Southeastern Full-Time Freshmen Cohort Success Predictors

Research Brief # 32 Summer 2010

Higher education research consistently shows that undergraduate success is related to High School GPA and ACT Score. These two basic measures, along with several others, are reviewed for Southeastern. Additional variables considered are: whether or not Undecided Major, Sex, Race, and Campus Residency. For this brief, student success is defined as fall-to-fall retention. The basic question for this brief is: What measure or combination of measures has some predictive value in terms of fall-to-fall retention?

Procedure and Data: The student group for this study is the First-Time Full-Time Freshmen Cohort for the terms fall 2006 through fall 2008.

The averages for the two basic admissions measures of the three cohorts are displayed in the table below.

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Count</th>
<th>Average ACT</th>
<th>Average High School GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2,673</td>
<td>21.1</td>
<td>3.043</td>
</tr>
<tr>
<td>2007</td>
<td>2,533</td>
<td>21.2</td>
<td>3.056</td>
</tr>
<tr>
<td>2008</td>
<td>2,622</td>
<td>21.4</td>
<td>3.076</td>
</tr>
</tbody>
</table>

The three cohorts were combined and the scores computed. The ACT average is 21.2 and the High School GPA is 3.060. The combined cohort is divided into two separate groups: the returning group and the non-returning group. The basic descriptive measures for the returning and non-returning groups are presented in the table below.

<table>
<thead>
<tr>
<th>Percent Returning Fall</th>
<th>Average Returning ACT</th>
<th>Returning High School GPA</th>
<th>Percent Not Returning Fall</th>
<th>Average Not Returning ACT</th>
<th>Returning High School GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>64.5%</td>
<td>21.6</td>
<td>3.168</td>
<td>35.5%</td>
<td>20.6</td>
<td>2.859</td>
</tr>
</tbody>
</table>

Multiple Regression was used to identify the extent to which the variables of the study help explain whether or not students are retained. The summary results are found on the next page.
Three variables were filtered out as not being predictors: Undecided Major, Sex, and Race.

From the above table we see that the single best predictor of the six included in this study is High School GPA. However, two other variables, Living on Campus and ACT Composite, have some additional influence. Model number 3 from the summary table above explains 8.8% of the variance of fall-to-fall retention. This is not surprising since from an ACT research report\(^1\) high school grades and ACT scores should carry about the same weight because each is equally good at predicting the likelihood of fall-to-fall retention.

At Southeastern and for the three years of this study high school gpa is the better single predictor of success. The R-square value (0.084) indicates that about 8.4% of the variance in the returning combined cohort is explained by high school gpa (model 1). Model 3 explains only 8.8% of the variance. An interplay of other variables must be present and unaccounted for in this brief to explain additional variance in fall-to-fall retention.

Footnotes:

Bibliography:
ACT Research and Policy Issues, 2004-1, Retention, ACT Composite Score, and College GPA: What's the Connection?


Prepared by John F. Sears, Research Associate, Office of Institutional Research and Assessment, Southeastern Louisiana University.