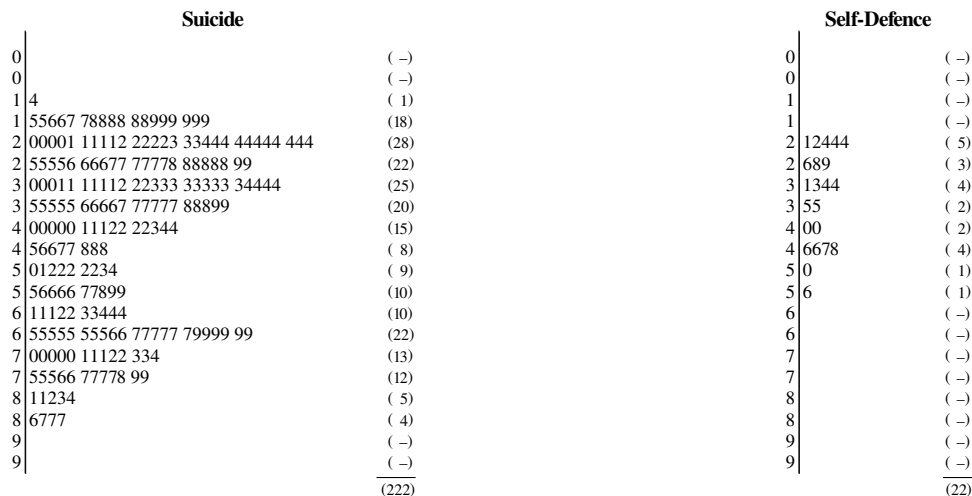
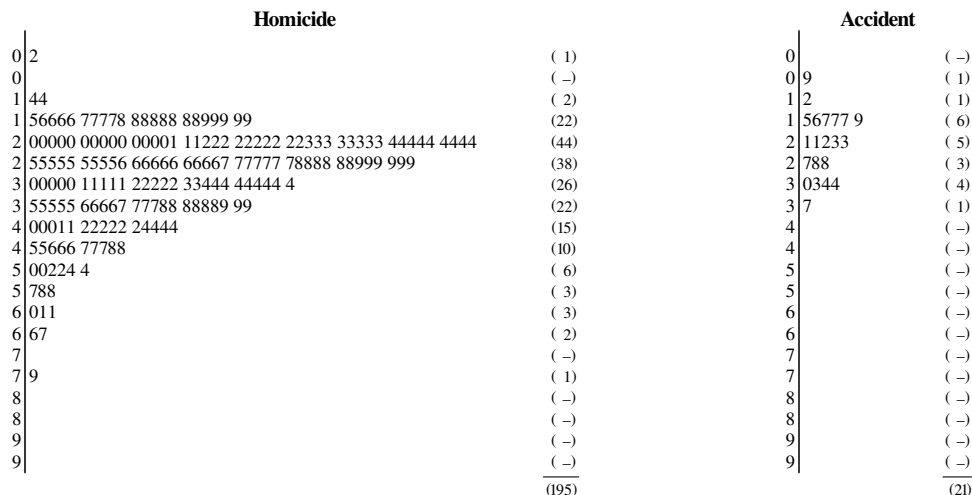
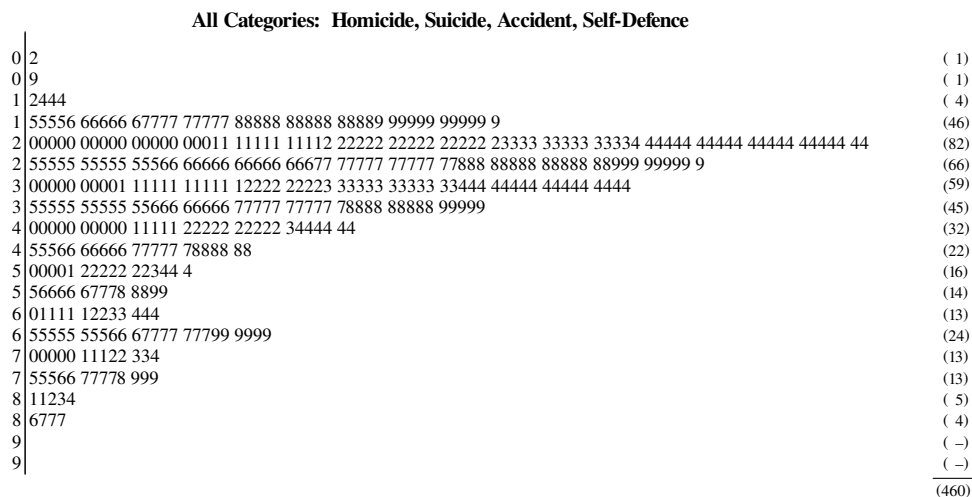


Figure 3.6b. STEM PLOTS: Ages of 460 U.S. Gun Deaths Occurring in May, 1989



REFERENCE: *7 Deadly Days*, TIME MAGAZINE, July 17, 1989, pages 10-37.

(continued overleaf)

Background: The data overleaf on page 3.15 are taken from a feature article in *Time Magazine* with the by-line: *In one ordinary week, 464 people died in America's continuing epidemic of gunfire*; the stemplots contain only 460 observations because the age was missing in four cases. The 25 pages of photographs and brief biographies of the victims are introduced with the following comments:

They are the commonplace tragedies that occur every day in communities across the U.S. The smouldering anger between a husband and wife ignites and ends with a pistol shot. The suffocating weight of depression vanishes, with gunfire, into the imagined peace of death. A hunting trip turns tragic, and a family is destroyed. The stupidity of playing with a loaded weapon leaves a young boy dead. The momentary incivility of a pair of barroom brawlers results in bloody death.

Events like these happen so often that Americans' sense of horror and outrage has been numbed. Death by gunfire has become nearly as banal in the U.S. as auto fatalities; shootings are so routine that they are sometimes ignored by the local news. Only by coming face to face with the needless victims does the wastefulness sink in.

Two other matters from this introduction are as follows:

- statistically, the situation has improved slightly in this decade; while gunshot deaths have roughly doubled since 1938, they dropped from 14.8 per 100,000 population in 1980 to 13.7 in 1986, the last year for which complete figures were available.
- the breakdown by *day* (Monday to Sunday) of the 464 deaths was:

M	T	W	T	F	S	S
MAY 1	MAY 2	MAY 3	MAY 4	MAY 5	MAY 6	MAY 7
74 dead	60 dead	66 dead	71 dead	51 dead	66 dead	76 dead

- 1 What matter(s) of interest are indicated by the stemplots given overleaf on page 3.15 about:
 - the overall data set of 460 ages;
 - *differences* among the four categories?
- 2 Suggest a possible explanation for the 'spike' at ages 65-69 in the plot for 'All Categories.'
- 3 Explain whether these data, as they are presented overleaf on page 3.15, provide information relevant to the issues involved in gun control in society, with reference to:
 - the U.S.A.;
 - Canada.
- 4 Why do the stemplots given overleaf on page 3.15 use *two* (rather than just one) stem for each 10-year age group?
- 5 For 'All Categories' and each of the four individual categories, find:
 - the *median* age of death;
 - the *modal* (*i.e.*, most common) age of death.
 How well does each of these (data) attribute values serve here as a measure of the *location* of the relevant distribution of ages? Explain briefly.

The material in this Figure 3.6b is also used in Figure 4.1 of the STAT 231 Course Materials and in Statistical Highlight #32.