

Lecture (19)

Mathematical Statistics

Ch 10 p. (201)

لا يكتب في هذا الهامش

10.1. Introduction and Four Data Sets

We present four data sets, referred to as Data sets A, B, C, and D. They will be used several times, both in this chapter and in later chapters.

• Data Set A, See p. (202)

This data set is well known in the ^{liberal} casualty actuarial literature. It was first analyzed by Dropkin in 1959. From 1956 to 1958, he collected data on the number of accidents by one driver in one year. The results for 94,935 drivers are shown in Table 10.1. p. (202)

• Data Set B

These numbers (and those in the next two data sets) are artificial. They represent the amounts paid on Workers Compensation medical benefits but are not related to any particular policy or set of policyholders. These payments are the full amount of the loss. A random sample of 20 payments is given in Table 10.2. p. (202)

• Data Set C

These observations represent payments on 227 claims from a general liability insurance policy. The data are shown in Table 10.3. p. (203)

• Data Set D

This data set is from the experience of five-year term insurance policies. The study period is a fixed time period. The columns are interpreted as follows: (1) i is the policy number, 1-40; and (2) d_i is the time since issue to when the insured was first observed. Thus, policies 1-30 were observed from when the policy was sold. The remaining policies were issued prior to the start of the observation period and were known to be alive at that duration. (3) x_i is the time since issue to when the insured was observed to die. Those who were not observed to die during the five years have "-" in that column. (4) u_i is the latest time since issue at which these who were not observed to die were observed. See p. (203)