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**Jan O. Case\*** ([jcase@jsu.edu](mailto:jcase@jsu.edu)), JSU MCIS Department, 700 Pelham Road North, Jacksonville, AL 36265. *Activities to Illustrate Standard Error in Regression Modeling.*

The advent of technology tools and inexpensive software allow regression analysis to be covered in depth in even introductory courses. Students initially begin with a table of x and y measures and produce a plot and a linear equation. This presentation discusses a different perspective through activities in which a model is provided and the students describe the fit of the data. In each case, the focus is the interpretation of the standard error of the model. The first activity uses multiple measurements of hand span and head circumference to illustrate how regression can provide a bound for measurement error. Additionally, a model is constructed using hand measures as a predictor of head measures. The second activity is a class "quiz" in which the students are given a 20th century event, and must correctly identify the year in question. Prizes are given for the slope closest to 1, the intercept closest to 0, and the smallest standard error. Finally, the students extend the idea to non-linear modeling. Using data from a pediatrician, students examine how well the data fits a given growth chart model. These activities require minimal class time yet illustrate important concepts for measurement and modeling. (Received September 11, 2007)