1 Introduction

- Censored regression models commonly arise in econometrics in cases where the variable of interest is only observable under certain conditions.

- A common example is labor supply. Data are frequently available on the hours worked by employees, and a labor supply model estimates the relationship between hours worked and characteristics of employees such as age, education and family status.

- However, such estimates undertaken using linear regression will be biased by the fact that for people who are unemployed it is not possible to observe the number of hours they would have worked had they had employment.

- Still we know age, education and family status for those observations. A model commonly used to deal with censored data is the Tobit model, including variations such as the Tobit Type II, Type III, and Type IV models.

- Censored regression models are usually estimated using maximum likelihood estimation. The general validity of this approach has been shown by Schnedler in 2005, who also provides a method to find the likelihood for a broad class of applications.[1]