

1. We begin with an example dataset from the paper “The Probable Error of a Mean” (by W. S. Gossett, alias *Student*). The data *add* gives additional hours of sleep gained by patients using laevo-hysocymine hydrobromide (this is not a beer ingredient!). What can you say about the mean additional hours of sleep? Do patients get any additional sleep at night? Do patients get at least two hours of additional sleep a night?
2. Consider the data set *labor* gives womens’ percentage participation in the labor force in a survey taken in the late sixties. What can you say about the percentage of women participating the the U.S. labor force?
3. Here is some more data relevant to womens’ labor force participation. You now have the data set indexed by cities and you have two readings, one from 1968 and the other from 1972. Does the data suggest an increase in womens’ participation in the labor force over that four year period?
4. Consider the data set from an experiment testing whether a new method of teaching reading to elementary school students will result in improved test scores. The students are randomly assigned to two groups, one of which is taught using traditional methods (called Control in the data set) and the other of which is taught using the new method (called Treatment in the data set). The scores given are student scores on the Degree of Reading Power test after eight weeks of instruction. Does the data suggest that the new method of teaching is beneficial?