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Student Analysis of Contextualized/Real Data in Introductory Statistics

The majority of students approach statistics with much disdain and limited interest in its theoretical complexities. At most, they have a desire to learn the coding aspect of using a statistical analysis software such as R for the purpose of running analysis.

Historically, the primary use of R in an introductory statistics course at our institution was as a tool for students to run template code that generates output based on simulated data. Students were then tasked with interpreting this output.

In this presentation I will discuss the approach taken by myself and my co-instructor to revamp the assignments in this course to create an authentic application for the students. We elected to provide the students with a contextualized dataset used throughout the course, and to teach students the aspects of R coding required for them to create their own code and complete the analysis on their dataset. Our goals in this endeavour were two-fold: to provide students with the skills they desired for conducting statistical analysis, and to harness students' motivation for analyzing real data to engage them in a nuanced teaching of the theoretical complexities of statistics coupled with applying data analysis thoughtfully in any application.