LOGISTIC REGRESSION PRACTICUM – ADVANCEMENT RESEARCH AT SCU

The Problem

SCU’s development team is interested in increasing the number of alumni that donate to SCU during their reunion year. In general, alumni giving rates are a crucial metric used in ranking colleges and universities. Reunions are a wonderful way to reengage alumni with SCU, especially those that have not had a chance to come back to campus in years. However, a minority of alumni give back to SCU during their reunion year, even as alumni are encouraged to make a gift of any size to any area of campus. The reunion giving team deals with thousands of alumni prospects, and could use some help in prioritizing prospects that would be most likely to give back to SCU during reunion.

The Data

Using monographs and presentations discussing the predictive modeling projects conducted at other universities, the research team identified an initial set of variables that could provide the basis for a predictive model. Though we are interested in predicting whether alumni currently in reunion would be likely to give to SCU this year, we must rely on historical giving patterns as the basis of our model. Therefore, our dependent variable is whether alumni currently in reunion year gave during their last reunion year (2009). Our range of potential independent variables includes other giving behaviors (giving two reunions ago, giving between reunions); relationships to SCU (spouse, child, parent or sibling alumni); engagement with SCU (involvement in SCU boards or committees, reunion attendance, other event attendance); and formal engagement with the SCU development team (assignment to gift officers, action notes that detail meeting with development gift officers or other key staff), among other variables. Not every variable may be useful, and some variables may be duplicates (for example, one version may be measured in raw values, while another version may be simplified as a binary variable). Keep in mind that data is provided for the classes of 1954 through 1999, which includes all alumni that have had the chance to attend at least two reunions. Limited information exists on the classes of 2004 and 2009 to include in the model.

The Challenge

With the data provided, work on developing a predictive model for the reunion giving team that will help them score and identify at least the top 40 percent of the reunion year prospects. These prospects, in turn, can be prioritized for more personalized outreach if they have yet to give to SCU.

AND AS ALWAYS, GO BRONCOS!