Lactation records of Holstein- Friesian cows in Kenya made during the period 1968 to 1984 were analyzed for the cases of heterogeneity of variance in milk yield among herds using a fixed effect least squares model. Year, herd, herd class, parity, calving interval and lactation length all influenced milk yields significantly (p<0.01), while season of calving didn't (p>0.05). age at calving affected 305 days milk yields significantly (P<0.005). it was concluded that adjustment of records for these non-genetic effects could minimize heterogeneity of variance in milk yield among Holstein-Friesian herds in Kenya.