

FIMXII-SCMA2005@AUBURN, Twelfth Annual International Conference on Statistics, Combinatorics, Mathematics and Applications, December 2–4, 2005, Auburn University, Auburn, Alabama, USA

**EMPIRICAL PROBABILITY: PROJECTION OF POPULATIONS
IN THE SUB-REGIONS OF A REGION**

DHITIKESH CHAKRABARTY

The empirical approach to probability due to Fisher (1932), which is based on the stability property of relative frequency of an event associated to a random experiment, has been applied in developing a method of estimating/projecting the total populations in the sub-regions of a region. As an application of the method, the total populations of the states of India have been projected for the years 2011, 2021–2031 by applying the method developed here. Due to the necessity of estimated/projected value of the total population of the whole region in estimating/projecting the total populations of the sub-regions by this probabilistic method, a method of estimating/projecting total population of the whole region that is based on the representation of total population by an arithmetic progression has been developed and the total population of India has been projected for the years 2011, 2021–2031 by applying the method developed.

KEY WORDS: Relative Frequency, Stability Property, Empirical Probability, Arithmetic Progression, Population Projection.

LECTURER, DEPTT. OF STATISTICS, HANDIQUE GIRLS' COLLEGE, GUWAHATI, ASSAM, INDIA.
E-mail address: dhitikeshchakrabarty@rediffmail.com