



INSTITUTIONAL EFFECTIVENESS

Assessment News

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The Number Cruncher's Little Helper

by Dr. Jack Williamsen, Data Analyst,
Office of Institutional Effectiveness

In the arcane world of statistics, crosstabs (aka contingency tables) are the dull draught horses in the number cruncher's stable. They're neither complex nor cutting-edge, and deriving their contents usually can be done with a hand calculator or—often—just by hand.

But to be dull is not the same as being irrelevant or useless. For example, below is one of the more useful and impactful contingency tables you probably have never seen.

Group:	Fatal Heart Attack	Non-fatal Heart Attack	No Attack
Placebo	18	171	10,845
Aspirin	5	99	10,933

This table, published in 1988, comes from the *Physicians Health Study*, a five year randomized study of whether regular aspirin intake reduces cardiovascular mortality. The numbers in the table led to the now commonplace recommendation that persons with above-average risk for a heart attack consume one "baby" aspirin daily. It is likely that more than a few owe their lives to this table and its contents.

Crosstabs are chiefly used to neatly summarize categorical data in table form (as above), with the option of putting the tabled contents in a simple bar chart, if desired. They are particularly ubiquitous in survey research, where the data obtained are often 'sliced and diced' into various subcategories of those surveyed (e.g., "men, women;" "Republicans, Democrats, Independents;" freshmen, sophomores," and so on).

The OIE does use crosstabs extensively in its analysis of survey data, but we utilize them, and similar tables, for other analyses as well. For example, take a look at the tables on page 6. They illustrate gender differences in HSGPA and SNC GPA for students enrolled in the 2007-2008 academic year. (Continued on Page 6)

To What Extent are Students Engaged Academically at St. Norbert College?

Part 2

by Kevin Steiner, SNC Graduate Majoring in Economics and Accounting

Editors Note: Assessment News published the first installment of this report last Fall (Volume 9 Issue 2). In this installment, Kevin Steiner analyzes SNC Current Student Survey (CSS) and HERI Senior Survey (SS) for four additional NSSE constructs: Active and Collaborative Learning, Student-Faculty Interaction, Supportive Campus Environment, and Enriching Educational Experiences. This analysis is based on data collected in 2008 (SNC CSS n=885; HERI SS n=177, HERI National Private n=18,513). St. Norbert College participated in the National Survey of Student Engagement (NSSE) for the first time last year. Data comparing HERI and NSSE constructs will appear in the next issue of Assessment News.

Academic Engagement is Important

Academic engagement occurs when a student makes a psychological investment in learning. It is important because engagement is an indicator of the quality of students' academic experiences while at an institution. Engagement is also reflected in hard work, learning, understanding, and applying knowledge and skills in a practical manner. Evidence of low student engagement merits institutional attention and improvement to enhance students' experiences.

Active and Collaborative Learning

Regarding Active and Collaborative Learning, NSSE states, "Students learn more when they are intensely involved in their education and are asked to think about and apply what they are learning in different settings. Collaborating with others in solving problems they will encounter daily during and after college." This statement suggests that Active and Collaborative Learning (Continued on Page 2)

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Conference Opportunities

2010 Assessment Institute,
October 24-26, 2010,
Indianapolis, IN

AAC&U Conference:
Creativity, Inquiry, & Discovery,
November 11-13, 2010,
Durham, North Carolina

The Clock is Ticking ...



2010—Review Chapters
2011—HLC on-Site Visit

To What Extent are Students Engaged Academically at St. Norbert College? Part 2 (Continued from Page 1)

both promotes and is an indicator of student learning and quality learning. That is, students are more engaged and perform better if they actively participate in their learning (i.e. ask questions, give presentations, etc.) and/or work together on projects, papers, and class work.

Overall, St. Norbert College's results in this category are mixed. Compared to students nationally, more SNC seniors reported discussing course content frequently or often with other students outside of class (77.8% SNC, 69.8% all private), more SNC seniors reported studying frequently or often with other students (98.3% SNC, 95.2% all private), and more SNC seniors said they were satisfied or very satisfied (S/V/S) with the relevance of coursework to future career plans (82.5% SNC, 77.4% all private). SNC seniors mirrored national norms on satisfaction with their interaction with other students and the relevance of coursework to everyday life, with slightly more St. Norbert College respondents being satisfied. Only 47.7% of our seniors, however, responded that they frequently or often performed community service for class, compared to 57.7% on average across the nation. Finally, compared to seniors nationally, fewer seniors at St. Norbert College studied or prepared for class often or very often with students of another race or ethnicity (33.1% SNC, 39.2% all private).

An examination of CSS data yields mixed results as well. 64.3% of students responded they often or very often asked questions or contributed to class. The fact that less than 6% of students indicated they rarely or never participate means that over 94% of students ask questions or contribute to class, at least occasionally. This suggests that most students at St. Norbert are generally engaged in their classes. About 35% of students responded they were asked to make in-class oral presentations often or very often, with about 21.5% responding rarely or never.

Student-Faculty Interaction

Another key aspect of academic engagement is Student-Faculty Interaction. NSSE states that Student-Faculty interaction is important because, "Students see first-hand 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." This means that the more interaction students have with their professors, the more they are able to learn and practice skills and knowledge within their particular field of study.

About 90% of SNC seniors strongly agreed or somewhat agreed that St. Norbert faculty are interested in students' personal problems and 94.9% strongly agreed or somewhat agreed that St. Norbert faculty are interested in students' academic problems compared to 81.4% and 91.9% respectively of students in private colleges nationally. This shows that more seniors at St. Norbert feel that professors are actually concerned with student

problems than their counterparts at other institutions. SNC students were similar to students at all private colleges in the amount of time spent talking with professors outside of class.

But senior assessments of professor attitudes and opportunities yield very different results. The CSS asked seniors to assess the extent to which professors provided you with encouragement to pursue graduate/professional school, an opportunity to work on a research project, advice/guidance about your educational program, emotional support and encouragement, a letter of recommendation, help to improve your study skills, feedback outside of class about your academic work, intellectual challenge and stimulation, an opportunity to discuss coursework outside of class, help in achieving your professional goals, and an opportunity to apply classroom learning to "real-life" issues. For all 11 items, the national average for all private colleges was higher than St. Norbert senior responses by at least four percentage points, and as many as fifteen percentage points. These findings have some important implications regarding engagement of students. Even though St. Norbert professors are perceived to be highly concerned with student problems and are as easily reached as professors at other institutions, the actual role model/mentor/guide relationship seems to be less apparent to students than at other private institutions. Even in the CSS, the majority of students responded that they rarely or never discussed class ideas with professors outside of class.

Data from two questions on the CSS are especially revealing in this regard. The first is how often students contacted or visited professors (other than advisors) to ask for help or ask a course related question. About 44% of SNC students responded often or very often, with less than 16% reporting rarely or never. While SNC might like the rarely/never category to be lower, overall this shows that most students have some contact with professors outside of class. On the flip-side, however, almost 40% of students responded rarely or never to discussing readings or classes with faculty members outside of class, with only about a quarter responding often or very often.

Supportive Campus Environment

In order to do well in college and gain the most from college experiences, students must have a supportive atmosphere in which they live, learn, and interact with other members of the campus community. NSSE describes the impact of a Supportive Campus Environment as follows, "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."

The results from the Supportive Campus Environment section are quite impressive. Overall, the HERI Senior Survey showed positive responses from St. Norbert College seniors regarding the college environment. Compared to all seniors nationally, fewer SNC seniors have felt isolated from campus life (47.2% SNC, 50.2% all private), more joined a fraternity or sorority providing a support structure for students (28.2% SNC, 15.7% all private), and more SNC seniors have participated in a racial/ethnic organization (26.3% SNC, 21.1% all private). St. Norbert College seniors on average spend more time socializing with
(Continued on Page 5)

Self-Study Update

Self-Study Narrative Now in Draft Form

A year of data collection ended on April 8, 2010 with the last of 10 campus-wide forums. One hundred ninety (190) members of the community attended the various forums designed to test the Steering Committee's early conclusions. These conversations helped clarify the intent of some of the core components and often provided additional evidence in support of the Steering Committee's conclusions. In addition to the forums, Steering Committee Members have held more than 150 meetings with various individuals and groups to solicit information in preparation for writing the draft narrative over the summer. Rough drafts were submitted in late August, compiled into a single format, and sent on to a general editor. The Steering Committee will begin editing for content and clarity in a few weeks. Dedicated Reading Teams will critique the drafts during the mid-semester break and the chapters will be made available for Community feedback during Spring semester. A variety of presentations are planned for Spring semester. The narrative will be further refined based on Community feedback before the final narrative is turned over to the Office of Communication on June 1, 2011. The Higher Learning Commission will visit St. Norbert College from October 31-November 3, 2011.

If you have questions about the Accreditation Self-Study, please feel free to contact any member of the Self-Study Team listed in the next column.

Accreditation Data Needed

A letter sent to all Academic Discipline Coordinators, Mission & Heritage Directors, and Student Affairs Directors asked for 2-3 sentences based on assessment data which answer the question, **What evidence shows that your program is achieving its intended outcomes?** Statements from 10 units have been received thus far. We would like many more. These statements will supplement extensive analysis of general education assessment, writing, and student self-report data and will serve as an important piece of evidence for our upcoming accreditation review. The statements will appear in an internal publication entitled *Assessing Mission Effectiveness at St. Norbert College 2010* which will be released to the community this Fall, and in the electronic reading room being prepared for the accreditation review.

In addition, as the semester progresses, please send the OIE 1 or 2 examples of exemplary student work along with the assignment/guidelines that produced the work. These examples will be assembled into a hard copy "institutional portfolio". This portfolio will help the HLC accreditation team better understand our various performance standards.

If OIE can help you formulate a statement from your assessment data or answer questions about selecting student work samples, please don't hesitate to ask.

Self-Study Steering Committee and Writing Team

Self-Study Chair: Dr. Robert A. Rutter, Associate Vice President for Institutional Effectiveness and Professor of Education

Criterion #1 Chair: Ms. Julie D. Massey, Director of Faith, Learning and Vocation, and Campus Ministry

Dr. William Hyland, Director of the Center for Norbertine Studies and Assistant Professor of Classical Studies

Dr. Joy Pahl, Assistant Professor of Classical Studies

Criterion #2 Chair: Mr. Curtis J. Kowaleski, Director of Finance

Ms. Heather Kaminski, Budget Manager for Academic Affairs

Ms. Joanne Blascak, Data Retrieval & Authentication Specialist, Office of Institutional Effectiveness

Criterion #3 Chair: Dr. Stephen T. Correia, Associate Professor of Education

Dr. Thomas Bolin, Associate Professor of Religious Studies

Dr. Kari Cunningham, Assistant Professor of Chemistry

Criterion #4 Chair: Dr. Linda Beane-Katner, Associate Professor of Modern Languages and Literatures and Director of Faculty Development

Dr. Marcie Pahl, Associate Professor of Modern Languages & Literatures

Criterion #5 Chair: Dr. Mary Oling-Sisay, Vice President for Student Affairs & Dean of Students

Dr. Beth Tarasawa, Assistant Professor of Sociology

Ms. Barbara Bloomer, Director of Health & Wellness Services

Federal Compliance: Mr. Jeff Zahn

Student Representative: Mr. Paul Krechel

Clerical Support: Ms. Patricia Wery, Administrative Secretary, Office of Institutional Effectiveness

Communications Support: Mr. Drew Van Fossen, Director of Communication and Design

Technology Support: Ms. Michelle Manke, Documentation and Training Specialist

Charts & Graphs: Dr. Jack Williamsen, Data Analyst, Office of Institutional Effectiveness

Notes from Grant Development

My name is Sarah Ryan and as of June 1, I'm the Director of Grant Development at St. Norbert College. My office is within the Office of Institutional Effectiveness. I'm here to help faculty and staff with all grant seeking activities. This includes researching funding opportunities, preparing, editing, and submitting proposals and assisting with grants administration. I also want to educate faculty and staff about grant seeking. To this end, please visit my departmental website at:

<http://www.snc.edu/oie/grantdevelopment/>

Here you can view current grant opportunities, research sponsors and get tips on creating a successful proposal. The website is updated monthly so the content is always fresh and up to date. I also encourage you to join my grants list serve. It's used to disseminate funding opportunities and other helpful information. To subscribe please send me an email:

sarah.ryan@snc.edu

I want to demystify grants. I truly believe that anyone is capable of writing a successful grant proposal. Many people believe that grants are extremely complicated and time consuming with little chance at being funded. This is simply not true. There is generally a close correlation between the length of time required to prepare a proposal and the amount of funding you're seeking. For example, a proposal for \$5,000 will usually only require a 2-3 page application and can likely be completed over a weekend. I don't necessarily suggest you do this as the more time you put in, the stronger your proposal will be, but it does not need to be a six month process. The percentage of grants funded also varies from program to program. In 2008 the National Endowment for the Humanities funded 18% of Challenge Grant applications and 12% of research grant appli-

cations. In total, the National Science Foundation receives approximately 40,000 proposals each year and funds approximately 11,000, a rate of 28%. Additionally, you are often able to use material you already have when creating a grant proposal. This could be a research paper or an article you wrote or even a presentation at a conference. I am here to help you and I hope you'll set up a meeting with me so we can discuss funding. Professor Joel Mann who recently applied for an NEH grant states, "working with the Director of Grant Development, the grant process was much more efficient and less labor-intensive than past grants I've worked on."

Save the Date: I will be hosting the first Faculty Teaching and Learning Workshop in conjunction with the Office of Faculty Development on Friday, October 1 from 3:00-4:30 in Union 201 BC. I'll discuss grant seeking at St. Norbert and we'll hear from faculty panelists on their experience with grants.

Upcoming Funding Opportunities

These represent just a small sample of the grant opportunities currently available. To view a more complete list please visit my website or contact me to set up an appointment.

American Philosophical Society, **Franklin Research Grants**, up to \$6,000 for research leading to publication in all areas of knowledge: <http://www.amphilsoc.org/grants/franklin>

National Endowment for the Humanities, **Collaborative Humanities Research**, up to \$300,000 to fund original research undertaken by a team of scholars for one to three years: <http://www.neh.gov/grants/guidelines/Collaborative.html>

Higher Learning Commission Liaisons to Visit SNC November 17, 2010

In preparation for the October 31, 2011 on-site visit, Dr. Robert Appleson and Dr. Eric Martin, both HLC Vice Presidents, will visit St. Norbert College on November 17, 2010. They will meet with the Self-Study Steering Committee, the President's Cabinet, the Faculty Advisory Committee, as well as the leadership of the Administrative Staff and Hourly Associations. Drs. Appleson and Martin will be monitoring SNC's progress thus far and providing helpful counsel regarding some of the final stages of our preparation for the on-site visit such as soliciting third party comment and preparing the community for the visit. Dr. Martin, will become SNC's institutional liaison with the Higher Learning Commission after the November 17 meeting, succeeding Dr. Appleson who has served in that capacity since the late 1990s.



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friends (more time/capacity for support), and more St. Norbert College seniors have spent at least some time participating in student clubs or groups compared to students enrolled in private colleges nationwide. SNC seniors also more often strongly or somewhat agree that they are part of the campus community, feel like a member of this college, and feel as if they have a sense of belonging on campus compared to the rest of the nation. Finally, St. Norbert seniors are more satisfied with the sense of community among students, the availability of campus social activities, the respect for expressions of diverse beliefs, and the overall college experience compared to the rest of the nation.

In contrast, somewhat fewer St. Norbert College reported joining clubs or organizations compared to the national average (54.5% SNC, 58.3% all private). Overall, the results from the HERI Senior Survey suggest that seniors believe St. Norbert College provides a campus environment that facilitates academic and social engagement among students on campus.

Enriching Educational Experiences

Learning does not solely come from the classroom, but through other Enriching Educational Experiences. As NSSE states, "Complementary learning opportunities inside and outside the classroom augment the academic program. Experiencing diversity teaches students valuable things about themselves and other cultures. Used appropriately, technology facilitates learning and promotes collaboration between peers and instructors. Internships, community service, and senior capstone courses provide students with opportunities to synthesize, integrate, and apply their knowledge. Such experiences make learning more meaningful and, ultimately, more useful because what students know becomes a part of who they are." In other words, the incorporation of diversity, technology, and opportunities to participate in other non-classroom learning opportunities enhance academic engagement and greatly improve the usefulness and practical application of knowledge learned in college.

For this category, the overall results for St. Norbert College were not impressive. In nearly all categories SNC had lower scores than the rest of the nation. Of the 28 questions asked, 19 responses were lower compared to the rest of the nation. These results suggest fewer St. Norbert College seniors reported frequently or often working on an independent study project (60.8% SNC, 72.4% all private), fewer SNC seniors frequently or often participated in intramural sports (42.9% SNC, 49.6% all private), fewer frequently or often voted in a student election (15.3% SNC, 25.3% all private), fewer frequently or often turned in course assignments electronically (90.9% SNC, 95.7% all private), fewer frequently or often worked on a professor's research project (15.9% SNC, 27.9% all private), fewer frequently or often played a musical instrument (25% SNC, 31% all private), fewer had a roommate of a different race or ethnicity (32.4% SNC, 35.9% all private), fewer participated in an internship program (48.3% SNC, 53% all private),

fewer participated in an undergraduate research program (4.5% SNC, 8.3% all private), fewer participated in a graduate school preparation program (8.6% SNC, 11.9% all private), fewer presented research at a professional conference (14.8% SNC, 17.3% all private), fewer were satisfied or very satisfied with the racial or ethnic diversity of the student body, and fewer frequently had an opportunity to work on a research project (15.9% SNC, 21.8% all private).

Regarding experiences with students from a different racial or ethnic group, fewer SNC seniors often or very often had meaningful and honest discussions about racial or ethnic relations outside of class (28.4% SNC, 34.3% all private), fewer SNC seniors often or very often shared personal feelings and problems (32.4% SNC, 39.6% all private), fewer reported often or very often having intellectual discussions outside of class (34.9% SNC, 40.6% all private), fewer often or very often studied or prepared for class (33.1% SNC, 39.6% all private), fewer often or very often socialized or partied (35.8% SNC, 44% all private), fewer often or very often attended events sponsored by other racial or ethnic groups (14.9% SNC, 20.1% all private), but more seniors reported having had tense, somewhat hostile interactions (10.8% SNC, 7.4% all private). So, in short, what do all of these results mean? These findings suggest that when compared to the rest of the nation, fewer St. Norbert students tend to have Enriching Educational Experiences than the rest of the nation. This is not to say that all students at St. Norbert College are deprived of Enriching Educational Experiences (as defined by the NSSE), only that fewer SNC students report having these experiences compared to students nationally.

In contrast, there were some areas where SNC students reported higher rates of participation than the national average. More SNC seniors reported attending a racial or cultural awareness workshop (50% SNC, 36.2% all private), more SNC seniors participated in an ethnic or racial student organization (26.3% SNC, 21.1% all private), more participated in leadership training (36.9% SNC, 34.1% all private), more participated in study abroad (40.9% SNC, 29.1% all private), and more participated in an academic program focusing on racial or ethnic minorities (10.8% SNC, 6.9% all private).

These findings raise interesting questions about the validity of some of the survey questions as indicators of academic engagement. Turning in assignments electronically is a good example. Even though technology can bring more information and opportunities to students, just having the ability to turn in assignments electronically does not mean students are more engaged. Assuming that the same percentage of students turn in assignments to a professor on time at two different institutions, one group submitting hard copies and the other submitting electronic copies, are the students who turn in assignments electronically more engaged than students who turn in the hard copies? Are the students who submit their assignments electronically more invested in learning than the hard copy students? How about students who played a musical instrument? For starters, there are other ways for students to be involved in music without playing an instrument, such as musicals and choirs which are not taken into account by the survey that could just as well improve engagement. These examples suggest caution when interpreting findings (Continued on Page 6)

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ings in this section or when drawing conclusions about the quality of student engagement based on these questions.

CSS data paint a somewhat different picture. About 40% of St. Norbert College students reported that they often or very often have been engaged in serious conversation with students of a different race, religious beliefs, or political opinions, with 21% responding rarely or never. About 45% said they very often or often apply content or concepts learned in classes to work, an internship, volunteer service, or other classes, with 13% responding rarely or never.

Conclusion

St. Norbert College students report high levels of engagement compared to the rest of the nation in Level of Academic Challenge and Supportive Campus Environment. St. Norbert College student report levels of engagement similar to national norms in Active and Collaborative learning, but lag behind in Student-Faculty Interaction and Enriching Educational Experiences. It will be instructive to see whether these initial findings are confirmed when St. Norbert College analyzes data from the College's first NSSE administration in Fall. In the meantime, St. Norbert College should continue to strive for excellence by maintaining or improving our Level of Academic Challenge, Supportive Campus Environment, and Active and Collaborative Learning, but focus also on improving Student-Faculty Interaction on campus and perhaps by providing more Enriching Educational Experiences.

References

Center for Post Secondary Research (September 2009). Benchmarks of effective educational practice. National Survey of Student Engagement. Bloomington, Indiana.
http://nsse.iub.edu/pdf/nsse_benchmarks.pdf

Voke, Heather (2002). Motivating students to learn. ASCD Infobrief (February, 2002. Number 28). Washington, D.C. Association for Supervision and Curriculum Development. Accessed on-line
http://www.ascd.org/publications/newsletters/infobrief/feb02/num28/Motivating_Students_to_Learn.aspx

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1st Year Average GPAs of 2007 SNC Freshmen

2007 Freshmen	Women	Men	Difference (W – M)
HSGPA	3.56	3.26	0.30
1 st Sem GPA	3.07	2.71	0.36
2 nd Sem GPA	3.15	2.80	0.35

Average GPAs of all 2007-08 enrolled SNC Students

2007 Enrolled	Women	Men	Difference (W – M)
HSGPA	3.48	3.18	0.30
SNC GPA	3.16	2.84	0.32

From information in these tables, it would be easy to draw the conclusion that “the GPAs of SNC women are about a third of a grade point higher than the GPAs of SNC men.” (Be honest; isn't that what you were thinking?)

However, the only legitimate conclusion one can draw from the information in the tables above is that “the average HSGPA and SNC GPA of women are approximately one-third of a grade point higher than corresponding averages for men.” It cannot be determined from these tables if the average difference applies across the range of GPAs possessed by our women and men students.

As it turns out, we can (once again) use crosstabs to determine if the approximate average one-third grade point is present across the spectrum of individual GPAs. In this case we focused on freshmen (the top table above) and combined the three entering classes of 2005-2007 to reduce the possible uniqueness that may be present in a single class year. We selected seven percentile points along the GPA spectrum for our table, and SPSS calculated the corresponding GPAs for freshman women and men.

The first crosstab shows the results for HSGPA, the second for SNC GPA.

2005-07 Freshmen	Gender	Percentiles for HSGPA						
		5	10	25	50	75	90	95
H.S. GPA	Male	2.21	2.41	2.76	3.15	3.61	3.89	3.98
	Female	2.56	2.74	3.13	3.53	3.85	4.00	4.05
	Diff (M-F)	-0.35	-0.34	-0.37	-0.38	-0.24	-0.12	-0.07

2005-07 Freshmen		Percentiles for SNC SEMI GPA						
		5	10	25	50	75	90	95
1st Sem GPA	Male	1.50	1.85	2.33	2.88	3.38	3.75	3.88
	Female	1.82	2.14	2.67	3.17	3.60	3.88	4.00
	Diff (M-F)	-0.32	-0.29	-0.34	-0.29	-0.22	-0.13	-0.12

The “gender gap” in GPA shrinks as one moves from the lower percentile ranks to those that are above average. This shrinkage is present for both HSGPA and SNC GPA. The one-third of a grade point difference between first year SNC women and men is, therefore, an average of larger differences for below-average students and much smaller differences for higher achieving students.

Thanks to these crosstabs, we know something interesting and potentially useful about gender and GPA, information not apparent or suggested by the oft-computed average reported in our initial tables.