

Exercise 9: insurance*

The data in Table 2 were collected by an insurance company to study how the life insurance taken out (for US physicians between 35 and 39 years of age) depends on their income and a score alleged to be a measure of their degree of risk aversion. Study how the response (the

Physician	Annual income income (thousand dollars)	Risk aversion score	Amount of life insurance carried (thousand dollars)
1	47.35	7	140
2	29.26	5	45
3	52.14	10	180
4	32.15	6	160
5	40.86	4	90
6	19.19	5	10
7	27.23	4	35
8	25.60	6	35
9	54.14	9	190
10	26.72	5	35
11	38.84	2	75
12	32.99	7	70
13	32.95	4	55
14	21.69	3	10
15	27.90	5	40
16	56.70	1	175
17	37.69	8	95
18	39.94	6	95

Table 2: Data for the life insurance example.

amount of life insurance carried) is related to the other two variables. Scatter plotting is a good idea. Some simple regression statements can be tried. Are there curvatures present ?

*) Data from:

Neter, J. and Wasserman, W. (1974). Applied linear statistical models. Richard D. Irwin.