

6 Major League Baseball Salaries (p. 263)

The data set came from the 30 MLB teams in 2002 season (a very interesting season as you are about to find out). The \$60,000 question is whether there is evidence that teams with high payrolls tend to be more successful. In the data set BBALL6, the average team salary (AVESAL) and the number of wins (WINS) for each team during the 2002 season are provided. Run a SLR of WINS on AVESAL.

- (a) Plot the standardized residuals versus data order (plus any reference lines, if available). Are there teams that should be considered as outliers? Which team(s) are these?
- (b) Plot the studentized deleted residuals versus data order (plus any reference lines, if available). Are there teams that should be considered as outliers? Which team(s) are these?
- (c) Plot the leverages (hat values) versus data order (plus any reference lines, if available). Are there teams that should be considered as high leverage points? Which team(s) are these?
- (d) Plot the DFITS versus data order (plus any reference lines, if available). Are there teams that should be considered as influential to single fitted values? Which team(s) are these?
- (e) Plot the Cook's Distance versus data order (plus any reference lines, if available). Are there teams that should be considered as influential observations to all fitted values? Which team(s) are these?
- (f) Please summarize your findings in parts (a)-(e).

Note that you must include relevant outputs from the designated software package in order to earn full credit.