

Meeting: 1003, Atlanta, Georgia, MAA CP L1, MAA Session on Using Real-World Data to Illustrate Statistical Concepts, I

1003-L1-1666 **Sarah Knapp Abramowitz*** (sabramow@drew.edu), Department of Mathematics, Drew University, Madison, NJ 07940, and **Sharon Lawner Weinberg** (sharon.weinberg@nyu.edu), Vice Provost for Faculty Affairs and, Professor of Quantitative Methods, 1225 Bobst Library, New York University, New York, NY 10012. *An Integrated Approach to Teaching with Real Data.*

We use a subset of the National Educational Longitudinal Study (NELS) data set throughout our introductory statistics course to impart a meaningful, contextual, and cohesive approach. In this paper, we describe our NELS data set and give several examples of its use in our classes. The NELS data set is based on a survey conducted by the National Center of Education Statistics (NCES) beginning in the spring of 1988 on a nationally representative sample of approximately 25,000 eighth graders. The goal of the study was to measure achievement outcomes in four core subject areas (English, history, mathematics, and science), and personal, familial, social, institutional, and cultural factors that might relate to these outcomes. Follow-ups were conducted every two years until the spring of 1994. For use in our courses, we have selected a sub-sample of 500 cases and 48 variables. The cases were sampled randomly from the approximately 5,000 students who responded to all four administrations of the survey and who pursued some form of post-secondary education. In using a single data set to address a number of different questions, students learn that multiple methods of analysis can be used in connection with a single data set to extract all relevant information from it. (Received October 06, 2004)