1086-B5-2482 **Jeff Randell Knisley*** (knisleyj@etsu.edu), Box 70663, Department of Mathematics and Stat, East Tennessee State University, Johnson City, TN 37614-0663. *Adventures in Statistics: Encounters with Big Data.*

Many modern statistical applications involve complex data sets that are not only large but that also have features not found in smaller data sets (local outliers, for example), and quite often, these large complex data sets occur in applications that students can readily understand (questions about social networks, for example). Technology allows students to be equipped with some basic tools with which they can explore these large data sets, and given the choice, they often prefer such tools over other approaches to data analysis. Specifically, we have found that students from middle school and up tend to choose bootstrapping or similar resampling methods when given the choice (as is the case in summer programs and end-of-semester projects for introductory courses). In this presentation, we present some simple tools in Netlogo, R, and Python that can be used to explore big data sets, after which we demonstrate some highly accessible applications which feature large data sets. We will also demonstrate how students can (and do) use these tools to explore, investigate, and infer results. We will also provide the code and data sets for download for anyone who is interested in using them. (Received September 25, 2012)