

ON GENERALIZED BINOMIAL AND MULTINOMIAL DISTRIBUTIONS AND THEIR RELATION TO GENERALIZED POISSON DISTRIBUTIONS

JOHN PANARETOS AND EVDOKIA XEKALAKI

(Received Aug. 6, 1984; revised June 21, 1985)

Summary

The binomial and multinomial distributions are, probably, the best known distributions because of their vast number of applications. The present paper examines some generalizations of these distributions with many practical applications. Properties of these generalizations are studied and models giving rise to them are developed. Finally, their relationship to generalized Poisson distributions is examined and limiting cases are given.