NAME: LOW BIRTH WEIGHT DATA (LOWBWT.DAT)

KEYWORDS: Logistic Regression

SIZE: 189 observations, 11 variables

SOURCE: Hosmer, D.W., Lemeshow, S. and Sturdivant, R.X. (2013)

Applied Logistic Regression: Third Edition.

These data are copyrighted by John Wiley & Sons Inc. and must

be acknowledged and used accordingly. Data were collected at Baystate

Medical Center, Springfield, Massachusetts during 1986.

DESCRIPTIVE ABSTRACT:

The goal of this study was to identify risk factors associated with

giving birth to a low birth weight baby (weighing less than 2500 grams).

Data were collected on 189 women, 59 of which had low birth weight babies

and 130 of which had normal birth weight babies. Four variables which were

thought to be of importance were age, weight of the subject at her last

menstrual period, race, and the number of physician visits during the first

trimester of pregnancy.

NOTE:

This data set consists of the complete data. A paired data set

created from this low birth weight data may be found in lowbwtm11.dat and

a 3 to 1 matched data set created from the low birth weight data may be

found in mlowbwt.dat.

LIST OF VARIABLES:

Columns Variable Abbreviation

-----------------------------------------------------------------------------

2-4 Identification Code ID

10 Low Birth Weight (0 = Birth Weight >= 2500g, LOW

1 = Birth Weight < 2500g)

17-18 Age of the Mother in Years AGE

23-25 Weight in Pounds at the Last Menstrual Period LWT

32 Race (1 = White, 2 = Black, 3 = Other) RACE

40 Smoking Status During Pregnancy (1 = Yes, 0 = No) SMOKE

48 History of Premature Labor (0 = None 1 = One, etc.) PTL

55 History of Hypertension (1 = Yes, 0 = No) HT

61 Presence of Uterine Irritability (1 = Yes, 0 = No) UI

67 Number of Physician Visits During the First Trimester FTV

(0 = None, 1 = One, 2 = Two, etc.)

73-76 Birth Weight in Grams BWT

-----------------------------------------------------------------------------

PEDAGOGICAL NOTES:

These data have been used as an example of fitting a multiple

logistic regression model.

STORY BEHIND THE DATA:

Low birth weight is an outcome that has been of concern to physicians

for years. This is due to the fact that infant mortality rates and birth

defect rates are very high for low birth weight babies. A woman's behavior

during pregnancy (including diet, smoking habits, and receiving prenatal care)

can greatly alter the chances of carrying the baby to term and, consequently,

of delivering a baby of normal birth weight.

The variables identified in the code sheet given in the table have been

shown to be associated with low birth weight in the obstetrical literature. The

goal of the current study was to ascertain if these variables were important

in the population being served by the medical center where the data were

collected.

References:

1. Hosmer, D.W., Lemeshow, S. and Sturdivant, R.X. (2013)

Applied Logistic Regression: Third Edition.