This paper discusses the use of the set of stocks on the New York Stock Exchange (NYSE) as a large data set in an introductory statistics course. It grew out of an assignment in which students were asked to do some statistical analysis on the set of NYSE stocks based on a random sample. Advantages of using this data set include its time sensitive nature, practical appeal, and the need for a random sample to draw inferences about it. Finding a random sample produces some interesting problems, such as the lack of uniformity in different sources for the stocks listed and the forms in which the listings are commonly given. A spreadsheet is invaluable in obtaining and analyzing the sample. This data set provides an opportunity for students to take random samples of real world data and to experience some of the problems and frustrations involved. Relevant web sources are given. (Received September 09, 2012)