

QÜESTIÓ, vol. 26, 1-2, p. 15-28, 2002

Characterizations of inequality orderings by means of dispersive orderings

H. M. Ramos Romero y M. A. Sordo Díaz

Departamento de Estadística e I. O. Universidad de Cádiz. Duque de Nájera, 8. 11002 Cádiz. Spain. Corresponding author: Tel: 34-956015406; fax: 34-956-015385; e-mail: hector.ramos@uca.es.

The generalized Lorenz order and the absolute Lorenz order are used in economics to compare income distributions in terms of social welfare. In Section 2, we show that these orders are equivalent to two stochastic orders, the concave order and the dilation order, which are used to compare the dispersion of probability distributions. In Section 3, a sufficient condition for the absolute Lorenz order, which is often easy to verify in practice, is presented. This condition is applied in Section 4 to the ordering of generalized gamma distributions with different parameters.

Keywords: Generalized Lorenz order, absolute Lorenz order, concave order, dilation order

AMS Classification (MSC 2000): 60E10, 60E15
