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| **دراسة مقارنة لطرائق تقدير أنموذج أنحدار خطي متعدد** **"دراسة تطبيقية على الأرقام القياسية"** | Thesis Title  |
|  **1429هـ 2008م**   | Year |
| **Index numbers were, since long time till date, considered to be an important trend for price change of particular goods, therefore, it is necessary to use these numbers in statistical studies in general. The researcher used these numbers in a form of Multiple Linear Regression to find out the impact of index numbers of influencing groups on general price index, where general price index is the dependant variable y and the index number of explanatory variables (independent variables) xs are the sub groups that affect this number.****The study aims at finding out the effect of goods' price on general price index by using the following three methods.**1. **Least Square method.**
2. **Maximum Weight Estimation (M method).**
3. **Bayes Classical Procedure in Estimation.**

**Comparison was made between these three methods and data were produced to match with index numbers. The comparison was made through finding out the following:**1. **Mean Square Error (MSE).**
2. **Efficiency.**

**Applications were applied on Calculated Index Numbers of General Statistics Department of Jordan on:**1. **Consumer Price Index ( CPI).**
2. **Wholesale Price Index (WPI)**
3. **Industrial Production Quantity Index .**

**It was found that, the Ordinary Least Square (OLS) method is the most efficient than others, then comes the Estimated M method which is close to OLS and produces similar results while Bayes method is less efficient than the other two methods.** |  Abstract  |