

**NISTIR 8280**

**Ongoing Face Recognition  
Vendor Test (FRVT)  
Part 3: Demographic Effects**

**Annex 13 : False negative rates in United States mugshot  
images by sex and race**

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# 1 Results

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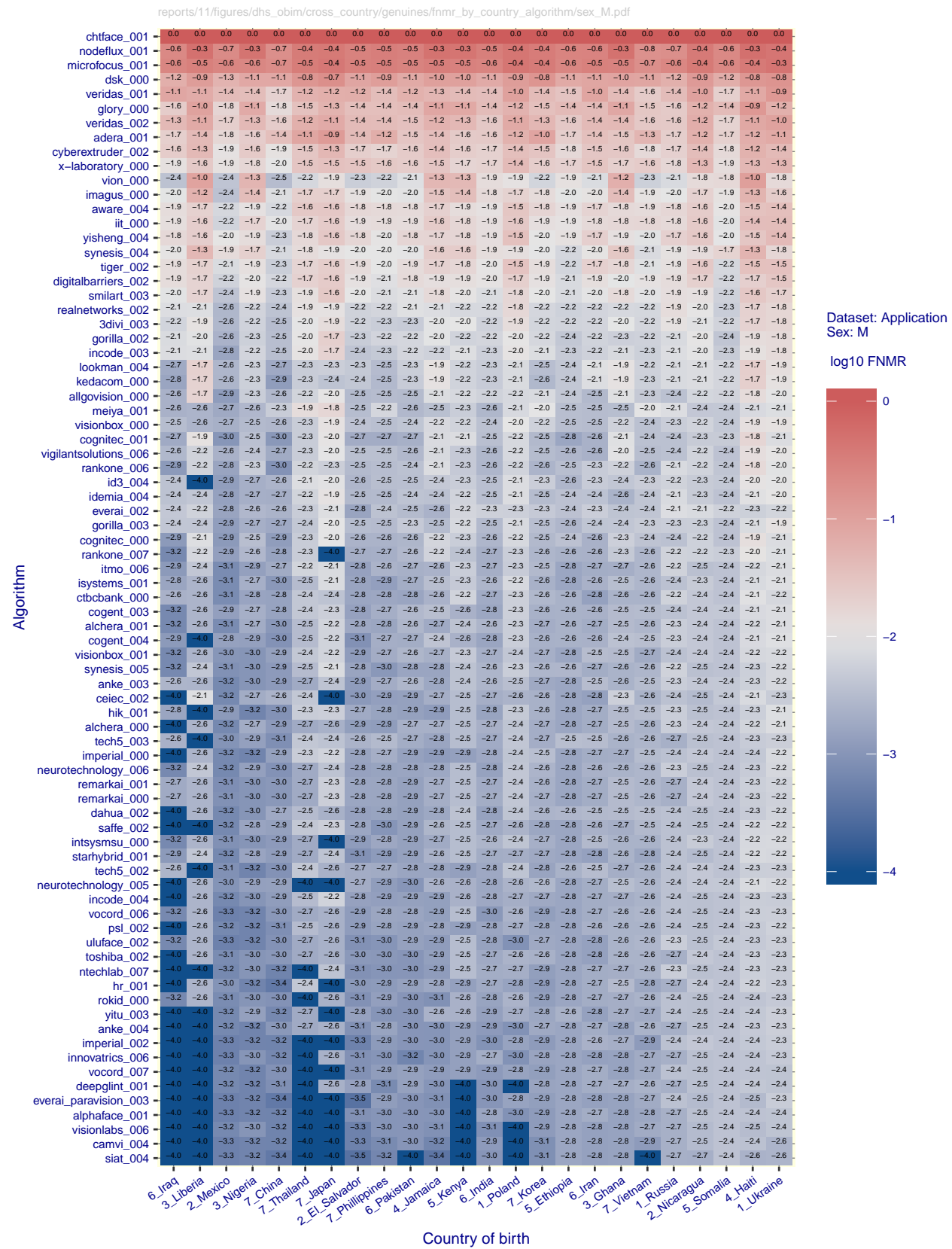


Figure 1: For the ISO application images, the heatmap shows male FNMR by algorithm and country-of-birth. The text gives log<sub>10</sub> FNMR. The color encoding too is logarithmic: A value of 0 means FNMR = 10<sup>0</sup> = 1. Values below -4, corresponding to FNMR = 0.0001, are clipped and set to -4.

Links: [EXEC. SUMMARY](#) | [TECH. SUMMARY](#) | False positive: Incorrect association of two subjects | 1:1 FMR | 1:N FPIR | T ≥ 0 → FMR, FPIR → 0  
 False negative: Failed association of one subject | 1:1 FNMR | 1:N FNIR | → FNMR, FNIR → 1

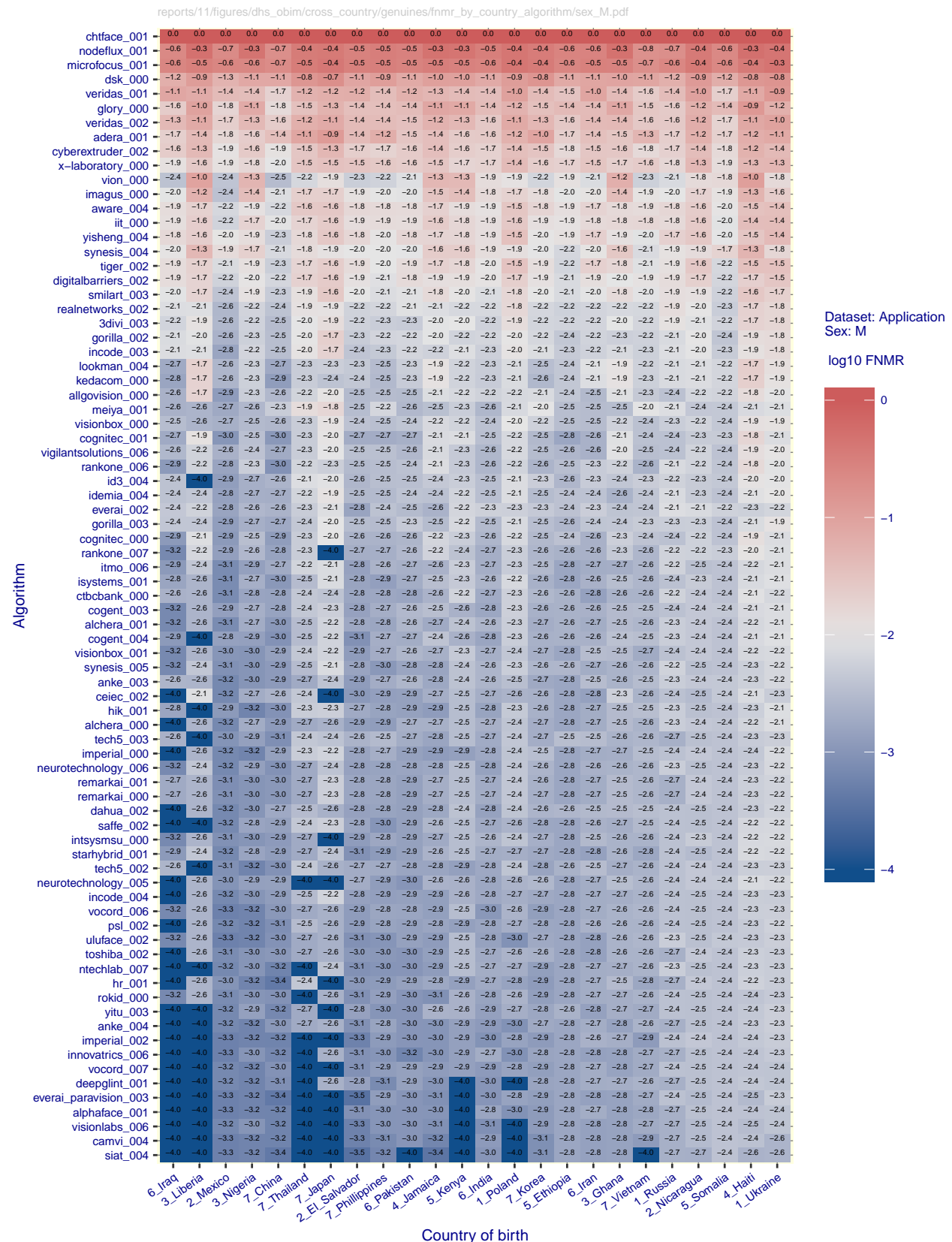


Figure 2: For the ISO application images, the heatmap shows female FNMR by algorithm and country-of-birth. The text in each cell gives log<sub>10</sub>FNMR. The color encoding too is logarithmic: A value of 0 means FNMR = 10<sup>0</sup> = 1. Values below -4, corresponding to FNMR = 0.0001, are clipped and set to -4.

Links: EXEC. SUMMARY | False positive: Incorrect association of two subjects | 1:1 FMR | 1:N FPIR | T ≥ 0 → FMR, FPIR → 0  
TECH. SUMMARY | False negative: Failed association of one subject | 1:1 FNMR | 1:N FNIR | → FNMR, FNIR → 1

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