

# Binary Response Regression and Model Selection

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- 1 The Problem of Interest
  - Exploratory Data Analysis

# Dataset

- 1 The dataset used was from “Survival Analysis - Techniques for Censored and Truncated Data”.
- 2 It was a hypothetical study of the mortality experience of diabetics.
- 3 30 diabetics were followed till death or the end of the study.
- 4 The subject’s age at entry into the study and the age at the end of the study or death were recorded.
- 5 Rather than time to event analysis, I was interested in how “entry age” and “exit age”, affected survival.
- 6 The response variable, survival, was binary ( $=1$  if alive,  $=0$  if dead).
- 7 The dataset contained no missing data.

# Descriptive Statistics

Table 1: Descriptive Statistics for Entry Age

	58	59	60	61	62	63	64	66	67	68	69	70	71	72	73
Counts	2	1	2	2	3	2	1	2	3	1	3	3	1	2	2

Table 2: Descriptive Statistics for Exit Age

	60	62	63	65	66	68	69	70	71	72	73	74	76	77	78	79	80
Counts	1	1	1	2	1	2	4	2	2	3	2	2	2	1	1	2	1

Table 3: Survival Counts

	0	1
Counts	20	10