A CHARACTERIZATION OF THE NEGATIVE MULTINOMIAL DISTRIBUTION

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SUMMARY. This paper deals with a characterization of the negative multinomial distribution. It is based on the assumption that the conditional distribution of two random vectors is multivariate inverse hypergeometric. *It makes use essentially of a multivariate* analogue of a condition known in the literature as the Rao-Rubin condition. The result is extended to include characterizations of truncated forms of the negative multinomial distribution. Comparison with previous results in the field is made and an example is included to demonstrate a possible use of the characterization.

KEY WORDS. Negative multinomial distribution, multivariate inverse hypergeometric distribution, truncated negative multinomial distribution, Rao-Rubin condition, Shanbhag's lemma.