PREDICTING FIRST-YEAR STUDENTS WHO RETURN FOR THEIR SECOND YEAR
AT THE UNIVERSITY OF IOWA

The Center for Research on Undergraduate Education (CRUE) at The University of Iowa sought to determine the extent to which potentially salient policy and programmatic variables identified first-year students who returned for their second year at Iowa. The sample on which we carried out these analyses consisted of 1,357 first-year students weighted up to the population of first-year students by sex and ACT quartile. Of the 1,357 students in the sample, 1,235 returned for their second year at Iowa, while 122 did not.

Predictive Model

Using data collected from a web survey in March 2006, and information provided by the University Registrar's Office, we constructed a prediction model that included an extensive set of control variables and potential policy variables. The control variables consisted of:

- ACT composite score
- Cumulative Iowa grade point average
- Hours of on- or off-campus work during college
- Financial aid status
- Race
- Sex
- Parents' education
- Place of residence at Iowa
- Intended academic major
The policy-relevant variables were:

- Career exploration activities
- Courses in common
- College transition courses
- Cultural awareness workshops
- First-year seminars
- Greek affiliation
- Honors program
- Living/Learning programs
- Leadership training
- Research with a faculty member
- Level of alcohol consumption (binge drinking)
- Perceptions of the quality of teaching received (a 10-item scale measuring instructional skill/clarity and course organization, reliability = .90)

**Analyses**

Because returning or not returning was a binary variable, we carried out our analyses with logistic regression. The dependent variable (returned/did not return) was regressed on all the control variables and all the policy-relevant variables listed above.

**Results**

In the presence of statistical controls for all other control variables and policy variables in the equation, only three variables had a statistically significant (p < .01) link with first-year to second-year persistence at Iowa. Not unexpectedly, the strongest of these was cumulative UI grade point average. A one point or letter-grade increase in grades increased the odd of returning
for the second year 4.14 times (414%). However, two policy-relevant variables were also positive and statistically significant predictors of first- to second-year persistence: participation in a first-year living/learning program and perceptions of the overall quality of teaching received. Participation in a first-year living/learning program (17.5% of the sample) increased the odds of persistence 2.84 times (284%). A one standard deviation increase in perceptions of the overall quality of teaching received increased the odds of first- to second-year persistence 1.37 times (137%).
Appendix

Items in Quality of Teaching Scale

"For the most part, taking into consideration all the teachers with whom you've interacted at The University of Iowa, how often have you experienced each?"

(Very often, Often, Sometimes, Rarely, Never)

a. Teachers give clear explanations.

b. Teachers make good use of examples and illustrations to explain difficult points.

c. Teachers effectively review and summarize the material.

d. Teachers interpret abstract ideas and theories clearly.

e. Teachers give assignments that help in learning the course material.

f. Presentation of material is well organized.

h. Class time is used effectively.

i. Course goals and requirements are clearly explained.

j. Teachers have a good command of what they are teaching.