Use of Spatial Analysis for Woman Participation in labor Market

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The participation of Egyptian women in labor market is the most important issues that occupied an important place recently. In spite of all efforts that made in this framework, it still appears many challenges that impact negatively on the ability of Egyptian women to actively participate in economic life. According to many studies there exist relationships between women's participation in the labor market and some other determinants like Woman's age, level of education for both spouses, place of residence, and number of children of working women and a lot of other factors. This paper is an attempt to make a spatial analysis for women's participation in labor market using one type of spatial data. There are three general categories of spatial data structure, first is spatial point process data it consists of a set of observed locations in a defined study area. The second type is Geostatistical data which consists of a set of measurements taken a fixed set of locations. Finally, we may observe data from a set of regions partitioning the study area; such data are referred to as Regional data. This paper concentrates on the last type which involves a summary measures for each region such as number of employed or non employed woman in an enumeration area, average income for women in any region. Here is the question of interest is whether the participation of woman in labor market within a region is the same between all regions or not.

Key words: Spatial data, regional data, generalized linear mixed models, bayesian approach.