



# RESEARCH NOTES

## Office of Institutional Research

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### **Relationship Between Freshman Survey and Continuing Student Survey Responses and Academic Performance, Fall 2003**

#### **Introduction**

In Fall 2003 257 (7.6 percent) of the 3,385 Fall semester freshmen had a GPA less than 2.000. Like many institutions, JMU wants to understand what demographic or personal characteristics, if any, are associated with academic success as measured by GPA to identify students early in their career to provide appropriate interventions. National and institutional studies have shown that the following academic and personal characteristics are associated with academic success during the freshman year:

- Academic engagement (time devoted to homework, asking questions in class, etc.)
- Socio-economic status
- High grades in high school
- High SAT scores
- Gender (female)
- Engagement with other students (social engagement, expected gains in self-understanding)
- Involvement with the institution (i.e., clubs, work)

The JMU Freshman Survey has been conducted for more than 20 years. In 2003 University Planning and Analysis staff for the first time conducted the annual Freshman Survey online as part of the freshman orientation process. Eighty-four percent (N=2,834) of enrolled freshmen completed the survey. Unlike many other national studies, these data were collected prior to the student beginning the freshman year. For the first time fall academic performance was linked to questions on the survey, thereby enabling an exploration of the possible relationships between responses and academic performance. An attempt was made to determine whether findings at other institutions could be replicated at JMU. The relationships were determined by crosstabulating the students' responses to questions with level of fall GPA (GPA  $\geq$  2.00 vs. GPA  $<$  2.00) and using chi-square analyses to determine levels of significance ( $p \leq .05$ ).

In Fall 2003 University Planning and Analysis also conducted the annual Continuing Student Survey. This survey has also been conducted for more than 20 years. This survey, however, is not conducted online. Instead, it is conducted in a scientific manner within class sections using a form of cluster sampling. In Fall 2003 2,876 students completed the survey. The distribution of

responses by class level, gender, and ethnicity is similar to the entire JMU undergraduate population. In the survey students are asked to supply their estimate of their current GPA. Students who said their GPA was less than 2.50 were compared with students whose GPA was 2.50 or higher on a number of variables that might relate to student performance. A GPA of 2.50 was chosen because many majors are now closed to students that have GPAs less than 2.50. Like the Freshman Survey, chi-square analysis was used to determine levels of significance ( $p \leq .05$ ).

### Freshman Survey

Below are the statistically significant relationships that were found. Factors associated with higher GPAs at JMU include:

- Female gender
- Fathers with at least some college education
- Strong high school academic performance (A or A- average)
- SAT scores equal to or higher than 1200
- Students that reported that they both had an A average in high school and at least 1200 on the SAT
- High school rank in top 10 percent
- Students that said they were likely or very likely to contact their family frequently
- Students that believe they will need to study 15 or more hours per week at JMU
- Students that said they were likely or very likely to think about themselves differently as a result of being in college
- Students that said they were very unlikely to seek personal counseling
- Students that said their high school prepared them well in study habits
- Students that said they were very active in high school organized athletics
- Students that believed they had a very good chance of graduating with honors
- Students that believed they were very likely to become involved in volunteer activities in college
- Students that believed privacy is very important

### Continuing Student Survey

Below are the statistically significant relationships that were found. Factors associated with higher GPAs at JMU include:

- Female gender
- White students
- Non-Virginia residents
- First enrolled at JMU as a first-time freshmen instead of as a transfer
- Students not enrolled in the College of Science and Mathematics or undeclared major

- Students whose fathers and mothers at least attended college
- Students whose annual family income is greater than \$75,000
- Students that disagreed or strongly disagreed that JMU places enough emphasis on academic advising
- Students that indicated that they were not having difficulties studying efficiently
- Students that indicated that they did not find it very difficult to earn satisfactory grades
- Students that are satisfied or very satisfied with JMU's testing and grading system
- Students that spend higher levels of time studying for classes
- Students that have not used marijuana
- Students that believe JMU is supportive
- Students that believe JMU is emotionally healthy
- Students that agree or strongly agree that JMU cares about student needs
- Students that agree or strongly agree that their JMU experience so far is as good as they hoped
- Students that agree or strongly agree that the GENED program prepares them to understand the development of western civilization and its interactions with other traditions within the global community
- Students who agree or strongly agree that the GENED develops their awareness of both physical and emotional wellness

### **Summary**

What do the results say about the factors that are related to the likelihood academic success during the first semester of the freshman year and for continuing students? These findings are similar to those found at other institutions and in national studies. The freshmen who were academically engaged prior to entering JMU continued to be academically engaged, at least as measured by fall GPAs. Females were more likely to be academically successful than males. Students that were engaged socially appeared to be more successful. Students that seek contact with their families, other students and the community are more likely to be successful. Students that have high personal expectations and know what it takes to be successful academically are more likely to be successful.

Many of the same factors were found in the Continuing Student Survey. Students that tend to have realistic expectations of the college experience, work hard and have minds open to new experiences tend to do well academically. Students from families with lower socio-economic status, as measured by ethnicity and family income, tend to perform less well.

Some characteristics are predetermined. They did not choose their gender, ethnicity, or parents' education. The remainder of the characteristics related to academic success appears to be related to the students' ability to be proactive and take responsibility for their choices.

The Office of Institutional Research intends to follow the academic progress of these freshmen and continuing students to look at the relationships between the survey findings and long-term academic performance and eventual graduation.

The summary of the Freshman Survey and Continuing Student Survey can be found at the Web site of University Planning and Analysis: <http://www.jmu.edu/planning/> .