

Assessment Plans and Processes

The Periodic Review Report Handbook (2004) calls for institutions to demonstrate that they have “*meaningful and appropriate learning goals for their students; that their academic programs are designed to meet those goals; that they use valid, reliable, and effective means of measuring student learning and affective development; and that they use the results of their self-assessment*” (pg. 12). Further, the *Handbook* indicates that accreditation standards 7 and 14 (included in an earlier section of the PRR) “*provide the primary context for this section of the PRR, [and] are mutually supportive in that they recognize the centrality of student learning to institutional effectiveness.*” As noted in Middle States’ recent publication, *Assessing Student Learning and Institutional Effectiveness: Understanding Middle States’ Expectations* (2005), effective assessment processes are characterized as being “*useful, cost-effective, reasonably accurate and truthful, carefully planned, and organized, systematic and sustained*” (pg. 4).

Introduction

Villanova’s commitment to the evaluation of institutional effectiveness and the assessment of student learning outcomes is deeply rooted and extensive. A variety of activities and processes at the university-wide, college, departmental and individual unit levels reflect this commitment. These efforts all begin with a clear articulation of the University’s mission, vision, values and goals and the adoption of these principles by individual colleges, departments and units.

The University’s mission statement provides a clear path for Villanova as a Catholic, Augustinian institution of higher learning that seeks to create a “community of persons of diverse professional, academic and personal interests” and to serve society “by developing and sustaining an academic environment in which the potentialities of its members may be realized.” Such realization occurs within an environment that emphasizes both the “values of the Judaeo-Christian humanistic tradition, and concerns itself with all value systems” while affording students, faculty and staff the opportunity to engage in a “Christian intellectual and moral perspective, [the University] believing that the teachings of the Catholic faith are applicable in every area of human activity.”

The University provides education at the undergraduate and graduate level in the humanities, in the natural and social sciences, and in professional areas such as business, education, engineering, law and nursing with a particular emphasis in the disciplines of philosophy and theology and a commitment to the search for world peace and justice. All this occurs within a community that seeks to reflect “the spirit of St. Augustine by the cultivation of knowledge, by respect for individual differences and by adherence to the principle that mutual love and respect should animate every aspect of University life.” (Please see the University’s full mission statement in the preface of this report on page xiii or link to it at <http://www.heritage.villanova.edu/mission.html>).

The University’s mission statement has been distilled into twelve strategic goals for the institution and a vision whereby Villanova University “achieves academic prominence as a top tier Catholic institution” at the “apex of higher education with an uncompromising insistence on academic excellence” (also appearing earlier in this document on page xiv

and available at <http://www.optir.villanova.edu/strategic/strategicgoals.htm>). The University's twelve strategic goals and vision are promulgated in Villanova's Strategic Plan (<http://www.optir.villanova.edu/strategic/STRATPLAN04.pdf>) and are further refined and articulated in the University's Academic Strategic Plan (<http://www.vpaa.villanova.edu/academicstrategicplan/index.html>) and the plans, goals and activities of individual colleges and units. The importance of assessing institutional effectiveness is directly acknowledged in Villanova's strategic goals in that the twelfth of these goals calls for the University to "measure the achievement of strategic goals throughout the University and use results for continuous improvement." Such a call translates into a commitment to student learning outcomes assessment as well in that others of the twelve strategic goals call for the University to "achieve excellence" in academic programs, to attract and retain a faculty "who are committed to distinction in teaching" and "to provide an educationally purposeful living and learning environment rich in opportunities for personal, intellectual, social, cultural, artistic and professional growth." Naturally, any analysis of how well these goals are being met can only be done through effective assessment activities.

Villanova's Statement of Educational Goals and Objectives, finalized in 2003 and found earlier in this document on pages xvi-xvii and on the University's website at (http://vpaa.villanova.edu/statement_of_Educational_Goals_Objectives.htm), is rooted in the University's mission statement and articulates the knowledge, skills and values that we expect our students to obtain as we provide programs and support for them as a "means to developing the whole person: intellectually, emotionally, spiritually, culturally, socially and physically." All academic and co-curricular departments across the University are expected to "collaborate in assisting students to attain these goals and objectives," realizing that "individual departments will contribute, in varying ways, to the implementation of those goals and objectives that are appropriate to their program or mission."

Together all these items, the University mission statement, our vision and values descriptions, goals, strategic plans and statement of educational goals and objectives, form the corpus of the operative documents for Villanova. It is against these documents that we evaluate and assess our success as an institution.

This section of the PRR examines sequentially Villanova's efforts to assess institutional effectiveness and student learning outcomes. The section begins with a discussion of activities aimed at measuring success at the university level, then hones in on projects that focus particularly on academic issues and closes with a discussion of assessment processes within individual colleges and programs.

Institutional Effectiveness Assessment

A variety of processes, procedures, activities and analyses are employed to promote and evaluate the effectiveness of Villanova University at university-wide, college, departmental and unit levels. Numerous individuals, offices, units and institutional constituencies contribute to and participate in the evaluation of Villanova's institutional effectiveness at these various levels. The Office of Planning, Training and Institutional Research (OPTIR), however, plays a key role in many of these efforts.

OPTIR: With a staff of five professionals, four paraprofessional and support personnel, and a number of graduate student assistants and undergraduate and graduate student interns as needed, OPTIR provides a wide variety of support services to a broad spectrum of internal and external constituencies and is organized to serve five primary functions:

- To support the University's strategic planning and decision making processes;
- To conduct action-based institutional research;
- To heighten faculty and staff skills through high quality training and professional development;
- To coordinate *Villanova Quality Improvement*, the University's continuous quality initiative (including work process improvement and community building efforts); and
- To further the teaching and learning process through a variety of assessment functions, including course specific student evaluations.

Numerous, specific activities conducted by OPTIR in meeting its primary functions both contribute to Villanova's institutional effectiveness as well as to the measurement of that effectiveness. Information on the full list of activities under the auspices of OPTIR is available at: (<http://optir.villanova.edu/>).

While OPTIR has a variety of strengths, a particular hallmark of OPTIR's activities is its work in the survey research area. Over the years, Villanova has developed a sophisticated and systematized survey operation. The survey operation consists of three major components – the systematic survey cycle (SSC), service satisfaction surveys (SSS) and commissioned surveys.

The SSC includes regularly scheduled surveys of accepted, incoming, enrolled, and graduating students, baccalaureate and graduate alumni, parents, faculty and various other University community members and constituencies. Whenever possible the surveys administered to a specific group/cohort of individuals over time (for instance, an entering class of students as they enroll, while enrolled, as they graduate and post-graduation, etc.) are linked in order to support appropriate longitudinal analyses. The SSC contains a mix of nationally developed normed surveys (e.g., CIRP, NSSE, CSEQ, CSS, etc.), surveys conducted as efforts of assorted consortia (e.g., HEDS, AICUP, AAUP, etc.), and surveys developed specifically by and for use by Villanova. A list of the various surveys conducted by OPTIR, as well as the schedule for the SSC, is included in Appendix I.

SSS efforts afford administrative units of the University the opportunity to survey, on a cyclical basis, their prime constituencies about the quality of services that they provide to these groups. A wide array of university units have participated in these efforts including, but not limited to the General Counsel's Office, Facilities Management, Financial Services, the Office of Research and Sponsored Programs, and OPTIR itself. OPTIR has also been instrumental in supporting and conducting surveys as a part of efforts to evaluate key administrative leaders.

Commissioned surveys are requested by and conducted on behalf of units from across the University. These surveys allow units, including colleges, to study specific topics of import to them and to delve deeper into issues raised through other survey efforts. Commissioned surveys have been included, at times, as part of classic needs assessment efforts including work done on behalf of Campus Ministry and University Information Technology (UnIT). As programmatic offerings and services are developed and adapted in response to needs assessment results, evaluation components are built in from the outset to ensure a means to measure the success of these developments.

Some colleges and divisions have worked with OPTIR to develop commissioned surveys that are now administered on a regular basis and have, in many ways, created a “mini-SSC” of sorts for these units. All colleges have some such efforts underway, be they with their enrolling, enrolled, graduating or former students at the undergraduate and/or graduate levels. A number of these surveys are included on the list of surveys contained in Appendix I. Appendix J includes, for illustrative purposes, the complete list surveys commissioned by the College of Commerce and Finance over the past three years. Additional details on all the various surveys conducted by individual colleges and academic divisions and units can be found in the University’s overall assessment plan <http://optir.villanova.edu/Assessment/index.html>.

While it is fully understood that survey data are not the only means by which to collect information and are not appropriate for use in all cases and situations, there is a clear record at Villanova of survey data being employed to inform planning and decision-making. Examples of such efforts include the development and implementation of a leadership training program for managers as a result of findings from a campus climate survey; and, the construction of a health and wellness center, creation of undergraduate advising centers in the colleges, and ramping up of diversity efforts all being informed by student and alumni survey data.

Assessment Efforts within Student Life and Co-curricular Areas: All areas of Villanova University, both traditional academic colleges and departments as well as co-curricular units, are expected to engage in assessment activity. Indeed, Student and Residential Life, along with Athletics, have been at the forefront in using survey and evaluation data to inform decision-making and improve programmatic offerings. As with the academic colleges, programs and departments, the mission, goals and objectives of the Student Life and Athletics, as whole entities, and the sub-units within them, are drawn from and aligned with the mission, goals and objectives of the University as a whole. Assessment activities in these areas, as well as Campus Ministry, as previously mentioned, are many and varied. They include both a number of the student-related surveys described above as well as efforts specific to the needs of these areas.

Student Life’s involvement with the University’s overall institutional effectiveness and assessment efforts literally begins as new students first arrive at Villanova. The entering student survey (rotating between national instruments such as CIRP and CSXQ, instruments from various consortia, instruments developed exclusively by Villanova and instruments designed to examine specific issues) is administered during New Student Orientation and serves as a baseline as to where students are as they begin their careers at Villanova. In addition, Orientation itself is evaluated annually as students are asked to

complete an evaluation form at the end of the four-day program. The results of this evaluation are employed to adjust the program for following years. In 2005, an appraisal of the parents' component of Orientation was added as evaluation forms were mailed to the homes of all new students following the August Orientation program. While the parents' part of the evaluation was new this year, there are plans to conduct it annually.

Virtually all residential first-year students at Villanova live in some type of learning community. In turn, most first-year students live in a residence hall with their classmates from their Fall semester Core Humanities Gateway Seminar. Some Gateway Seminars have specific themes, such as leadership, health and wellness, visions of freedom, environmental issues, global community, and performers and artists; students may opt into these themed learning communities. Consistent with the University's mission, the learning communities are designed to provide a holistic integrated approach to the intellectual, personal, social, moral, and spiritual development of the students residing in them. Over the years, as the learning community model has expanded from serving self-selected, interested students to encompassing nearly all entering students, the leaders of the program have relied on various assessment and evaluative processes. These have included surveys and evaluation forms designed specifically to study the learning communities, analyses of surveys given to all students to compare the responses/experiences of students in learning communities and those who were not in such communities (control groups), focus groups, surveys of faculty, and participation in a FIPSE funded project, *Student Affairs-Academic Affairs Partnership Assessment Project*, through the Boyer Center at Messiah College. The results of these efforts were used to strengthen and expand learning community activities across campus. A professor has also conducted research on linkages between housing assignments and placement in Core Humanity Seminars.

In response to student wishes, the learning communities concept was expanded to provide opportunities for a limited number of sophomores to participate in a second-year *Service Learning Community*. A major effort was undertaken in the Fall of 2005 to assess this new initiative. A web-based survey was distributed via email to every student participating in the sophomore year service learning community. The focus of this survey was to evaluate the Service Learning Community programming for the Fall 2005 semester. The students were able to evaluate their facilitators, as well as in and out of class programming. The feedback from this survey will be useful in training new facilitators and will be helpful in analyzing the relationship between service education in the classroom and what the students experience during their service times each week. An assessment service called StudentVoice was employed to facilitate this survey.

StudentVoice was new to Villanova during the 2005-2006 school year. It enables the Division of Student Life to develop, conduct and analyze a number of its own assessment activities. As the www.studentvoice.com website notes, "*StudentVoice provides assessment services and support to campuses required to gather quality, actionable data.*"

With the help of the staff at StudentVoice, Villanova Student Life conducted more than 10 surveys in the Fall 2005 semester alone, utilizing both the PDA survey capabilities and web-based survey opportunities available through StudentVoice. The Division's

Office of Health & Wellness has been a major user of the StudentVoice program, employing PDA capabilities in particular to gather data related to a number of their programs including, *Girls Just Wanna Have Fun, an Alcohol Awareness Week Student Panel Survey 10/7-10/21—Palm Pilot, an Alcohol Awareness Week Block Party, an AIDS Quilt Questionnaire, and an AIDS Quilt Display - Web-based Survey*. The goal of these surveys was to gather information from random samplings of students at various Health & Wellness activities in order to determine if the office was succeeding in both reaching and teaching the students effectively through their programs, as well as assessing any further educational needs of the student body and surrounding community.

Similar efforts were employed by the office, which coordinates orientation activities, including evaluations of and by the Orientation staff members and participation by the office in StudentVoice's Orientation Benchmark survey. The evaluation surveys were meant to determine the level of educational outcome of the orientation training processes, particularly regarding leadership and communications skills, whereas, the benchmark survey, which was sent to the entire first-year class over Fall break, allowed Villanova to compare its results to those from 9 similarly designed orientation programs from across the country as well as to those at other local colleges and universities. The feedback from this benchmark will enable the orientation staff to better train, educate, and meet the needs of both orientation leaders and first year students when planning future orientation programming. A Transfer Student Evaluation of Orientation is being planned for Spring 2006, using StudentVoice.

In addition to its work with StudentVoice surveys, the Office of Health & Wellness also administers a Health Survey to a random sample of the whole campus on a cyclical basis. This survey, offered in conjunction with the American College Health Association (ACHA), was last administered in the Spring 2004 semester with plans for another administration in Spring 2006. The Office also conducts assessments of the Peer Education program after each session with the students who attended the program. Finally, through the University's participation in the alcohol awareness program "AlcoholEdu," the office receives a full written report when the first-year students have completed the online program. This report provides valuable aggregated, anonymous information regarding students' experiences with alcohol.

The Academic Advancement Program (AAP) (or Act 101 program as it is publicly known and legislatively designated through its tie to the Higher Education Opportunity Act of 1971) conducts an annual self-assessment in accord with the provisions of its funding. AAP is designed to provide support to highly motivated students from Pennsylvania who meet certain economic and academic criteria and whose high school credentials suggest that they can successfully matriculate at and complete Villanova with appropriate academic support. AAP also assesses yearly the student response to and success in the pre-college summer program it offers.

Athletics: conducts an annual survey of all of its 600 plus student-athletes ascertaining student-athletes' opinions regarding their academic, athletic and social experiences at Villanova. The results of these surveys are often followed up with focus groups to hone in on and pinpoint certain issues. The outcomes of the survey and focus group efforts

will lead, on occasion, to the development of specific programs, training and activities to meet the needs of student-athletes. Depending on the circumstances, such programs may be designed for the student-athletes themselves or for those who work with them.

VITAL: Villanova's commitment to effective teaching and learning is reflected, in part, through the work of the Villanova Institute for Teaching and Learning (VITAL). VITAL provides and coordinates resources for faculty members, from all disciplines, who are interested in helping their students become more effective learners. VITAL's services include:

- consultations with individuals, departments or other groups interested in revising courses, reviewing curricula, exploring new teaching strategies, assessing students' learning, developing peer review processes, and related issues;
- confidential classroom observations with constructive feedback;
- instructional diagnosis of students' learning in individual courses;
- workshops and informal discussion groups on issues such as balancing teaching and research, teaching large classes effectively, considering students' learning styles, and using instructional technology;
- consultation for classroom videotaping; and,
- an orientation program for new Villanova faculty members.

VITAL makes a number of resources available to faculty and departments working to improve their teaching and enhance the learning of their students. These include mini-grants to support innovative teaching and learning, "Teaching-Talk" - an email discussion list for faculty members, a library/resource center of books, journals, and other materials related to teaching and learning, and the *Teaching Excellence* newsletter.

Course and Teacher Survey: Villanova's Course and Teacher Survey (CATS), a form completed by students each semester in nearly every course, as required by University policy, was inaugurated in 1997. Villanova administers CATS in the belief that student perceptions of courses are a useful component of understanding teaching effectiveness. CATS results give faculty members an additional source of information about how students perceived their classes. They also give useful information to department chairs who, in turn, can make helpful suggestions to faculty for improving their teaching effectiveness. Ultimately, CATS results serve as one component of the overall program evaluating teaching that is conducted by faculty colleagues and chairs.

CATS was initially designed by a committee of faculty and administrators, and was circulated to the entire faculty for comments and revisions. The process was extensively reviewed in 2003-2004, leading to a new version of the form that was introduced for the Fall semester of 2004. Again, a committee of faculty and administrators reviewed the form, sought feedback from the University community, and circulated the proposed changes for comments and revisions. The revised form contains 29 questions total, including 7 demographic type questions, 14 questions about faculty-related activity within the course, 6 questions about student involvement in the course and 1 question each about the overall quality of instruction in the course and the overall value of the course. Extensive pilot testing and statistical analyses preceded the release of the revised form for widespread use. This work helped the University develop an understanding of

which factors contribute most strongly to students' perceptions of instructional quality and course value. This information has already begun to prove invaluable as the University examines and works on issues related to instruction and student engagement at Villanova.

Falvey Library: Villanova's library operates as an important intellectual, educational, technological and instructional hub for the University. In turn, the Library's staff is actively engaged in assessment activities as well. Falvey's efforts bridge both institutional effectiveness and student learning outcomes assessment. The Library seems to be continuously engaged in activities aimed at measuring its effectiveness in meeting the needs of the various constituencies it serves. Data are collected through surveys and focus groups as well as unobtrusively through various counts of all types of transactions and the monitoring of the use of various services provided by the Library electronically and otherwise. The service area of the Library's main floor was recently reconfigured to better meet the needs of the Library's clientele. A large 24/7 study lounge and coffee bar was added to the facility to meet the needs of students. A study is currently underway to find ways in which the activities of the Library can be streamlined to more effectively serve the needs of the University community.

On the student learning outcomes side, Falvey recently participated in the Standardized Assessment of Information Literacy Skills (Project SAILS – a joint effort of Kent State University and the Association of Research Libraries). Designed to meet the Association of College and Research Libraries' (ACRL) Information Literacy Competency Standards for Higher Education, this effort was undertaken in order to contribute to the University's assessment of the objective that calls for students to develop skills in, among other things, information literacy. The Library's information literacy program "seeks to develop lifelong learners who recognize when information is needed, who know where in the vast quantity of print, electronic, and media sources to begin to look for it, and who then evaluate the information found and use it in an appropriate and ethical manner." Components aimed at assessing student acquisition of information literacy and other library skills are also built into the course segments that Falvey staff design for individual colleges and programs. In recent years, programs as diverse as biology, civil and environmental engineering, geology, nursing (multiple courses) and psychology have had Falvey develop and assess the success of particular course components for them. A series of assessments of a program that was previously formally offered through the Library as part of the University's CHS, led to major revision in the delivery of information literacy skills instruction to undergraduate students. Whereas this instruction had been offered as a stand-alone component of the first-year CHS program, this instruction now takes place in the sophomore year. This allows the instruction to be based within the disciplines, to be tailored to needs identified by individual professors and to be embedded deeper into courses than it had been under the previous system. Falvey has created teams of liaisons to each of the disciplines to facilitate this shift and to promote stronger working relationships with faculty. The change in the delivery of information literacy skills instruction is a clear example of a modification prompted by assessment results.

Technology: As noted elsewhere in this report, Villanova is receiving increasing recognition as a sophisticated, technology-based university. Computing is a standard for students and is used increasingly in the curricula in colleges and programs across the campus. For example, a laptop initiative was launched in the College of Commerce and Finance in 1997, whereby each first-year student is issued a laptop with a DVD/CD ROM, fax modem, network accessories and all the necessary software. At the end of the student's sophomore year, the laptop is replaced with a new, up-to-date model for the remaining two years (which they keep at graduation). Because the laptops are integrated into all of the coursework in the College's curriculum, the laptops are equipped with cards to support the new wireless system available in classrooms and common areas in Bartley Hall (the Business School building) and at other select locations throughout the campus. Both the acquisition of students' technological skills and knowledge and the overall effectiveness of this program have been assessed regularly since the outset of the program (please see the list of surveys conducted by and on behalf of the College in Appendix J for additional information on this assessment activity). The program has been adapted and updated along the way in response to assessment results and technological advances. The laptop program was expanded to the College of Engineering in 2003 and will be extended to entering students in all four of the University's colleges in Fall 2006. In order to promote the overall effectiveness and efficiency of the University, faculty and staff computers are refreshed on a three-year cycle. Other programs and initiatives of UnIT are discussed throughout the PRR.

Intellectual Climate Study: A study was launched in Spring 2005, in response to survey results from a series of administrations of the National Survey of Student Engagement (NSSE) and its broader cousin, the College Student Experiences Questionnaire (CSEQ) as well as information gleaned from a longitudinal cohort focus groups project, all of which indicated that students were not as intellectually engaged outside the classroom environment as Villanova would like them to be. This study involved an extensive mix of quantitative and qualitative methodologies in an attempt "to leave no stone unturned" in addressing this important issue. Analyses contributing to these efforts included multiple student focus groups, a focus group with students in the University's Honors program, interviews with students in the Honors program who had expressed an interest in transferring, interviews with selected faculty, an analysis of best practices at other institutions, additional analyses of the CSEQ data and special analyses of certain CATS data. The data collected through these efforts were presented to the Council of Deans and are now being employed by a committee which was formed to investigate means and design initiatives to increase the intellectual engagement of Villanova's students outside the classroom.

Academic Strategic Plan: The goals and objectives of the Academic Strategic Plan (2003), which is highlighted among Villanova's foundational documents in the prelude to this PRR, have been converted into metrics and measurable outcomes. In turn, information on these outcomes was collected as the plan was initiated in order to establish a baseline of the University's performance in these areas at the plan's outset. These data were also benchmarked against information for a select group of peer and aspirant institutions for Villanova. As the plan is being implemented these metrics and

benchmarks are tracked to help inform the University's evaluation of the effectiveness of the plan.

Of course, there is no more important measure of Villanova's success than the assessment of student learning outcomes. Accordingly, in the sections that follow, the University's various student learning outcomes, assessment procedures, and processes are discussed.

Student Learning Outcomes Assessment

Villanova has made great strides in the area of student learning outcomes assessment in the period since the Middle States Visiting team offered the following recommendation at the conclusion of its March 2001 visit:

The evaluation team supports the self-study's recommendation that the University Committee on Outcomes Assessment, which was redirected to prepare the self-study section on institutional effectiveness, should reconvene with broader faculty participation as planned during the spring 2001 semester, and continue its efforts to specify a guiding plan for mission-driven objectives and student outcomes for all University units.

In the intervening period, the University Committee on Outcomes Assessment was reconstituted and reconvened, as recommended, with greater faculty participation under the joint direction of a senior member of the University's mathematics faculty and the Assistant Vice President for Student Life. As its first order of business, the reconvened committee finalized work on "*Villanova's Statement on Educational Goals and Objectives*," vetting the document with administrators and faculty via email distribution and correspondence, and eventually publishing and disseminating the statement as a key guiding document in the development of student learning objectives and assessment plans and techniques across the entire University. The committee also held workshops on outcomes assessment, allowing the various colleges and departments to share with one another information on both their assessment success stories and the challenges and obstacles they faced and had to overcome in conducting assessment. Presenters at these workshops included faculty representatives from departments and colleges as diverse as chemical engineering, communication, computer science, english, history, and Nursing, to name but a few.

Representatives of the committee (primarily the co-chairs) also met with the deans or designees thereof of each of the University's four colleges and the directors of numerous co-curricular units to discuss their assessment efforts, progress and needs. The committee also completed an inventory of all the departments and programs in the College of Liberal Arts and Sciences to determine where the various entities stood in terms of their progress in conducting outcomes assessment and what types of assistance they may need as they moved forward with assessment. In response to the results of the inventory, a workshop was conducted with representatives of all of the departments and programs in the College. The objectives of this workshop were to assist the academic units within the College in formulating goals, objectives and clearly articulated, measurable, behaviorally-oriented student learning outcomes as well as to aid them in investigating, selecting and developing, as needed, appropriate assessment methodologies and

techniques. After a common opening session, breakout sessions were held with groupings of similar disciplines in order to provide targeted assistance.

As of this writing, much of the assessment activity at Villanova, particularly in the academic realm, is conducted and coordinated at the college and departmental levels. As such, the University Committee on Outcomes Assessment has been reconstituted a second time so as to allow faculty to focus their attention on assessment within colleges and departments. At present, the committee membership stands at nine with a tenth individual serving in an advisory capacity. The nine regular standing members of the committee include the senior member of the mathematics faculty and Assistant Vice President for Student Life, previously mentioned, continuing as co-chairs, the assessment coordinators from each of the University's four colleges, the University Librarian, the Executive Director of Campus Ministry, and OPTIR's Director of Planning and Assessment.

A wide array of assessment techniques are presently in use across the University, as appropriate, to meet the needs of all the various colleges and programs. Various techniques being employed for assessment purposes to different degrees include portfolios (electronic and otherwise), capstone courses, writing and analytic rubrics, analyses of final course projects, common essay questions, reviews of student presentations and performances, assessment reading days for faculty, and in-class, standardized and licensing exams.

Assessment within individual colleges and programs: Assessment activities with Villanova's individual colleges and academic programs derive from an institutional desire to meet three non-mutually exclusive, overlapping objectives. These include Villanova's general dedication to planning and excellence, the University's commitment to the Middle States accreditation standards, and the accreditation of individual colleges and programs by professional and specialized accrediting bodies. Each of these tripartite objectives calls for assessment to be a cornerstone of university and college activity. In addition to the Villanova's regional institution level accreditation, various colleges and programs across the University are accredited by a host of professional and specialized accrediting bodies, including, but not limited to the Accrediting Board for Engineering and Technology (ABET), the Association to Advance Collegiate Schools of Business (AACSB) International, The American Chemical Society, the Commission on Collegiate Nursing Education, the Computing Sciences Accreditation Board, the national League for Nursing Accreditation Commission and the Pennsylvania State Board of Nurse Examiners.

As noted above, each college now has a designated assessment coordinator who helps oversee, facilitate, coordinate and report the assessment activities of their college. These individuals, as noted, also serve on the University-wide Outcomes Assessment Committee. In their reporting role, the coordinators are responsible for keeping their deans, the Vice President for Academic Affairs and the University Outcomes Committee apprized of assessment activities and advances in their colleges. In part, the coordinators help assure that their individual colleges, and the programs therein, have mission statements, statements of learning goals and objectives and specific student learning outcomes that tie into the goals, objectives and intended student outcomes of the

University as a whole. The coordinators also provide periodic reports on the assessment methods and indicators that are employed by the colleges and programs (or are scheduled to be employed) and the feedback plans that exist for using assessment data for improvement, as well as any evidence they may have indicating that the feedback loop has been completed by the college or individual programs. The most recent periodic update in this regard was completed in December 2005.

Of course, as one might imagine, the degree to which all of the components and various steps outlined above have been put into place varies greatly by college and program. The sections that follow contain brief reports on the status of assessment in each of the colleges. Additional details on assessment can be found in the appendices and in the University's overall assessment plan.

College of Commerce and Finance Assessment Activities: The Undergraduate Program Assessment Plan for the College of Commerce and Finance has been structured to satisfy the Assurance of Learning Standards set forth by AACSB International, the College's accrediting body. As such, the plan focuses on the College's mission statement and the strategic plan.

The assessment plan for the College specifically addresses six college-wide strategic initiatives (Technological Competence, Ethics & Social Responsibility, Communication, Global and Multicultural Understanding, Experiential Learning, and Integrated Curriculum) over and above the discipline specific knowledge students should obtain via their particular programs of study. The following list cites some of the specific activities completed, underway, or planned to help assess students' acquisition of knowledge, skills and values (ksv) associated with these initiatives.

Technological Competence

- Students' skills with software programs Access and Excel have been assessed through an on-line exam through Course Technologies in DIT 1006 -- Intro to MIS. Data for the last four semesters have been collated and summarized and data collection continues.
- Strategic Uses of Technology and Applications: An exam, developed by MIS faculty and administered in DIT 1141 Operations Management, will be piloted in Spring 2006.

Ethics & Social Responsibility

- A case focusing on ethical issues in the financial services industry was developed by a College faculty member. The case has not been administered yet; however, it will be once the appropriate venue is determined.
- The case outlined below (under cross functional) will be modified to address ethical issues when it is administered in Spring 2006.

Global and Multicultural Understanding

- A set of common multiple choice questions on the final exam in ECO 3109 -- International Economics was piloted in all sections in Spring 2005; the same was being done in Fall 2005. Preliminary data analysis on the Spring data has

been completed. (NOTE: An essay question on global issues was piloted in ECO 3109 in fall 2004. Due to difficulties in grading, multiple choice questions were developed instead).

Experiential Learning

- Internship supervisors (employers) are asked to complete an evaluation form for each intern. While those students participating in the internship program are not necessarily representative of our entire student body, the data could potentially point out areas of concern.

Communication

- Oral Communication: In Fall 2004 and Spring 2005 a pilot program was undertaken with students in MGT 1102 -- Management Essentials. Students videotaped oral presentations that were evaluated by Commerce and Finance Business Fellows using a rubric developed by the College. Approximately 80 tapes were evaluated. Initially, all students were required to submit a video in their sophomore year and then again in their senior year. Due to the logistical difficulties involved in taping and evaluating the videos, this requirement was eliminated and the pilot program was initiated.
- Oral Communication will be assessed in ACC 1102 -- Managerial Accounting. In Fall 2005 student presentations were scheduled to be evaluated using a rubric similar to the one developed originally and mentioned above.
- Written communication is assessed in the case analysis in MGT 3301 (See Cross Functional, below). In addition, all sections of MKT 1137 will require a writing assignment that will be assessed by Business Fellows and others as deemed appropriate using a rubric developed by the College. This will be piloted in Spring 2006.

Cross Functional

- A case developed by two Management faculty members was piloted in a number of sections of MGT 3301 in Spring 2005. The focus of the assessment is on written communication, cross functional understanding and basic financial analysis. These case write-ups, which were prepared during a regular class meeting, were reviewed and analyzed using a rubric designed by the College. The case was also administered in a number of sections of MGT 3301 in Fall 2005.

Finance Readiness Test

- A multiple choice exam, covering topics that are prerequisites for FIN 1113 -- Principles of Finance (Microeconomics, Macroeconomics, Financial Accounting, and Quantitative Analysis) was given to students in FIN 1113 in Fall 2005. This is planned again for Spring 2006.

During the Spring 2006 semester, the Undergraduate Assessment Committee of the College of Commerce and Finance spent a day in a “closing the loop summit,” analyzing all of the data collected to date and developing recommendations for program/curriculum changes as needed.

College of Engineering Assessment Activities: The assessment process in the College of Engineering is driven, as noted, by the requirements both to meet Villanova’s educational goals and objectives and to satisfy the criteria specified by ABET, so as to maintain accredited programs in all of Villanova’s engineering departments. In the area of intellectual development, the assessment processes, which have been developed to monitor success in attainment of program outcomes specified by ABET, can also be used in ensuring that Villanova’s goals are met as well.

The six major educational goals for Villanova correspond to what are termed program educational objectives by ABET and defined as “broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.” The attainment of an objective or goal is referred to by ABET as an outcome, i.e., “outcomes are statements that describe what students are expected to know and be able to do by the time of graduation.” In fact, objectives that are described in the Villanova document using phrases like “graduates will demonstrate...” are very much like an ABET outcome. With this understanding, there is a very high correlation between the objectives described under the goal of intellectual development and the following program outcomes identified by ABET. All engineering programs must demonstrate that their graduates have:

- a. an ability to apply knowledge of mathematics, science, and engineering
- b. an ability to design and conduct experiments, as well as to analyze and interpret data
- c. an ability to design a system, component, or process to meet desired needs
- d. an ability to function on multi-disciplinary teams
- e. an ability to identify, formulate, and solve engineering problems
- f. an understanding of professional and ethical responsibility
- g. an ability to communicate effectively
- h. the broad education necessary to understand the impact of engineering solutions in a global and societal context
- i. a recognition of the need for, and an ability to engage in life-long learning
- j. a knowledge of contemporary issues
- k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

A full, one to one correspondence between these two sets of outcomes is, of course, not to be expected. For example, as ABET is a nonsectarian organization, no explicit

reference is made in their list of objectives as to Judaeo-Christian, Catholic, and Augustinian traditions and the values and moral principles inherent in them. On the other hand, engineering graduates are required to understand their ethical responsibilities and to understand the impact of engineering solutions in a global and societal context. There appears to be sufficient overlap of the two sets of objectives so that the assessment process used by the College of Engineering, to monitor the attainment of ABET objectives, will also suffice to ensure that the University's objectives in the area of intellectual development are met.

The details of the assessment process vary somewhat between the five programs (Chemical, Civil, Computer, Electrical, and Mechanical Engineering) offered by the College. The faculty of each program has developed a set of educational objectives (goals) that they wish their graduates to attain consistent with the University goals. For example, the Department of Mechanical Engineering has identified five program educational objectives. Their graduates will:

1. Have the skills and abilities needed for successful employment in mechanical engineering and related professions
2. Understand the fundamental scientific principles that underpin the mechanical engineering profession, and have attained the technical skills necessary to effectively practice mechanical engineering
3. Possess the necessary communication and interpersonal skills to enable them to be successful in mechanical engineering and other professions
4. Know the importance of life-long learning for enhancing their personal and professional growth, and their careers
5. Be broadly educated, consistent with the tradition of St. Augustine

All programs then develop a set of measurable educational outcomes that are essential for the achievement of the program objectives and at the same time are consistent with the 11 basic ABET outcomes. Additional outcomes may be also included if a given program feels it necessary to do so. For example, Mechanical Engineering program has identified the following five major outcomes:

1. Graduates are proficient in design of mechanical components and systems
2. Graduates are proficient in written, oral, and graphical communication
3. Graduates are proficient in analyzing and solving fundamental engineering problems
4. Graduates are prepared for employment/graduate studies, and continuing education
5. Graduates are broadly educated and understand professional and ethical responsibilities

Within each of these broad outcomes the department has identified three to five sub-outcomes, e.g., for outcome 1 the following sub-outcomes are identified:

- Technical proficiency in engineering design of mechanical and thermal components and systems
- Ability to work in a multi-disciplinary team environment, and

- Ability to include non-technical factors (social, environmental, and economic) in the design process

Once these outcomes have been identified and have been shown to correlate with educational objectives, metrics are developed as a means to demonstrate the actual attainment of the outcomes. These metrics include alumni and employer surveys, annual senior exit surveys, collection of student work (e.g., homework, tests, senior design projects), course syllabi and outlines.

The two processes of goal formation and outcome assessment are each subject to evaluation loops or cycles. Educational outcomes are analyzed in a loop consisting of the following processes: develop methods for achievement, determine means of assessment, establish indicators of achievement, implement methods through instruction and student activities, and finally, evaluate and assess the results. Educational objectives (goals) may be adjusted according to input gained from the outcome evaluation process and from various constituencies of the program (e.g., alumni, employers, students).

As for the University's five remaining goals beyond intellectual development, the objectives are only partially matched by corresponding ABET program outcomes. Given that ABET is concerned exclusively with accreditation of programs in engineering, computer science, and technology, the College must rely upon its position within the larger University structure for assessment of these objectives. The College's efforts toward ensuring the attainment of these goals are discussed in the paragraphs that follow.

Engineering students have ample opportunity within the College and across the University for personal, emotional and social development through a myriad of student clubs and activities. In the College, for instance, in each student's area of professional interest personal development opportunities are provided through membership in various professional societies. The College has active chapters of the four major engineering societies: American Institute of Chemical Engineers (AIChE), American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), Institute of Electrical and Electronic Engineers (IEEE). In addition, there are chapters of the more specialized societies: the American Institute of Aeronautics and Astronautics (AIAA) and the International Society for Pharmaceutical Engineering (ISPE).

In the area of spiritual and moral development, the College relies on the required core humanities course work in theology and philosophy to provide the intellectual foundations. The variety of programs offered through the Campus Ministry are available to our students in order to put their faith into practice. Service work opportunities specifically associated with engineering are found in organizations such as the Engineering Student Council, our PEERS student mentoring group (Providing Engineering Educational Resources for Students), and Engineers Without Borders (EWB), as well as spring break engineering service trips to Amigos de Jesus, Honduras and Waslala, Nicaragua. The College expects that its students will find cultural development in the areas of arts and literature via the required humanities courses in their programs.

Additional information on the College of Engineering's assessment activities can be found in the appendix to this report. Extensive information on, and specific examples of, the College's assessment activities is available in the University's assessment plan and documentation at <http://optir.villanova.edu/Assessment/index.html>

College of Liberal Arts and Sciences Assessment Activities: The process of outcomes assessment, undertaken over recent years by the 40 departments and programs of College of Liberal Arts and Sciences, has proceeded along similar lines for each program unit, although at varying rates of completion. Generally, departments in the sciences have made more rapid progress at assessment than those in the humanities, due in part to the fact that student learning outcomes in the sciences tend to be more readily identifiable, tangible and quantifiable. In turn, building on the work that the University's Outcomes Assessment Committee had already done with the College, one of the first tasks of the College's outcomes assessment coordinator was to remind (and in some cases explain to) each department/program chair of the nature of the outcomes process and how it could benefit both the students and faculty. Equally important was the task of correcting misconceptions and allaying fears concerning the process. Once this was accomplished, most chairs recruited either a committee or an individual within the department designated to oversee outcomes assessment.

Almost all of the program units already have in place one or more elements of a solid assessment plan. These include:

- A Mission Statement. Some have formulated an overarching Mission Statement for their entire program, and then more narrowly defined Mission Statements for the constituent elements of their program (Core courses, major, minor, graduate)
- Program Goals/Objectives. An enumeration of the ways in which the department/program carries out its Mission
- Student Outcomes. On the basis of stated goals and objectives, what measurable learning outcomes will the students achieve? These student learning outcomes may include specific skills, a particular knowledge base, and modes of expression relevant to the discipline
- Strategies for Assessing Student Learning Outcomes. As the department/program moves into the assessment phase, the first task is to develop a plan for assessing the student learning outcomes (MSCHE Standard 14). Many departments happily discovered that they already had been employing various assessment tools for some time (senior exit surveys, alumni questionnaires, etc.)

Once departments develop their own appropriate strategies to assess student outcomes, it is then feasible to go back and see if program goals and objectives are adequately facilitating desirable student outcomes (MSCHE Standard 7). Like the assessment of student outcomes, the assessment of departmental goals and objectives is essentially an in-house project, whereby departments can adjust their objectives to facilitate better student outcomes. Ultimately, the goal is to develop a culture of outcomes assessment within Arts and Sciences whereby each unit understands that "assessment is not an event but a process and should be an integral part of the life of the institution. Most

significantly, a commitment to the assessment of student learning requires a parallel commitment to ensuring its use.” (MSCHE Standard 14).

It is evident that a given program unit’s experience with outcomes assessments depends on a number of variables arising from its own distinct institutional history. New programs like Humanities and Augustinian Traditions found that the first stages of the process assisted them as they formulated their programmatic identity. Other departments engaged in periodic program evaluation, like Theology and Religious Studies or English, were pleased to find that the twin processes of program evaluation and outcomes assessment mutually supported each other. Other program units like Honors or History used the process of outcomes assessment to refine elements derived from earlier evaluation reports. For some departments, the process of outcomes assessment cast into high relief the ideological tensions and fissures within the department, since outcomes assessment necessarily clarifies and articulates a department’s distinct mission and the student learning outcomes it deems valuable. The following are examples of some of the goals, objectives, intended student learning outcomes and assessment techniques currently in place within programs in the College of Liberal Arts and Sciences:

The Department of Computing Sciences has among its objectives an objective “to provide graduates with a thorough understanding of the key principles and practices of computing.” This objective is translated into a series of student learning outcomes, which includes:

- Students will demonstrate understanding of the core areas of algorithms, theory of computation, operating systems, linguistics of programming languages, and architecture.
- Students will demonstrate proficiency in software development, including problem analysis, software design, and the use of programming languages and tools.
- Students will successfully apply these principles and practices to a variety of problems, including ones not previously encountered.

A crosswalk is maintained, which identifies where in the department’s curriculum this objective and these outcomes, as well as all of the other of the department’s objectives and learning outcomes, are addressed. Assessment techniques are then linked to individual and combinations of courses. These efforts are overseen by individual course instructors, course coordinators and curricula committees.

The Chemistry Department employs a similar strategy to that of Computing Sciences only further delineating the learning outcomes emanating from each of its objectives into outcomes associated with knowledge, skills and values. Chemistry also makes an explicit tie for each of its objectives and intended outcomes back to the overall educational goals and learning objectives of the University at large.

The Department of Philosophy, among others, has a clearly articulated mission statement and goals deriving from it. Objectives are maintained for each of the stated goals and strategies for meeting these objectives are indicated. Intended outcomes for each of the objectives are expressed and assessment techniques are identified for each objective.

The Department of Political Science employs a comparable tack with a mission statement, six goals, six objectives tied to these goals and learning outcomes associated with each of the objectives. Similarly, the Department of Theology and Religious Studies has begun to delineate goals, objectives and learning outcomes for those students who complete the University's minimum requirements in Theology vs. those students who are minoring or majoring in Theology and Religious Studies.

All of the aforementioned departments and programs use some combination of surveys (with enrolled students, graduating seniors and/or alumni), focus groups, exit interviews, examinations, writing assignments and/or final projects in assessing their success at meeting their goals and objectives and witnessing the development and fulfillment of their intended learning outcomes in their students.

The principal focus of outcomes assessment in the College of Liberal Arts and Sciences thus far has been the departments with their constituent programs. The next logical step will be to encourage each of the departments to create a structure to ensure ongoing self-assessment. Another important stage in the College's overall assessment program will be to incorporate outcomes assessment into cross-disciplinary programs and area studies programs. Recently, several of these programs have seen significant changes in structure and leadership. Since they are considerably smaller than the College's departments, they are considerably more sensitive to changes in leadership. However, as with the departments, a change in program director provides an ideal opportunity to assess the program's past effectiveness and to chart a course for future development.

Across the College, the concept of outcomes assessment is taking hold. Much has been accomplished; much remains to be done. It has become clear that the most effective outcomes assessment program is one generated by a commitment to excellence by the entire academic community – a sublimely Augustinian notion.

College of Nursing: The College of Nursing has long been a leader in assessment activities at the Villanova. This is due in part to the combination of its discipline-specific, professional accreditation, the need for its students to succeed on licensure examinations, and the competency based nature of much of its curriculum. The College's goals, objectives, and intended learning outcomes are well developed and articulated. The College of Nursing's mission statement begins eloquently, establishing a tie to the mission of the University:

The College of Nursing is a tangible expression of Villanova University's mission, tradition, and commitment to human service. As a major school of nursing under Catholic auspices, it carries responsibility for the education of nurses within the framework of Christian beliefs and values and the heritage of the Order of St. Augustine. The academic programs in the College of Nursing are directed to interpretation of nursing as a healing ministry emanated by love and demonstrated through service and the care of others. As a healing art as well as an applied science and practice discipline, nursing as taught at Villanova University emphasizes the concern for spiritual health as well as that of mind and body. Curricula reflect the integration of these

elements and their application in clinical practice and concern for others regardless of race, ethnicity or religion. The College of Nursing educates individuals for service to a diverse society including all sectors and strata of the population; as such, graduates are prepared to assume roles in all settings where health care is delivered.

The College's strategic goals provide a clear path for the College tying both to the mission of the College and the University and setting a framework for the educational goals for students. Among the College's goals are the following:

- To assure quality in instruction and student performance as judged by outcome measures
- To provide leadership to the field in the area of ethics, human values, and spiritual dimensions of health care
- To contribute to the goals of the university in the areas of academic excellence, faculty development, student life and service to the internal and external communities
- To encourage professionalism among students through academic and co-curricular activities
- To develop a global perspective concerning health care and the human needs of a multicultural society

The College has identified 32 distinct variables and metrics, which are tracked on an annual basis to evaluate the College's effectiveness in terms of its ability to meet its goals and objectives.

The Program Evaluation Plan of the College of Nursing is a systematic criterion-based plan developed by faculty of the College of Nursing in consultation with an expert in the area of evaluation. The Program Evaluation Plan incorporates the criteria established by the profession's accrediting bodies as well as the goals of the faculty for outstanding undergraduate and graduate programs. In 2004, the College was designated as a Center of Excellence by the National League of Nursing becoming one of the first nursing programs nationally to receive such a distinction.

In efforts to assess and maintain its level of excellence, the College of Nursing collects data from graduate and undergraduate students, alumni of both programs, faculty and its administrators. Data collected include outcome data (e.g., percent of students who complete the program of study within a timely fashion, success on licensure examinations, number of students who obtain advanced degrees) as well as process data (e.g., adequacy of mechanisms or procedures to assure students' due process, grading procedures, etc.). In addition, students, alumni and faculty complete program evaluation surveys administered by EBI, Inc. and the results of Villanova University's College of Nursing are compared nationally to those of other schools of nursing. Data obtained from the Office of Planning, Training and Institutional Research are also incorporated in the Program Evaluation Plan report when available.

Specific indicators of quality undergraduate and graduate programs in nursing are collected annually and analyzed by the Research and Evaluation Committee in

collaboration with the undergraduate and graduate program directors. Results of the evaluation, including identification of problems or shortcomings, are brought to the attention of the administrators and faculty; action taken to address the problems or shortcomings is identified; and the results of that action are documented. Continuous efforts are made to improve and streamline the process of evaluation while maintaining the integrity of the data collected.

Courses in the College contain clearly stated course objectives, which are translated into observable, behaviorally oriented learning outcomes for students. For example, one of the twelve course objectives for Nursing 3113 calls for the recognition of “normal age-related changes and their impact on health.” This objective translates into a number of intended learning outcomes for students, including:

- Describes the developmental tasks of adult clients
- Describes the normal physical growth and development changes expected throughout the adult years
- Cites the normal range of height, weight, temperature, pulse, respiration and blood pressure of clients throughout the adult years
- Cites the normal range of common laboratory studies used to evaluate health status, i.e., CBC, urinalysis, blood glucose
- Recognizes common physical alterations which occur throughout the adult years

In addition to setting clear objectives for courses and intended learning outcomes for students that are tied to those objectives, Nursing has also developed skill-based competencies that students are expected to be able to perform by certain points in their nursing education. While these competencies may be assessed to certain degree within courses, they are also assessed through performance at clinical practicum.

Additional information on the College of Nursing’s assessment activities can be found in the appendix to this report. Extensive information on, and specific examples of, the College’s assessment activities are available in the University’s assessment plan and documentation at <http://optir.villanova.edu/Assessment/index.html>

Conclusion and Future Plans

Great strides have been made at Villanova in terms of both institutional effectiveness and student learning outcomes assessment. Appropriate activities in these areas are underway across the University, even if the level and sophistication of the activities is uneven in spots. Data are plentiful. The University faces a challenge in coordinating all of this activity, in making sure that data are adequately employed, and in ensuring that the feedback loop is closed in completing the assessment process. An understanding also has to be developed indicating that all units are not responsible for assessing all objectives and outcomes all of the time. Rather, it is appropriate to concentrate efforts at a given point of time on a specific topic, area or point of concern.