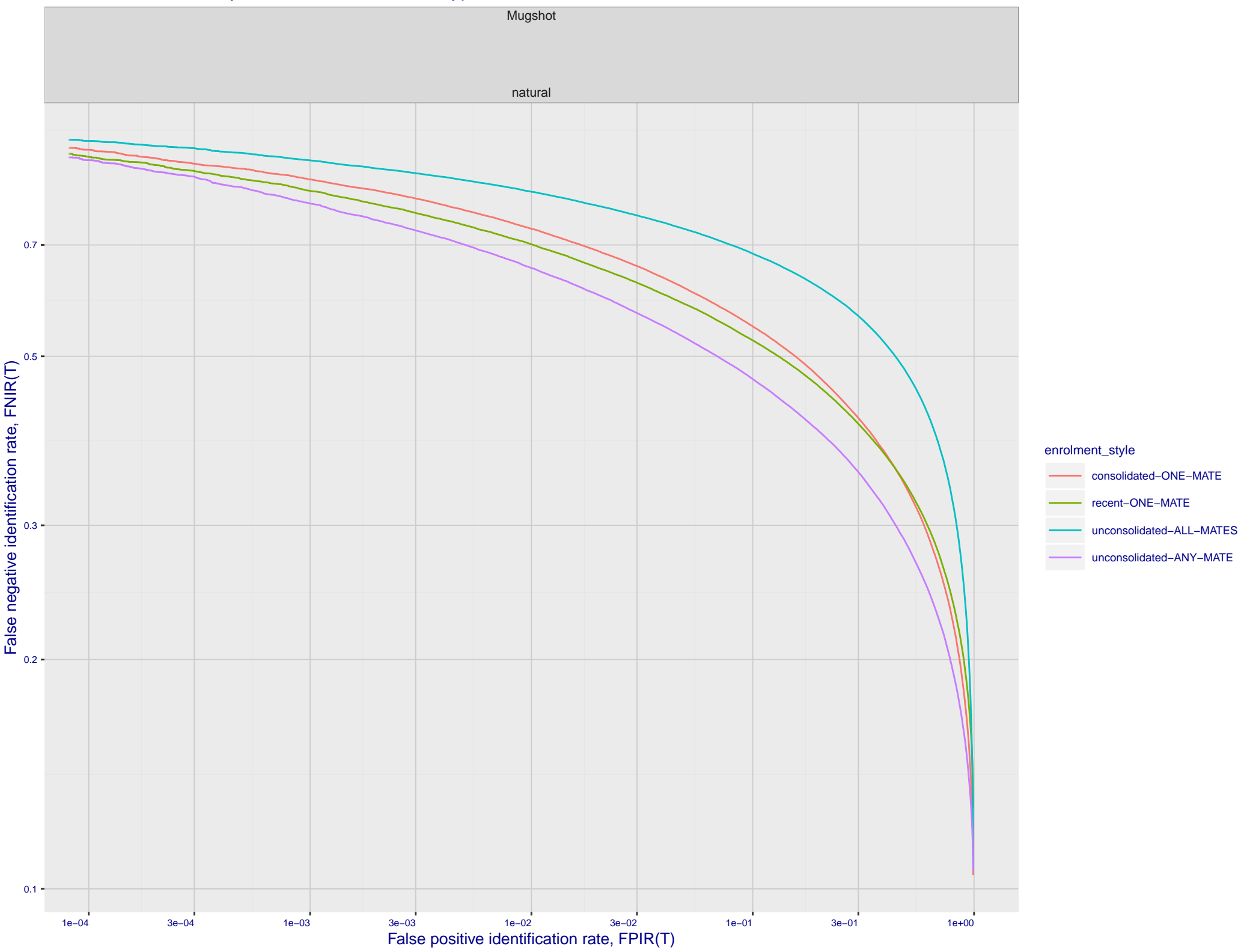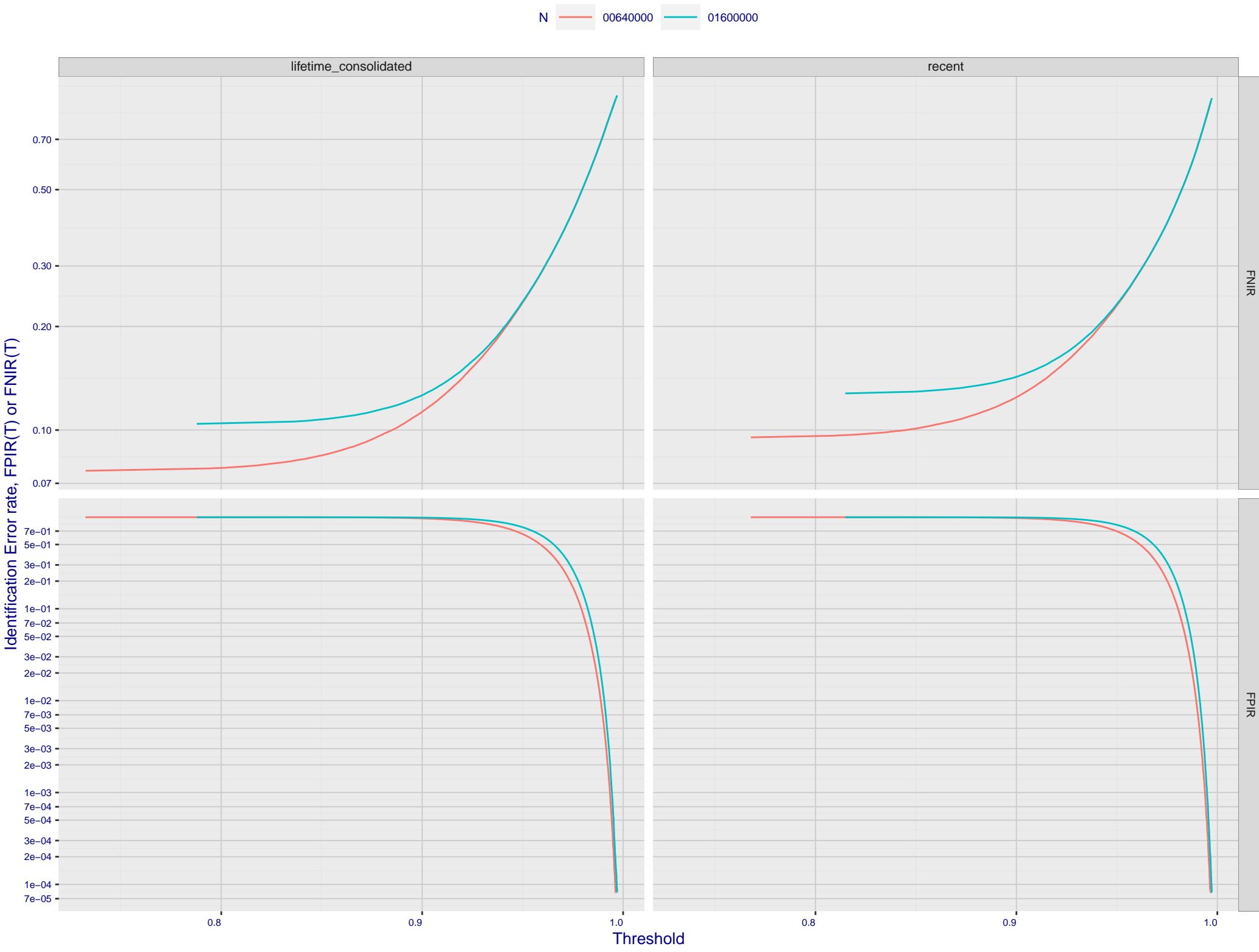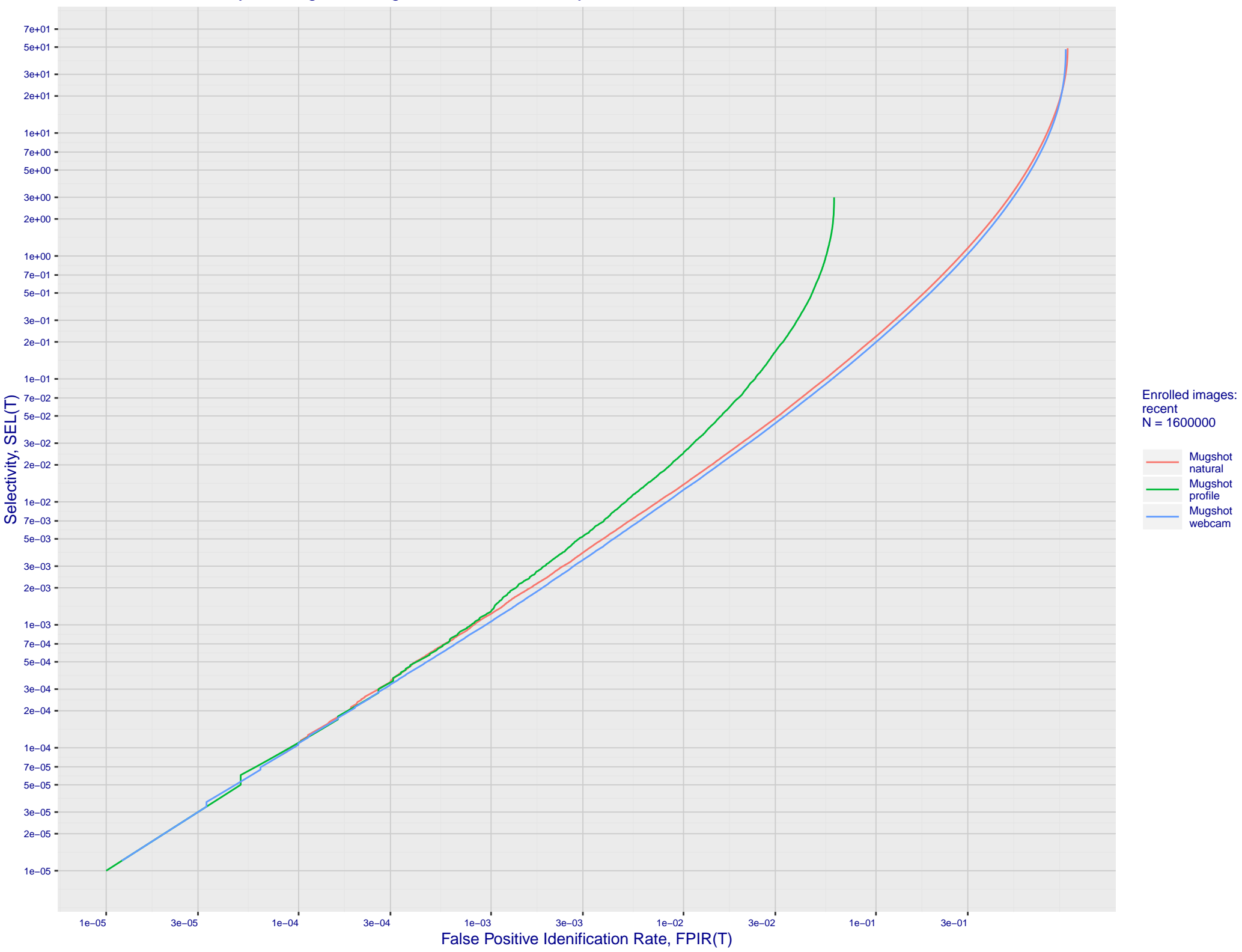A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
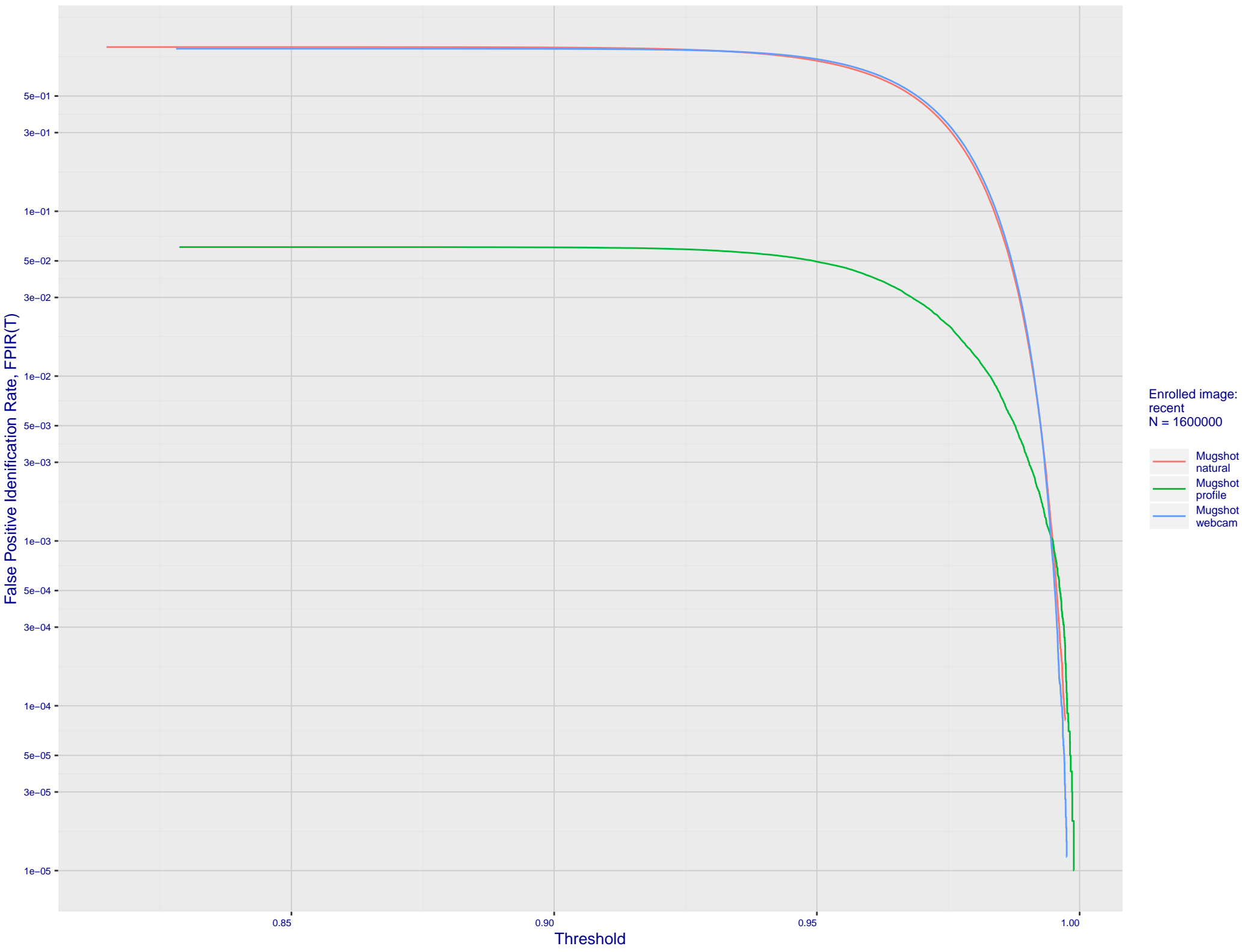
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images
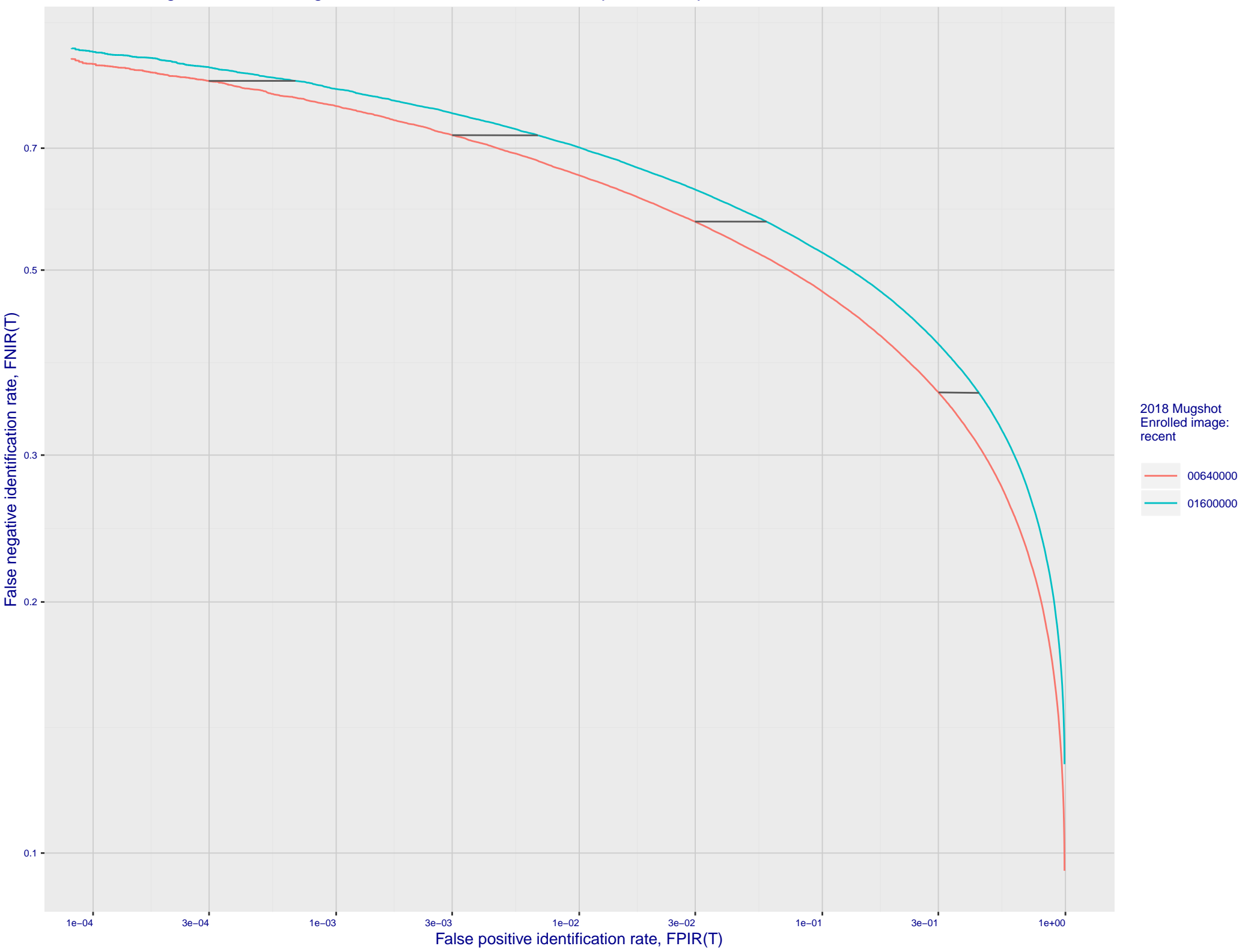
C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

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

False Positive Idenification Rate, FPIR(T)

Threshold

Enrolled image:
recent
N = 1600000

— Mugshot
natural

— Mugshot
profile

— Mugshot
webcam

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

False negative identification rate, FNIR(T)

False positive identification rate, FPIR(T)

2018 Mugshot
Enrolled image:
recent

00640000

01600000

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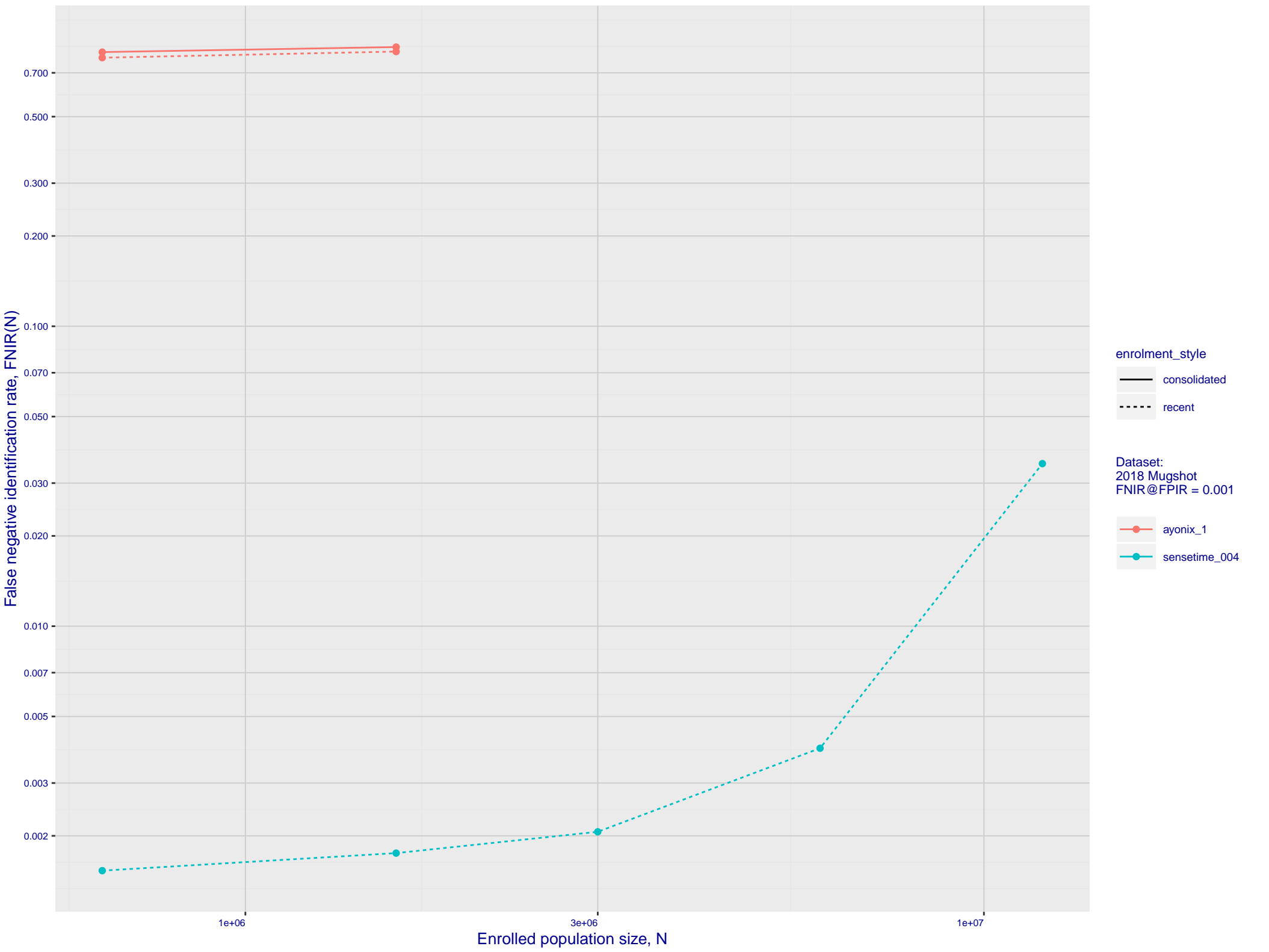
## G: Datasheet

Algorithm: ayonix_1

Developer: Ayonix

Submission Date: 2018_10_29

Template size: 1036 bytes

Template time (2.5 percentile): 10 msec

Template time (median): 12 msec

Template time (97.5 percentile): 14 msec

Frontal mugshot investigation rank 238 –– FNIR(1600000, 0, 1) = 0.3414  vs. lowest 0.0010 from sensetime_004

natural investigation rank 202 –– FNIR(1600000, 0, 1) = 0.5270  vs. lowest 0.0067 from sensetime_003

natural investigation rank 348 –– FNIR(1600000, 0, 1) = 0.9903  vs. lowest 0.0492 from paravision_005

natural investigation rank 348 –– FNIR(1600000, 0, 1) = 0.9903  vs. lowest 0.0492 from paravision_005

Frontal mugshot identification rank 233 –– FNIR(1600000, T, L+1) = 0.8241  vs. lowest 0.0018 from sensetime_004
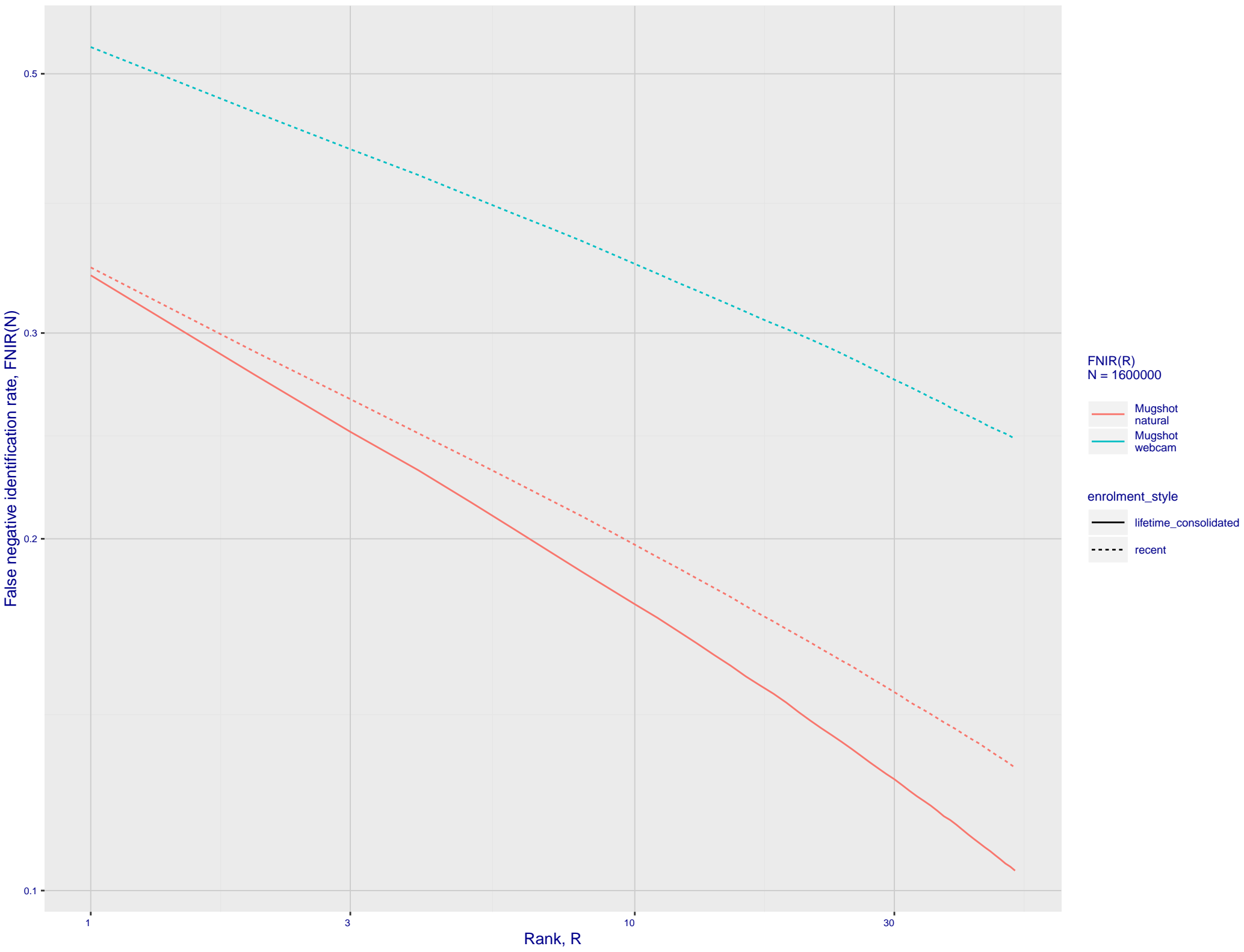
natural identification rank 195 –– FNIR(1600000, T, L+1) = 0.9201  vs. lowest 0.0122 from sensetime_003

natural identification rank 138 –– FNIR(1600000, T, L+1) = 0.9993  vs. lowest 0.1020 from sensetime_004

H: Investigational mode: FNIR(N, 1, 0) vs. most accurate (yitu_4)
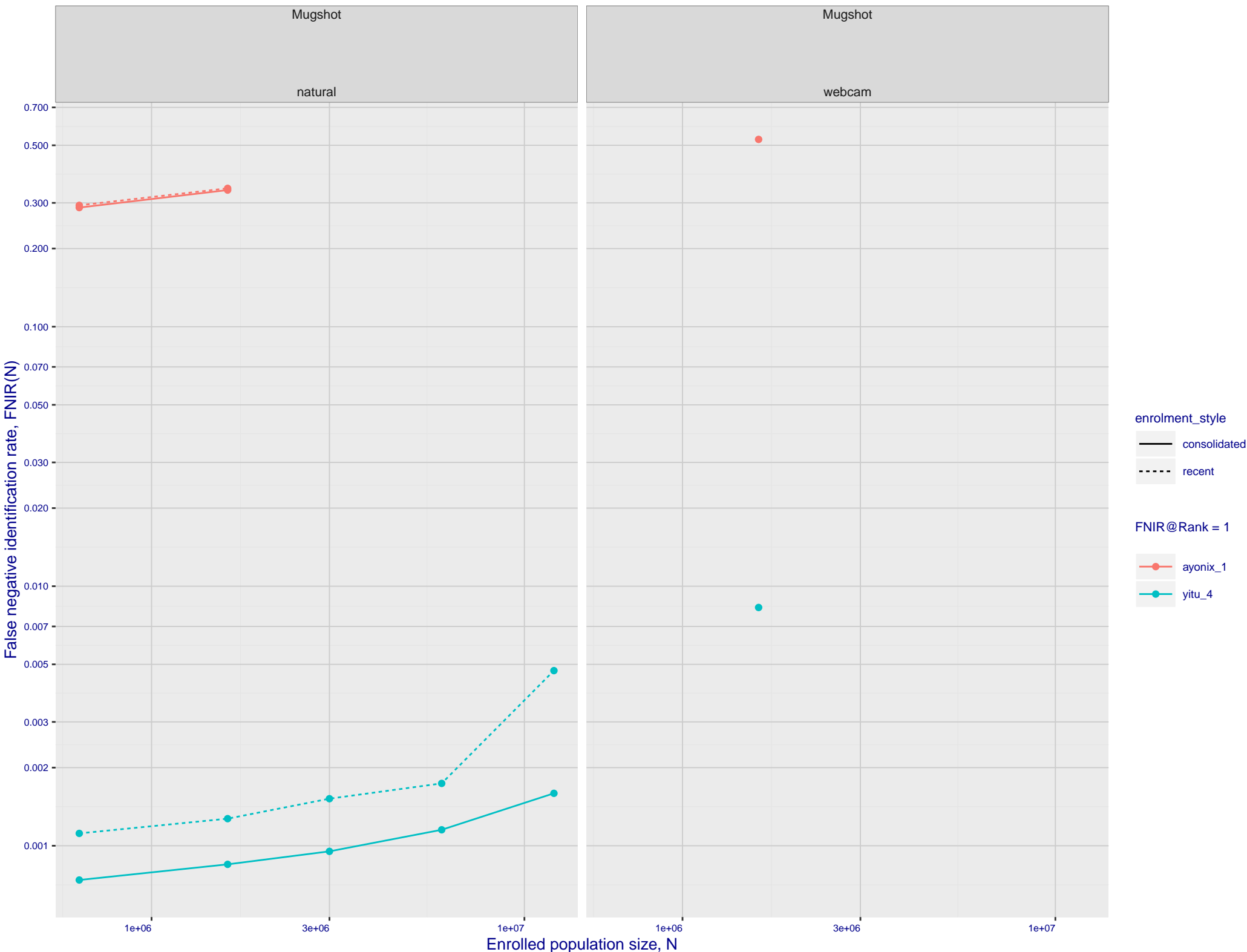
I: Investigational mode: FNIR(1600000, R, 0) by probe type

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