

3E Results

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* Note:

Finger	01	02	03	06	07	08	01+06	02+07	03+08
Description	Right Thumb	Right Index	Right Middle	Left Thumb	Left Index	Left Middle	Right and Left Thumb	Right and Left Index	Right and Left Middle

3E 1K Sample Template Size Distribution

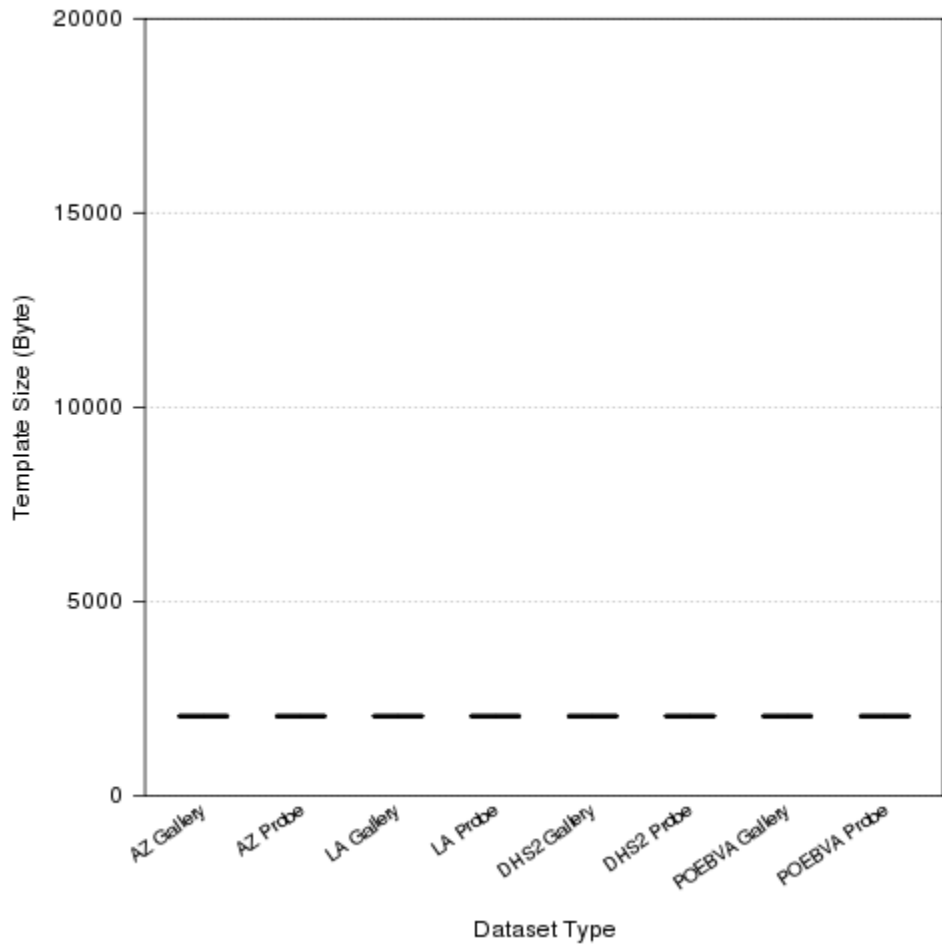


Figure 3E-1

Dataset	AZ	AZ	LA	LA	DHS2	DHS2	POEBVA	POEBVA
Type	Gallery	Probe	Gallery	Probe	Gallery	Probe	Gallery	Probe
Width x Height (ppi)	800x800	800x800	412x1000	400x776	368x368	368x368	500x500	368x368
Maximum	2048	2048	2048	2048	2048	2048	2048	2048
75%	2048	2048	2048	2048	2048	2048	2048	2048
Median	2048	2048	2048	2048	2048	2048	2048	2048
25%	2048	2048	2048	2048	2048	2048	2048	2048
Minimum	2048	2048	2048	2048	2048	2048	2048	2048

Table 3E-1

Note: All the template sizes are the same with 2048 byte.

3E 1K sample Enrollment and Comparison time

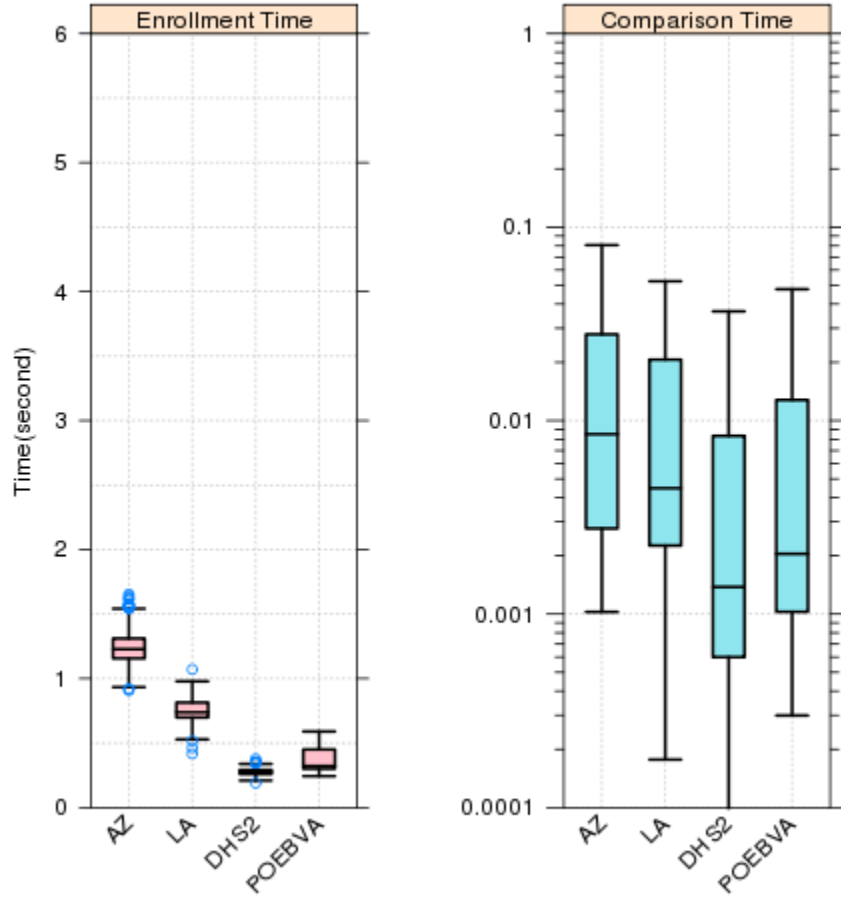


Figure 3E-2

Enrollment Time (second)

Dataset	AZ	LA	DHS2	POEBVA
Maximum	1.6544	1.0710	0.3765	0.5898
75%	1.3104	0.8138	0.2922	0.4506
Median	1.2278	0.7380	0.2779	0.3217
25%	1.1559	0.6983	0.2591	0.3008
Minimum	0.9094	0.4165	0.1901	0.2433

Comparison Time (second)

Dataset	AZ	LA	DHS2	POEBVA
Maximum	0.0807	0.0525	0.0367	0.0478
75%	0.0279	0.0207	0.0083	0.0128
Median	0.0085	0.0045	0.0014	0.0020
25%	0.0028	0.0023	0.0006	0.0010
Minimum	0.0010	0.0002	0.0000	0.0003

Table 3E-2 1K Sample Enrollment and Comparison Time

3E- DET for ALL Datasets (P2P)

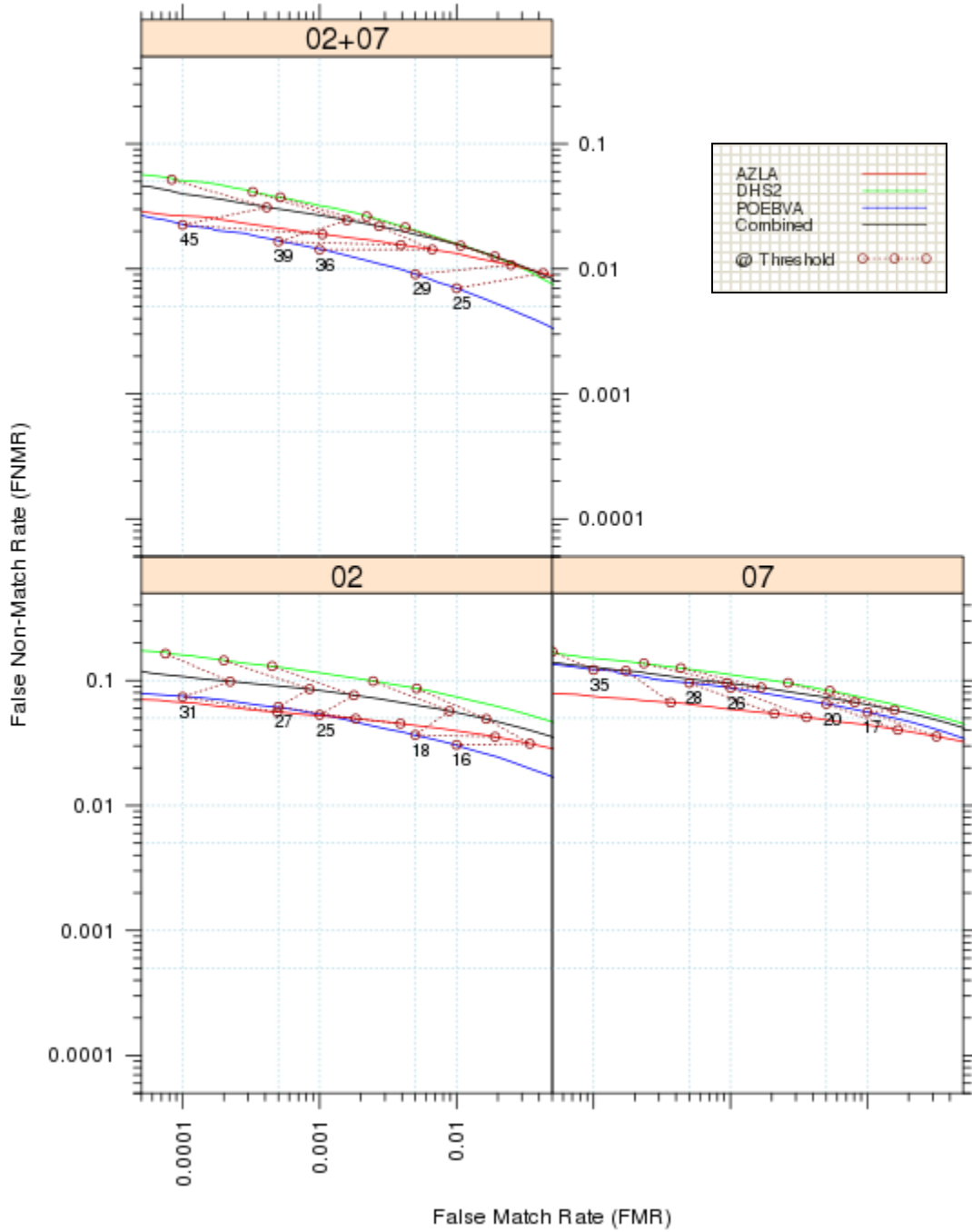


Figure 3E-3

3E- DET for dataset AZLA

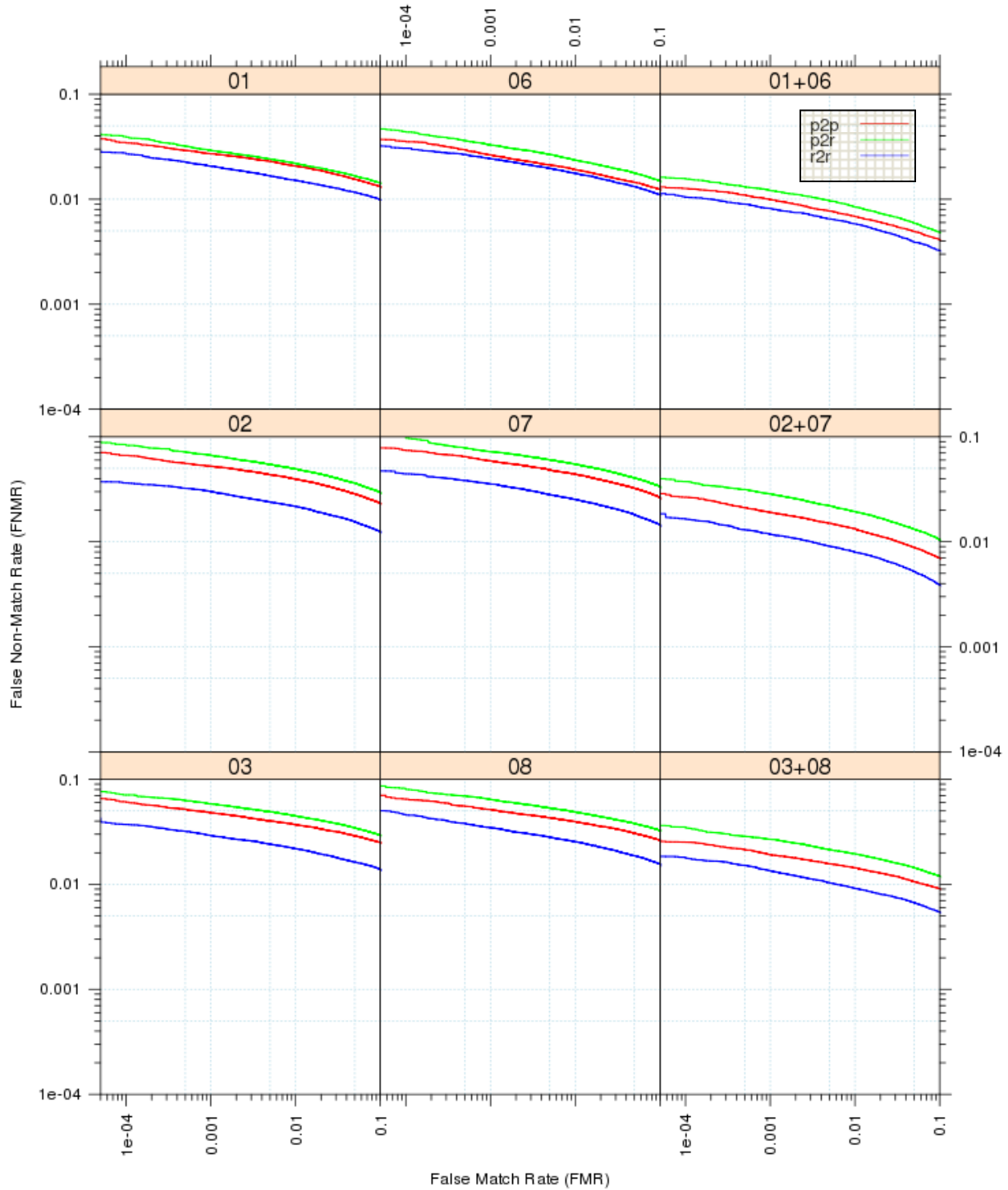


Figure 3E-4

Note: p2p - plain vs. plain; p2r - plain vs. rolled; r2r - rolled vs. rolled.

3E EER and FTE

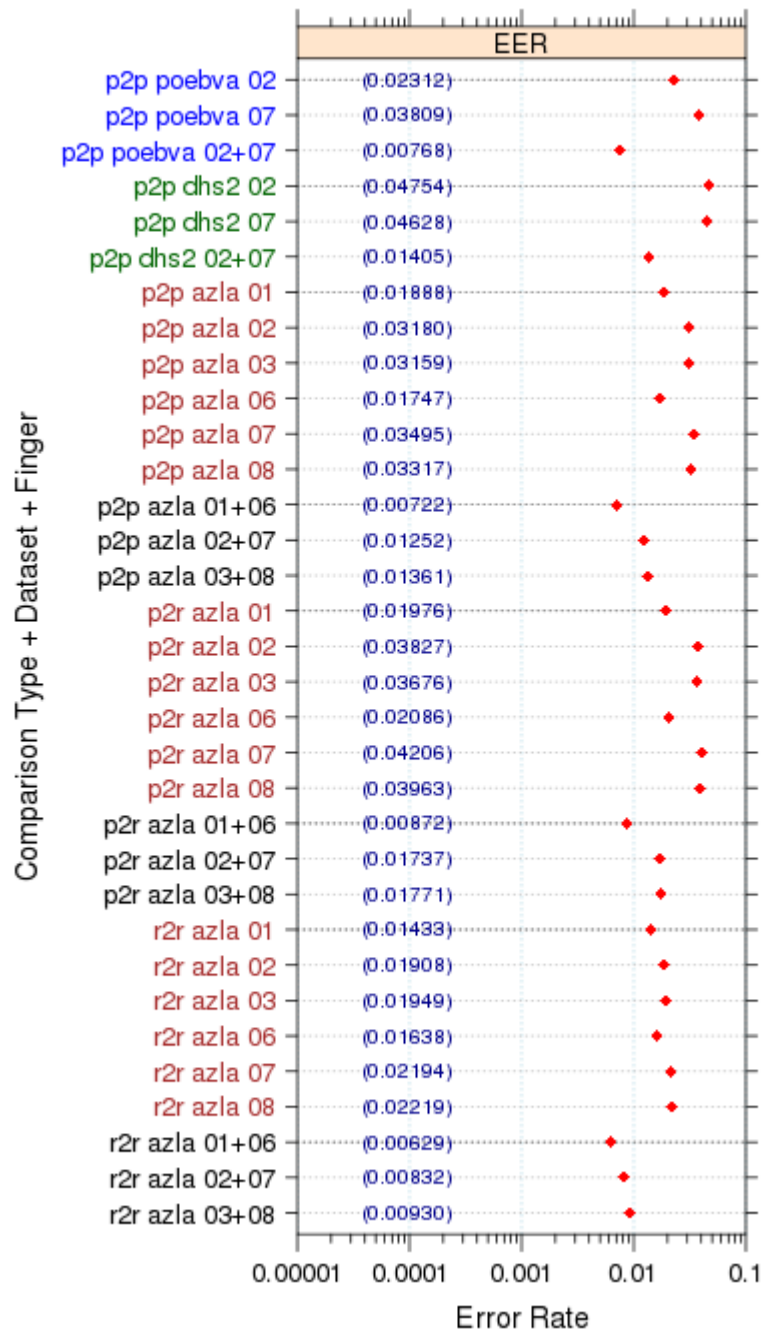


Figure 3E-5

Note: FTE is not presented in Figure 5 due to all the FTE = 0.

3E - FNMRs @ FMR = .0001 and 95% Confidence Intervals

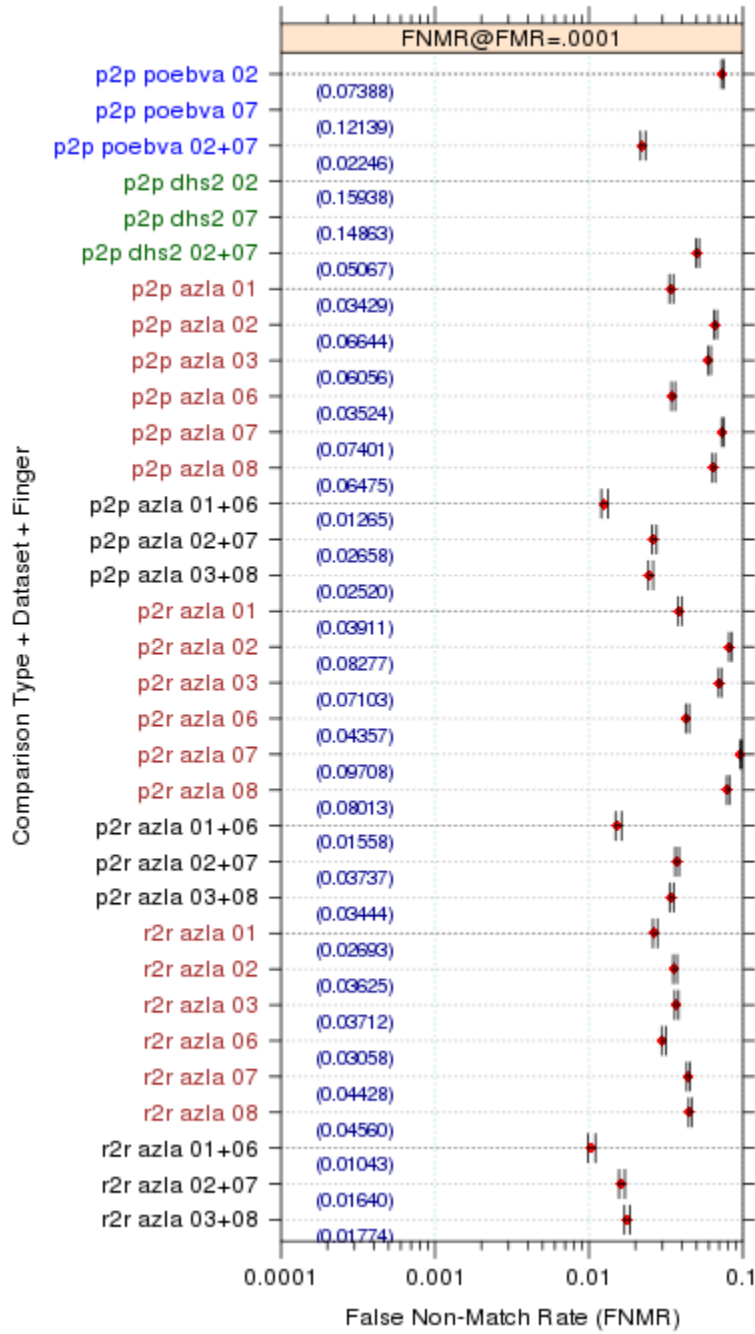


Figure 3E-5

3E- FMRs @ FNMR = (.002, 0.005) and 95% Confidence Intervals



Figure 3E-6

3E - EER and FTE table

Comparison Type	Dataset	Finger Position	EER	FTE Rate	FTE count
p2p	poebva	02	0.0231	0	0
p2p	poebva	07	0.0381	0	0
p2p	poebva	02+07	0.0077	0	0
p2p	dhs2	02	0.0475	0	0
p2p	dhs2	07	0.0463	0	0
p2p	dhs2	02+07	0.0141	0	0
p2p	azla	01	0.0189	0	0
p2p	azla	02	0.0318	0	0
p2p	azla	03	0.0316	0	0
p2p	azla	06	0.0175	0	0
p2p	azla	07	0.0350	0	0
p2p	azla	08	0.0332	0	0
p2p	azla	01+06	0.0072	0	0
p2p	azla	02+07	0.0125	0	0
p2p	azla	03+08	0.0136	0	0
p2r	azla	01	0.0198	0	0
p2r	azla	02	0.0383	0	0
p2r	azla	03	0.0368	0	0
p2r	azla	06	0.0209	0	0
p2r	azla	07	0.0421	0	0
p2r	azla	08	0.0396	0	0
p2r	azla	01+06	0.0087	0	0
p2r	azla	02+07	0.0174	0	0
p2r	azla	03+08	0.0177	0	0
r2r	azla	01	0.0143	0	0
r2r	azla	02	0.0191	0	0
r2r	azla	03	0.0195	0	0
r2r	azla	06	0.0164	0	0
r2r	azla	07	0.0219	0	0
r2r	azla	08	0.0222	0	0
r2r	azla	01+06	0.0063	0	0
r2r	azla	02+07	0.0083	0	0
r2r	azla	03+08	0.0093	0	0

Table 3E-3

Note: All the FET count are 0s, Hence FTE = 0

3E- FNMR @ FMR=0.0001, FMRs @ FNMR = (.002, 0.005) and 95% Confidence Intervals

Matching Type	Dataset	Finger position	FNMR@ FMR= 0.0001	95% Confidence Interval of FNMR	FMR1 @ FNMR= 0.002	95% Confidence Interval of FMR1	FMR2 @ FNMR= 0.005	95% Confidence Interval of FMR2
p2p	poebva	02	0.0739	±0.0015	0.5861	±0.0028	0.3173	±0.0026
p2p	poebva	07	0.1214	±0.0018	0.7703	±0.0024	0.5861	±0.0028
p2p	poebva	02+07	0.0225	±0.0008	0.1071	±0.0018	0.0217	±0.0008
p2p	dhs2	02	0.1594	±0.0021	0.8953	±0.0017	0.7238	±0.0025
p2p	dhs2	07	0.1486	±0.0020	0.8942	±0.0017	0.7084	±0.0026
p2p	dhs2	02+07	0.0507	±0.0012	0.2587	±0.0025	0.0914	±0.0016
p2p	azla	01	0.0343	±0.0010	0.9374	±0.0014	0.6913	±0.0026
p2p	azla	02	0.0664	±0.0014	0.8949	±0.0017	0.7046	±0.0026
p2p	azla	03	0.0606	±0.0014	0.9495	±0.0012	0.8161	±0.0022
p2p	azla	06	0.0352	±0.0010	0.9248	±0.0015	0.6448	±0.0027
p2p	azla	07	0.0740	±0.0015	0.9416	±0.0013	0.7913	±0.0023
p2p	azla	08	0.0648	±0.0014	0.9698	±0.0010	0.8598	±0.0020
p2p	azla	01+06	0.0127	±0.0006	0.5447	±0.0028	0.0471	±0.0012
p2p	azla	02+07	0.0266	±0.0009	0.5569	±0.0028	0.2013	±0.0023
p2p	azla	03+08	0.0252	±0.0009	0.8817	±0.0018	0.4670	±0.0028
p2r	azla	01	0.0391	±0.0011	0.9347	±0.0014	0.7187	±0.0025
p2r	azla	02	0.0828	±0.0016	0.9361	±0.0014	0.7969	±0.0023
p2r	azla	03	0.0710	±0.0015	0.9529	±0.0012	0.8419	±0.0021
p2r	azla	06	0.0436	±0.0012	0.9398	±0.0013	0.7301	±0.0025
p2r	azla	07	0.0971	±0.0017	0.9568	±0.0012	0.8343	±0.0021
p2r	azla	08	0.0801	±0.0015	0.9680	±0.0010	0.8729	±0.0019
p2r	azla	01+06	0.0156	±0.0007	0.6201	±0.0027	0.0894	±0.0016
p2r	azla	02+07	0.0374	±0.0011	0.7161	±0.0026	0.3769	±0.0027
p2r	azla	03+08	0.0344	±0.0010	0.8589	±0.0020	0.5528	±0.0028
r2r	azla	01	0.0269	±0.0009	0.8842	±0.0018	0.5137	±0.0028
r2r	azla	02	0.0363	±0.0011	0.7649	±0.0024	0.4330	±0.0028
r2r	azla	03	0.0371	±0.0011	0.8264	±0.0021	0.5789	±0.0028
r2r	azla	06	0.0306	±0.0010	0.8663	±0.0019	0.5414	±0.0028
r2r	azla	07	0.0443	±0.0012	0.7984	±0.0023	0.5097	±0.0028
r2r	azla	08	0.0456	±0.0012	0.8613	±0.0020	0.6156	±0.0028
r2r	azla	01+06	0.0104	±0.0006	0.3673	±0.0027	0.0201	±0.0008
r2r	azla	02+07	0.0164	±0.0007	0.2998	±0.0026	0.0544	±0.0013
r2r	azla	03+08	0.0177	±0.0007	0.5119	±0.0028	0.1279	±0.0019

Table 3E-4