## **Abstract:**

This research study distributions Family exponential (normal, exponential, gamma, and weibl) has also addressed the study of reliability models that have a lot of applications in many fields behavior and atheoretical framework for this research to eat Models of reliability in all cases is, the rate of unemployment, which is also called hash risk and the laws of the crash and study in detail distributions.

The study included Applied on data from Company D Akhozha foodstuff in the period (2008-2015) which is a sample of 158 Esper machine components that have been Akhozha randomly.

The most important search results to follow exponential distribution Family data, the distribution of holidays for Machinery Co.D. Alamaiah very small, with very high reliability of machinery and this means it's highly efficient.

Through the results we recommend the need to address reliability models and apply them to other system.