

Modeling the effects of interference in fertility rate of Kenya

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Abstract

Many studies have been done on fertility for many years. However, very little has been documented in the existing literature concerning modeling of fertility in the presence of interference, yet interference to fertility is a common phenomenon. In this study fertility data sets for Kenya were modeled both before and after interference. The parameters of the model were estimated by the maximum likelihood estimation method. Using Akaike's Information Criteria, (AIC), it was established that amongst the distributions fitted; Gamma, Weibull and Lognormal, Gamma gave the best fit for the Kenya fertility rate data and interference simply shifts the Gamma distribution parameters. The result of this study would help the Governments to understand fully the effect of interference on fertility rate and plan for it. Demographers would also benefit from this study since it can be used to project population growth after an interference.