1067-Z1-194 **Murray H Siegel*** (murray.siegel@asu.edu), ASU - Applied Sciences & Mathematics, 6073 S Backus Mall, Mesa, AZ 85212. *Using a data modeling project to enhance the teaching of the derivative.*

Students in a one-semester Brief Calculus course explore using algebraic functions to model real world data. After investigating the derivative, students complete a project in which the student selects a set of bivariate data of interest to him/her. For the data set, five models are determined. After evaluating each of the models, the student selects the three best models for further investigation. For each model, the derivative and second derivative are computed. Extrema and inflection points are identified. The student selects the best model and justifies that choice. Finally, the student must explain why the conclusions based on calculus (increasing, decreasing, minima, maxima, inflection points) make sense based on the student's knowledge of the data. A written report is submitted which represents twenty percent of the semester grade. (Received July 30, 2010)