

## Modeling and Forecasting of Some Fertility Parameters in Urban Area of Bangladesh

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20301402&lokasi=lokal>

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### Abstrak

The aim of the present study is to build some mathematical models and then to forecast some fertility parameters in urban area of Bangladesh. For this purpose, the secondary time series data on Crude Birth Rate (CBR), Total Fertility Rate (FFR), Gross Reproduction Rate (GRR) and Net Reproduction Rate (NRR) of various issues duly published by Bangladesh Bureau of Statistics (BBS) have been used in the present study. A few mathematical time trend models have been fitted to time series data of CBR, TFR, GRR and NRR. It is found that the CBR follows quadratic (i.e. parabolic) polynomial model while the TFR, GRR and NRR follow simple linear regression model. Model validation technique such as Cross-Validity Prediction Power (CVFP),  $\pi$ , is applied to these models to verify how much these models are valid or not. It was found that all these models are more than 95%, 79%, 82%, and 72% stable respectively and their shrinkages are only 0.00739, 0.03213, 0.027916, and 0.0424229, respectively. These rates have been forecasted during 1999-2005 using these time trend models.