All the factors that influence a statistic have been classified into four categories:

- **Context** The influence of factors taken into account (1) by comparisons of counts, averages, ratios and comparisons of averages and ratios; (2) by epidemiological models (cf., deaths attributable to obesity); (3) by regression models; and (4) by the study design (cf., controlled vs. uncontrolled; longitudinal vs. cross-sectional; experiment vs. observational study) or by selection (cf., in tables and graphs). The influence of related factors (confounders) that were not taken into account in the study and were not blocked by the study design.

- **Assembly** The influence of choices (1) in defining groups or measures, (2) in selecting the summary measure (e.g. mean vs. median), the type of comparison (e.g. simple difference versus times more), and the type of ratio (e.g. the confusion of the inverse or the prosecutor's fallacy), (3) in selecting the group in forming an average, the base in a comparison of numbers and the denominator in a ratio (e.g. rate or fraction) and (4) in selecting the graph, table or statistic in presenting statistical results and summaries.

- **Randomness** The influence of chance on averages and coincidences (e.g. hot hand, too unlikely to be due to chance and regression to the mean). The difference between statistical significance and practical significance in large samples or between 'no statistical effect' and 'no effect' in small samples. The influence of a confounder on statistical significance.

- **Error** (or Bias) The influence of any factor that generates a systematic difference between what is observed and the underlying reality: subject bias (people can lie), measurement bias (instruments can fail, questions may lead and researchers may manipulate) and sampling bias (the difference between the sampled and the target population influences the result).

Given the extensive influence of human choice on numbers, the W. M. Keck Statistical Literacy Project grouped these four sources of influence under the age-old admonition, 'Take CARE' where each of the four letters in 'CARE' signified a distinct source of influence on any statistic: Context, Assembly, Randomness and Error. If students were to remember to 'Take CARE' in analysing statistics, that would be a considerable achievement. The choice of 'Context' for the first category is based on the importance that context plays in the liberal arts and on the importance that statisticians place on context in distinguishing statistics from mathematics.