The aim of this study is to model the mortality behavior in the Mexican general population using data from 1990 to 2009 and to compare it to the mortality assumed in the life tables used in Mexico for insured lives. We describe the process of mortality rates calculation for each sex and age, a Lee-Carter model, a Renshaw-Haberman model and an Age-Period-Cohort model are fitted. The data used come from the INEGI and CONAPO. For each 5-year period, the number of deaths and the number of living people by age and sex are available. We also adjust a Brass-type model is used to compare the gap between the general population mortality rate estimates and the mortality rates estimates for the insured population that is being used by the National Insurance and Finance Commission in Mexico. Since, life tables for insured lives are not different for male and female, we assume possible scenarios of gender proportion in the insured lives mortality tables. We compare our results with the ones obtained for the population in Switzerland and we find similar results, especially if we assume that the proportion of women among insured people is very small. We discuss the results and emphasize the limitations of the mortality tables for insured lives currently used in Mexico and, in general, the incurred bias when using unisex mortality tables.

Keywords: Mortality rates, Lee Carter, Longevity dynamics, Insured population