

Highlights: The National Survey of Student Engagement

In 2008 and 2011 James Madison University participated in the National Survey of Student Engagement (NSSE). NSSE was designed to assess the extent to which students participate in empirically-derived effective educational practices and what they gain from their college experience. A large, growing body of research on college student development shows that the time and energy students devote to educationally purposeful activities contribute to their learning and personal development (NSSE 2008 Psychometric Properties, 2008)

JMU chose to participate in the NSSE to establish comparative benchmarks for student engagement in educationally purposeful activities, and to determine how the engagement of JMU students compared with their national peers.

The purpose of this Research Note is to summarize how JMU's first-year and senior-year students responded to the 2011 survey, how they compare with national responses, and how JMU's responses changed between 2008 and 2011.

Sampling and Response Rate

JMU's overall response rate for the 2011 NSSE was, for a sample size of 8,777, 1,955 (22%) with a sampling error of 2.0%. Participants included 843 first year and 1,112 senior students. Of the 1,955 respondents, 73% were female, 79% were white, non-Hispanic, 3% were international students, 97% were full-time students, most (90%) first-year students live on campus, most (97%) seniors live off campus, and 20% of seniors and 3% of first-years were transfer students.

Means, Statistical Significance and Effect Sizes

The technical report contains information about each question, its statistical significance and effect size. Effect size indicates the "practical significance" of the mean difference. The discussion section (below) summarizes the items on which JMU's first-year and senior-year students differed from national data on each of five scales, and on the questions within those scales having effect sizes with absolute values greater than or equal to .25 (greater chance of having "practical significance"). Questions asked on the NSSE study not within any scale having significance (and having effect sizes greater than .25) are also described in this section.

Discussion of Findings

The survey contains five scales and 85 questions. A brief description of each scale, and how JMU performed relative to national peers in 2008 and 2011 are described below. Then an examination of the impact of attending JMU on changes to these ratings for each scale are presented. Finally, individual questions within these scales having high effect sizes are presented and described.

The JMU sample differs from the NSSE sample in several ways:

- All JMU participants responded via the web.
- JMU has slightly higher percentage of females.
- JMU has more whites, non-Hispanic, and fewer minorities.
- JMU has fewer part-time students.
- JMU has more first-year students living on-campus and more seniors living off-campus.
- JMU has fewer transfer students, especially seniors.
- JMU has fewer non-traditional students, especially seniors.

Supportive Campus Environment (SCE) - Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relations among different groups on campus.

- JMU first-year and seniors in 2008 and 2011 were significantly higher than NSSE Peers on SCE.
 - First year and senior students scored significantly higher on:
 - Relationships with other students.
 - Providing the support you need to thrive socially.
 - Senior students scored significantly higher on:
 - Providing the support you need to help you succeed academically.
 - Helping you cope with your non-academic responsibilities (work, family, etc.).

Level of Academic Challenge (LAC) - Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance.

- JMU first-year students were not significantly different from national peers in 2008 and 2011 on LAC. However, seniors who were not significantly different than national peers in 2008 as first-year students, significantly exceeded peer scores in 2011.

Active and Collaborative Learning (ACL) - Students learn more when they are intensely involved in their education and asked to think about what they are learning in different settings. Collaborating with others in solving problems or mastering difficult material prepares students for the messy, unscripted problems they will encounter daily during and after college.

- JMU first-year students were significantly higher than their national peers on ACL in 2008, but were no longer different from their peers in 2011. Seniors were significantly higher than the NSSE Peer means in 2008 and 2011.
 - First-year and senior students scored significantly higher on:
 - Worked with classmates outside of class to prepare class assignments.
 - Senior students scored significantly higher on:
 - Participated in a community-based project (e.g. service learning) as part of a regular course.

Student-Faculty Interaction (SFI) - Students learn firsthand how experts think about and solve practical problems by interacting with faculty members inside and outside the classroom. As a result, their teachers become role models, mentors, and guides for continuous, life-long learning.

- JMU first-year students were significantly lower in 2008 and in 2011 than their national peers in SFI. Seniors were significantly higher in both 2008 and 2011.
 - Senior students scored significantly higher on:
 - Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.).

Enriching Educational Experiences (EEE) - Complementary learning opportunities enhance academic programs. Diversity experiences teach students valuable things about themselves and others. Technology facilitates collaboration between peers and instructors. Internships, community service, and senior capstone courses provide opportunities to integrate and apply knowledge.

- JMU first-year students were significantly lower than their national peers on EEE in 2008 and improved enough so that they were not significantly different from their peers as first-year students in 2011.

- JMU senior students were significantly higher than their peers' in 2008 and 2011.
 - Senior students scored significantly higher on:
 - Community service or volunteer work.
 - Study abroad.
 - Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.).
 - Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.).

Other Questions

Both first- year and senior students measured higher than NSSE national norms on the following items.

- Exercised or participated in physical fitness activities.
- Attending campus events and activities (special speakers, cultural performances, athletic events, etc.).
- Speaking clearly and effectively.
- How would you evaluate your entire educational experience at this institution?

Both first- year and senior students measured lower on the following items.

- Working for pay off campus.
- Providing care for dependents living with you (parents, children, spouse, etc.).

First-year students scored significantly higher than NSSE national norms on the item related to acquiring a broad general education.

First-year students scored significantly lower on the following items.

- Prepared two or more drafts of a paper or assignment before turning it in.
- Voting in local, state, or national elections.

Seniors scored significantly higher than NSSE national norms on the following items.

- Community service or volunteer work.
- Relaxing and socializing (watching TV, partying, etc.).
- Working effectively with others.
- Understanding yourself.
- Contributing to the welfare of your community.
- If you could start over again, would you go to the same institution you are now attending?

Analyses of Change Over Time

In a specialized pre-post test using NSSE 2008 and NSSE 2011 data, students who were first-year students in 2008 were reexamined in 2011 as seniors. By testing the differences between JMU first-years and seniors in general against JMU first-years who had been retested later, we were able to separate the natural changes that occur with maturation from those attributable to having attended JMU.

Students demonstrated significant increases (gains) above and beyond the impact of maturation in the following scales as a result of having attended JMU.

- Academic Challenge.
- Student-Faculty Interaction.
- Enriching Educational Experiences.
- Supportive Campus Environment.

Use of Results

Results from NSSE will be used in several ways at JMU.

- Information generated by first-year students will be reviewed to identify and address specific student needs in first-year orientation and first-year advising, and to inform General Education Cluster One instructors about first-year student perceptions and expectations.
- Information generated by seniors will be utilized to determine strengths and weaknesses of JMU programs and services as revealed by differences in first-year and senior-year scores.
- Where applicable, information will be used to identify and narrow gaps between institutional and student expectations for learning and behavior.
- Information will also be disseminated in workshops and presentations designed to educate JMU faculty and staff about student engagement.
- Finally, NSSE data can be used for accreditation purposes; specific NSSE items can be mapped to SACS criteria.

Conclusion

The purpose of this NSSE effort is to examine the extent to which students participate in empirically-derived effective educational practices and what they gain from their college experience. JMU participated in the NSSE in order to establish comparative benchmarks for student engagement in educationally purposeful activities, and to determine how the engagement of JMU students compared with their national peers. This Research Note was designed to examine responses made by JMU's first-year and senior students on the 2011 survey, how they compare to national peer responses, and how JMU's responses changed from 2008 to 2011. Changes were examined by removing potential confounding effects of changes associated with the year tested (cohort differences, testing differences), and the changes associated with maturation (age) as measured by within-year difference in class rank scores. By testing the differences between JMU first-years and seniors in general against first-years who had been retested later, we were able to separate the natural changes that occur with maturation from those attributable to having attended JMU.

The results reveal that in all but two cases, non-adjusted faculty interactions and active and collaborative learning, the changes associated with time from first-year 2008 to senior year 2011 rose significantly above and beyond the changes associated with year of study and with customary differences between first-years and seniors. Therefore, in all but those two findings, there is evidence of student change attributable to attending JMU. Students demonstrated significant increases that extend beyond the impact of maturation in the Academic Challenge, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment scales.

In addition, both first-year and senior students measured higher than NSSE national norms on participation in physical fitness activities, campus activity attendance, clear and effective speaking, and how they would evaluate

their entire educational experience at JMU. First-year students measured higher than NSSE national norms on preparation of two or more drafts of an assignment before submission, and acquisition of a broad general education. Seniors measured higher than NSSE national norms on volunteer work, relaxation and socialization, working effectively with others, understanding oneself, contributions to the community, and whether they would attend JMU if they could start over.

The university plans to participate in NSSE every two or three years to monitor how the responses change to each question and how responses compare with other institutions. Questions about the implications for JMU from this study should be directed to the Associate Vice President for Student Success.