Modeling and Analysis of Life Table Data

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In this paper we analyze mortality data. An analysis of the mortality curves follows, and comments about their shape, their course during time and differences between males and females are studied. Finally, we use the mortality data fit for comparison of different ways of modelling the Life Table Data. The parameters of the models presented are estimated by means of a curve fitting algorithm. The study shows that we can improve our analysis of life table data and especially by using a dynamic model based on stochastic modeling and especially the first exit time theory.

Keywords: Dynamic model, Probability density function, Life table data, Mirror-Gompertz, Weibull.