



**NEW JERSEY STATE POLICE
OFFICE OF FORENSIC SCIENCES
MEMORANDUM**



TO : State of New Jersey Law Enforcement Agencies
FROM : Joseph R. Petersack , Interim Director, OFS
SUBJECT : Follow-up to the STR DNA Statistics Update from 4-18-18

DATE: 6-19-18

Following the posting of the April 18, 2018 update to the population data set used to calculate STR statistics as published in Forensic Science International: Genetics Volume 31 (2017) e36-40 under "Corrigendum to 'U.S. Population Data for 29 Autosomal STR Loci' [Forensic Sci. Int. Genet. 7 (2013) e82-83]", it was discovered that the statistical worksheets used to calculate statistics between April 2017 and April 2018 required additional revisions due to a discrepancy. An evaluation of a sample set of statistical calculations conducted during the affected time frame revealed that most calculations would be unaffected. For those which are affected the statistical result would always provide a slightly more common profile frequency. In addition, any change in the reported statistics would have no bearing on the conclusions found in the original DNA laboratory report regarding inclusion or exclusion of a possible contributor to a DNA profile. However, DNA statistics calculated by our laboratory between April 2017 and April 2018 utilizing the affected worksheets will be re-calculated upon request.

Please note that regarding DNA statistics in general, without testing everyone in a given population, calculating an exact profile frequency is not possible. Calculations are based on models meant to mimic genetic variation, and resultant statistical evaluations are an estimate of a profile frequency which can vary based on the model used, the program used, and the allele frequency database used. In other words, profile probabilities may be slightly higher or lower depending on the published population dataset for allele frequencies utilized (NIST, FBI, etc.) or the statistical evaluation program used.

Any questions regarding this memo and the processing of cases analyzed by the NJSP Office of Forensic Sciences DNA Laboratory should be directed to DNA Laboratory Director C. Ken Williams at 609-584-5054 x5721.