

## **Trends and effect of economic factors of suicides in Sri Lanka**

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The effects of ten socio economic factors on suicides of Sri Lanka are investigated using multiple regression analysis on time series data from 1975 to 2015. This study also includes a graphical analysis of trends of suicides in relation to several factors. Graphical and tabular analyses reveal that the overall rates of suicide has noted peak in 1995. Throughout the entire period male suicides are higher than female suicides. It is observed that there is an upward trend in suicides over the years and a downward trend in suicides over the age groups in both overall and male suicide categories. This is statistically tested by using simultaneous homogeneity against ordered test which involves the calculations of isotonic regression. The study reveals that married persons among civil status, Tamil's among ethnic groups, and also rural agricultural districts obtained highest suicide rates. The multiple regression analysis reveals that the variables persons aged 65 and above, persons elder dependent, person younger dependent and female labour force participation are statistically significant in both male and female suicide mortality. Also the unemployment is significantly related to young and middle aged suicides, population of child-aged is related to all middle-aged and elderly-aged suicides and young-aged female suicides, population of old-aged is related to middle aged female suicides, population density and GDP growth rate are related to young-aged male suicides, inflation is related to middle-aged and elderly-aged male suicides, young age dependency is related to middle aged-male suicides, Birth rate is related to middle-aged female suicides.

**Keywords:** suicide rate, economic variables, multivariate regression analysis, isotonic regression

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