LOG-BURR XII MODEL FOR GROUPED AND CENSORED DATA

José Nilton da CRUZ
Liciana Vaz de Arruda SILVEIRA
José Raimundo de Souza PASSOS

ABSTRACT: Grouped data is a particular case of interval censored, which occur when individuals are assessed at the same time intervals. This type of data, often associated to situations in which the data has a large number ties whose proportions are greater than 25% (Chalita et al., 2002), and can be analyzed considering the discrete time and fitting models to the probability of the individuals enentual failure and the timing of the failure, as he survived the previous interval (Lawless, 1982). The aim of this paper is to propose a model for grouped and censored data based on a more general distribution, log-Burr XII (Silva et al., 2008) and to compare by the corrected Akaike’s Information Criterion (AICc) the fit this model with the generalized log-normal model proposed by Silveira et al. (2010), using a data set related a clinical manifestation of Chaga’s disease, known as chagasic megacolon (Almeida, 1996).

KEYWORDS: Generalized log-normal model; discrete models; interval censored; AICc; Chagas’ disease; chagasic megacolon.

1 Universidade Estadual Paulista – UNESP, Campus de Botucatu, Instituto de Biociências, Programa de Pós-Graduação em Bioestatística, Caixa Postal: 510, CEP: 18618-970, Botucatu, SP, Brasil. E-mail: niltonn.cruz@gmail.com
2 Universidade Estadual Paulista – UNESP, Campus de Botucatu, Instituto de Biociências, Departamento de Bioestatística, Caixa Postal: 510, CEP: 18618-970, Botucatu, SP, Brasil. E-mail: liciana@ibb.unesp.br / jrpassos@ibb.unesp.br