

## Comparative Analysis of Effecting Factors on Fertility by Birth Order: A Hierarchical Approach

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**Abstract :** Regarding to dramatic changes of fertility and higher order births during recent decades in Iran, access to knowledge about affecting factors on different birth orders has crucial importance. In this study, According to hierarchical structure of many of social sciences data and the effect of variables of different levels of social phenomena that determine different birth orders in 365 days ending to 1390 census have been explored by multilevel approach. In this paper, 2% individual row data for 1390 census is analyzed by HLM software. Three different hierarchical linear regression models are estimated for data analysis of the first and second, third, fourth and more birth order. Research results displays different outcomes for three models. Individual level variables entered in equation are; region of residence (rural/urban), age, educational level and labor participation status and province level variable is GDP per capita. Results show that individual level variables have different effects in these three models and in second level we have different random and fixed effects in these models.

**Keywords :** fertility, birth order, hierarchical approach, fixe effects, random effects

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020