For this medical study, data collected from 3 hospitals, involving 2,500 newborns, is analyzed. Specifically, the following variables were recorded:

- Mother's age
- Number of pregnancies
- Smoking mother (0=NO, 1=YES)
- Number of weeks of gestation
- Weight of the newborn in grams
- Length of the newborn in mm
- Skull diameter of the newborn in mm
- Type of delivery: Natural or Cesarean
- Hospital: 1, 2, 3
- Gender of the newborn: M or F

The goal is to determine whether it is possible to predict the birth weight of the newborn based on all the other variables. In particular, the study aims to examine the relationship with the mother's variables to understand whether these have a significant effect, such as the potentially harmful effect of smoking (premature births?). The newborn's length and skull diameter are also used because they can be estimated from ultrasounds and, in general, could serve as control variables.