In the presented work we study two different statistical methods for estimating IBNR reserve that is a part of the reserve for outstanding claims reserves. The first method is stochastic version of the Chain ladder method and the second one is a PTF model. We describe theories of the methods and show their different properties. The Chain ladder method does not assume any distribution of claims amount, on the other hand PTF models assume normal distribution of logarithms of incremental data. In practical part of this work we apply both methods on illustrative data and then we compare the results. We inspect especially probabilistic distribution of estimate of reserves and their statistical characteristics. An important part of this work is statistical testing of assumptions of both methods.