1014-Z1-1195   **Joshua W. Collins** and **Yaping Liu*** (`yliu@pittstate.edu`), Pittsburg, KS 66762. *On Deviations from Expected Hardy-Weinberg Proportions.*

In population genetics, the simplest model involves two alleles at a single locus. Under ideal conditions, the proportions of the genotypes in the population are determined by the Hardy-Weinberg law. But in nature, it is not unusual to observe values of the genotypes different from those predicted by the Hardy-Weinberg law. An unusual case is when the number of heterozygotes is far below its expected value, although they are believed to be more viable than the homozygotes. In this paper we will examine a few theoretical models for this case and try to supply a satisfactory explanation for the excess of homozygotes. (Received September 27, 2005)