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CATALYST FOR CHANGE: A Case Report of a Campus-wide Student Information System Software Implementation Project  
Jan Stivers and N. B. Garrity

CAMPUSS VIEWPOINT, AND BOOK REVIEWS.

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ABBREVIATIONS:
- AACRAO: American Association of Collegiate Registrars and Admissions Officers
- C&U: College and University
- ERIC: Educational Resources Information Center
- Education Index
- Higher Education Abstracts
- Index to Journals in Education (ERIC)
- New Directions
- Campus Viewpoint
- Book Reviews
- Contents
Editor's Note

If we tracked the nature of our exchanges with colleagues, chances are system implementation would top the list. Jan Stivers, Marist College, and N.B. Garrity (pseudonym) have written a case study documenting the challenges faced by a mid-sized public college as they made the transition from a legacy system to a new student information system.

Thirty years ago transfer students were often treated as an afterthought. Today they are a vital part of the enrollment management plan at most institutions. Heidi Kippenhan, University of North Dakota, offers a review of the literature on transfer students and recommendations for their integration on campus.

What combination of criteria will accurately predict the success of international students? Does the TOEFL predict degree completion at the graduate level? Should the TOEFL be used as a screening tool for international admission? These are among the issues addressed by C. Van Nelson, Jacquelyn S. Nelson and Bobby G. Malone, Ball State University, based on the results of a study conducted at a mid-sized university.

Many institutions would like to increase their selectivity, persistence rates, and graduation rates. Cullen F. Goenner, University of North Dakota, and Sean M. Smith, University of the Pacific, analyze the predicted outcome of increasing both the minimum high school GPA and ACT score of admitted students at the University of North Dakota.

AACRAO APEX Award Winner and retired Registrar at Miami Dade Community College, Tom Stewart, has been a leader in the development of standards for the electronic transmission of records. His interview conducted by Dave Stones, Southwestern University, and Kathy Winarski, Boston College, offers a history in the use of technology for records and registration, and describes his extraordinary contributions to his institution and to the profession.

In the Forum section, we start off with Travis Reindl of AASCU. His first article takes a look at state student aid programs. In his second piece, Reindl looks at the Academic Bill of Rights, which certain organizations believe is necessary to ensure a fair exchange of views.

We also have two articles about a hot topic: integrated marketing communications. Robert A. Sevier, Stamats, offers a profile of a newly evolving campus position, the Chief Marketing Officer (CMO), to coordinate this effort. Jim Black, The University of North Carolina at Greensboro, writes about the importance of integrated lifetime communication with students, supported across the campus.

On the cutting-edge of technology are Thomas C. Black and John Mohr, University of Chicago. They show how the use of digital signatures can help the Registrar’s Office move from paper-based transcripts to electronic ones.

For those dealing with international students, Grady Gauthier discusses degree verification fees and procedures for Indian students wishing to study in the U.S.


Also in this issue is the index for Volume 79.

Write for College and University

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Submit Forum articles (commentary, analysis, book reviews, and other non-refereed pieces) to:
Saira Burki, C&U Managing Editor, AACRAO, One Dupont Circle, NW, Suite 520, Washington, DC 20036; Tel: (202) 683-8885; E-mail: burkis@aacrao.org
The college that is the focus of this study is a public comprehensive college in a mid-sized city in the Southeast. It was founded approximately 30 years ago as a state teachers college, and teacher education continues to be the focus of the majority of the campus faculty and students. It is a single campus, with approximately 10,000 undergraduate students and 2,000 master’s degree students. A large percentage of students attend college as the first in their families.

The college employs 1,500 people, of whom approximately one-third are full-time members of the faculty. The workforce is relatively stable, although over the past eight years the percentage of faculty who are part-time has increased to 50 percent. The campus has a number of unions. All professionals associated with the software implementation project are represented by a single union.

The annual budget of approximately $63,000,000 now comes primarily from a tuition-driven formula. Within the past ten years, the portion of the budget derived from state funding sources has been reduced from approximately 65 percent of the budget to approximately 30 percent. Additional reductions are anticipated in the years ahead.

The IT department of approximately 50 people includes nine programmers, two of whom were hired two years into the project to free other programmers to work on the software implementation. Since the introduction of computing services on campus over 30 years ago, the IT department had developed all of the college software programs, albeit with varying levels of user satisfaction. The initiative described below was the first that was approached via an external vendor.

**Student Information System Implementation**

**SETTING THE STAGE**

In 1999, in her second year as chief executive officer, the college president decided that the institution would transition from the legacy system for student information services to a purchased software package that was in development by a large international corporation. In making this decision, she declined the recommendation of the committee she had convened to advise her in this matter, and authorized an expenditure of $2.3 million over three years. Approximately $350,000 was to be taken from the campus operating budget each year for three years, with the rest of the cost of the implementation to be paid for via the student technology fee.

Not surprisingly, the decision generated controversy and opposition from the IT side of the campus, as well as from several faculty members with long-standing ties to the IT department. Beliefs were expressed then, and continued to be articulated throughout the project, that the IT department should have built the software.

Executive responsibility for the software implementation project was assigned to the vice president who served as the chief finance officer. He also oversaw the IT department and was designated as the executive sponsor of the project. He had arrived on campus approximately ten years earlier, and was well respected by the college president. Tenacious in the pursuit of his goals, he was regarded as a visionary leader by some and as uncompromising by others. He was diligent in promoting the software implementation project in public and private forums; for example, he advocated for the project before the College Senate (the campus governance unit containing elected professional staff, faculty, and students, as well as appointed administrators and senior management) on numerous occasions.

An eight-person Steering Committee was established at the outset of the project. Members were selected thoughtfully; they included the IT director and campus administrators below the vice presidential level, representing all involved constituencies, as well as a liaison to the College Senate. The associate vice president for enrollment management served as chair of the Steering Committee.
The executive sponsor determined the composition of the Project Implementation Team. He decided that the team would be composed of current employees who would be assigned to the project full time and return to their home offices at the end of the project. The design called for an executive director, an associate director, a staff assistant, and representatives from the offices most involved with the student information system: Admissions, Registrar, Financial Aid, Student Accounts, Graduate Studies, and Computing Services. The director of the IT programming unit and the director of institutional research were named as part-time members of the team. In addition, the software vendor assigned one of its employees to the project full time as a project manager. All full-time team members were to be replaced in their home offices by backfill appointments with the exception of the staff assistant, whose appointment was to be for the duration of the project.

**Looking ahead:**

- What special challenges does the team face as a result of the circumstances surrounding the inauguration of the project? What advantages are inherent in its sponsorship by a strong executive?
- How might different constituencies across campus respond to the proposed team composition?
- What qualities should characterize the team leaders? The project manager? What should be done when a team member does not contribute to the team as expected? When the team composition must change, what can be done to minimize the impact on the team and on the progress of the project?

**ESTABLISHING THE TEAM**

Setting up a project implementation is, universally, a challenge (e.g., Fritz and Peters 2002; Katz, Goldstein, and Dobbin 2001) and selecting the key players is perhaps the most important first step in meeting the challenge. In this software implementation, the design of the team was intended to bring together individuals with knowledge about the campus, about team development and leadership, and about the functional requirements of the implementation.

The individual chosen as *executive director* of the project was a faculty member who had previous experience working with the executive sponsor of the project. Her reputation for integrity and competence was grounded in her success as a senior faculty member, an administrator responsible for a large academic department, and as a senator on the College Senate. An analytic and strategic thinker, and an articulate speaker and writer, she also possessed considerable organizational and interpersonal skills. Collectively, these had enabled her to lead a number of smaller teams to accomplish successively more complex tasks. However, at the initiation of the project her knowledge of IT processes and functions was limited, and those who opposed the project questioned her ability to lead it. Further, although she had extensive experience with faculty evaluations and promotion/tenure processes, she had no experience with professional staff member performance programs and evaluations, and all of the team members she was required to evaluate were professional staff.

The individual chosen as *associate director* of the project was an associate director from an enrollment management unit. Well respected across campus and the recipient of an award for excellence in service, she had high credibility, particularly with the enrollment management units and the IT department. As a past member of the College Senate, she had gained an institution-wide perspective, and her detail-level knowledge of the enrollment management systems—both the needs of the campus, and the legacy software system—gave her a strong knowledge base from which to contribute to the project. Known for her work ethic, candor, dedication, and ability to keep things in perspective, she had extensive experience with performance programs and supervisory activities. Her leadership style was highly compatible with that of the executive director in many ways, including that she was interested in serving primarily in a support leadership role.

The *project manager* assigned by the software vendor, who had experience on a similar software implementation project in the same state, also had a background as director of an enrollment management unit at another public college in the state. The project manager’s background facilitated discussion of issues regarding the “campus side.” However, her limited experience with the technical side of the project led to a lack of credibility with the IT department.

The directors of the enrollment management units (Admissions, Registrar, Financial Aid, Bursar, and one other campus-specific office) and the IT director were each asked to nominate two individuals to be assigned full time to the project, for the duration of the project, with the exception of the smallest office, which was to nominate a single person. This strategy led to the successful appointment of *team members* by four of the five enrollment management units.

One enrollment management unit struggled with one of its two appointments. They ultimately assigned, on a part-time basis, an individual who was not well-suited to the work temperamentally, and who was unable to devote the necessary time and energy to the project because her home office workload was not reduced when she joined the project. The serious lapses in her performance were apparent early and were documented by the executive director, who shared her concerns periodically with the executive sponsor and included them in the annual year-end review of team members. There were some difficult moments; eventually, following a request to the executive sponsor for a change in personnel, a second full-time person was appointed as a replacement and has continued to serve the project in an exemplary way.

The single appointment made by the IT department presented many different problems—political (within the team, and on campus), interpersonal, and structural. IT assigned as its only full-time member an individual whose 30-year ser-
## Guidelines for Selection of Team Members for a Campus-wide Software Implementation

### Dos

- Select individuals with an enthusiasm for challenging work, as well as for their knowledge of their functional area.
- Carefully analyze the background of the team leader vis-à-vis the project. Consider a specified transition period of learning for the leader and the team, during which they develop background knowledge related to the project. Make sure to include the IT staff during this period and to set a clear demarcation of the learning period, after which the decision to move ahead with the team as constituted is reaffirmed by all involved.
- Use full-time team members. The opportunities for team cohesion, as well as productivity, cannot be understated; the contrast between full-time and part-time team members was evident throughout the course of the project.
- Discuss the human implications of timeline extensions of the project.

### Don’ts

- Don’t accept individuals from units unconditionally. Instead, include the option of a one-year trial period, as on a project like this a three-month try-out is too short.
- Don’t overlook problem individuals. Their dissatisfaction can be contagious. Address problems early on in the project, and continue to do so via the semi-annual or annual performance evaluations.
- Don’t neglect to evaluate external consultants regularly. Assess confidence in the project manager as well as selected consultants by all relevant campus units, as well as the executive sponsor. At the end of this assessment, determine whether or not to change consultants.

### Getting Started

Once the team members were reassigned to the project, they moved together into a newly painted space of three “suites,” each housing four team members. Team members were located in their office spaces based on preference, not by design. In the course of the project, the location of individuals in their spaces was used in multiple ways, both positive and negative. The executive director and associate director were both in the same suite, and at one point in the project, team members described this as “the power suite” wherein all decisions were discussed. Concerns about this physical location were aired, but offers to reorganize the suites were rejected.

Consistent with campus expectations for professional staff, and as required by union contract, annual detailed performance programs and job descriptions were developed by the executive director. Because the tasks facing team members changed dramatically from year to year, these programs had to be substantially modified in each of the first three years of the project, as did the job descriptions. Individual meetings held by the executive director took place at the start and end of each fiscal year, with annual evaluations conducted and

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summarized in writing. The evaluations, which were accompanied by rankings for the purpose of merit pay considerations, were reviewed by the executive sponsor, who was the senior-level signator on the performance programs. Over the course of the project, these meetings moved from rather perfunctory to more personalized. Self-evaluations by members of the team, incorporated from the start by the executive director into the year-end meetings, became more in-depth. As the project approached its final year, the executive director devoted portions of these meetings to addressing team members’ plans for easing the transition back to their home offices. Concerns and complaints about performance evaluations diminished over time.

The first tasks facing the team were to understand their mission more fully and to develop strategies for pursuing it. At the request of the executive sponsor, two members of the Human Resources Department worked with the team to design a team charter, develop a mission statement, and determine team ground rules. These activities allowed the team members to get to know each other, to explore the variety of perceptions that existed on campus about the software implementation, and to share their personal concerns about the project. (See “Sample Team Ground Rules” above.) The human resources professionals, as well as the executive director, were well aware of the stages that would need to be part of the team’s evolution (e.g., Mohr and Dichter 2001; Tuckman and Jensen 1977).

In addition, various team-building activities took place during team meetings for the first two years of the project. For example, early in the project all team members completed the Myers-Briggs Type Indicator. Incorporated into the project have been numerous opportunities to apply the Myers-Briggs Type Indicator to professional settings (e.g., Pearman 2000, 2001). Several team members reported gaining insight into their own working style and an enhanced appreciation for the contributions they might make to a team, as well as an understanding of the need to be flexible when working with others whose styles were quite different. Also judged useful was the time the team devoted to learning about planned change. Lewin and Lippitt’s model (Lippitt, Watson, and Westley 1958) was examined in detail at several points in the project. The Phases of Change model provided team members with a way to understand their own reactions to change, as well as better comprehend and respond to the feedback they received about the project from colleagues in their home offices. A subsequent campus-wide activity on the effects of transition on the campus, and particularly on members of the campus most involved in the change, used the model developed by William Bridges, which has much in common with the Lewin and Lippitt model (Bridges 1991).

All members of the team were union members, and two were campus union officers; the officers had participated in some team-related activities via the union. Most, however, had no team-building experience and had in fact been discouraged from any involvement on campus which would take them away from their day-to-day office duties. They came from offices where meetings were informational only (with the director sharing relevant updates on procedures or policies, with staff participation only to ask questions), often held on an as-needed basis. Few had ever served on any college-wide committees, or attended any college events. Thus, they were new to feeling either part of a team or part of the broader college community. Over the course of the project, they moved from skepticism about the value of such activities in a work setting, to recognition that such reflective, insight-oriented activities are necessary for professional development. At the start of Year 4, the executive director invited two members of the team (whose ways of approaching learning were quite different from hers, and from each other’s) to assist her in planning a half-day team workshop...
on leadership. Their commitment to and feedback during the development of the workshop contributed significantly to its success, and to the successful start of the team's most challenging year.

In addition to periodic team-building activities, the team also had semi-annual retreats. External consultants generally presented at one of the semi-annual retreats, and the executive director led the other. Both the team building activities and the retreats became increasingly valuable as opportunities to air concerns and problem-solve regarding alternative approaches. A particularly valuable retreat focused on the book High Five!: The Magic of Working Together. The book examined the dynamic interactions between needs for individual development and praise and team advancement. The team used the book to differentiate between “individual” goals and “team” goals, recognizing that some of the individual goals would be needed more by some team members than by others. Another retreat, which featured a presentation by a global company’s director of an international software implementation, led to new approaches for the team and for the implementation.

From the inception of the project, team members made a conscious commitment to maintain visible relationships with their “home offices” throughout the course of the project. The executive director remained identified with her faculty unit, and was a senator elected by the unit prior to the start of the project, and re-elected by the unit during the project. The enrollment management members involved their unit directors in review of project materials associated with their functional areas, and invited members of their units to project updates. Involvement was voluntary and varied based on interest of the team member. The projected “go live” of the functions associated with the unit also affected involvement, as the planned implementation was a phased one, with the fifth unit “going live” approximately fifteen months after the first one.

Looking ahead:

■ If you were the executive director, what would your priorities be in terms of professional development for the team members? If you were a project member, what might you seek within the team for professional development?
■ How should the team communicate its progress on the software implementation to the larger campus community?
■ What processes should the team use to advance their recommendations and assure the adoption of them?

NURTURING GROWTH

Professional development activities were used over the course of the project to help team members develop a more sophisticated understanding of their experiences. The expectation was that the team members would have an expanded knowledge base related not only to the software implementation skills, but also to the process of change. A number of the strategies used with the team were intentionally in line with Senge’s classic recommendations (1990). For example, in order to facilitate new acculturation to the software implementation, all functional team members were supported to attend state and national conferences outside their own disciplines. Beyond the obvious benefits of enhanced knowledge and skills related to the project, these opportunities to associate with others conducting campus implementations served the team in several important ways. Team members received a “perk” that was rare, in that they were fully financially supported to attend a conference of their choice annually—in some cases, this was the first time the members had ever attended any national conference. (The executive sponsor of the project, who was the vice president of finance, was asked early on to support conference attendance, and did so until campus budget constraints prevented further conference participation.)

National conference attendance was a morale booster for all who participated, including those who were nervous about national travel prior to departure. Team members who attended conferences with the executive director or associate director (by Year 4, nearly every team member had that opportunity) had the added advantage of building rapport and alliances through casual conversations that rarely occurred in the office. Perhaps most important, knowledge transfers occurred via sharing of notes and information upon return to the office, including “ah hah!” moments experienced when hearing about the strategies used on other campuses. Approximately 60 percent of the team took advantage of the opportunity to attend a conference each year, and as the project drew to a close, all team members had attended at least one national conference outside their disciplines.

PROMOTING COMMUNICATION

The team strove to make the project as transparent as possible, in an effort to maximize campus acceptance and promote a successful transition to the new system. The executive director worked with the college’s directors of marketing and public relations to develop a comprehensive communication plan, which included:

► A project Web site, which introduced the project and the people involved in it, and kept the campus apprised of new developments.
► Several forms of written communication, such as campus-wide e-mails and targeted letters to faculty, as well as paper and electronic project newsletters, to summarize key developments and direct interested readers to the Web site for more information.
► Face-to-face campus update sessions, which evolved from sharing basic information about the project to providing live demonstrations of portions of the software as they were developed. The executive director initiated these sessions the first semester of the project, and with impressive attendance by members of the campus community and the encouragement of the executive sponsor, they continued each semester.
Regular reports to the College Senate, as well as a visible, on-going presence on this key governing body. Over the course of the project, the executive director and several other team members served as College Senators, and there was a Senate liaison on the Steering Committee (three different people served in this role over the course of the project).

Similar care was given to promoting communication with those directly involved with the project. The executive director and associate director met with the Steering Committee bi-monthly. Additionally, the five directors of enrollment management units met with the executive director and associate director bi-monthly. Each of these five also established a regular meeting time or other communication process with their representatives on the project team.

Looking ahead:

The implementation of new sis software affects constituencies across campus, including those who do not recognize that they are in fact dependent on the student information system.

- How can the team alert people to the coming changes without alarming them?
- How can the team anticipate unintended consequences of the implementation? How can they reduce the likelihood of missteps?
- How can the team use the software implementation as a means to encourage growth and development, for individuals and for the institution?

CHANGING POLICIES AND PRACTICES

The project team considered and adapted approaches cited by Bolman and Deal in Reframing Organizations (1997) as they planned for the changes to policies and practice that the software implementation would require. The involvement of the provost and president, at strategic points, was part of the “symbolic” leadership that was introduced in advance of structural and political changes. During the first year of the project, the team used information-gathering sessions and cross-functional small group discussions to identify and explore campus issues associated with the implementation. Approximately 300 members of the campus participated in these conversations—students, faculty, staff, and administrators. In addition, throughout the project, members of the project team, the Steering Committee, the Enrollment Management Offices, and others on campus used a variety of informal avenues to raise concerns about the implementation. An Access database was used to capture, organize, and

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track campus issues, which facilitated a thorough gathering of ideas, and a comprehensive approach to addressing them. These discussions included suggestions for changes to the “structural” organization of the college, which Bolman and Deal describe as one frame of leadership. Many also brought up topics that directly related to the other two frames: “political” and “human resources.” Individuals wanted to know how the projected changes were going to affect their day-to-day responsibilities.

Issues that surfaced over the course of the project were many and varied. Some were simple, such as concerns related to end-user training; others were complex, such as predicting how the software implementation would require changes in prevailing policies and practices. A good example of a complex issue involved the Offices of the Registrar and the Provost, the College Senate and the Senate Curriculum Committee, and all academic departments, advisors, and students. When the campus had a published policy related to course pre-requisites, but since the legacy registration system did not enforce this policy, it was frequently overlooked by students and academic advisors. Because the new system would implement the existing policy and deny registration to students lacking pre-requisites, it was important to bring practice into line with policy before the new system went live. At the urging of the project team, discussions took place within each department, the College Senate recommended a streamlined process for resubmitting changes in pre-requisites to the Senate Curriculum Committee, and the registrar and provost sponsored a campaign to educate students and advisors about the need to observe the pre-requisites policy.

To address issues of policy and practice like this one, and to capitalize on the opportunity that the software implementation presented to the campus, the executive director and associate director made use of two strategies throughout the project: Best Practices Reviews and Investigations.

**Best Practices Reviews**

The team conducted Best Practices Reviews when faced with issues that were not specific to the campus, following the recommendations of the IT industry in the use of this approach. For example, Best Practices Reviews were used to explore how document imaging might enhance the usefulness of the student information system, and how academic advising might be improved through the availability of Web-based resources. In other cases, information and advice were sought from enrollment management leaders on other campuses via phone interviews or posting questions on listservs.

Team members were assigned in pairs to conduct Best Practices Reviews; the team members assigned were not necessarily familiar with the topic in advance of their work. Using listservs and best practices databases, they designed an approach to research and received recommendations and feedback on their approach from the executive director, and others as appropriate. When their review was complete, the team produced a written report, and sometimes made an oral presentation as well. A little ceremony at which members of the completed Best Practices pair received a recognition gift became a light-hearted way to signal that another implementation milestone had been reached.

**Investigations**

In cases when the concern was more idiosyncratic to the campus, a different approach was taken. The design for developing and reporting on investigations was provided by the software’s project manager, based on an approach used by the software developer, and subsequently modified by the team. For example, an investigation was conducted to determine how best to provide funding for the IT equipment and desktop equipment needed for the implementation. Investigations, which were conducted by individuals rather than teams, included interviews of members of the campus, as well as research of off-campus solutions. They culminated in a draft report that was revised with the assistance of the executive director and associate director before being forwarded to the Steering Committee, and ultimately to the appropriate vice president for action.

The process of preparing team members to conduct investigations presented new challenges. In some cases, team members were required to develop new skills and to go beyond their comfort zones, in order, for example, to interview administrators or faculty members with whom they’d never had direct contact, to research campus policies they knew little about, and to write succinct summaries of complex issues outside their previous areas of expertise. The investigation related to funding IT equipment (an issue of concern to many on campus, as the funding streams for certain aspects of the project were not made public), was conducted by a senior enrollment management specialist who, prior to joining the project team, had only limited interaction with those outside his own unit. In the investigation process he interviewed the executive sponsor, the IT director, and members of the faculty. His analysis and recommendations regarding replacement of computer equipment were comprehensive and persuasive, and ultimately led to a new policy recommendation approved by the Vice Presidents’ Council. In the course of conducting the investigation, the individual noted that he had developed new problem solving skills, along with a new willingness to take on risks and responsibilities, and that as a result he was more confident about the contributions he could make to the project and to the college.

**SUPPORT FROM THE TOP**

Complex and potentially divisive issues, such as reallocation of funds to support a policy of on-going technology upgrades, made clear the advantages of having a tenacious and pro-active executive sponsor. He did not allow the team to duck difficult issues, and was effective in seeing that the reports and recommendations emerging from the investigations advanced through the campus bureaucracy. In helping the executive director
anticipate challenges from the campus governance unit and from the campus at large, he provided both formal and informal mentoring. At her request, he supported the executive director’s nomination to, and subsequent participation in, a prestigious leadership training institute for two weeks at the end of the second year of the project. She was able to make use of the new skill set acquired at the institute to address campus issues with more objectivity, and to harness various resources on campus to advance the project, even in times of relentless opposition and stinging personal criticism.

The use of the project to stimulate review of outdated polices was unexpected and beneficial. However, it also required that the executive director and associate director devote time and energy to two efforts they had not anticipated: helping team members acquire and/or develop sophisticated interviewing, research, and writing skills necessary for successful Best Practices and Investigations reports; and creating conditions conducive to a favorable review of the reports. The team leaders had to develop not only the structures necessary for policy review, such as formats for reports, but also strategies for communicating them and following them through to action. Bolman and Deal’s (1997) frames of “structure” and “politics” were key to garnering campus support from the top, and the “human resources” frame was needed to help the team become able to take on yet another new challenge. The “symbolic” frame was in evidence at crucial junctions, with letters or participation by the provost and president for team-sponsored issues and events.

Looking ahead:
- How will the team help users across campus develop the skills necessary to use the new software effectively?
- How will the team reach out to those who are reluctant to accept change and help them navigate the change process?
- How will the team help users at all levels develop the skills to make full use of the new software system?

Moving to Implementation
The enrollment management unit directors argued effectively for a phased approach to the implementation, with five successive implementations of portions of the product taking place over a ten-month period. As the intermediate “go live” dates loomed, the team focused its attention on plans to provide user support for the implementation. Two concerns predominated: the ability of the team to deliver user training, and the adequacy of the written documentation that would be the foundation of the user support activities.

User Support
The team reconsidered its initial decision to have only team members provide user training. A few pilot training sessions helped to create an awareness that team members needed to develop presentation skills, and a consultant was brought in to help them do so. (The consultant proved to be so effective that before long she was hired by the project on a full-time basis to provide some end-user training.) As the scope of and timeline for the training became more demanding, the team decided to make use of the existing technology training center on campus and involve the center’s staff in providing the training.

The team sought to establish comprehensive user support systems for students, staff, faculty, and administrators by providing multiple types of support (for example, telephone, e-mail, in-person “drop in” assistance, and online support). The team took pains to ensure that, to the maximum extent possible, the support staff was well trained in the specifics of the software and in the fine art of responding with grace under pressure. The training was designed in accordance with principles of educational psychology, allowing trainees to build skills incrementally, gaining confidence and avoiding frustration and discouragement. All people associated with the project, and especially the trainers, were cautioned to avoid comparisons with the legacy system and the campus help desk, and instead to focus on the features of the new software and the resources available through the new support system. Finally, efforts were made to establish the kinds of personal relationships that would encourage those providing post-implementation support to consult with team members once the team disbanded and its members returned to their home offices.

Written Documentation
The team knew that the most careful plans for user support fail unless the written documentation for user support is of the highest quality. The team faced an enormous challenge when it learned that, because this campus was the first to “go live” with the registration portion of the software, the software developer would not have the written documentation developed in time for implementation.

The only option available to the team members was to take on the task of writing the documentation. This was a daunting task: no one on campus had written comprehensive documentation before, including the members of the IT staff who had developed other software packages for the college. Team members worried that they would not be able to learn how to write documentation, and then proceed to write it, while also meeting the many other demands of the period immediately preceding implementation. They wondered if their documentation would be as clear to new users as it was to team members who knew the product so well. They also were concerned that the errors they were sure to make in their first attempt at writing documentation would jeopardize the success of the project and allow its critics to resurrect charges that the entire project was ill-conceived.

While the full team worried about these issues, the executive director and associate director contemplated other issues privately. Some members of the teams were very shy; would they be able to overcome their reserved natures to make effective use of the presentation skills training, and to lead large group training sessions? The team leaders knew that negative feedback about the software system and the user support was inevitable; would the team be able to keep the
feedback in perspective, and use it for improvement rather than feeling demoralized by it?

As it turned out, the anxiety the team shared spurred all members to higher levels of productivity. A peer from another campus who had some experience with the software product volunteered to visit the campus and help team members learn how to write documentation. (This approach was used after a consultant sent from the vendor proved to be unsatisfactory.) The peer consultation approach produced excellent results. All team members learned to write documentation, and soon developed specializations: one person drafted, another edited, a third put the text into a tutorial shell provided by the software developer. User support training was provided first to groups who had volunteered to field test the software, and their feedback on the training was elicited carefully. The executive director and associate director met with the team members who provided the training, and shared recommendations emerging from the feedback in a supportive manner; these recommendations were received without defensiveness and were used to improve the next training sessions.

As a result of this intensive attention to user training and support, a new campus standard for comprehensive, efficient, and effective user support activities was established.

“Go Live” Support Strategies

Each of the five implementations was preceded by gap/fit and acceptance testing in order to make sure that all the business practices were able to be accomplished, either in new ways (taking advantage of the functionality of the software), replicating old ways, or via “work-arounds” to meet short-term needs until promised improvements in the software were delivered. Although the team members had not been involved in gap-fit procedures before, they quickly learned and soon became expert at exploring the alternatives the new product had to offer, and finding ways to help their home offices use them.

The executive director, the campus marketing director, and a faculty member collaborated to assume responsibility for communication with the campus about how the inevitable problems were being addressed. They stressed the evolving nature of a large scale software implementation, and the resulting need to adapt, perhaps several times, certain practices which had been traditional to the campus. They asked for cooperation and patience from administrators, faculty, staff and students, and, by and large, the majority of the campus remained remarkably unruffled. New procedures were put into place, and within a few weeks after they began to be used, people generally took the new processes in stride. Complaints came from a predictable few, and even these eventually abated.

A multi-disciplinary group called the Transition Leadership Network was established and proved to be a key to the success of this phase of the project. The network served as the eyes and ears of the project team, relaying concerns and allowing the team to act quickly to dispel rumors or resolve problems. Another essential element was the online support service through which team members responded to e-mailed questions and complaints. In the process they created a log that they analyzed and used to produce support resources, including a Frequently Asked Questions (FAQs) document.

Looking Back

As many had predicted, the three-year timeline and $2.3 million budget proved to be unrealistic. Delays with the vendor’s development of the software led to delays in the project; ultimately, the project took five years and cost $3.5 million. Nevertheless, the project is widely regarded as a success.

Ironically, the most powerful image of its success lies in what could not be seen on the first day of online registration: throngs of students waiting for hours to be admitted, 200 at a time, to the temporary registration area in the gym; dozens of harried employees struggling with unreliable equipment that provided incomplete information; frustrated students darting across campus to faculty advisors, to secure permission signatures that were sometimes irrelevant by the time the student was re-admitted to the registration area.

Leaders of the vendor’s software development team who came to campus for the first day of online registration were amazed at how uneventful the process was. Over lunch, one senior administrator said, “This is the first time I’ve had lunch on the first day of registration in 35 years.” Another senior administrator wrote in an e-mail to the project team: “You have enabled the college to leap twenty years in one dramatic stroke. You persevered through challenges and setbacks and have brought about what seems like a miracle.”

Lessons Learned

A large-scale software implementation project has the potential to contribute to the transformation of an institution. Failing to take advantage of this potential represents more than a missed opportunity—it is a resource squandered. At the same time, seizing the opportunity for change requires that the institution dedicate resources beyond those strictly needed for the implementation project. Members of the project team offer these words of advice to readers who hope to use a large-scale software implementation to bring change to their campuses.

Spread the Word. Communication is always mentioned when examining software implementations. It cannot be underestimated. Use multiple methods to communicate with all constituents: Web, hard copy, official weekly campus newsletter, video demos, Web-based “test drives” of the product, and in-person meetings. Students, staff, and faculty groups each need different types of information; invest in up-to-date brochures for use by specific groups. Online support alone is insufficient at the outset. Respond promptly and thoroughly to questions from campus members. This may involve research that seems to team members like a distraction from the central task, but word gets out that you are a project team that cares about questions and feedback. Even in times when the project team’s tasks require little interaction with the
larger community, stay visible and keep the campus informed about what is going on. Silence can easily generate grist for the rumor mill. Finally, remember to communicate with your vendor and fellow implementers at other campuses. Not only will you be able to commiserate during tough times, but it is likely you will get tips that will save your team countless hours.

- **Honor the fault-finders.** Use a roundtable as part of all your campus meetings to give participants opportunities to bring up difficult topics that you need to hear. Take advantage of candid team members and campus colleagues to learn what is going wrong, as well as what is going right, as it is happening. When the inevitable crisis develops, stay focused on the long-term goal, not the short-term setbacks. Keep the project in perspective: though you may be wholly consumed by it, it is, after all, not a matter of life and death. Look for the positive moments and celebrate them. You will be very well served if you can develop a thicker skin.

- **Be patient, but be persistent.** The implementation project provides an opportunity to re-examine campus policies and procedures, to identify those that can be streamlined via use of the software and those that will be rendered unnecessary once the software is in place. Inventory these policies and procedures, put in place the necessary steps and a timeline for examining them, then stick to it. Recognize that even though you want to address them well in advance, your campus may not be ready to do so until the need is urgent, which is likely to be at the worst possible time for you—in the middle of the implementation. Be prepared, be patient, and be relentless. You will be amazed at how many obsolete processes will be eliminated if you present reasonable options, and route them through the necessary approval channels.

- **Keep the end in sight.** At the outset of an implementation, plan for sustained financial support throughout the project, as well as for post-implementation activities and on-going maintenance. It is essential to work with campus administration to develop a robust multi-year budget, and to prepare for unexpected costs (such as short-term consultants). Have a plan for making decisions quickly to acquire short-term resources, especially when implementation is close-at-hand. Identify how the campus’ existing structure can be the basis of post-implementation support activities (for end-users, as well as for the support needed for future releases of the software and patches). Finally, agree on the achievements that will signal that the end of the project is in sight, and build transition activities into the work with the team to help them take on new roles within their home offices.

As this case report was being written, the project team, which had been together for five years, was preparing to disband. Nearly every team member reported ambivalence: they were eager to return to their home offices, where, without the distractions of the implementation, they can help their colleagues make full use of the software. At the same time, they expressed concern about what they now regard as a lack of excitement in their former work, and wondered if they will miss the shared decision-making that they enjoyed as members of the project team. The enrollment management unit directors intended to develop new performance programs for these individuals, as all agree that they cannot simply return to their former responsibilities. New roles will be needed for these “value-added” employees. After their experiences as part of the software implementation project, they seem poised to serve as the next generation of campus leadership.

**References**


**ABOUT THE AUTHORS**

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*N. B. Garrity, Ph.D.* is the pseudonym of the individual who led the project implementation described in this case. Preferring to stay anonymous, Dr. Garrity collaborated with Dr. Stivers to document the experience.
As the traditional college-age population continues to decline, transfer students will become more important in maintaining enrollment levels. Although colleges and universities should expand their focus to include equal efforts to recruit and retain transfers, they continue to ignore them. This study addresses enrollment management issues related to students who transfer to four-year institutions. Further, it makes recommendations for enhancing their recruitment, retention, and student services to ensure that transfers receive the recognition and assistance they deserve.

Our discussion is presented from the point of view of four-year schools and colleges although it can be applied to other institutions. The four questions that formed the basis of this study are listed as follows:
1. What are the historical patterns and trends relating to transfer students in higher education?
2. What are the concerns and issues of both the sending and receiving institutions with regard to transfer students?
3. What are the needs and expectations of transfer students as they enter a new institution?
4. What barriers do transfer students encounter in trying to complete their educational goals?

These questions are answered through a review of the literature, which is centered on higher education services and issues related to enrollment management, and from the perspective of the author’s keen interest in the well-being of transfer students.

What are the historical patterns and trends relating to transfer students in higher education?
The traditional route to the baccalaureate degree is no longer the only path to educational attainment. Students have more options than ever before. In fact, the sheer number of options affects their selection of a college or university, which, in turn, affects their progress through higher education. As Pascarella and Terenzini (1991) report, there is substantial evidence to suggest that the type of institution a student chooses has a significant influence on educational aspirations, persistence, and level of achievement.

Transfer behavior among college students is not uncommon according to Tinto (1987). The case can even be made that some students enter institutions of higher education with the precise intention of leaving prior to completing their degree. Although obvious for two-year college students, it may also be true for those at four-year colleges and universities who are unable to gain admission to their first-choice institution. Tinto further states that either type of student may enter a particular institution as a short-term step to a long-term goal.

The Chronicle of Higher Education Almanac (2002) indicates that of the more than eleven million students involved in postsecondary education, approximately 5.9 million attended public four-year institutions and 5.3 million chose public two-year institutions. Although the enrollment is split fairly evenly, the number of degrees awarded is not. About 560,000 associate degrees were awarded as compared to 1.2 million bachelor’s degrees. Forecasting to the year 2012, the Chronicle of Higher Education Almanac does not show any substantial change in the current trend, leaving little or no obvious explanation for the significant difference between enrollment and degrees awarded.

National statistics also indicate that students who transfer to four-year institutions are somewhat less likely to complete baccalaureate degrees than students of similar age who remain in their original college choice. However, it is not reasonable to assume that this is the result of deficiencies in academics, skills, or motivation. Students who voluntarily
withdraw might well be intelligent, motivated, and more concerned with educational goals and achievement than those who persist at one institution. Their departure may, in fact, correspond to a need or desire to discover an environment that is academically more challenging (Tinto 1987).

**What are the concerns and issues of both the sending and receiving institutions with regard to transfer students?**

The overriding concern of four-year institutions is the community college’s open-door admission policy. It is one of their most contentious, yet misunderstood characteristics. It has led the universities to label them as second-rate because they allow students to attend regardless of prior educational experience or demonstrated competencies. From the community college perspective, however, their admission policies reflect the need for access. Open-door admission provides opportunities at a two-year institution for any student to engage in learning who is capable of benefiting from this learning experience (Eaton 1994). With open admission, community colleges have provided a right of entry into a system that has not always given admittance to all who seek access. Cohen, Brawer, and Lombardi (1971) state that the community college’s “multipurpose comprehensiveness offers something for all who attend; it meets the needs of almost any student who can articulate them” (pp. 11–12).

Academic ability is a valid concern for the four-year schools and colleges who believe that community colleges have made it too simple for students to obtain access to educational institutions. It is also a subject of contention within the two-year institutions. In fact, the literature does suggest that students often experience “transfer shock” (Cohen and Brawer 1996; Eaton 1994; Pascarella and Terenzini 1991; Tinto 1987) during their first semester at a four-year institution. Cohen and Brawer (1996) described the situation:

> The reasons that students transferring to universities have had a difficult time there can only be surmised. Transfers may have satisfactorily completed their distribution requirements at the community colleges but could not do as well when they entered the specialized courses at the universities. Community colleges may be passing students who would have failed or dropped out of the freshman and sophomore classes in the senior institutions. And, as a group, the community college students were undoubtedly less able at the beginning (p. 65).

There is much discussion in the literature about the academic preparation of transfer students. Astin (1985) contends that the atmosphere at community colleges is not conducive to students who aspire to a bachelor’s degree. It is dominated by technical or vocational programs, and often, students involved in these programs are not interested in degree achievement. He further added that although community colleges downplay their importance in the transfer function, it remains an integral part of educating students who desire to pursue higher degrees.

The literature also describes a “cooling out” that seems to occur at the community college level (Cohen and Brawer 1996; Pascarella and Terenzini 1991). This process attempts to lower the aspirations of individuals who may have initially desired a baccalaureate degree. What once may have been an aim to achieve educational goals at a four-year institution turns into a complacent satisfaction with enrollment at a community college. This initial enrollment misdirects students, making them no longer interested in pursuing a four-year degree or leaves them with a completed terminal vocational or occupational degree that will not assist them in achieving a bachelor’s degree. Many of these students must begin anew at a four-year institution when little or no credit in transfer is applicable to their four-year degree program.

According to Eaton (1994) community colleges have failed to provide a liberal arts foundation that facilitates transfer. Although their curriculum may be considered adequate, it is a weak foundation for students who will be advancing to higher academic pursuits. This could be a result of various challenges including the limitations involved with serving minority or low-income students or the difficulties of sustaining college-level standards.

Tinto (1987) believes that two-year colleges should attempt to provide coursework that serves as the equivalent of study in most four-year institutions: “Two-year colleges should concentrate on improving the academic quality of their programs to match, if not exceed, those offered in the four-year sector” (p. 197). Though this will not be relevant to all students, it may influence others to complete a full two years, usually at a lower cost, before moving on to a four-year institution.

In addition to academic standards, four-year institutions view community colleges as inadequate because of the lack of faculty and student involvement in campus activities. Astin (1993) again informs us that:

> …the absence of any pressure to participate in the campus life might all be regarded as important conveniences by the adult student who needs a few more credits for a degree or who is pursuing a vocational credential, [but] the recent high school graduate who is pursuing the baccalaureate degree on a full-time basis pays a heavy price. The most obvious manifestation of the problem is that 18- to 22-year-olds attending a community and other types of commuter institution drop out of college at much higher rates than would be expected from their abilities, aspirations, and family backgrounds (p. 417).

He argues further that community colleges cannot and will not be successful because the achievement of a bachelor’s degree is less likely for those who begin their educational career in a community college than in a four-year institution. Tinto (1987) further substantiates this idea by stating: “Two-year college students, like commuting students generally, are much more likely to be working while in college, attending part-time rather than full-time, and/or living at home while in college than are students in the four-year sector. They, too,
are likely to experience a wide range of competing external pressures on their time and energies and to be unable to spend significant amounts of time on campus interacting with other students and members of the staff” (p. 78).

There is no evidence to dispute the fact that two-year community colleges, when compared with predominantly residential four-year institutions, offer a substandard social and intellectual life. The research also indicates that the type of student who matriculates in two-year colleges often has little time and/or little ambition to participate in campus activities. Tinto describes as well the difficulties transfers experience when they do try to connect with campus constituencies. However, he believes there is no reason that two-year institutions should do any less to provide quality educational experiences to their students than do four-year institutions.

**What are the needs and expectations of transfer students as they enter a new institution?**

The transfer process goes beyond simply attending a community college and then enrolling at a four-year institution. It should include academic and social integration into the new institution. Community colleges and baccalaureate institutions need to understand the choices transfer students make as well as their academic needs and interests, educational goals, and how they differ from other types of students in the areas of recruitment and retention. Issues like the acceptance or denial of credit, acclimation to a new setting, and availability of financial aid and scholarships all significantly affect the transfer student.

Tinto (1987) and Astin (1975) both stress the significance of goodness of fit between the student and the institution's environment. Astin encourages the development of programs that will support a smooth transition. He states that, “One obvious problem is that students who enroll after the freshman year in collegiate institutions with a tradition of yearly classes beginning as freshmen and continuing through graduation are, in effect, interlopers in an existing student culture” (p.154).

Faculty and staff would serve students well by advising them to examine their expectations of a new institution. Integration into the culture means providing many opportunities for transfers to become connected, along with strategies to help them become aware of and benefit from those opportunities.

Students need to be informed of the particular problems encountered by transfers while also being made aware of the services and programs available to help them become part of the campus culture. Pascarella and Terenzini (1991) corroborate this idea by stating, “Beyond the obvious importance of academic achievement, the weight of evidence also suggests that one’s level of involvement or integration in an institution’s social system has significant implications for attainment” (p. 418). Academic and social integration are essential in contributing to the success of transfer students. A proactive approach to the incorporation of students into the institutional culture may consist, in part, of academic advisement and campus orientation programming.

In the literature, the most significant needs for transfer students were identified as effective advisement before, during, and after the transfer process, and targeted orientation programs. They want information about the transfer process that will help them plan their programs of study at the community college and facilitate a smooth transition into a four-year college or university. Alpern (2000) states that increasingly more students are choosing to begin their post-secondary education at a two-year or community college with the intention of transferring to a baccalaureate institution to complete their educational goals. If the information they receive is accurate and students are able to move through the process with minor difficulties, they will be more satisfied with the baccalaureate institution. Alpern further states that if students experienced difficulty in transferring credits or if they received inaccurate information, which resulted in having to complete additional coursework, they were not satisfied with the institutional support offered.

Tinto (1987) substantiates this claim and offers the following suggestion for two-year colleges, “They (community colleges) should take as a given, the desire of some students to transfer whenever possible to four-year institutions and should strive to provide those students with the advice, counseling, and assistance needed to make those transfers possible” (p. 197). Student interests should be the primary concern while institutional interests should always be secondary. By taking this approach, Tinto further states that students may be more likely to choose a two-year rather than a four-year institution when making their initial choice.

Closely related to the ideas of integration and advisement is the need for targeted orientation programs that integrate students into their new academic and social setting. Pascarella and Terenzini (1991) describe orientation programs as an opportunity to introduce students to services, academic programs, and career planning, and as a chance for them to meet faculty in an informal setting. Noel (1985) suggests that orientation be linked with advisement programs that assist students in the registration process and continue to follow them through the critical first term of enrollment. Advising should also address uninformed or unrealistic expectations students may hold and explain the institution’s academic demands and how college life is different from the other institutions they have attended.

Tinto (1987) expressed strong feelings about orientation programs for transfers.

*It also follows that retention programs for transfer students should strive to provide those students with the same sorts of services and programs that first-time students typically receive. This means that orientation programs may have to be offered more than once a year so as to capture those students who enter the institutions after the beginning of the regular school year. It may also mean that transfer students should be provided orientation and contact programs specifically tailored to their needs and interests, namely the meet-
Through practice, policy, and academic and social environments, institutions can and do affect the quality and success of the transfer student transition. Therefore, we must seek to understand the transfer student and present as few barriers as possible during the transfer process.

What barriers do transfer students encounter in trying to complete their educational goals?

Institutions assume that they have done this all before, but these generalizations may leave transfer students feeling confused or apprehensive. They are in a unique situation, and the transfer process is much different from the freshman’s first year.

Noel (1985) identified some of the barriers to student success at an institution: academic boredom, indecision about a major, inability to transition, academic difficulties, unrealistic expectations of college, academic underpreparedness, lack of goals, or incompatibility. Other challenges students may encounter are change in institutional size, location, level of curriculum, or cost. It is essential that institutions address individual student needs and attempt to reduce those barriers within their control, which consist of, but are not limited to, academic advisement and articulation, support systems, economic support, and transitional assistance.

Little attention is given to the academic needs and interests of transfer students, specifically, the transferability of credits. Cohen and Brawer (1996) speak to this process saying, “The most pervasive and long-lived issue in community colleges is the extent to which their courses are accepted by universities” (p. 309). Universities have long dominated over two-year institutions by specifying what they accept for transfer credit. It has been a consistent pattern that when a two-year institution changes its curriculum, it has been in response to a nearby university changing their requirements for graduation. Even as late as the 1990s, one of the biggest challenges was to determine which courses taken at a two-year institution would be acceptable for graduation credit in which university. While most liberal arts courses are accepted, courses of a vocational or technical nature vary from university to university. Cohen and Brawer reported that some university departments may even require alternative coursework. Although the credits may be accepted in transfer, it does not guarantee that they can be used for admission to a particular program or apply towards a degree.

The lack of transitional assistance is yet another barrier for transfer students. A new environment, change in curricular focus, or difficulty integrating are just a few impediments that inhibit success of transfer students. Tinto (1987) believes this may be as much an institutional omission as deliberate policy. He sees the failure to provide transfer students with their own orientation programs as an unfortunate omission by many institutions. Transfer students are often socially and academically isolated when entering a four-year institution. Tinto says further that, unfortunately, these students are not integrated into the institution to the extent of first-time or native four-year students.

Pascarella and Terenzini (1991) also believe there are many barriers in the path of transfer student achievement. They list several issues that need attention from four-year institutions including more flexible admission procedures, admissions criteria not solely based on test scores and prior academic records, adaptable transfer credit policies, access to more and varied forms of financial aid, sustained academic and other varied support programs, and curriculum that offers remedial coursework.

Recommendations for Change

In the review of literature, there were four over-arching concepts: orientation, advisement, academic preparedness, and data collection. These will be the main focus of the recommendations offered to colleges and universities.

Recommendation 1: Colleges and universities should provide orientation programs for transfer students that focus on their needs and are separate, but equal to, those offered for incoming freshmen.

The lack of orientation programming appropriate for transfer students was a pervasive theme in the literature, and substantial arguments were made for effective orientation programming by Tinto (1987) and Pascarella and Terenzini (1991). Any institution with a significant transfer population (as defined by the institution) should offer a separate transfer student orientation. The transition to a four-year institution may often be intimidating, and little assistance is provided to help transfers find their way at a new institution.

Orientation programs should also be continuous, especially during the first critical semester. The assistance of currently enrolled students, who originally came to the institution as transfer students, could provide a vital link for new students. They could help with integration, provide mentorship, and convey a sense of community and connectedness. This notion is supported in the literature by Astin (1975) and Pascarella and Terenzini (1991).

Recommendation 2: Appropriate student advising at both the sending and receiving institutions is critical to potential transfer students.

Noel (1985) talked about linking advisement with orientation. While both sending and receiving institutions generally offer some type of advisement, the system does not allow for a smooth transition. Students need advisement and guidance in the various stages of transfer such
as pre-transfer, in-process, and post-transfer. Those who advise students in transfer, both at two-year and four-year colleges and universities, need to be cognizant of student issues such as changes in environment, unrealistic beliefs, and academic expectations. Faculty and staff at each institution should develop a collaborative advising approach that creates student awareness of particular differences in grading, academic rigor, instruction, student services, and the social environment. Programs or services offered to transfer students could include a transitional or bridge program, financial aid and scholarship seminars, or even something as simple as extended office hours to provide assistance with a variety of student services.

**Recommendation 3:** Academic expectations and the campus climate should be conveyed in clear, concise terms to help students make informed decisions and understand the differences in institutional types.

Advisement sessions with students, both at sending and receiving institutions, should consist of more than a simple exchange about courses and registration. Seldom are academic expectations and institutional climate addressed in campus literature or in conversations with prospective students. There is a definite need for students to discuss differences in institutions in relation to academic rigor, curricular focus, transition, and social environment. Collaborative advisement before, during, and after the transfer process will provide students the opportunity to make informed decisions and encounter few surprises as they begin a new and different academic career.

**Recommendation 4:** Institutions need to gather data about the retention and success of students transferring into their college or university since there is little information beyond enrollment numbers. Four-year schools and colleges should define the transfer population and identify indicators of institutional success and areas of concern. Such data collection should focus on persistence to graduation and on the identification of barriers and concerns of transfer students in the completion of their educational goals. Without sufficient information, we are unable to make accurate assessments about their performance, persistence, and enrollment patterns.

Looking at the research from Astin (1985), Tinto (1987), Pascarella and Terenzini (1991), and Cohen and Brawer (1996), there are still no specific studies that relate solely to the transfer student. When they have been done, they usually only identify student performance. In order to do effective planning and strategizing, we need to determine the extent of their needs, why they exist, and what can we do to meet them.

**Recommendation 5:** Institutions should actively and directly recruit and work to retain transfer students through enrollment management practices that are targeted to transfer students.

Enrollment management issues related to transfer students that should be addressed more comprehensively include: scholarship amounts, allocated recruitment dollars, tailored publications, targeted marketing, and the identification of students at risk for attrition. There is substantial inequity in all these areas for transfer students. The literature does not contain any recommendations for the remedy of these matters but does indicate they are barriers to success when students engage in the transfer process.

In conclusion, transfer students are a necessary and vital part of our campus communities. Unfortunately, many organizational cultures are still more concerned with recruiting and addressing the needs of the traditional freshman. As that population declines in certain geographic areas and will continue its downward slide in years to come, transfer students will become more important in maintaining enrollment levels. We need to be ready to help them reach their goals.

**References**


**ABOUT THE AUTHOR**

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Predicting Success of International Graduate Students in an American University

This study analyzed the retention and completion rates of international students seeking a master’s degree at an American university. Records of 866 international students from 1987–2002 were investigated. Of these, 622 graduated, 92 dropped out of the program, and 152 are still active. Predictor variables analyzed to determine retention to degree completion included TOEFL scores (both raw and composite), age, gender, geographic categories of native country, native language, academic area of concentration (grouped into five general areas of study), graduate grade point average in the first nine hours of graduate study, and admission status (regular or probationary). The objective of the study was to find those criteria that had predictability to help admissions officers screen applicants for graduate study.

C. Van Nelson, Jacquelyn S. Nelson, and Bobby G. Malone

Perspectives and Theoretical Framework

International students add global perspective and cultural diversity to American colleges and universities. The international students benefit from the educational and cultural opportunities offered in a different environment, and American colleges/universities are reciprocally enhanced by the expanded diversity within their student populations. In light of the value international students bring to American campuses, the appropriate utilization of student and university resources demands a careful and effective admission policy. The failure to admit and retain adequately qualified international students ultimately enravets both the university’s reputation and the academic fields of study chosen by the candidates (Kuncel, Hezlett, and Ones 2001). It is the thesis of this article that the academy’s mission in regard to international enculturation commences with the selection of sufficiently prepared applicants.

In selecting graduate students, regardless of citizenship or fluency in English, it is paramount to admit those who have reasonable chances of success (i.e., degree completion). The matriculation procedure for international applicants is even more critical for the student, his/her home nation, and the university. Integral to the success of any nonnative graduate student is the competency level in basic English skills and the university’s assessment of those skills. The accurate evaluation of the student’s academic record is also vital to determine undergraduate performance and verify that the student’s educational experience qualifies him/her for advanced study in the chosen discipline. Furthermore, because the sponsoring foreign government often invests substantial resources in the student’s educational experience, financial ramifications of the failure to complete a degree program could be very significant. And, when an international student does not meet the educational expectations of the college or university in this country, e.g., academic dismissal due to poor academic performance, the loss is decidedly more than monetary for all concerned. It would be a prudent initiative, therefore, to develop and refine adequate models for the selection of international students for post-baccalaureate study in the United States.

Review of the Literature

The Test of English as a Foreign Language (TOEFL) is widely used as a criterion in the admission of international students into graduate schools in the United States. This test is required at over 4,200 American colleges and universities, and in 2000–01, more than a half million prospective students registered to take it (ETS 2001). For Chinese students, for example, acceptable TOEFL scores are critical to being accepted into American universities. Xiao Shi (2000), a Chinese author, wrote, “...one of the most successful measures in American education is the use of the TOEFL in China, which has actually served as a ‘reaper’ of the well-educated talent of China’s rigorous education” (p. 23). Doing well on the TOEFL test is so important in China that college students spend considerable time learning English. Shi continued, “Some students may write an article in Chinese upon graduation that is so full of mistakes…they are called ‘Chinese illiterates.’ But they persistently stick to their English study and improve their TOEFL scores” (p. 24).

Despite the wide use and acceptance of the TOEFL in determining international student admission, its predictive validity has long been questioned, and it has recently been reasserted that the TOEFL may not be an accurate measure of English language proficiency (Roemer 2002). Published studies on the predictive value of the TOEFL show some disparity in its effectiveness as a screening tool for the readiness of nonnative speakers of English to begin graduate study. Some researchers found that the TOEFL is a reliable measure for predicting international student success in American graduate schools. Wainer and Lukhele (1997) asserted that the reliability of the TOEFL is well established. Ayres and
Peters (1977) determined that the TOEFL had predictive power in determining graduate grade point average (GGPA). The correlation between the verbal portion of the Graduate Record Examination (GRE-V) and the TOEFL score was .76. A more recent study by Ayres and Quattlebaum (1992) found the same comparison to be .63; however, in the earlier study, Ayres and Peters found that a combination of TOEFL scores and GRE-V was a "reasonable predictor of success" as defined by program completion (p. 463).

In contrast, some researchers found little unequivocal evidence regarding the relationship between international students' scores on the TOEFL and their academic success as measured by GGPA. Graham (1987) found this to be true not only for a single semester, but that the pattern continued through four academic semesters. Neal (1998) found no significant correlation between the total TOEFL or any of its subscores, and GGPA. As a matter of fact, each comparison between TOEFL scores and GGPA yielded negative correlations. This was due, in part, to the complexity of language proficiency (Canale 1983), the difficulty of measuring the variety of English language skills necessary for success (Cummins 1980), and what constitutes a thorough description of the knowledge of a second language (McNamara 2000). Canale wrote about the subtle and complex negotiation and evaluation process that is involved within the language for the international student. The four major components of this subtle and complex process involve grammatical competence, sociolinguistic competence, discourse competence, and strategic competence. By strategic competence Canale referred to the discernment of the verbal and nonverbal dimensions of language. Cummins, however, distinguished between interpersonal communication skills and cognitive academic language proficiency. Immigrant students largely master face-to-face communication skills within about two years after arrival in the host country, but it takes from five to seven years for students to approach grade-level norms in second-language academic skills.

Graduate school performance is multidimensional (Kuncel, Hezlett and Ones 2001). Mastery of language skills is only one critical element in post-baccalaureate success. Light, Xu, and Mossop (1987) suggested this was the case in an earlier publication. They concluded, "It is better that TOEFL does not measure all communicative skills that are important for academic functioning" (p. 259). There are variables other than language proficiency, e.g., GGPA, previous academic performance, faculty evaluations, that are also important to international students' academic success (Light, Xu, and Mossop 1987).

There are various factors that influence the acquisition of language skills of international students. The language skills that are required may vary by academic major and different colleges/universities in which the student is studying (Light Xu, and Mossop 1987). Quantitative aptitude scores are affected much less by English-language proficiency than verbal aptitude scores as measured by the Graduate Record Examination (Angelis, Swinton, and Cowell 1979). And academic performance in the hard sciences, which requires more quantitative competencies, is less affected by English-language proficiency than academic achievement in the humanities and social sciences (Light, Xu, and Mossop 1987).

Other researchers also dispute the effectiveness of TOEFL scores for predictive purposes. Roemer (2002) asserted the TOEFL has serious limitations in its validity, and admissions officers need to be aware of them. Graham (1987) concluded that English-language proficiency was only one of several factors that contribute to academic success. Ayres and Quattlebaum (1992) and Light, Xu, and Mossop (1987) agreed. The former suggested that other attributes such as motivation and background might be more important factors to consider in the admission of nonnative speakers of English. Roemer also declared that universities misuse the TOEFL in publishing the required cut-off score for admission in their marketing materials. She wrote, "It is easy to look at a single number and make a quick decision, but assessing language proficiency is much more complicated than that" (p. 17). Roemer's assertions support some earlier writings. Wiggins (1989) claimed that too much attention was paid to efficiency and cost in performance assessments. As a result, developing test items that measure the examinee's ability on tasks that approximate those of the real world (judged to be "authentic") has been ignored in favor of the convenience of multiple-choice examinations.

Using a cut-off score on the TOEFL for admission purposes might have negative ramifications. In fact, in one study students who achieved scores below the desired cut-off earned higher GPAs than those students who had achieved scores above the projected cut-off (Light, Xu, and Mossop 1987). Obviously, there are other factors at work here. What about the number of credit hours earned by international students? Light, Xu, and Mossop (1987) found that the higher the international student's TOEFL scores, the more graduate credit hours the student was able to earn. However, the Structure and Reading subscores on the TOEFL were positively correlated to the number of credit hours earned, but Listening subscores were not.

**Significance of the Study**

Growing numbers of international students will seek graduate study in the United States because, in many cases, advanced study is not available in their native countries. The selection of capable international graduate students is vital to the multicultural atmosphere of the university, and one of the best ways to promote understanding of different cultures is the exchange of ideas between people of different nationalities. In the admissions process of international students, the importance of accurate measurement of English-language proficiency cannot be overstated. Findings by Xu (1991) strongly suggest that "English language proficiency is the single most important factor influencing international graduate students' academic coping ability" (p. 367). Proficiency in the use of the English
language is expected of all students who graduate with advanced degrees from American institutions. Proficiency depends not so much on the ability to pass examinations as it does on the habitual use of acceptable English in spoken or written work. Notwithstanding researchers’ claims that variables such as motivation and background should be taken into consideration, it is crucial to utilize an assessment tool that accurately measures an international student’s ability to understand and use the English language.

While studies have been conducted on the predictive power of TOEFL scores and GGPA, there are few studies where the TOEFL alone has been found to be a good predictor of degree completion. Since the current investigators found the GRE-V to be a significant predictor of degree completion for American graduate students (Malone, Nelson, and Nelson 2001; Nelson, Nelson, and Malone 2000; Nelson, Malone, and Nelson 2001), and studies by others have shown a positive correlation between TOEFL scores and the GRE-V, it would seem reasonable that, in the case of international students, the TOEFL examination could be a good predictor of degree completion. Supporting the view that GRE scores can be significant indicators of graduate student success is a recent meta-analytic study in which the investigators discovered that GRE scores are generalizable valid predictors of first-year GGPA and final GGPA. More importantly, researchers found that GRE correlations with degree attainment were consistently positive (Kuncel, Hezlett, and Ones 2001).

Objectives and Background of Study

The purpose of this study was to determine the combination of criteria, a technique advocated by Kuncel, Hezlett, and Ones (2001), which would accurately predict the success of international students who had been admitted to masters’ degree programs. The development of statistical models to predict success of international students in graduate school followed a similar process the researchers had used in earlier studies. In examining records of those students who actually completed a graduate degree program, the prediction models were accurate between 77 percent and 98 percent of the time (Nelson, Malone, and Nelson 2001). Much variation exists in describing success in graduate school, so the investigators used both the criterion of degree conferral and GGPA. While the relationship between predictor variables and degree attainment could be moderated by factors ranging from scholastic to interpersonal as well as events beyond students’ control, and only some of these are ability-related (Kuncel, Hezlett, and Ones 2001), many researchers have viewed degree completion as the most defensible and viable definition of success (Case and Richardson 1990; Goldberg and Alliger 1992; Holmes and Beishline 1996; House and Johnson 1993; Isaac 1993; Mitchelson and Hoy 1984; Nelson, Malone, and Nelson 2001; Pauley, Cunningham, and Toth 1999; Williams, Harlow, and Gab 1970).

The study was conducted at a medium-sized Midwestern university that has an average total enrollment of 17,500 students, which includes a graduate enrollment of 2,600 stu-
students. The subjects in the study came from those international students who applied for graduate study for the years 1987–2002. The total number of students who enrolled in graduate courses whose admission records included TOEFL scores was 866. Of this number, 622 completed requirements for the master’s degree, 92 dropped out of graduate study, and 152 are still actively seeking degree completion. International students who came from English-speaking countries or who studied at institutions where the primary language of instruction was English were not required to take the TOEFL and, thus, were not included in this investigation.

Research Methodology and Procedures
The development of statistical models to predict success of international students in graduate school followed the same process as the models developed by the researchers for American students. Two dependent variables measuring success in graduate school were analyzed separately: 1) completion or noncompletion of the degree, and 2) graduate grade point average (GGPA) at the time the degree was conferred or when the student left the program. Grades in graduate school are predominately As and Bs, so grading practices, for all practical purposes, have two states. Graduate grade point averages, then, are restricted to values between 3.0 and 4.0, which narrows the variability of the grade point average. However, on a 4.0 scale, over the number of hours it takes to complete a master’s degree, a GGPA of 3.5 and above indicates that the student earned more “A” grades than lower grades; a GGPA below 3.5 shows that the student earned fewer “A” grades than lower grades. Therefore, it seems more reasonable to predict whether a graduate student falls into the higher category of more “A” grades than lower grades, or the lower category of fewer “A” grades than lower grades, than to predict the overall graduate grade point average.

Since the two variables—completion or noncompletion of the degree and graduate grade point average category (GGPA of 3.5 and above, or GGPA below 3.5)—are dichotomous variables, logistic regression was utilized. Logistic regression was used in this study rather than Fisher’s discriminant function because logistic regression is more appropriate when the subjects are being classified into just two groups. Another reason for the use of the logistic regression as opposed to the discriminant function is that the discriminant function assumes that the independent variables each have a distribution that is normal. Since some of the independent variables were categorical (see below), it was deemed more appropriate to use logistic regression that is less sensitive to the restriction of normality. The backstep procedure first calculates the model using all of the independent variables that are specified. At each step, an independent variable that is not significant in predicting the dependent variable is eliminated from the model. This model is better than eliminating variables based on the significance of the Wald statistic (SPSS 1990). However, the Wald statistic is presented to give some indication of the significance of a variable relative to the other variables.

Each of the dependent variables—completion of the degree and graduate grade point category—were predicted from the independent variables of TOEFL scores, (both raw and total), age, gender, geographic categories of native country (see Appendix A), graduate major (see Appendix B), and admission status (regular or probationary). These independent variables were combined in two ways: as an additive model and as a non-compensatory model. In the additive model, scores were simply added together to determine their predictive value; a low score on one variable could be compensated for with a higher score in another variable. Next, the scores were combined in a non-compensatory model. In this noncompensatory model developed by Einhorn (1971), products are formed with pairs of the independent variables.

In this model, a low value on one of the variables forming the product is not compensated by a high value on the other variable in the product. The combining of variables to predict GGPA and degree completion follows the recommendation of Kuncel, Hezlett, and Ones (2001) for improved data combination methods. Furthermore, their research used first-year GGPA; thus, in this study, GGPA after the completion of nine semester hours of graduate work was incorporated as a variable in one of the logistic regression analyses.

The predictor variables of graduate major and native country are categorical variables with more than two categories. Therefore, contrasts had to be constructed to compare the effect of a specific category with combinations of the other categories for each of these variables. The comparison group for the graduate major was the hard sciences. This category was chosen for two reasons: 1) the hard sciences are more unified in that each science depends on the scientific method, and 2) the number of graduate students in the hard sciences area was larger than those in the other categories. For the geographic region of the native country, Asian students were contrasted with international students from other areas. This group was chosen because more Asian students were enrolled than any other population.

Earlier research by the investigators established that the Graduate Record Examination (GRE), particularly the GRE verbal portion, was an important predictor of success of American graduate students. (Nelson, Malone, and Nelson 2001). While international students are not required to take the GRE examination at the institution in this study, there were 211 international students who had taken both the TOEFL and the GRE. Therefore, it was possible to calculate correlation coefficients between the three sections of the GRE examination (verbal, quantitative and analytic) and the three parts of the TOEFL examination, as well as the composite TOEFL score.

Findings
In order to ascertain whether or not any relationship existed between the three subscores of listening (TOEFL-1), structure/writing (TOEFL-2), and reading (TOEFL-3), as well as the composite score (TOEFL-C) on the TOEFL with the three subscores of verbal (GRE-V), quantitative (GRE-Q) and analytic
(GRE-A) of the Graduate Record Examination, correlation coefficients were calculated. Scores were available for 211 international students who had taken both examinations. Those coefficients are displayed in Table 1.

Since the correlation coefficients between the GRE verbal score and the subscores and the composite score of the TOEFL were 0.50 or higher, it seemed reasonable to conclude that the TOEFL might be a predictor of degree completion for international students just as the GRE verbal scores were in predicting degree completion of American students in earlier research conducted by the authors. However, the logistic regression model did not show any predictive power in this study.

The results displayed in Table 2 show why the prediction of degree completion from TOEFL scores and undergraduate grade point average (UGPA) was not possible. The averages on these variables are almost the same for both the graduates and the non-graduates. The only variable that is different between these two groups is the GGPA, which was not used as an independent variable in predicting degree completion.

When the data were analyzed by major field of study, however, findings varied. These fields were combined as Applied Studies (architecture, business, applied sciences), Communication Sciences, Education and Psychology, Hard Sciences (physical and life sciences), and Humanities and Social Sciences. In general, the average achievement measures either mirrored the results found in the overall analysis or, in some cases, the non-graduates performed better than the graduates. In fact, in only one combined area, Education and Psychology, did the graduates perform better in all measures than the non-graduates.

The most consistent trend among the academic disciplines was the difference in GGPA. The graduates outperformed the non-graduates in all fields of study by an average of nearly a half letter grade. In fact, the GGPA of the group that completed degree requirements was consistently above the dichotomized GGPA of 3.5. On the other hand, the GGPA of those international students who dropped out of their master’s degree programs was consistently below the dichotomized GGPA of 3.5. These results are displayed in Table 3. This gives further credibility to making an attempt at predicting the dichotomized GGPA.

Students were grouped roughly by culture and language. Due to the small numbers of students available, students from Europe were categorized along with students from South America, Central America, and Scandinavian countries. Other groups included Asia, Africa, Mideast, and South Asia. In only one region of the world, South Asia, did the graduates outperform the non-graduates in all of the achievement measures. And, like the findings of GGPA by area of study, graduates in all culture and language groups earned higher graduate grades than those students who failed to complete their programs. See Table 4 on the following page for these results.

The graduation rates for international students at the American university under study were quite high. Overall, 87.1 percent of the students completed program requirements. By academic area, the rate of degree conferral ranged from a high of 97.4 percent for communication sciences (n = 79), to a low of 75.9 percent for humanities and social sciences (n = 104). By culture and language grouping, European students (n = 106) completed at the lowest rate of 81.9 percent; South Asian students (n = 99) graduated at the highest rate, 91.9 percent.

### Table 1: Comparison of TOEFL Scores and GRE

<table>
<thead>
<tr>
<th>TOEFL</th>
<th>TOEFL-1</th>
<th>TOEFL-2</th>
<th>TOEFL-3</th>
<th>TOEFL-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRE-V</td>
<td>0.50*</td>
<td>0.60*</td>
<td>0.66*</td>
<td>0.68*</td>
</tr>
<tr>
<td>GRE-Q</td>
<td>0.004</td>
<td>0.25*</td>
<td>0.34*</td>
<td>0.22*</td>
</tr>
<tr>
<td>GRE-A</td>
<td>0.340*</td>
<td>0.37*</td>
<td>0.39*</td>
<td>0.42*</td>
</tr>
</tbody>
</table>

*Significant beyond the .01 level

### Table 2: Measures of Achievement for International Graduates and Non-Graduates

<table>
<thead>
<tr>
<th></th>
<th>Graduates (n = 622)</th>
<th>Non-Graduates (n = 92)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate GPA (UGPA)</td>
<td>3.12</td>
<td>3.08</td>
</tr>
<tr>
<td>Graduate GPA (GGPA)</td>
<td>3.68</td>
<td>3.24</td>
</tr>
<tr>
<td>Listening Score (Raw 1)</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Structure/Writing (Raw 2)</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Reading (Raw 3)</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Total TOEFL</td>
<td>553</td>
<td>554</td>
</tr>
</tbody>
</table>

### Table 3: Measures of Achievement by Field of Study

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grad</td>
<td>No Grad</td>
<td>Grad</td>
<td>No Grad</td>
<td>Grad</td>
</tr>
<tr>
<td>UGPA</td>
<td>3.12</td>
<td>3.11</td>
<td>3.05</td>
<td>2.80</td>
<td>3.28</td>
</tr>
<tr>
<td>GGPA</td>
<td>3.57</td>
<td>3.07</td>
<td>3.64</td>
<td>3.15</td>
<td>3.73</td>
</tr>
<tr>
<td>Raw1</td>
<td>54</td>
<td>54</td>
<td>56</td>
<td>58</td>
<td>55</td>
</tr>
<tr>
<td>Raw2</td>
<td>55</td>
<td>56</td>
<td>57</td>
<td>60</td>
<td>57</td>
</tr>
<tr>
<td>Raw3</td>
<td>55</td>
<td>56</td>
<td>58</td>
<td>57</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>547</td>
<td>557</td>
<td>571</td>
<td>580</td>
<td>560</td>
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<tr>
<td>N</td>
<td>149</td>
<td>32</td>
<td>77</td>
<td>2</td>
<td>38</td>
</tr>
</tbody>
</table>
As was stated earlier, the researchers found that no additive or noncompensatory combinations of independent variables were predictive of completion or noncompletion of the graduate degree when the logistic regression model was applied. The data presented in Tables 2, 3 and 4 suggested this might be the case. It is interesting to note that, for American graduate students, the researchers found that the GRE-V score, in combination with other variables, was a predictor of successful degree completion. However, even though there were correlation coefficients between 0.50 and 0.68 between the GRE-V and the different subscores and the overall scores of the TOEFL, in this study, the TOEFL was not a predictor of successful degree completion for international students.

Using the logistic model, the researchers were able to predict the dichotomized GGPA from combinations of the independent variables. After the backstep logistic regression was applied, the independent variables that remained as predictors are displayed in Table 5.

It is interesting to note that the product of the structure/writing score on the TOEFL, combined with the GGPA in the noncompensatory model suggested by Einhorn (1971), is a significant predictor of the dichotomized GGPA. Another predictor was whether or not the students were admitted as regular graduate students or had to be admitted as probationary students (i.e., did not meet minimum admission standards of at least a 2.75 cumulative undergraduate grade point average on a 4.0 scale). By academic discipline, the applied area and the communication area were the only fields that differed significantly from the hard sciences in predicting GGPA. The more theoretical fields of education and psychology, and humanities and social sciences did not differ significantly from the hard sciences as predictors of GGPA.

While the cultural/language classification was significant in predicting the dichotomized GGPA, the contrast between the Asian students and the African students was the only significant contrast. This suggested that for the most part, there did not seem to be a distinction in academic performance between cultural/language groups except for the above-mentioned contrast. The resulting classification using the above logistic regression is displayed in Table 6 on the following page.

From Table 6, more students were predicted to have a GGPA of 3.5 and above than attained this grade point average. Less than 13 percent of the students whose GGPA was less than 3.5 were screened by this model; however, only twelve students who actually earned a GPA of 3.5 or above were predicted to have a GPA below 3.5. This prediction was almost 98 percent accurate, and the overall prediction of the dichotomized GPA was better than 75 percent.

The GGPA after nine hours of coursework was incorporated into a second logistic model as an independent variable. If one were screening potential candidates for admission to a graduate program, obviously this value would not be available. However, if one is monitoring the progress of graduate students in order to identify those who may have weaker academic performance and need assistance, the GGPA after nine hours of coursework combined with other variables is useful.

Table 4: Measures of Achievement by Culture/Language

<table>
<thead>
<tr>
<th>Variable</th>
<th>Europe Grad</th>
<th>Europe No Grad</th>
<th>Asia Grad</th>
<th>Asia No Grad</th>
<th>Africa Grad</th>
<th>Africa No Grad</th>
<th>Mideast Grad</th>
<th>Mideast No Grad</th>
<th>South Asia Grad</th>
<th>South Asia No Grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGPA</td>
<td>3.25</td>
<td>3.18</td>
<td>3.07</td>
<td>3.05</td>
<td>3.10</td>
<td>2.96</td>
<td>2.97</td>
<td>3.21</td>
<td>3.26</td>
<td>3.00</td>
</tr>
<tr>
<td>Raw1</td>
<td>57</td>
<td>58</td>
<td>52</td>
<td>53</td>
<td>51</td>
<td>55</td>
<td>55</td>
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<tr>
<td>Raw2</td>
<td>58</td>
<td>58</td>
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<td>55</td>
<td>58</td>
<td>61</td>
<td>53</td>
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<tr>
<td>Raw3</td>
<td>58</td>
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</tr>
<tr>
<td>Total</td>
<td>577</td>
<td>586</td>
<td>543</td>
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Table 5: Coefficients for First Logistic Regression Model

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information. The strength of this variable in predicting the final GGPA was evident in the regression coefficients displayed in Table 7. This finding was consistent with the findings of previous research by these authors (Nelson, Malone, and Nelson 2001).

The composite TOEFL score remained in the regression equation as a predictor, although it was not highly significant. The same pattern for predicting the GGPA from academic area and from geographic category was the same for this model as it was for the first model.

The resulting classification of the dichotomized GGPA using the regression equation displayed in Table 7 is shown in Table 8.

Overall, this second model was almost 85 percent accurate in predicting GGPA. It should be noted that this model was correct about 55 percent of the time in predicting students who would earn a GGPA less than 3.5, and was about 95 percent accurate in predicting the students who earned a GGPA of 3.5 or higher.

**Summary and Discussion**

Our summary includes several important findings. From the results presented above, it is clear that the TOEFL is not a predictor of whether or not an international student will complete a master’s degree. To be admitted to the institution where the data were obtained, the student had to have a composite score of at least 550 on the TOEFL. Minimum undergraduate grade requirements, determined by each academic area but generally equivalent to a “B” or better average, also had to be met. Additionally, letters of recommendation and the student’s written statement of his/her purpose of pursuing graduate study were considered in the admission process. Therefore, the academic level of the international candidates accepted for graduate study was high and represented a narrow range; the students were among the best and brightest in their disciplines. Thus, high scholastic ability coupled with the required minimum TOEFL score may have screened out the applicants who lacked the necessary English skills to complete a course of study. And, the international students who did not complete a degree program may have dropped out for reasons other than academic.

The TOEFL, when combined with other factors, however, may be of use in predicting academic performance. As was stated earlier, there is little variability in grades in graduate school. However, by dichotomizing the GGPA as below 3.5 or equal to or above 3.5, students may be placed in performance categories. These performance categories can be predicted with consistency and some accuracy (between 75–84 percent).

This finding confirmed results of a few earlier studies that the TOEFL had predictive power in determining GGPA (Ayres and Peters 1977; Ayres and Quattlebaum 1992).

It is also interesting to note the correlations between the GRE-V and TOEFL score. The authors’ finding that correlation coefficients between these two standardized tests were 0.50 or higher initially led researchers to postulate that the TOEFL might be a predictor of success since in their earlier investigation (Nelson, Malone, and Nelson 2001), it was shown that the GRE-V had predictive power for success of American students in graduate school. The fact that the TOEFL was not predictive of success, i.e., degree completion, for international graduate students despite its high correlation to the GRE-V, raises a question that is not easily answered or understood.

One must realize that GGPA alone is not sufficient to warrant degree conferral. While
students must achieve a minimum of a 3.0 (4.0 scale) to be certified for graduation, a research component, consisting of a thesis, research paper, creative project, or a course in research methodology, is also required. It is possible that some students may have successfully completed most or all of their coursework but failed to finish the final research project. Here, competency in English language skills may or may not have been a factor in degree completion or noncompletion.

And, as previous researchers have noted, other factors—attitude, independence, motivation or dedication, isolation from other students, emotional difficulties, dissatisfaction with faculty, health issues, and financial considerations—although not measurable as are academic achievement levels—may be essential to graduate school success (Halleck 1976; Heiss 1970; Lovitts 1996; Neal 1998; Tucker, Gottlieb, and Pearce 1964).

Although the results of the present study may imply that the TOEFL should be dropped as a screening tool for international admission since it is not a predictor of master’s degree completion, the authors argue differently. One finding of the present investigation is the usefulness of the combination of the TOEFL and the nine-hour GGPA for predicting overall graduate performance. Given this information and keeping in mind the limitations noted earlier, the researchers suggest that international students be closely monitored upon the completion of their first semester of graduate work in American institutions. Although Light, Xu, and Mossop (1987) concluded that GGPA “may not be the most important criterion of students’ academic success” (p. 259), the current investigation showed that those students who earn GGPA below 3.5 may require a reassessment of their lack of achievement, particularly if it is related to language deficiency. Students should be encouraged to make use of university support services such as academic counseling and reading and writing clinics to help them identify skills that need to be strengthened.

References


Lovitts, B.E. 1996. Who is Responsible for Graduate Student Attrition—The Individual or the Institution? Toward an Explanation of the High and Persistent Rate of Attrition. ED399687.


Neal, M.E. 1998. The Predictive Validity of the GRE and TOEFL Exams with GGPA as the Criterion of Graduate Success for International Graduate Students in Science and Engineering. ED424494.


He earned his bachelor’s degree from Earlham College, his master’s degree from Southern Illinois University and his doctorate in education from Indiana University. Most recently, Dr. Nelson has been investigating issues related to predicting the success of graduate students who have been admitted to graduate studies on a probationary plan of study.

Bobby G. Malone, Ph.D. received his degree in Educational Administration and Supervision from Mississippi State University, and spent most of his career at Murray State University in Kentucky. After retiring from Murray State in 1996, Dr. Malone came to Ball State as Chair of the Department of Educational Leadership. After serving a three-year stint as chair, he returned to faculty status in 1999. Dr. Malone has been investigating the attrition and retention of graduate students. He and several colleagues have developed a model to aid admissions committees in determining those students who are most likely to complete a degree program.

### ABOUT THE AUTHORS

Jacquelyn Nelson, Ph.D. is Assistant Dean of the Graduate School and Adjunct Professor of History at Ball State University. She earned her master’s and doctoral degrees from Ball State and taught there for a number of years prior to assuming the administrative position in 1989. She has had a wide variety of experiences in the field education, including teaching positions in the public schools, Vincennes University, and Ball State University. Dr. Nelson has investigated issues concerning graduate education, particularly the admission of at-risk students into advanced programs. Currently, she is researching the relationship between leadership style of principals and on-the-job stress.

C. Van Nelson, Ph.D. is Professor of Computer Science at Ball State University. He earned his bachelor’s degree from Earlham College, his master’s degree from Murray State University in Kentucky. After retiring from Murray State in 1996, Dr. Malone came to Ball State as Chair of the Department of Educational Leadership. After serving a three-year stint as chair, he returned to faculty status in 1999. Dr. Malone has been investigating the attrition and retention of graduate students. He and several colleagues have developed a model to aid admissions committees in determining those students who are most likely to complete a degree program.

### Appendix A: Geographic Categories of Native Country

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### Appendix B: Major Areas of Graduate Study

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There’s always an opportunity for Change...

Jobs Online

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To find or post a job, visit at www.aacrao.org/jobs or e-mail us at jol@aacrao.org

www.aacrao.org/jobs

AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS AND ADMISSIONS OFFICERS
Institutions of postsecondary education are increasingly operating in an environment in which they are expected to do more with less. This is particularly true for public institutions, which in 2002 faced the lowest state spending on higher education in the past decade. With fewer resources coming from the states, public institutions have sought and been granted greater flexibility to determine tuition, budgets, and academic programs. This flexibility has come at the cost of additional accountability. For example, in North Dakota, a bill was passed in 2001 allowing institutions that make up the North Dakota University System to determine the amount and use of tuition in exchange for greater accountability in reporting to the state board of higher education. Additionally, as a result of the Reauthorization of the Higher Education Act, Congress and President Bush have recently begun considering greater accountability for colleges, similar to K–12 education in the No Child Left Behind legislation. Institutions will thus be held accountable for educational outcomes including retention and graduation rates, time to degree, preparation for post-graduation employment, and costs.

Output is a function of the inputs used and the method of production. With respect to education, this implies that educational outcomes, such as completions, depend on both the number and quality of the student body (inputs) and the academic environment (method of production) created by the institution. One expects institutions with well-prepared and highly motivated students to produce more as evidenced by higher graduation rates. Furthermore, one expects institutions devoting more resources to creating beneficial learning environments to achieve better outcomes. The challenge for institutions of higher education is there is only so much they can do to improve their academic environment when faced with fewer resources. The alternative is to increase the preparation of admitted students. The difficulty in choosing this approach is that better prepared students tend to enroll in schools with better academic reputations, which in turn depends on the qualifications of the students they attract. Without additional resources to attract students by offering scholarships, universities are left with the difficult task of finding ways to improve outcomes without significantly increasing costs.

One technique to improve outcomes that universities have found appealing is to raise admission standards. States including Louisiana, Nevada, North Dakota, and Oregon are either considering or have already implemented higher admissions standards. For example, at the University of North Dakota (UND), a doctoral research intensive institution with an enrollment of 13,000, the requirements for automatic admission starting with the Fall 2005 cohort will be a minimum high school grade point average (GPA) of 2.5 and an ACT score of at least 21, up from 2.25 and 17, respectively. The purpose of this change in policy is to move toward achieving the University's strategic plan, which in part seeks to optimize and stabilize enrollment to achieve the desired number and type of students appropriate to the University’s mission, which is the discovery, development, preservation, and dissemination of knowledge. Similar to other research universities, UND does not serve to provide remedial work for students unprepared for college. Towards this end, UND has set the following goals:

- Raise the average ACT score of entering freshmen to 24 or higher;
- Achieve a retention rate of 80 percent after the first year; and
- Attain a six-year graduation rate that exceeds 50 percent.

The purpose of this paper is to predict the impact of raising admissions standards on completion and retention rates as well as the potential impact on enrollment at the University of North Dakota.
First-Year Retention and Graduation Rates

The motivation behind increasing admissions standards at UND is two-fold: (1) to improve student outcomes by enrolling better prepared students; and (2) to create an environment that is conducive to academic achievement. Alexander Astin’s (1991) Input-Environment-Output (IEO) model is a commonly used theoretical framework to understand first-year retention and graduation rates. These outcomes are influenced by the personal characteristics of the student body (inputs) and the environment in which students interact. According to Astin’s model, institutions with well-prepared and motivated students will be more likely to see them persist until graduation. Astin (1991) categorizes student input measures that describe demographic characteristics, cognitive functioning, aspirations and expectations, self-ratings, values and attitudes, behavioral patterns, and educational background. Often these characteristics are measured by high school grade point averages, achievement scores, race, gender, and the age of the student. (For further discussion see Astin 1993; Pascarella and Terenzini 1991; and Tinto 1987.)

Examining retention and graduation rates of currently enrolled students at UND, one sees a significant relation to achievement scores and high school grade point average (GPA). Among first-time, full-time freshmen enrolled in 2001, 77 percent were still enrolled the following Fall at UND. Of those students meeting the current standards for automatic admission, 78 percent were retained as compared to only 62 percent among students not meeting these standards. Among current students meeting the new admission standards, the retention rate is higher at 82 percent.

The findings are similar when examining graduation rates. The five-year graduation rate for the 1996 Fall cohort was 42 percent. Of those automatically admitted under the current policy, 43 percent graduated in five years as compared to 20 percent for those that were not automatically admitted. The five-year graduation rate of students with ACT scores greater than or equal to 21 was 46 percent, as compared to only 35 percent for other students. These results clearly indicate that students with higher high school grade point averages and ACT scores have both higher retention and graduation rates.

Also relevant for the attainment of graduation is the method of production (environment) at each institution. Tinto (1987) finds that environments that support student integration into the academic community encourage student retention and subsequent graduation. The resources available and institutional type (size, control, mission, religious affiliation, etc.) are other factors that influence the environment and determine student outcomes. Accounting for both individual and institutional factors is essential to explaining retention and graduation rates.

Empirical analysis of first-year retention and graduation rates can be done at two levels: the individual student level and the institutional level. Individual level analyses (Astin 1997; Dey and Astin 1993; Kroc, Howard, and Hull, 1995; Murtaugh, Burns, and Schuster 1999; Smith, Edminster, and Sullivan 2001) examine whether a student graduated based on her individual characteristics. For example, Astin (1997) predicts graduation while controlling for high school GPA, race, gender, and SAT scores. While these authors differ in their choice of other control variables used in their analysis, all use achievement scores (ACT/SAT) and high school GPA in their prediction models. The conclusion from these papers is that achievement scores and high school GPA have a positive effect on graduation rates. Analyses at the institutional level (Goenner and Snaith 2004a, 2004b; Mortenson 1997; Porter 2000) examine institutional graduation rates with respect to the characteristics of the institution and its student body. Goenner and Snaith (2004b) look at graduation rates across doctoral-granting institutions controlling for the characteristics of the student body (e.g., age, GPA, SAT scores, gender, fraction of student body in the top ten percent of high school class) in addition to institutional characteristics (e.g., expenditures, fraction of faculty with Ph.D.s, tuition). Their findings showed that SAT scores and the fraction of the student body that graduated in the top ten percent of their high school class both have positive and statistically significant effects on four, five, and six-year graduation rates.

The analysis used in this study examines retention and graduation rates at the institutional level. The focus is on the institutional level of analysis in order to capture the effects that increased admissions standards will have on the preparation of the student body and on the overall environment created by the institution. The motivation behind this approach is that improving the preparation of the student body will have an interacting effect that will also change the characteristics of the institution. By examining other institutions with missions similar to UND’s, the effects that higher standards will have on first-year retention and graduation rates can be predicted.

The sample used consists of 157 Doctoral I universities for which we have complete data. The independent variables used to analyze retention and graduation rates include average age, ACT score of the lowest 25th percentile, average high school GPA of the student body, expenditures per student, acceptance rate, percentage of out-of-state students, and whether the institution is public. A description of the data sources and summary statistics appears in Table 1 on the following page.

To evaluate the effects of increasing admissions standards at UND, we examine the effect of raising the ACT score of the lowest quartile of the student body by two points and the average high school GPA by 0.25. These values are consistent with the goals of this policy, which include raising the average ACT score to 24 and the high school GPA to 3.5. Using regression analysis we find that high school GPA and ACT scores have a positive and statistically significant effect on first-year retention rates. Increasing the average high school GPA of the student body by 0.25 increases the retention rate by 1.33 percent, while increasing the ACT score of the lowest 25th percentile by two points increases the retention rate by another 2.04 percent. These results appear in the first column of Table 2 on the following page. The predicted impact from
the change in policy would be a 3.37 percent increase in the retention rate to 82 percent overall. Unlike most models based on individual student data, our model of retention rates with an adjusted $R^2$ of 0.75 explains a relatively high fraction of the variance in retention rates across institutions.

Using the same control variables listed above, we conducted regression analyses of four-year, five-year, and six-year graduation rates. The results of these models appear in columns 2, 3, and 4 of Table 2. The analysis indicates that ACT scores have a positive and statistically significant effect for each time interval. High school GPA also has a positive effect, but is statistically significant only at the five and six-year time intervals. Examining six-year graduation rates, we see that increasing the high school GPA of the student body by 0.25 increases the graduation rate by 2.5 percent, while increasing the ACT of the lowest 25th percentile by two points increases the graduation rate by 3.76 percent. The predicted net effect of the policy change is therefore an increase in the six-year graduation rate of 6.26 percent. The effect on the five-year and four-year graduation rate is an increase in the graduation rate of 5.88 percent and 3.75 percent, respectively. From these results we can see a dramatic improvement in graduation rates with particular emphasis on graduation rates for longer horizons (five to six years).

### Enrollment

An obvious concern over raising admissions standards is the effect the policy will have on enrollment. Of the students enrolled in the freshman co-hort of 2002, 104 did not meet the current requirements for automatic admission. Under the new admissions standard there would be 536 students who would not meet the standard for automatic admission. The change in policy, however, does not necessarily equate to lower enrollment. First, some students who do not meet the criteria for automatic admission will be admitted after careful screening of their qualifications. Secondly, high school students whose first choice is to attend UND will be forced to better prepare for achievement tests and/or consider attending a two-year institution that will provide students with the preparation needed to meet the academic expectations of UND. With respect to this latter point, UND is working to complete articulation agreements with all two-year institutions in North Dakota as well as those in the Minneapolis and St. Paul metropolitan area of Minnesota to ease transfer to UND. Finally the effect that raising admissions standards

### Table 1: Description and Source of Variables used for Institutional Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grad0</td>
<td>Six-year graduation rate</td>
<td>56.42038</td>
<td>16.19003</td>
<td>USNWR¹</td>
</tr>
<tr>
<td>Grad5</td>
<td>Five-year graduation rate</td>
<td>52.26846</td>
<td>17.8627</td>
<td>USNWR¹</td>
</tr>
<tr>
<td>Grad4</td>
<td>Four-year graduation rate</td>
<td>33.62162</td>
<td>20.36384</td>
<td>USNWR¹</td>
</tr>
<tr>
<td>HSGP</td>
<td>Average High School GPA</td>
<td>3.405096</td>
<td>0.2757986</td>
<td>Petersons³</td>
</tr>
<tr>
<td>LowACT</td>
<td>ACT score of lowest quartile</td>
<td>21.5414</td>
<td>3.070727</td>
<td>USNWR¹</td>
</tr>
<tr>
<td>OutState</td>
<td>% Out of State</td>
<td>24.88535</td>
<td>21.8591</td>
<td>USNWR¹</td>
</tr>
<tr>
<td>Age</td>
<td>Average Age of Full Time Undergraduates</td>
<td>21.20382</td>
<td>1.753161</td>
<td>USNWR¹</td>
</tr>
<tr>
<td>AcctRt</td>
<td>Acceptance Rate</td>
<td>69.66879</td>
<td>18.58501</td>
<td>USNWR¹</td>
</tr>
<tr>
<td>StExp</td>
<td>Per Student Expenditures</td>
<td>18279.83</td>
<td>12072.91</td>
<td>IPEDS² F9596-B.DAT</td>
</tr>
<tr>
<td>Public</td>
<td>1 if Public School, 0 otherwise</td>
<td>0.6878981</td>
<td>0.4648339</td>
<td>IPEDS² FA2000.DAT</td>
</tr>
</tbody>
</table>

¹ USNWR: U.S. News and World Report America’s Best Colleges 2002 rankings
² IPEDS: Integrated Postsecondary Education Data System
³ Petersons Undergraduate Guide to Four Year Colleges 2002

### Table 2: Regression Results for Retention and Graduation Rates

<table>
<thead>
<tr>
<th></th>
<th>Retention</th>
<th>4-Year Grad</th>
<th>5-Year Grad</th>
<th>6-Year Grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>71.684</td>
<td>(8.60)</td>
<td>46.884</td>
<td>(2.02)</td>
</tr>
<tr>
<td>HSGP</td>
<td>5.299</td>
<td>(2.77)</td>
<td>5.006</td>
<td>(0.95)</td>
</tr>
<tr>
<td>ACT</td>
<td>1.022</td>
<td>(4.47)</td>
<td>1.247</td>
<td>(2.02)</td>
</tr>
<tr>
<td>Out of State</td>
<td>-0.002</td>
<td>(-0.11)</td>
<td>0.158</td>
<td>(2.74)</td>
</tr>
<tr>
<td>Public</td>
<td>-0.710</td>
<td>(-0.76)</td>
<td>-8.713</td>
<td>(-3.35)</td>
</tr>
<tr>
<td>Age</td>
<td>-1.158</td>
<td>(-5.52)</td>
<td>-1.814</td>
<td>(-3.03)</td>
</tr>
<tr>
<td>Accept Rate</td>
<td>-0.091</td>
<td>(-3.79)</td>
<td>-0.293</td>
<td>(-4.61)</td>
</tr>
<tr>
<td>Student Exp.</td>
<td>0.0000349</td>
<td>(0.85)</td>
<td>0.000194</td>
<td>(1.77)</td>
</tr>
<tr>
<td>N</td>
<td>157</td>
<td>148</td>
<td>149</td>
<td>157</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>0.746</td>
<td>0.730</td>
<td>0.733</td>
<td>0.739</td>
</tr>
</tbody>
</table>

**NOTE:** t-statistics in parentheses.
will have on the ability to recruit better prepared students is discussed below.

The decision to apply to college can be seen as an investment by individuals in human capital (Becker 1993). Graduating from college offers benefits, such as higher wages or access to more prestigious occupations, but also imposes direct costs (tuition, books, and fees) and indirect costs (time spent studying or in class). Given the differences in preferences, preparation, motivation, and financial means, not all individuals will find it beneficial to invest in higher education. For instance, ill-prepared students will find the indirect cost of attending a university very high given the amount of time they may need to spend studying or in remedial classes relative to the rest of the student body. Once the decision to attend college has been made, the individual must still apply and be accepted. Of interest here is the effect that higher admission standards will have on applications to UND and students’ choice to attend UND.

Guiding a student’s choice to attend college is what Chapman (1981) describes as student characteristics (demographics, socio-economic status, and college preparation) as well as external influences (counseling, cost, and location of the institution). An important factor both in college choice and in assessing UND’s change in admissions standards is the tendency of students to sort themselves by academic abilities (Braxton 1990; Chapman 1981; Heath 1993; Manski and Wise 1983; Nolfi 1979). This results in a student body that is relatively homogenous with respect to aptitude. Nolfi (1979) argues that “the attractiveness of educational alternatives first increases with the average quality of other students enrolled in them, peaks at a point where average ability is above the ability of the student in question, and then falls with further increases in average quality” (p.74). Additionally, empirical findings by Manski and Wise (1983) demonstrate that students tend to choose a college with an average SAT score within 100 points (approximately three points on ACT) of their own scores, when controlling for outside factors. At UND, 65 percent of students score within three ACT points of UND’s average of 22, thus corroborating Manski and Wise’s empirical findings.

Increasing admissions standards at UND will attract better prepared students, as measured by achievement scores and high school GPAs, thus increasing the academic reputation of UND. Academic reputation should also improve as average ACT scores, high school GPAs, retention, and graduation rates improve. Braxton (1990) cites several authors (Dahl 1982; Hearn 1984; Jackson 1978; Zemsky and Oedel 1983) who find that high-ability students are more likely to attend selective institutions and are more likely to select out-of-state schools (Dahl 1982; Zemsky and Oedel 1983). As UND becomes more dependent on attracting students from out-of-state, the ranking of UND in national college guides will become more important.

U.S. News & World Report’s annual ranking of colleges provides a reference that many high school students and counselors use to guide college choice. In determining their rankings, U.S. News uses several measures that will be impacted by the change in UND policy. With respect to high school GPA and SAT/ACT scores, 5.25 percent of the final overall score used in the ranking is determined by the fraction of the student body in the top ten percent of their high school class, and 4 percent of the final overall score is determined by achievement scores. This policy change will also influence freshman retention and graduation rates, which are also included in the rankings. The six-year graduation rate accounts for 16 percent of the final overall score, while freshman retention rates account for 4 percent. While we cannot calculate the effect on the overall score, we can be reasonably confident that UND’s academic reputation will increase over time as nearly one-third of the factors used by U.S. News in their ranking will be improved as a result of increasing admissions standards.

Analysis of the 2002 Cooperative Institutional Research Program (CIRP) survey of 1,471 UND freshman (74 percent of the freshman class) reveals that academic reputation is the most important factor influencing students’ decision to attend UND. Of those surveyed, 52.5 percent responded that the reputation of the school was very important in their choice to attend, while 42.6 percent indicated it was somewhat important and 4.9 percent answered that it was not important. Rankings in national magazines at first glance seem less important to enrollment, as only 7.39 percent of the freshmen surveyed indicated that it was a very important influence in their decision to attend UND.

Further analysis of these data using ordered logit to control for region is reported in Table 3 (on the following page) and reveals that national rankings are significantly more important to students coming from outside North Dakota and Minnesota. Students from these two states are grouped together because the University of North Dakota, which is located in Grand Forks, lies on the border of North Dakota and Minnesota. In addition, Minnesota residents qualify for tuition that is only slightly higher than North Dakota residents. Among students enrolled at UND, 55 percent are from North Dakota and 25 percent from Minnesota. Among the students from North Dakota and Minnesota, only 30 percent found rankings important or very important, versus 47 percent of students from outside these two states. Similar analysis on academic reputation indicates that 58.4 percent of the students from outside the two-state region consider academic reputation very important, versus 51.7 percent of those from North Dakota and Minnesota.

Students from outside North Dakota and Minnesota are drawn to UND because of the academic quality of the institution. This is seen in the increased importance these students place on national rankings and the academic reputation as indicated in the CIRP survey. The university’s reputation for social activities, the second largest factor drawing our current student body, is significantly less important to out-of-state students. Ordered logit analysis on the importance of social activities on the decision to attend UND when controlling for region reveals that 28 percent of students from North Dakota
Table 3: Ordered Logit Probabilities of the Importance of Ranking, Academic Reputation, and Social Reputation in the Decision to Attend UND, When Controlling for Region

<table>
<thead>
<tr>
<th></th>
<th>Ranking (%)</th>
<th>Academic Reputation (%)</th>
<th>Social Reputation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In State</td>
<td>Out of State</td>
<td>In State</td>
</tr>
<tr>
<td>Not Important</td>
<td>69.40</td>
<td>52.8</td>
<td>15.0</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>23.72</td>
<td>34.13</td>
<td>43.3</td>
</tr>
<tr>
<td>Very important</td>
<td>6.88</td>
<td>13.01</td>
<td>51.7</td>
</tr>
</tbody>
</table>

and Minnesota find social activities very important compared to 15 percent of students from outside these two states.

By increasing admissions standards UND should not only enhance its ability to attract students from outside the region, but also should attract better prepared students. Mayer-Foulkes (2002) empirical analysis finds that higher graduation rates and academic reputation contribute to attracting students with higher achievement scores in the future. Such findings bode well for UND’s decision to raise admissions standards. Doing so represents the first step toward the goal of shifting the current distribution of ACT scores centered at 22 and high school GPA to the right, while maintaining if not increasing current enrollment levels.

**Conclusion**

Increasing admissions standards will have two effects on UND. The first is that the student body will be better prepared for college, which will result in improved educational outcomes as measured by first year retention and graduation rates. Increasing the ACT score of the lowest 25th percentile by two points and increasing average high school GPA of the UND student body by a quarter point is predicted to increase first year retention by 3.4 percent. Four-year, five-year, and six-year graduation rates are also predicted to increase by 3.8, 5.9 and 6.3 percent, respectively.

The second effect is on enrollment and student recruitment. By increasing admissions standards, a large number of currently admitted students will no longer be automatically admitted to the university. The change in policy does not necessarily equate to lower enrollment. A 2002 survey of UND freshmen indicates that academic reputation is the most important factor in choosing to attend UND. Increasing admissions standards will improve the reputation of UND nationally, by increasing the academic preparation of the student body as well as retention and graduation rates. Nearly one-third of the factors that U.S. News uses to rank colleges will be improved. This projected increase in ranking will put UND in a better position to recruit students from outside North Dakota and Minnesota, given that students who come to UND from outside this region indicate that academic characteristics such as reputation and national ranking are more important to them than they are to students from the region.

Increasing admissions standards, which results in higher average GPA and ACT scores, will also attract better prepared students as measured by these characteristics. Numerous studies have shown that students attend schools where the aptitude of the student body is similar to their own. Research also shows that students tend to choose schools with average ACT scores within three points of their own score when controlling for outside factors. This suggests that by increasing average achievement scores, UND will attract better prepared students. Furthermore, research shows that higher graduation rates and improved academic reputation have positive and statistically significant effects on attracting better quality students.

Changes in admissions standards will not have an overnight impact. It will take time to attract better prepared students and improve the academic reputation of UND. These characteristics are symbiotic. Better prepared students are needed to improve the reputation; but without an improved reputation, the University cannot attract better prepared students. Increasing admissions standards and reducing the number of students who drop out or do not persist to graduation is a step toward improving UND’s academic reputation. Without such efforts, UND will be at a disadvantage both in the competition for students from outside the region and for the region’s best and brightest students.

**References**


ABOUT THE AUTHORS

**Cullen F. Goenner, Ph.D.** is an Assistant Professor of Economics at the University of North Dakota. He received his Ph.D. in 2001 from the University of Wisconsin. His research interests include the effects of model uncertainty as it relates to economics, international conflict, and education.

**Sean M. Smith, Ph.D.** is an Associate Professor of Business Economics and Director of the Business Forecasting Center at the University of the Pacific. He received his Ph.D. in 1996 from Penn State University. His research interests include Business Forecasting, Models of Exchange Rate Determination, and Prediction of Educational Outcomes.
Tom Stewart Interview (Part I): Registrar and SPEEDE’s Champion

At AACRAO’s Annual Meeting in April 2003, Tom Stewart was presented with the APEX Award for Achieving Professional Excellence in his field. He was recognized for his tireless work and commitment to SPEEDE, the electronic transmission of records. Over the almost 40-year span of his career, he has earned the SACRAO and AACRAO Distinguished Service awards and an AACRAO honorary membership. Tom held leadership positions with FACRAO and SACRAO, including SACRAO president in 1987, and served as the chairperson of SPEEDE from 1989 to 1995. Although now retired, he still maintains his connection with AACRAO, serving as its SPEEDE’s liaison to the Accredited Standards Committee (ASC) X12 of the American National Standards Institute (ANSI) and he has served as a consultant for AACRAO’s Enrollment Services.

by David Stones

Even from his early days as the assistant registrar for the South Campus of Miami-Dade Junior College, Tom’s professionalism, commitment to excellent service for students, and ease with technology set him apart. He moved up the ranks from assistant to registrar for the Kendall Campus of Miami-Dade from 1966 to 2003, and to college registrar for the entire M-DCC system from 2000 until his retirement in June 2003.

In the two-part interview that follows, Tom reveals the depth of his knowledge and expertise in records technology to his friend and colleague David Stones in “Registrar and SPEEDE’s Champion,” and the commitment of a man who still strives to make a difference in a student’s life in “Tom Stewart: A Little Bit about the Man Behind SPEEDE” with College and University’s consulting editor, Kathy Winarski.

How did you become a registrar?

While I was an undergraduate student at the University of Florida, I happened to get a job as a student assistant in the machine records section of the registrar’s office. I really found it to be an interesting part-time job. I believe the pay was about 30 cents an hour when I began, but I was making good money, about 60 cents an hour, when I graduated. When I returned to UF for my master’s degree, they had an opening in the same area. It’s now the computer section of the registrar’s office. I worked there again for another year.

When I became a faculty member at M-DJC, they had a gym type registration where the faculty all assisted in registering students, mostly by handing out and collecting punched cards. My assignment was assessing fees for the bursar’s office. I did this for two registrations. Then I went to the college registrar and asked if I could work in the registrar’s area instead of the bursar’s during the registration period.

He asked why. I told him about my experience in the computer area of UF’s registrar’s office. His eyes lit up. He asked me to sit down and talk some more. By the end of that brief discussion, he had tentatively offered me the job as registrar for a new campus of the college that was being established. No application for the job. No screening committees. I said yes.

What did you experience over the years at Miami-Dade? How did the institution change? How did that affect your role?

When I began at the College in the Fall of 1965, in the beginning of its sixth year, the College had one campus with about 5,000 students. When I retired 38 years later, the College had 55,000 college-credit students at its six main campuses. By the Fall of 1965, the College had become racially integrated but was still over 90 percent white, non-Hispanic. When I retired, the racial/ethnic mix was about 60 percent Hispanic, 25 percent non-Hispanic Black, and about 15 percent white, non-Hispanic.

Even in 1965, the College was a leader in technology. We shared our machine records equipment with the county school board, but we used IBM punched cards for registration. Over the years, I was involved in converting from the use of punched cards for registration and punched paper tapes for admissions processing to the next step—online computer admissions and registration by admissions and registrar staff. I was also involved in the computerized voice response process that allowed students to register and obtain grades over the phone. Before I retired, I was part of the creation of the Web admissions and registration process.

In the ‘60s, the College set aside six or seven days in the calendar for registration. I was instrumental in changing those few days of chaos each year—and the months of corrections and changes resulting from that chaos—to a pretty much continuous admissions and registration process throughout the year. Although each of the larger campuses had its own campus registrar, the typical tenure of the campus registrar was only a couple of years. I was there for life, so
I was pretty much called on to train the newer campus registrars. I was never very creative myself, but I did attend every conference the College allowed me to attend—frequently at my own expense—and always brought back ideas adapted from conference presenters or picked up in conversations at the hotel pubs. By the 1980s, I had decided to write my own campus registrar’s office procedures manual. No other campus had one, so every other campus registrar tended to use the one for my campus.

In the late 1990s, the College participated in a Florida Community College Software Consortium of seven community colleges to develop, from scratch, a new integrated database for the finance, human resources, facilities, and student systems. I volunteered to be the lead for the College for the student system. Also in the late ’90s, the entire student services area of the College was reorganized, and I was selected to serve as the college-wide registrar with the other campus registrars reporting to me.

**What was your greatest challenge? Is there anything you would do differently knowing what you now know?**

Although there were certainly many challenges along the way in implementing new technologies, a big challenge was always trying to answer all questions with what was best for our students. Sometimes, what I considered to be in the best interest of our students was not necessarily the most convenient for our faculty and staff. To keep the staff focused on providing excellent service to our students was always a challenge, but a rewarding one at that.

Before I took over as the registrar for what was the South (to be renamed later as Kendall) Campus, almost all, if not all, universities and community colleges had a director of admissions and a registrar. Miami-Dade Community College was no exception. So it seemed to me we spent a lot of time keeping track of paper and student folders. There is still a valid need for that in universities, but the admissions function in community colleges is mostly inputting the application into the college computer database and keeping track of required supporting documents. There is almost no decision-making for 90 percent of the applicants. Of course, the other 10 percent, mostly international students, do present a challenge.

I recommended merging the two positions into one. The campus registrar then became responsible for admissions, registration, and records. Since we had an open admissions policy—all high school grads and anyone over the age of eighteen were admissible—the admissions process was pretty routine. Both campuses of the college had a director of admissions and also a registrar. So my proposal for combining the two positions and eliminating an administrative position, with a secretary, raised a few eyebrows. However, once it was done, it was a pattern followed by all the other campuses and a great many other community colleges in the country. And it was a good decision for efficiency. Since the college was expanding rapidly, no one lost a job.

The only thing that I would have done differently over the years is to have made more of an effort to delegate some of the routine tasks. This was difficult since staffing was always minimal. But I feel I spent too much of my own time getting things done, rather than training others to do those tasks.

**How did you become so involved in AACRAO and related professional development?**

The real answer is that I love to travel. Since the college felt it was very important to be a member of all appropriate associations, they encouraged employees to participate. Since I was quite interested in traveling, I always volunteered to attend Florida ACRAO and AACRAO meetings if funds were available. If the funds were not available, and the locations of the meetings were desirable, I would pay my own way.

I became involved with Florida ACRAO first. I served on committees, became an officer, and eventually was selected as president of FACRAO in 1975. Southern ACRAO was another meeting I attended early on, but at that time, they were just an offshoot of the Southern Association of Colleges and Schools (SACS) and I found the sessions boring. A few years later, they became independent of SACS and I began to get involved with SACRAO as well. In 1987, I was selected to serve as president of SACRAO.

In 1968, I attended my first AACRAO meeting in Philadelphia and sat in on a session with three presenters on the topic of using computer terminals to access student data. Each of the presenters made excellent presentations, but none of them was actually using computer terminals. They outlined their plans for using them. Miami-Dade had been very much involved in technology almost from its beginning. In ’68, although the college was still using punched cards for most data entry and registration, we had computer terminals to access and view the latest information about classes and students. I mentioned that my school had been using them for about a year to access student data. At the end of that session, I had already been signed up to make a presentation at the next annual meeting of AACRAO. And that began my involvement with AACRAO.

**Was your interest in technology always there? How did it develop?**

Although I earned my bachelor’s degree in a technical area, I have never really considered myself to be technically proficient. I have, however, tried to hang out with those who are. My early experiences in the machine records area of the registrar’s office at UF gave me an appreciation of what machines could do to facilitate the processes of admission and registration. Fortunately, the administration at M-DCC had always looked to the future in the use of technology, and it was not too difficult to have proposals approved that would further the use of technology in the registrar’s office. I have never been a very creative type, but I found ideas from colleagues at almost every FACRAO, SACRAO, and AACRAO meeting I attended. I just tried to adapt them for use at my school.
How did you land on the group which would become the SPEEDE Committee? What were the initial challenges and successes?

This actually started in Florida in the mid-1980s. The state had for many years required high school districts to report aggregate data electronically on high school attendance, course registrations, grades, and graduations. Then they realized that they couldn't do much manipulation of the aggregate data. They first proposed, and then required, high school districts to send them electronic data on each enrolled student at all public schools.

One of the state-level administrators in the high school sector, Bob Friedman, took a look at the data being required for each student and realized that they were almost exactly the same as the high school transcript. I remember him wondering since those data could be sent to the state, why couldn't they be sent electronically as a transcript to other K-12 schools?

Because of my involvement with FACRAO and other state agencies, the FACRAO president asked me to talk with Bob so that we could work together to include postsecondary schools in the electronic submissions of transcripts. Thus, the Florida Automated System for Transferring Educational Records (FASTER) was born. I served on the task force to design and implement that system.

After the implementation, Florida made a presentation at the May 1988 AACRAO Conference in Nashville. We thought we were quite innovative prior to that conference. But a group from Texas made a presentation of their Texas Electronic Transcript Network that did almost the same thing. Toward the end of the conference, several of us from Florida and Texas were meeting informally in the exhibit area to talk about the next step. We wondered about exchanging student records electronically between Texas and Florida. We tentatively agreed that one state would write a computer program to convert from the Texas format to the Florida format, and the other state would do the reverse. By the end of that informal meeting, we were joined by other AACRAO members from other states who expressed interest in doing the same thing. But now, instead of writing two conversion programs, we would need six conversion programs when a third state was added. And we'd need 12 conversion programs if a fourth state joined.

It finally dawned on the group that what we needed was one standard format. Then we could all use the same format and no conversion program would be needed. Several of us approached AACRAO Board Member Gary Smith, and he created an AACRAO Task Force which met for the first time in West Lafayette, Indiana in January 1989. The task force was to determine if it might be feasible to create a national standard for the exchange of student transcripts.

Since I was a part of that initial group, I was appointed to the task force. Roy Johnson from Purdue University was appointed as chair. For personal reasons, he had to step down as chair and I was selected to fill in. We were fortunate to have other members of the task force with a variety of expertise and experience in the area.

From the very beginning, the schools and agencies involved from both Florida and Texas expressed great interest in establishing a new national standard format, so we quickly agreed it was doable, important, and necessary. So we began working on a format that would be fairly similar to both existing formats. But then, it was brought to the task group's attention that there was another group that already had experience in establishing standards for electronic data interchange. That was the American National Standards Institute (ANSI) and its Accredited Standards Committee (ASC) X12 that dealt with the exchange of electronic data. So, we decided to abandon our initial format and attempt to create an ANSI national standard for the transcript.

When we approached ANSI ASC X12, they strongly encouraged us to include the K-12 community in establishing one standard for all education from kindergarten through postsecondary and graduate education. This set us back a year or so, but we all felt that it was a good decision. Somewhere along the line, the task group became a standing committee of AACRAO, and we chose a name for the committee. It was the Standardization of Postsecondary Education Electronic Data Exchange or SPEEDE.

The slow but steady turtle of Gary Larson became the SPEEDE logo. How did you explain the initial slowness?

What steps were then taken?

Part of the delay was due to the change to the ANSI X12 formats and the inclusion of the K-12 data. It was not due to the lack of hard work of the SPEEDE Committee. It was an unusual meeting of SPEEDE that did not last at least until midnight. But I was quite naive in thinking that because the benefits of electronic transmission of data were so overwhelmingly great and cost effective, that as soon as we had an approved national standard format, every school would immediately begin to participate in the electronic exchange. Those schools that already were using the Florida or the Texas formats were not that eager to convert to the new one. Schools that were not already involved had many other priorities and backlogs of requests for their IT staffs. This was just another one to add to the stack. Also, the IT staffs were mostly unfamiliar with the Electronic Data Interchange (EDI) processes and it was something new to learn.

Transmitting the data was another issue. Both Florida and Texas had used a value added network (VAN) to exchange the data. While there was an expense involved with the use of VANs, it provided the post office function. If a school had 200 electronic transcripts to send to 100 different schools, they would address them to each of the schools, but send them all to the one VAN. When the Internet became pervasive, it became the network of choice for exchanging data among schools because it was free. But there was no mailbox feature on the Internet.
Fortunately for all, the University of Texas at Austin created the UT Internet EDI Server, which would guarantee authentication of the sender of the transcript and serve as the electronic post office. Although there is significant exchange of electronic transcripts, and now other documents are being exchanged and not going through the server, the server provides a great deal of information about the success of the SPEEDE process. The typical monthly report of the UT Server indicates a transaction growth of about 20 percent from the same month a year ago. In addition, there are about 600,000 electronic transcripts being exchanged annually in Florida that are not sent through the server. The server has now processed over three million transactions since it began. There is tremendous awareness in the AACRAO community about the SPEEDE project. There are many institutions and states that are planning to implement the process in the near future, so I suspect growth will continue.

**SPEEDE development activity is still taking place. What does the future hold?**

Although there may be a few new EDI transactions that will be developed, the emphasis of the SPEEDE Committee recently has been to create new national standards for the XML format.

**How does XML (extensible markup language) fit into the picture for educational data standards?**

Although XML is really just another transmission format for the electronic exchange of documents, it has several advantages over our current flavor of EDI. It is new when compared with traditional EDI, and exciting for IT staffs. Many of them are already using it for internal routing of information within current student information systems. It is used for the SEVIS process in reporting data to the immigration authorities. It is already used in several of the major student information software packages.

It looks a lot like the HTML used for displaying information on the Web. Because it is so popular with IT staffs, it might allow new schools that are not yet using EDI for the electronic exchange of student information to begin to participate in the process. For that reason, the AACRAO SPEEDE Committee, working with the Postsecondary Electronic Standards Council (PESC), has developed the first XML transaction. It is the XML College Transcript. It has recently been approved by PESC as an approved higher education document. More XML document formats, called XML Schemas, are planned for development and approval. The AACRAO SPEEDE Committee and PESC are currently working on this.

Since there is already a large amount of student information being exchanged in the SPEEDE traditional EDI format, and since there will soon be a growing number of schools ready to exchange documents in the new XML format, very soon there will be a need for a crosswalk between the two formats.

**Now that XML is in the picture, do you foresee any other changes in the exchange of electronic records coming along?**

Once national XML standards exist for student records comparable to those now in existence for EDI (transcript, verification of student records, test scores, application for admission, etc.), I think many schools who have not yet participated in the EDI exchange of records will do so in fairly rapidly increasing numbers. Then those who already use EDI will be eager to exchange records with those who have chosen the XML version of electronic exchange and vice versa. This will require a translation software package to be created to convert from the newer XML language to the more established EDI version, and vice versa. The AACRAO SPEEDE Committee is already discussing how to create a solution to satisfy this need.

**What advice would you give to individuals interested in electronic exchange of transcripts and other documents?**

If your school is close to being ready to implement this project, don’t wait. Do it now with the already approved and tested EDI formats. If it still looks like you are a year or two away from implementation, explore the use of the XML format. The SPEEDE process is so cost effective and of such tremendous value to your school and your students, the only bad decision you can make is not to participate at all.

**Aside from SPEEDE and EDI, what other significant changes did you witness in the profession during your career?**

Other than things I have already mentioned and possibly the extensive use of optical imaging, I would include the storage and retrieval of student records and the movement from home grown data systems to the more fully integrated software packages, which appear to be increasing in both small and large educational institutions.

**What do you see as the role of the registrar in years to come? Given the ubiquity of standardized packages, is there still room for creativity?**

I would hope that one of today’s primary roles of the registrar will continue, that is, to be a model of ethical behavior for the institution. The registrar needs to continue to be the conscience of student record keeping for the institution and to promote the use of the student data for planning and promotional purposes, while protecting the student’s information from unauthorized use.

**What activity or activities during your career so far have been the most fun?**

The most fun is traveling and meeting other people who are committed to trying new and exciting ways to serve their institutions and their students. And taking an idea in the mid-1980s of exchanging student records electronically and seeing the success of that idea at the national level, and how it has grown and benefited students, has truly been fun and satisfying for me.
How do you plan to spend your retirement?
I hope to continue traveling as long my health allows it to be an enjoyable experience. I will also have a little more time to read some of the books I just never found time for before retirement.

ABOUT THE AUTHOR

David Stones spent 35 years at University of Texas Austin, including 22 managing the student information systems. For the past four years, he has been the Registrar at Southwestern University (Georgetown, Texas). Dave was awarded the AACRAO Distinguished Service Award in 1990, and the APEX Award in 1998. He is a past president of SACRAO, a SPEEDE activist since 1988, and coordinator of the initial AACRAO Technology Conferences in 2003 and 2004.
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On a beautiful afternoon in the Bayside area of Miami, I sat down with Tom Stewart to get to know what makes him tick. Although admittedly shy and more comfortable as an attentive listener, he is also friendly and accommodating. He graciously agreed to share his thoughts about some of the important experiences in his life.

Tom is that rare bird, a native Floridian, from West Palm Beach, 68 miles north of his Miami home. He received a Bachelor of Chemical Engineering in 1956 from the University of Florida where he was president of his Alpha Tau Omega fraternity chapter. After graduating from UF, he moved to Texas to work at Dow Chemical Company. He spent three years in the U.S. Air Force, and in 1964 he returned to UF and earned a master’s degree in Teaching Math. In the summer of 1965, he started his career at Miami-Dade Junior College as a math instructor.

We began in Florida and from there traveled the world. What it was like growing up in the South in the 1930s and ‘40s?

It wasn’t any different from anywhere else. Of course, there was segregation. It was open. We had a black laundress. She would come to our house or we would take the laundry over to her house. We would drive through the segregated, black neighborhood. I remember when I was seven and I offered her a glass of water. It was hot and she had been working all day. My father threw the glass away. He showed me the jar she was supposed to drink from. I didn’t understand.

It was a small town. I liked to read, nothing special, and I had a stamp collection that didn’t amount to much. I was in the Boy Scouts. I liked the Boy Scouts. I liked earning badges. I got a feeling of success, closure. It was finite. I went to jamborees, one in Valley Forge, Pennsylvania, and the other at the University of Colorado in Boulder. I went there on the train by myself. The campus was beautiful. I was fifteen and on my own. I even had to change trains. My parents weren’t happy, of course. Those were the days before cell phones, but I enjoyed it.

It sounds like the Boy Scouts was the start of your travel bug. Where do you like to go when you travel? What do you like to do?

I traveled a lot for AACRAO and SACRAO. I go wherever there’s good beer. I’ve been to Munich, to Oktoberfest, three times and to Frankfurt. Frankfurt’s a modern, business city. There’s a great train station in Frankfurt. I like the idea of being able to get on a train. The old town in Frankfurt is right behind the central train station. The old town’s beautiful. I especially like to meet people in the field. And drink beer.

I got a chance to travel when I was in the Air Force. I went to the Hofbräuhaus in Munich with an Air Force friend. He was a Jew. We were drinking at a table with a German from the Luftwaffe.

Luftwaffe, the German Air Force? A Nazi?

Yes, we were drinking and it came out that my friend was a Jew. Nobody cared. It was not an issue.

I guess beer is what keeps us together.

Did you like the Air Force?

Yes, the Air Force was good. I had authority and responsibility and a chance to travel. Before that I was working in Freeport, a little town in Texas. Seventy percent of the town worked for Dow. It was too small. Everyone knew your business. I didn't like what I was doing at Dow. I didn't like chemical engineering. I liked analysis. The air was toxic. This was before environmental protection, no EPA. You didn’t know what you were breathing. I didn’t get anything interesting to do until I decided to leave. An Air Force recruiter got me interested. It was the honorable way out, going into the
Air Force. He didn’t get me in. I got myself in. I joined under a special program, so I could enter as a second lieutenant. I was a supply officer. I helped close the air force bases in France near the border with Germany.

I loved Germany and German beer. France was beautiful but the French weren’t friendly until you really got to know them. I visited relatives in Ireland and Hamburg. I had an easier time with my great aunt in Germany with a little German and sign language than with my cousins in Ireland. My great aunt was in her eighties. She took me the Reeperbahn section of Hamburg. Bars and prostitutes.

**She went with you? She was 80!?**

She thought it was what I wanted to do. It was a tourist area. I was 28. My relatives in Ireland lived in County Limerick. They were farmers. They had no indoor plumbing or electricity. This was in the 1960s, ’62 or ’63. I had to empty a bedpan. They were nice to me but I left the next day. I kept in touch with them for awhile. I drank my first Guinness on the train from Dublin to County Limerick. Don’t care for Guinness. Someone tried to make Guinness the official beer of SPEEDE.

**What is the official beer of SPEEDE?**

Bass ale. I could have stayed in the Air Force. I had a lot of authority and responsibility at a young age. But you had no control over your life. I stayed three years and ten months. It wasn’t a career.

**After those years at Dow and in the Air Force and then at Miami-Dade as a math instructor, how did you feel when you were offered the registrar’s job at the new campus? Did it feel as important as it turned out to be?**

I was nervous. I knew a little bit and had some experience. I was trained by a woman who had seen registrars come and go. I wanted to feel secure. It seemed like the job fit my personality. I’m not charismatic, but I feel good about getting a job done and I enjoy working with students.

**Did you have mentors and colleagues that helped shape your perception of what the registrar’s office should be?**

Not really. I’ve had good bosses. I had to learn how to do more with less, but we were always able to get money for technology. When the technology screwed up, the administration was open and forgiving.

**You mention in your interview with David Stones that you were “there for life.” Why did you think so?**

It had everything I wanted. I was my own boss. I had authority and responsibility and the government was not on my back. At first it seemed to be more of a regular job, which was more appealing than struggling with the first years of the math curriculum waiting to teach calculus instead of remedial math. I was wrong about the nine to five. Things got more interesting as I met others struggling with the same issues at local and regional conferences.

**Didn’t you ever want to be a dean?**

They make a lot of exceptions. I don’t like dealing with exceptions. They have to make decisions that make or break people. I’m better with systems in place so the decisions are more black and white. As registrar I was my own boss. I could travel, and I had the authority and support to make things better for students, to help them move to the next level. Many use the job to advance, but I enjoy students more than faculty.

**You mention not being creative and not being leader a number of times. Why don’t you consider yourself creative or a leader after all you have accomplished?**

I don’t mind not being creative. There aren’t too many original ideas out there. I’m not a leader. I consider myself a good manager. A leader inspires others to do things. I’m not inspirational. I’m somebody who does something. I’m a bit of a slave driver. Our SPEEDE meetings would start at 8:30 in the morning. We would break for lunch and dinner. We would go back to whoever had the largest hotel room with computers and six packs and work until we ran out of beer or were too sloshed. Did I mention that Bass Ale is the official beer of SPEEDE? Things are different now with SPEEDE established. But, it’s becoming a little like the old days with XML.

**Would you describe yourself as someone who likes to wrestle things into the ground?**

Yes, I was the same way with Veterans Affairs and international students before SPEEDE. At one point Miami-Dade had the largest number of international students of any college or university in the country until the next year when they changed the definition. I like to see results, get a sense of closure. That’s the reason I went into math. One answer that’s correct. I’m comfortable with black and white. I don’t like ambiguity.

**What were some of your most memorable AACRAO Conferences?**

There were a few of them. I liked Cleveland. Nobody wanted to go to Cleveland. Nobody liked Cleveland. I liked it. There was a train station at the bottom of the hotel. I liked that. In Atlanta, I didn’t attend any meetings. I stayed in the bar with a Canadian. We talked about our schools, our different systems. He was from Manitoba. I learned more from talking with people at the bar than I could from any of the sessions. I was into international students then. And Hawaii, for a great hotel chain, the bars, and the beer.

**You found good beer in Hawaii?**

Yes, you had to go off the main streets.
With David Stones you describe the dramatic change in demographics at Miami-Dade. How did you feel about its growth? Did you feel a sense of loss? Excitement? What were some of the stressors on you and the staff?

We had the challenge of keeping the system going. Miami-Dade’s always reaching out to bring people up to serve the needs of the community. There are 110,000 credit plus non-credit students at Miami-Dade, all totaled, at six campuses. It’s always been a leader in technology. It had to be to serve our students.

At first, there were no screening committees. Now there’s extensive screening even for a data entry clerk. We had to keep the staff more closely aligned with the community. The staff tended to stay and they weren’t like our students. The faces weren’t like those students saw in their community. Our faces should be recognizable in the community. People say they can’t hire good minority candidates. That’s not true. Once we found the right minority supervisory-level employee, we were able to find more minorities. It was frustrating sometimes but we kept trying.

Does it take a special type of person to be a registrar? Where does your belief that registrars should be models for ethical behavior come from?

I think it does take a special person. You have to have the ability to say no. But say yes to reasonable requests. Put systems in place so you don’t have to say no. You need a sense of ethics, a sense of what’s right. I was raised a Southern Baptist but I abandoned the faith. I guess from the Boy Scouts although I don’t like what they’re doing now. I think at the University of Florida when I was undergrad working as a student assistant in the registrar’s office. The registrar had a sense of ethics and morals. He worked with everyone else, did the menial tasks when necessary.

Do you think there are more pressures these days that would threaten ethical behavior?

I think it’s easier now for new registrars because of AACRAO and public discussions. I got a lot of pressures from coaches and athletic directors. I was instrumental in getting a ruling saying coaches couldn’t teach their children. That would not be a problem in four-year schools.

New registrars shouldn’t be afraid to take a chance or change. I had my bosses convinced that we should move to opscan for registration. You know, bubble sheets, but then I heard from Georgia State about phone registration, and we became the third to use it: Brigham Young, Georgia State, and Miami-Dade.

What would you like people to remember about you after they read this interview?

That I cared. I tried to make a difference. To do things better. And that I really like AACRAO. It’s been a good association for me. It’s given me the opportunity to make a difference, to work on something that helped people. And I had fun and met a lot of nice people.

Do you miss the hustle and bustle of the office?

Yes, but I talk with my replacement frequently. He’s doing a good job. I miss the people and the relationships, but I have lunch with staff members and I keep up with what’s going on. But that will change as people move on. I’m still involved with AACRAO and SACRAO. I may travel again. Maybe Australia or back to Munich for my fourth Oktoberfest. I’ve been reading the classics, Orwell, 1984. I picked up a copy of Treasure Island. I like mysteries, Grisham, and Ludlum.

Conclusion: Full Circle

Tom Stewart’s life is still very much connected to the city of Miami. He enjoys its warmth and sunshine, the closeness to the water, and the pulse of this complicated place. He has experienced first hand the strengths and challenges that each new wave of faces, colors, and languages brought to Miami-Dade. He is proud of being part of the college’s commitment to the community. Although now clearly a minority in a largely Hispanic city, Tom, ever the intrepid traveler, attends Calle Ocho Festival in Miami’s little Havana in March and the Bahamian Goombay Festival in his own Coconut Grove neighborhood, enjoying it all—the crowds, the excitement, and of course, the beer.

ABOUT THE AUTHOR

Kathy Winarski received a Ph.D. in Modern Anglo-Irish Literature from University College Dublin. She is the Assistant Director of Communications for Student Services at Boston College and also serves as a Consulting Editor for College and University.
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State Student Aid: 
New Directions and Lessons Learned

by Travis Reindl

The 1990s ushered in a new age in state financial support for college students, with the rise of broad-based merit scholarships. Starting in the South and spreading from there, the premise of the "new generation" of programs was simple—states should be in the business of rewarding student performance, retaining the state’s "best and brightest," or both. From 1990–91 to 2001–02, the share of state student aid awarded on criteria other than financial need jumped from 12 percent to 24 percent (see Figure 1). Because of their broad eligibility, programs such as Georgia’s HOPE Scholarship or Louisiana’s TOPS Program built potent political constituencies, namely middle class voters with children in college.

The recent economic downturn and accompanying fiscal crisis, however, appear to have blunted the new generation’s momentum, at least somewhat, as suggested by developments in the following states:

- **Florida.** A new analysis of Florida Department of Education data by the Orlando Sentinel has revealed that students’ likelihood of losing eligibility for the state’s Bright Futures Scholarship increases significantly when academic load exceeds 16 credit hours. Currently, 93 percent of students losing their Bright Futures awards after the first year were those who failed to maintain minimum academic standards while taking more than 16 credit hours per semester.

- **Georgia.** Lawmakers debated measures to tighten eligibility for the HOPE Scholarship due to estimates of a looming shortfall in the lottery-funded program. The primary debates center around: a) whether or not to exclude books and supplies as eligible expenses; and b) whether or not to change the current “B” average requirement to a GPA or minimum SAT score. A combination of political resistance and a recent projection of improving lottery revenues may slow the impetus for change, however.

- **Iowa.** The state’s Board of Regents is slated to consider a proposal that would require at least 50 percent of state student aid to be awarded on the basis of financial need.

- **Maryland.** Governor Ehrlich has proposed reallocating funds from the state’s merit-based HOPE Scholarship (tuition remission for students remaining in the state to work in specific fields) to need-based aid in light of recent double-digit tuition increases in the University System of Maryland.

- **New Mexico.** Governor Richardson has called for the inclusion of a need-based component in the state’s lottery-funded merit scholarship program.

Are these developments a harbinger of a retreat from merit-based aid? Not likely, because the programs’ political popularity remains an overriding factor. The experience of the past several years, however, has been instructive for advocates and critics of broad-based merit programs on several fronts.

- **Broad-based merit programs are expensive.** There is nothing like a recession to bring that reality crashing home for states, even if a program is lottery-funded. Maintaining ambitious commitments when lottery or general revenues falter can become an insurmountable challenge. Whether Georgia lawmakers change HOPE or not, they are now on notice that they may have to at some point—and voters are not likely to be happy.

- **Programs’ “fit” with state priorities is important, and subject to change.** Again, the current fiscal slump and the resulting tuition increases have redirected affordability concerns to the financially needy and/or those left most at risk by tuition hikes, as the Maryland and New Mexico examples show. State higher education priorities can—and should—change, and student aid programs must be prepared to adjust.
“Fit” with other policy directions is also essential. The Florida research shows that two equally desirable policy priorities—aiding students and encouraging them to complete their education quickly—can sometimes end up at odds. Adjusting aid policies to deal with unintended consequences is also a key part of the policy process.

As states, campuses, and students prepare for another difficult year of spending cuts and tuition increases, it is crucial that policymakers look at where we have been on aid programs to ensure more informed decisions about where we are going. The need is too great, resources too scarce to do otherwise.

ABOUT THE AUTHOR
Travis Reindl is Director of State Policy Analysis and Assistant to the President at the American Association of State Colleges and Universities (AASCU).

**FIGURE 1:** Allocation of state aid to undergraduates, 1990—91 and 2001—02

<table>
<thead>
<tr>
<th>1990—91</th>
<th>2001—02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Need Based</td>
<td>Need-Based</td>
</tr>
<tr>
<td>88%</td>
<td>76%</td>
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<tr>
<td>12%</td>
<td>24%</td>
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SOURCE: National Association of State Student Grant Aid Programs (NASSGAP)
If universities reflect the societies of which they are a part, it should come as little surprise that rising social and political divisions have found their way onto the nation’s campuses. Indeed, the intensity of debates over issues such as war and peace, homosexuality, and affirmative action have transformed campuses—the marketplace of ideas—into an ideological battleground, with heated rhetoric in lecture halls and beyond. The upcoming presidential elections and looming court battles over key questions guarantee that passions will not cool anytime in the foreseeable future.

Some groups contend, however, that classrooms on many campuses are places of liberal indoctrination, rather than intense discussion and dialogue. They complain that faculty (and in some cases, fellow students), have created a hostile environment for those expressing dissenting views, especially those that are conservative or express support for the current administration’s policies and priorities. As a result, organizations such as the Students for Academic Freedom believe that legislative protections are needed to ensure a free and fair exchange of views. The vehicle for their effort is the Academic Bill of Rights, which calls on campuses to:

- Ensure non-discrimination in the hiring, promotion, and tenure of faculty (on the basis of beliefs);
- Ensure non-discrimination against students in evaluation of their work (on the basis of beliefs);
- Ensure the inclusion of dissenting viewpoints in the humanities, arts, and social sciences, and prohibit indoctrination into a particular school of thought; and
- Ensure that student activities (including speaker selection) reflect the values of pluralism and academic freedom.

Variants of the bill have found their way into three state houses and the U.S. Congress in recent months. The measure introduced in the U.S. House of Representatives and one considered in the Georgia Legislature are resolutions, which do not carry the force of law. Two states—Washington and Colorado—put their measures in the form of bills, which, if passed, do carry the force of law. The Washington proposal died in the 2004 legislative session, and the Colorado bill, which focused on student rights and would have required campuses to institute and document student grievance processes for viewpoint discrimination, was withdrawn after the state’s universities committed to establishing and widely disseminating grievance processes for students.

These measures, however, have come under fire from faculty and other higher education groups, some of whom brand these efforts as a back-door attempt by right-wing interests to force their agenda onto campuses. Other critics maintain that viewpoint discrimination and academic freedom issues are matters for self-regulation in the academy, not legislation by elected politicians. Still other skeptics question whether the bill of rights represents a solution in search of a problem, given the relative dearth of evidence regarding widespread efforts to harass or indoctrinate students.

Listening to the debate leaves many observers asking the question—do these measures represent an insurance policy for academic freedom or a Trojan Horse for governmental intrusion into the classroom? The answer, at least for this observer, is “a little of each.” For example, language in the U.S. House and Georgia resolutions, as well as the Washington bill, reiterate student and faculty standards established by none other than the American Association of University Professors (AAUP)—standards that have been in existence for the better part of a century. These standards seek to ensure that no member of the campus community is harassed because of their beliefs, which seems consistent with mainstream academic values, not to mention American values of free expression.
Such measures, however, also invite criticism and scrutiny because of where they are being pursued and their potential chilling effect on the debate that keeps our institutions vibrant and engaged in the issues and processes of a representative democracy. First, bringing questions of academic freedom into the political arena is always dangerous, regardless of the party in the legislature, governor’s mansion, Congress, or the White House. The volatility of the political realm is not a good match for the stability required in the academic realm. Additionally, these measures teeter on the line between protecting academic communities from oppression and hostility and protecting those communities from the productive tension of ideas in conflict. A prime example of this surfaces in the Colorado measure, which stipulated that “students have a right to expect that their academic freedom will not be infringed by instructors who create a hostile environment toward their political or religious beliefs or who introduce controversial matter into the classroom….” If we create a student expectation that controversy will not enter the classroom environment, then we will fail our responsibility to prepare them for the demands of informed citizenship.

Controversy is an inescapable reality in the marketplace of ideas—the challenge is ensuring civility rather than ducking controversy. Finally, the proportionality issue is also troubling. That Students for Academic Freedom are launching a nationwide initiative without evidence of widespread and/or systematic harassment bears scrutiny.

As the nation makes its way through the contentious questions ahead, colleges and universities can—and should—play a vital role in the dialogue. In such an environment, campus leaders must take extra care to ensure that their institutions are places where ideas are exchanged and analyzed, rather than imposed, where worldviews compete, and are not coerced. Additionally, due process for members of the campus community who experience perceived violations of these norms is a must. For their part, policymakers should encourage self-regulation and hold higher education leaders accountable for making campuses safe for debate, not safe from it.

ABOUT THE AUTHOR

Travis Reindl is Director of State Policy Analysis and Assistant to the President at the American Association of State Colleges and Universities (AASCU).
Few positions on a college campus have evolved more than that of the chief marketing officer (CMO). Even a few years ago, this person, and position, did not exist. Of late, however, as colleges and universities have begun to appreciate the potential that integrated marketing communications has to offer them, more and more institutions have begun to create and staff the position of the chief marketing officer.

On most campuses, the chief marketing person is a director. Increasingly, however, we are seeing VPs for marketing, or marketing and advancement, or marketing and recruiting. Regardless of the subtle difference in titles, the trend is clear: marketing has joined its peers in academics, advancement, recruiting, student services, and finance on the cabinet.

With an evolution in mandate first, and then title, it is only natural that we should take a look at the qualities and characteristics of the chief marketing officer. Before we can do that, however, we need to spend just a minute so everyone is using a consistent definition of integrated marketing communications (IMC).

**Integrated Marketing Communications**

As many of you know, IMC is a comprehensive, coordinated, institution-wide effort to communicate mission-critical messages in ways that target audiences notice, understand, and respond to. In other words, integrated marketing communications is all about developing and communicating relevant messages that get noticed and acted upon.

If you pare away the terminology, you will discover that integrated marketing communications has three broad functions:
- Brand marketing
- Direct marketing
- Customer relationship management.

Brand marketing has one goal: to create awareness in the minds of your most important target audiences. Brand marketing is concerned with building your image and increasing name recognition among prospective students, donors, and other important audiences.

Direct marketing has a different, though related goal; its purpose is to generate response. Most colleges and universities, no matter how large or small, use direct marketing in two areas: student recruiting and fundraising. Their goal is to get students to attend, send in, apply, and enroll. They want donors to open and consider and donate.

Customer relationship management means, quite simply, delivering on the promises you make in your brand marketing and direct marketing messages. If you promise a certain kind of education or giving experience, do you in fact deliver it?

As you think about brand marketing and direct marketing, remember that direct marketing efforts are always more effective when they are preceded by targeted brand marketing. More students will enroll if the right students are aware of you prior to student search.

Let me give you a vivid example, using Ford Motor Company, of how the three legs of integrated marketing communications fit together. Brand marketing is Ford telling people that “Quality is Job 1.” Direct marketing is Ford asking you if you want to buy a Taurus. Ford will sell more cars if its direct marketing appeal: “Want to buy a Taurus?” has been preceded by a targeted, robust brand-building campaign: “Quality is Job 1.” Customer relationship management (CRM) involves making the buy decision and the experience of owning a new Taurus as affirming as possible. Effective customer relationship lays the groundwork so that Ford can, a few years later, ask the Taurus owner, “Do you want to buy a Lincoln?”
For colleges and universities, this means delivering on your brand promise so that your first-year students go on to become young alumni.

**A Possible Organization**

To increase the likelihood that your IMC efforts, and chief marketing officer, will be successful, colleges and universities must take a long look at how they organize their marketing functions. As you might suspect, most institutions have their image-enhancement strategies far too decentralized. Publications report to one administrator, media relations to another, and advertising to a third. No one knows what the Alumni Office is up to and athletics won't attend any planning meetings. There is no sharing of goals. No internal coordination. No pooling of talent.

Furthermore, it is likely for the individuals who administer these functions to not work from a single, coordinated plan. The marketing implications of this lack of coordination are potentially catastrophic. To solve this problem, more and more colleges, especially those who are interested in integrated marketing, are organizing their communications functions under one single, often very senior, administrator.

Given the opportunity and a blank slate, I would reorganize the marketing functions so that they can more effectively accomplish two overarching goals. First, the building of an effective and valued brand. And second, the coordination of the activities of those individuals—especially student recruiting and fundraising—who would benefit from a strong brand.

As you can see, the model presented in the figure below links all the marketing (image-building), recruiting and fundraising (the folks who benefit from a strong image), and student services under one administrator and thereby increases the likelihood of coordination, or if you prefer, integration.

This reorganization is my first choice. However, many of you will find this change either impossible or too costly to undertake. In that case, look at the philosophical underpinnings of this model. Its purpose is to share goals and resources. Regardless of your organization, the degree to which you can share goals and resources may well spell the difference between an institution that is successful and an institution that is marginalized. A president once reminded me, “When you don’t have the cash, you better have the conversation.” As you can imagine, however, it takes a special person to run this kind of organization.

**Qualities and Characteristics of a Chief Marketing Officer**

Now that we have a clearer definition of the role and function of integrated marketing communications and have taken a look at a possible organizational structure, let’s take a quick look at the qualities and characteristics of a chief marketing officer (CMO).

First, the chief marketing officer must firmly understand the potential that integrated marketing communications has to offer colleges and universities. In particular, this person must understand the brand marketing and direct marketing implications and tools of marketing and how they can be used to support not only student recruiting and fundraising, but internal communications as well.

Importantly, this understanding should be more broad than deep. It is not important that the CMO be a technician. Certainly, he or she should understand how publications and Web sites are created, but they really don’t need to know what a screen build is used for. Rather, he or she must understand how basic, and sometimes not so basic, marketing tools work, interrelate, and are evaluated.

Second, the chief marketing officer must be the marketing champion. As such, he or she must be able to communicate an approachable, achievable, and captivating vision of what
integrated marketing communications can do for the institution. At this level, the CMO is both a strategist and a catalyst. As a strategist, he or she must be able to lead the planning effort. As the catalyst, he or she must be able to generate institutional support for the plan’s creation and execution.

It is important that the CMO be able to present the case for marketing in a thoughtful manner and avoid platitudes and generalities.

Third, the CMO is the marketing team’s leader. As team leader, he or she must be able to create and lead a cross-functional team with often different levels of understanding and motivation. As a team leader, he or she is also a chief delegator, the chief cheerleader, and when the occasion demands it, the chief enforcer.

Fourth, the CMO must be very comfortable with data. Not only must he or she be able to guide a primary research study, but this person should also be an informed and sometimes skeptical user of secondary data. The ability to use data to synthesize insights and clarify options is a fundamental, yet sometimes elusive skill.

Fifth, this person must be a resource gatherer. Because time and dollars are so scarce, and so precious, the ability to gather sufficient and ongoing resources is a primary skill. Without resources, the marketing will be little more than unfulfilled hope.

Finally, this person must be absolutely trustworthy. This person will have access to data and will be involved in ruminations and decisions. He or she will be told things in confidence. Secrets will be shared. This person must be able to hold those confidences closely.

**Conclusion**

As marketing has evolved, so have the qualifications of chief marketing officer. Whereas the CMO was once a publications person or perhaps had a background in public relations, the CMO of today is a leader of a broad-based, multi-functioned marketing team. Not only must he or she be able to envision what marketing has to offer, but this person must have the political acumen to translate that vision into a concrete plan that generates results.

**About the Author**

Dr. Robert A. Sevier is the Senior Vice President at Stamats. Each year, Sevier directs more than 100 research studies and helps nearly a dozen colleges with their marketing and strategic plans. Prior to Stamats, Sevier worked at the Oregon Health Sciences University in Portland and Denison University in Ohio. Sevier also taught at Mount Vernon Nazarene College and The Ohio State University. Sevier earned a Ph.D. from The Ohio State University in Policy Analysis and Higher Education Administration and also holds an M.S. degree in Journalism/Public Relations from the University of Oregon. Bob can be reached at (800) 553-8878 or bob.sevier@stamats.com.
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Integrated Marketing Communications

by Jim Black

Integration has become a cliché in enrollment management and student services circles. The term is used to describe everything from integrated marketing to seamless services. Often, it defines organizational structures, processes, student information systems, and even communities. In Robert Sevier’s article in this issue of College and University, integration is defined more narrowly as marketing communications. Hence, the focus of this article is on the challenges and opportunities inherent in the integration of marketing communications.

Ideally, integrated marketing communications should begin with the first contact prospective students have with an institution, and continue throughout their lifetime. When communicating to students, marketing messages—such as the design of publications, Web pages, stationery, multimedia presentations, advertisements, and the like—should be consistent. Generally speaking, admissions and development offices have mastered the art of integrating the communication flow. Rarely, however, are these offices the only areas communicating with students, and as Sevier points out, rarely are these offices in the same organizational structure. To the students, donors, and other constituent groups, everything that comes in their mailbox or inbox is the university. They do not discriminate between academic and administrative offices. So, to truly be integrated, communications must be coordinated across the campus.

This, of course, is no easy feat. Integration can be mandated or induced; yet it never happens through serendipity. Broad-based buy-in is the best path to enduring integration. Such wide-scale alignment is difficult in any organization but is particularly allusive in the academy where dissonance and nonconformity are highly valued. To be successful in this environment, marketing practitioners must possess political savvy as well as a deep understanding of the culture. Relationships built on trust and mutual respect are more important than a sound business case or a “killer” design to achieving the lofty goal of integration. Others will believe the message only if they believe in the messenger. Consequently, invest in raising awareness of marketing efforts and related results. This will simultaneously foster confidence in you.

In any project of this magnitude, you must have a cadre of dedicated, talented people. Developing skills such as design, writing, speaking, and multimedia improves the quality of communications while giving staff a sense of pride in their work. By nurturing individual interests that correspond with the strategic directions of the organization, you will build human capital, the most valued asset any marketing operation possesses.

Along with the necessary skill set, there must be an action plan. The plan should include written objectives that consist of a clearly defined purpose for the communication, a description of the intended audience, and the desired action to be taken by the recipient of the communication. For each objective, there should be a corresponding effectiveness measure. Did you achieve the desired objective? Communication plans also should convey the medium through which a particular communication will occur, the staff member responsible for implementation, a timeline for implementation, and the expected cost of the initiative.

Integrated marketing communication plans are resource hungry. Financial and human resources for implementation and ongoing maintenance are essential. Knowing how to integrate and having buy-in are hollow victories if you cannot execute the plan. Few senior administrators understand the importance of integrated marketing. For example, in today’s Internet environment, an institution’s Web presence does more to shape image than any other medium. Yet the commitment of staffing and to a lesser degree, operational funding, required to create and maintain a dynamic, coherent
Web presence that flows from the homepage to every level beneath, is nonexistent on most campuses. A business case that looks at return on investment should be used to convince leadership that Web integration, for instance, is invaluable to the institution.

Lastly, you must have a clear vision for integrated marketing communications. Viewed in isolation, each communication may not inherently seem to be part of a larger plan. Collectively, however, the communications should present a consistent image of the institution designed to synergistically motivate students to enroll, persist, or donate time or money. It is the cumulative effect of the communications plans that influences choice, not any single contact. Understanding how the plan is intended to move students through each stage of the enrollment funnel and on into the institutional development and fundraising cycle is critical.

Integrated marketing communications will only become a reality if there is a vision, adequate resources, an action plan, staff skills, and campus-wide buy-in. If any of these elements are missing, integration will be difficult, if not impossible to achieve. Absent integrated communications, messages from the university are distorted and confusing. We choose whether or not to create our own Tower of Babel.

ABOUT THE AUTHOR

Dr. Jim Black is Associate Provost for Enrollment Services at The University of North Carolina at Greensboro. His areas of responsibility include Admissions, Financial Aid, Registrar’s Office, Student Academic Services, Student Success Center, Evening University, Satellite Campuses, and the Student Information System. Black is founder of the National Conference on Student Retention in Small Colleges and co-founder of the National Small College Admissions Conference and the National Small College Enrollment Conference. He formerly served as the Director of AACRAO’s Strategic Enrollment Management Conference.
In this electronic age, where information is digital and service is virtual, the registrar profession is changing rapidly to keep up with increasing standards and expectations. Our mission is becoming one of enabling self-service as opposed to one of providing direct service to our constituencies. Over the last decade our production of official transcripts had not changed that much—until just recently. EDI and now XML standards enable system-to-system exchanges of academic records information. While many of us display student academic records under secure access to our students using the World Wide Web, as a time-honored rule, official transcripts are still printed. Through PKI (public key infrastructure), paper’s dominance as the medium and means for producing official transcripts may be over.

What do people want or need in official documents like the transcript? Confidence. That is, they want to know that the information contained in the official document is true and accurate, and prepared and delivered in a manner that assures them that the document was not altered from its original form. Accordingly, registrars secure our information systems from unauthorized breaches, and we direct printing of academic information on special paper, on designated and restricted printers. Some of us further stamp or seal transcript documents before they are posted and delivered by secure carrier, usually the U.S. Postal Service. However, PKI affords us the same confidence but in electronic form.

**Utilizing Public Key Infrastructure (PKI)**

Through the use of PKI technology and infrastructure, information may retain its digital form and offer the recipient the same assurance that the document is as authentic as one received in the mail. PKI technology enables the placement of an electronic signature on a digital file (substituting for the special paper, the seal, and secure posting of the paper document), which assures the recipient that the digital file has not been altered and originates from a verifiable party.

Let’s suppose instead of directing transcript information to a printer, you send it to Adobe’s Acrobat print driver and produce a PDF (portable document format) file. This common, but proprietary, file format has become a trusted and de facto standard for presenting documents of all types. You certify the contents of the PDF file by attaching an electronic signature that will remain with the file as long as the original is not altered. By verifying the provenance of the electronic signature—the PDF transcript—the recipient is assured of the authenticity of the document, regardless of whether the file was sent directly from the institution, the student, or even another third party. In other words, the signed file is self-certifying.

To operationalize this concept or practice, institutions will likely leverage their online information services for students, and present or revise—if they already have such a system—a transcript ordering system. The student will authenticate him or herself to the registrar’s secure transcript system using a known user ID and password. For the University of Chicago, this is the user’s Cnetid and Cnet password. (This authentication uses industry standard 128-bit SSL encryption to query an LDAP directory containing the student’s access credentials.) This identifier is required for use of the e-mail system as well as the student academic portal, and is used by the student during his or her time at the University. As a result, the student will be familiar with the identifier and not have any difficulty accessing the system.

Once authenticated, a report will be created containing the academic information for that student. This information will be compiled from the Student System. The secure transcript application server will use the student information to create a digitally signed document that is delivered to the end user either
within the Web browser as part of a secure session (using SSL), or as a file that can be downloaded to the student’s computer. In either case, this file will be a PDF that can be saved to the user’s disk, printed out, or forwarded as an attachment to another person. Alternatively, the concept design at the University of Chicago includes providing the student a URL (universal resource locator) linking to the newly created documents instead of the actual files. The student then controls how long the document is available, and can keep a log of all documents that have been created.

By virtue of having a digitally signed document, a recipient of this file will be able to determine that the document is genuine (e.g., issued by the University of Chicago’s Office of the University Registrar) and has not been altered in any way. In the process described above, the result must be a document that the University cannot repudiate. That is, the document implicitly ensures that the signature and the sender are authentic, and that the University of Chicago cannot deny its origin. This criteria for the proposed transcript process is known as nonrepudiation in the digital signatures discussion.

Depending upon how the institution implements its signing solution, when using Acrobat Reader to view such a document, the reader will have the opportunity to verify the transcript’s authenticity. By clicking on the “lock icon” in the lower left hand corner of a document window, the user will see the message displayed in Figure 1.

Alternatively, by clicking on the “pen & page icon” in the lower left hand corner of a document window, the user will see the message displayed in Figure 2 on the following page.

In order to sign this document, the University’s technical group will contract with a leading Certificate Authority (CA) such as Verisign, EnTrust, or GeoTrust to provide the top-level signature for the digital certificate that will be used to “sign” the transcript that the user views or downloads.
An example of this hierarchy can be seen in Figure 3 on the following page. (At the University of Chicago, cmore.uchicago.edu is the server upon which the signed document is created.)

The secure transcript server will use a certification like the one picture above to generate a signature for each document (transcript) that it creates. By using industry standard tools and technologies, and by explicitly stating within the signed document how the document is verified, it is expected that the recipients of such documents will understand the validity and genuineness of those documents.

Being freed from old-fashioned printing requirements, institutions now can offer to their students a means to order and send official transcripts to intended recipients without the direct involvement of the Office of the Registrar. A special server is programmed to sign electronic official transcripts, and students take the responsibility for their distribution. PKI is the third leg (along with EDI and XML) supporting an all-electronic platform that transforms our transcript production practices.

The description above will be further illustrated at AACRAO’s Technology Conference in Newport Beach, California, in early October. In the meantime, we welcome your comments and thoughts about this method for securing important documents originating from the student systems.

Additional Information
http://www.commerce.state.ut.us/digsig/tutor1.htm (Digital Signature tutorial from the State of Utah)
http://www.sys-con.com/xml/article.cfm?id=544 (XML journal article about Digital Signatures and Encryption)
http://www.entrust.com/digitalsig/howtheywork.htm
(Entrust article about Digital Signatures and how they work)
http://pronto1.alphatrust.com/prontodemo/
demo1Dev_Est_PDF.asp (PDF demo)

ABOUT THE AUTHORS
Thomas C. Black has served the registrar’s profession for over 27 years, and has been involved in implementing technological solutions at three institutions, including University of North Carolina-Chapel Hill, Duke University and University of Chicago. He presently is the University Registrar at the University of Chicago. Contact Tom at tblack@uchicago.edu.

John Mohr is an Information Technology Professional with more than 15 years of professional experience. John has also worked at Ecommerce and Network Security firms. He is a contributing author to a whitepaper about Digital Rights Management and Electronic Software Distribution published by the Software & Information Industry Association. John is the Assistant Director of the Web Services group at the University of Chicago. Contact John at johnm@uchicago.edu.

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According to the USEFI (United States Education Foundation in India) Web site, (www.fulbright-india.org/eas/eas-general.htm), there are currently 74,603 Indian students in the United States. This immense cultural and educational exchange brings with it both rewards and difficulties for the students and the institutions who enroll them. One of the biggest obstacles faced by Indian students when trying to come to the U.S. to study at higher education institutions is the transfer of official records from Indian universities.

Many Asian countries’ higher education institutions—including those of Indonesia, Taiwan, Japan, and South Korea—issue official sealed transcripts that often resemble U.S. transcript models. On the other hand, Indian higher education institutions usually supply a collection of mark-sheets (grade reports)—one for each year of study—combined with a degree certificate, if one has been obtained. These records, when sent to the U.S. with an application for transfer into an undergraduate program or entrance into a graduate program, are usually photocopies of the original records that were issued to the student. To be considered official by most U.S. institutions, these copies must be verified, stamped, signed, and sealed in an envelope by the main branch of the student’s institution. The institutional charge for this process varies widely between different Indian universities. In addition to this charge, a student may also have to cover travel expenses to get to his or her affiliated college’s main university branch, which can often be hundreds of miles away. Some Indian universities were researched for this article to show the wide discrep-

<table>
<thead>
<tr>
<th>University</th>
<th>Cost for Degree Verification</th>
<th>Person/Department Supplying Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute of Science Bangalore</td>
<td>No Fee</td>
<td>Registrar’s Office</td>
</tr>
<tr>
<td>Osmania University</td>
<td>10 rupees (RS) per page</td>
<td>Office of the Controller of Exams</td>
</tr>
<tr>
<td>Goa University</td>
<td>25 RS per page</td>
<td>Registrar’s Office</td>
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<tr>
<td>University of Rajasthan</td>
<td>30 RS per page</td>
<td>Registrar’s Office</td>
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<tr>
<td>Kannur University</td>
<td>100 RS</td>
<td>Registrar’s Office</td>
</tr>
<tr>
<td>University of Calcutta</td>
<td>150 RS</td>
<td>Assistant Registrar</td>
</tr>
<tr>
<td>University of Pune</td>
<td>RS 75 per document for non-professional degrees and RS 100 per document for professional degrees. Documents sent abroad for an additional RS 100 per address.</td>
<td>Registrar’s Office</td>
</tr>
<tr>
<td>University of Delhi</td>
<td>500 RS for a package of all the mark-sheets and degree certificate</td>
<td><a href="http://www.du.ac.in/verification.htm">www.du.ac.in/verification.htm</a></td>
</tr>
<tr>
<td>University of Calicut</td>
<td>200 RS per page</td>
<td>Registrar’s Office</td>
</tr>
<tr>
<td>University of Madras</td>
<td>500 RS for a complete set of mark-sheets and another 500 RS for the degree certificate</td>
<td>Registrar’s Office</td>
</tr>
<tr>
<td>Mangalore University</td>
<td>500 RS for a complete set of mark-sheets and another 500 RS for the degree certificate</td>
<td>Evaluator’s Office</td>
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<tr>
<td>Punjabi University</td>
<td>$100 U.S. per official transcript</td>
<td>Registrar’s Office</td>
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ancy of cost between institutions. (Note: Offices where information was obtained are given when possible and the word ‘transcript’ is used only when the person contacted gave that description for the document issued for the student. At the time this article was researched in early 2004, the exchange rate was about 45 Indian Rupees (RS) to 1 U.S. Dollar.)

Though many U.S. higher education institutions are having foreign educational credentials evaluated by other organizations, it is good to keep in mind the additional cost and time it takes for Indian nationals to request and receive documents from their respective universities. Many U.S. institutions are also accepting documents verified by USEFI (United States Education Foundation in India). USEFI charges only 20 RS per document verified according to their Web site (www.fulbright-india.org/eas/memb-details.htm), and has offices located in Delhi, Mumbai, Chennai and Kolkata, where students can bring their original documents to be verified. This option is often a good one for students living in or near these cities due to the low cost. As many students continue to come to the U.S. for advanced degrees, it is hoped that India may look to some of its neighbors in other parts of Asia as examples and streamline and standardize this process to better serve its students.

ABOUT THE AUTHOR
Grady Gauthier is currently living and researching in India. He worked for Golden Gate University in San Francisco, CA from 2001-2003 as an Assistant Director of International Admissions. While working at Golden Gate University he was involved with the implementation of the new student visa regulations that took place in 2003. Before working at Golden Gate University, Grady worked as an Assistant Director of Admissions for two years at his alma mater, Hampshire College in Amherst, MA.
It has often been said that sports is a microcosm of life, with its many highs and lows, and that successful sports programs teach those participating about always doing your best and having fun while competing, about taking the good with the bad, and about acceptance of what life has in store. Similarly, in *The Carolina Way*, Dean Smith outlines his philosophy for coaching and preparing young men for basketball, which not only impacts them on the basketball court, but ultimately remains with them for the rest of their lives. By all accounts in this book, Smith has done that extremely well.

Having just experienced a wildly successful ride through a fantastic men’s basketball season here at Saint Joseph’s University, it was personally interesting to subsequently read Smith’s perspective on his illustrious coaching career at The University of North Carolina at Chapel Hill, and his blueprint for the tremendous success he experienced. As a registrar and the manager of an academic office within a university, gaining some insight into the mind of an effective manager like Smith and the guiding principles at the heart of his success is equally interesting, and can truly be considered professional development.

The entire structure of the book centers around the overarching mission statement Smith established for his program, wherein he constantly exhorts his players to “play hard, play together, and play smart.” This is the core principle upon which the UNC basketball program under Smith was built. Individual sections of the book are based on each clause within this principle. In the “Playing Hard” section, the chapters emphasize individual attributes like caring, being honest, and creating good habits. The “Playing Together” section expounds Smith’s guidelines on teamwork, building teams, and being unselfish. In “Playing Smart,” chapters focus on paying attention to details, effective communication practices, exercising proper and fair discipline, and setting realistic goals and objectives for individuals and for the group.

Within each chapter, comments on the subject are offered first by Smith, and then by individuals—mostly former players and student managers—connected with the program. These people relay vignettes that endorse Smith’s approach and emphasize the specific lesson learned and how it has helped them be successful in their own lives. A business perspective on the chapter is then presented by Gerald D. Bell, a UNC business school professor and leadership consultant, who collaborates with Smith in the book. Bell relates the UNC basketball program’s success to a business environment, and often calls upon his vast consulting experience to illustrate just how Smith’s guidelines can be utilized when leading and managing personnel and dealing with difficult situations. He also answers the question Smith poses in the book’s introduction, “Is coaching management?” He predictably and emphatically says “yes,” and endorses Smith’s leadership abilities. Bell further relates that Smith’s abilities are transferable from one occupation to another, and that good leadership qualities transcend all walks of life. Many of Bell’s comments may remind the reader of the article entitled “Is It Leadership or Management?,” published in the Spring 2004 issue of *C&U*.

The authors, Joseph Roof and Kristy Presswood, conclude that both are needed to successfully run enrollment management and service–related offices. Clearly, Bell would agree.

At times, the book may lead the reader to the question if anything ever went wrong while Dean Smith ran the UNC basketball program. Could things really have been so perfect?
In addition, topics occasionally seem repetitive and the book can sometimes border on proselytization, especially when few mistakes or omissions are presented. Also, the analogy between leading and managing 18- to 22-year-olds who are recruited every year and who really want to play basketball on a grand stage, versus leading and managing people who view their positions as just “jobs,” is never mentioned and apparently not suitable for such a book.

But throughout, *The Carolina Way* is a sound, solid, and thoughtful managerial refresher of sorts, and ultimately a common sense approach to dealing with people, achieving goals, and being successful. It is important to point out too that the measure of success highlighted in the book isn’t always “wins and losses.” Dean Smith and his assistant coaches established their own yardstick for success and exceeded it by:
- establishing rules and rituals for conducting the UNC basketball program;
- communicating consistently and clearly within and outside that department;
- having players play the game a certain way;
- creating a sense of team and teamwork;
- putting pieces in place to complete the group—with different qualities and abilities;
- emphasizing academics and graduation for the players;
- respecting self and others;
- telling the truth and fostering integrity and excellence in all facets of the operation; and
- preparing young men for life—not just basketball.

With over 36 years of head coaching and nearly 40 years at UNC altogether, Smith’s unwavering commitment to those guidelines—with rewards and rule enforcement built into the process—has allowed for the creation of a “brotherhood” among all those who went through or were associated with the program. From present day basketball legends such as Michael Jordan and Vince Carter, to players who didn’t play very much at all in their careers at UNC, to assistant coaches, student managers, university administrators, secretarial and custodial personnel—they all readily profess their affection for Smith and all he has done and continues to do for them. Despite all the differences among these individuals, a commonality and shared experience exists, with tremendous loyalty to the university, to the basketball program, and to Smith personally. They stay in touch with him long after their participation in the program is over, offering back to their coach and his program that has given them so much.

This legendary connection or cult of those involved with UNC basketball, with Smith as the icon, reminds this reader of the fictional Mr. Fezziwig, immortalized as the consummate “boss” by Ebenezer Scrooge in Charles Dickens’s *A Christmas Carol*. Fezziwig, like Smith, had the “power to make life a pleasure or a burden,” engendered the respect and admiration of his employees, and demonstrated a concern for society beyond his business dealings and for all those with whom he came in contact. He was so admired that even the hard-hearted Scrooge softens when his thoughts are taken to his own history by the Ghost of Christmas Past, and his apprenticeship with Mr. Fezziwig. Similarly, Dean Smith’s philosophy, his managerial approach and consistency, and his concern for each individual, has engendered a level of loyalty that is extraordinary. The connection is not just for four or five years of college, but for life. That kind of relationship with people is a dream for a leader or manager, to be universally and eternally respected and admired, to leave an everlasting legacy of success, but more importantly of fairness and concern for others. This is a documented reality for Dean Smith and one he will enjoy for the rest of his life.

I recommend this book, not just for the sports fan, but for anyone whose life situation involves connecting with others, especially in our hectic and technology-filled lives, where face-to-face contact with others is often avoided and replaced by e-mail, voice mail, chat rooms, or information on a Web page. People still are, and always will be, the greatest resource we have.

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Gerard J. Donahue has been the University Registrar at Saint Joseph’s University in Philadelphia since 1991. Prior to that, he spent seven years at La Salle University as Assistant Registrar, and has been a member of MSAcroA and AACRAO since 1983. He holds an MBA from La Salle with an Information Systems specialization. He also currently serves as the Student Module Leader for the Pennsylvania BANNER Users Group (PA-BUG).

**Academic Administrator’s Guide to Conflict Resolution**

SANDRA I. CHELDELIN AND ANN F. LUCAS

JOSSEY-BASS, SAN FRANCISCO; 110 PP. 2004. $20.00

Reviewed by Thomas L. W. Johnson

The academy as we know it is no stranger to conflicts, large and small. How and when they are dealt with becomes an important element in the satisfaction of faculty, staff, and students. This slender volume entitled *Academic Administrator’s Guide to Conflict Resolution* contains a host of illustrations of how the skillful use of conflict resolution can bring about settlement of disputes and minimize misunderstandings.

Examples range from the student who feels he should not be expected to pay for the credits dropped after the refund period to the faculty member who has been asked to teach in the evening and weekend program being instituted by her department. In the first instance, the authors recommend that the enrollment supervisor have a written policy, preferably one that has appeared in a school publication, to point to in explaining that the policy is not arbitrary or tailored to that student alone. The student may not like the outcome but he can understand its basis for enforcement. In the second example, when the faculty member explains her need to be home with her young family in the evening, the department chair offers to give her responsibility for a community out-
reach program, another new venture, to be conducted during the day. This arrangement will provide leadership for the new program and fit a demanding personal schedule as well. It represents a win/win situation for all concerned.

The authors explain that this book is primarily intended for “new leaders” or those new in the role of leadership in academic institutions. It is intended to sharpen one’s skill in conflict management. Many of the examples of conflict in the workplace come from offices in support of the academic mission—enrollment services, financial aid, advising, business management, housing, and the like. But faculty roles in academic departments also come in for attention. The authors supply enough theory so that the reader can understand the underpinning of what conflict resolution involves, but their emphasis is one of stressing practical examples that an academic administrator can identify with and readily relate to.

Among the constant concerns is that of competition over scarce resources. It can result in severe tension by putting departments on the defensive in explaining what they do and why. This can release long-term, simmering conflicts that call upon campus leadership to try and convince the participants that they should not feel abused. When money is not at issue, many of these perceived conflicts are simply ignored or set aside for later resolution.

The authors recognize the changes, many of which are profound, that are occurring in the academy. A generational changing of the guard due to retirements, more dependence on technology, and a shift from books and periodicals to Web and electronic databases all have an impact on the roles faculty, staff, and students play (pp. 8–9). Accountability becomes a larger factor at all levels as institutions strive to improve their ratings and become more attractive to prospective students. If it ever did, higher education no longer exists in a world of its own.

Among the types of conflicts examined is that of the intrapersonal variety. Intrapersonal conflict can be fed by three factors:

1. **role conflict**—a balancing of demands of the job and the responsibilities of family or domestic needs;
2. **role ambiguity**—trying to do two jobs in a time of financial stringency; and
3. **role overload**—being pulled in several diverse directions at once (pp. 26–27).

The pressure of these factors can result in negative thinking on the part of the individual and a tendency to procrastinate on an important project. Here the authors advise that a large project be divided into a number of logical pieces or segments and that time be devoted to the completion of each segment. That might consist of an hour or two per day, the key being the development of a reasonable schedule and the dedication to adhere to it. In that manner a large project can seem more manageable and the stress level often associated with completing it can be reduced.

The skills needed to deal with conflict either between two people or more broadly within a department or larger organization are identified and include managing anger. Active listening, avoiding assumptions, discovering a key element that has been said by the other party, remembering to handle criticism with kid gloves, use of the skills of negotiation and problem solving, and nurturing a good support network are recognized as important (pp. 43–44). Among these skills, non-judgmental or active listing, which is a willing to hear out and appreciate what the other person is saying, is probably the most important skill to be utilized. In the opinion of this reviewer, being willing to listen with an open mind is not only a skill but an art as well and deserves the attention the authors devote to it.

Strategies for handling intragroup conflict are described and discussed (pp. 51–54) and the familiar forming, storming, norming, and performing are discussed as stages in group development. This chapter also deals with coping with difficult and dysfunctional employees and how best to handle difficult meetings.

The principles that undergird conflict intervention are thoroughly discussed. The techniques of facilitation, negotiation, mediation, and arbitration are defined and the advantages and disadvantages of each are explained with examples of how each can be effective depending on the situation. And finally, the advantages associated with cross-departmental collaboration are examined with an example of offices within a division of student affairs working together with the maintenance and security departments to bring about some positive changes requested by students.

This study contains a two page bibliography designed to promote additional reading on the subject of conflict resolution as well as a detailed index. This reviewer wishes the bibliography was annotated to assist the reader in evaluating the selections listed. But that feature is absent.

The authors, Sandra I. Cheldelin and Ann F. Lucas, have spent their professional careers in education in the study of conflict resolution and organizational behavior and development. Both are former departmental chairs, Professor Cheldelin at George Mason University and Professor Lucas at Fairleigh Dickinson University, so they have practical experience in dealing with the subject matter. They write clearly and well, their prose being free of the jargon common to books of this type. They deal with realistic situations in settings familiar to us all and do not obfuscate the real issues that beg for resolution.

In this reviewer’s opinion, good communication early on can avoid or reduce potential conflicts and misunderstandings. If instructions are clearly set forth and the person assigned to do the work listens carefully, chances are things will develop smoothly. But if instructions are mangled or not listened to, troubles are almost sure to follow. Sometimes we are reluctant to ask questions or seek clarification because we see that as a sign of weakness or ignorance on our part. That condition reminds this reviewer of an observation one of his
professors was fond of making years ago: “A wise man asks questions, a fool only wonders.” Asking probing questions will reveal whether or not the departmental chair or supervisor truly understands what they are asking to be done. Perhaps the authors could have given greater recognition to this kind of organizational communication in the early pages of this book, but that is not a major deficiency.

Is this study a worthy addition to the ready reference shelf of a registrar or admissions director? In this reviewer’s opinion, this book should be on the desk of these officials as well as other academic administrators whether new to their responsibilities or steeped in experience. Reference to appropriate chapters and subject headers and putting into practice the advice provided has the prospect of contributing to a more smoothly running organization and an increase in satisfaction on the part of the individuals involved. Twin goals worthy of our pursuit.

ABOUT THE AUTHOR

Thomas L.W. Johnson completed a 44-year career in the Registrar’s Office of the University of Wisconsin-Madison in June 2003. Now Associate Registrar Emeritus, he comes to the office a few days a week to work on special projects. A graduate of UW-Madison, Tom also holds a Master of Arts degree from the University of Kansas.

Online Student Ratings of Instruction


Reviewed by Marlene Kuhtmann

In today’s high-tech world, nearly every societal function can be and is performed online. Even “academe has embraced the Web for a myriad of functions” (p. 1). Thus, online student-ratings systems are not inconceivable. However, online course evaluations in and of themselves will not fix the already existent problems of student ratings. As indicated by Theall (2000), if the system, ratings questionnaire, people, and policies surrounding course evaluation at a given institution are flawed, moving from a paper-based system to an online system “will only allow bad information to be misinterpreted and misused more rapidly” (para. 9). In general, technology may only compound any existing problems related to a non-existent or poorly designed communications strategy (Smith and Ely 1994).

In the book, Online Student Ratings of Instruction (edited by D. L. Sorenson and T. D. Johnson), an essential discussion of the benefits and limitations of online student ratings of instruction is provided. In Chapter 1, Sorenson and Reiner cover some of the major benefits and limitations of online student ratings of instruction. The benefits that they present are reflected in Table 1 on the next page.

Throughout the text a great deal of discussion focuses on the notion that online ratings seem to yield more substantive student comments despite having lower response rates. Similar findings regarding student comments have in fact been observed by other researchers (Layne, DeCristoforo, and McGinty 1999; see also Kiesler and Sproull 1986). In Chapter 3, Hardy ponders: “Which is more valid and useful, evaluations from a greater number of students (some of whom will write almost anything just to have it finished and leave the classroom) or collecting evaluations from fewer students who have definite ideas concerning the class and who provide more written feedback?” (p. 37).

In Chapter 6, Llewellyn discusses the reporting aspects of online ratings systems by relating experiences at the Georgia Institute of Technology in Atlanta (Georgia Tech). At Georgia Tech, faculty members were able to access ratings reports more easily because they no longer had to be on campus to do so. Students were also able to access the results of core questions (but not open-ended comments) in order to help assist them with course selection each term. In turn, students were motivated to participate in the system.

Via a comparison of the costs of online student ratings systems versus paper-based student ratings systems at Brigham Young University (BYU), in Chapter 7 Bothell and Henderson focus on technology as providing an important means of reducing costs. While acknowledging that development is one of the major costs of initiating an online student ratings system, they indicate that overall the costs of such systems are much less than traditional, paper-based systems in areas such as printing, data collection, data processing, and data reporting. Further, Rosenfeld, Booth-Kewley, and Edwards (1993) implied that the initial investment costs associated with the development of online surveys in general is warranted when the frequency of survey administration will be high.

Aside from the benefits identified by Sorenson and Reiner, some secondary benefits of online systems of student ratings are also made apparent elsewhere in the text. For instance, in Chapter 8, Tucker, Jones, Straker, and Cole discuss a Web-based system called “Course Evaluation on the Web” (CEW) that was developed by physiotherapy faculty at Curtin University in Perth, Western Australia. They describe how CEW facilitates faculty reflection on teaching (e.g., in a timely manner to improve practice), student reflection on learning, and program management.

Related to the effect that online systems of student ratings may have on faculty reflection of teaching, in Chapter 9 Bullock discusses an online ratings system (Evaluation ONLINE, or EON) at the University of Illinois at Urbana-Champaign (UIUC). EON allows instructors to collect and receive feedback during the semester. Bullock notes that traditional, paper-based ratings systems do not allow for such midterm feedback, which can lead to instructional improvement.

Regarding the set of limitations presented in Table 2 (on the next page), in Chapter 5 of the text, Johnson discusses the overarching concern that low responses rates, which are the
most studied aspect of online ratings systems, are a major obstacle to the successful implementation of online student ratings. Johnson discusses ways to improve online-rating response rates based on a case study of response rates at BYU. According to the study, factors that may increase response rates include student access to computers; amount and quality of communication to teachers and students regarding the online rating system; communication to students regarding how student ratings are used; and faculty and student support of the online rating system. The length of ratings forms does not appear to be a significant factor in students’ decisions to complete them, but shorter versions of ratings forms tend to be correlated with more written student comments. Johnson also proposes that it is more likely that students will complete online ratings for all of their courses when the completion of the ratings is encouraged of them in more than one of their courses. Indication was also made that the withholding of early access to grades would be an effective strategy to encourage students to complete online ratings or at least log on to the system. However, in Chapter 10, Ballantine notes that some types of incentives, such as the awarding of extra points to students for completing ratings, may be construed as neither legal nor ethical.

Ballantine remarks that some institutions may struggle to meet adequate responses rates while others experience low ones initially but then see them rise somewhat. Regarding the possibility that low response rates might lead to a negative bias in results, Johnson indicates that the case study of BYU found that “dissatisfied students are not more likely to respond than students who are satisfied with the course” (pp. 57–58). Likewise, in Chapter 3 of the text, Hardy relates a case study of Northwestern University’s experience of implementing online student ratings of instruction and notes that despite beliefs that student ratings conducted online would be lower than for paper ratings, it was determined that that was not necessarily the case. However, Sorenson and Reiner stress in Chapter 1 that more research is needed to “determine if, how, and to what degree online student ratings may favor responses from certain groups of students” (p. 8). In general, King and Miles (1995) reported that there have been mixed findings regarding the nature of responses collected via computerized versions of surveys versus paper-based versions. However, given the findings of researchers such as Kiesler and Sproull (1986), who indicated that respondents to computerized versions of surveys in general may be more inclined towards extreme responses than those who are administered paper surveys, it 

### Table 1: Benefits

| Time | Includes the recovery of classtime because online ratings are completed outside of class; the provision of more time for students to provide input, which may improve the quality and quantity of responses; and, a decrease in the turnaround time for producing ratings reports. |
| Flexibility | Reflects, for instance, the ability of instructors to adapt and personalize the format of online ratings to a limited extent. |
| Quantity and Quality of Comments | Regards improvements due to students having more time to provide input as well as other factors, such as less student concern about being identified by handwriting. |
| Reporting | Reflects, as aforementioned, a decrease in turnaround time for reporting of ratings, which is the most crucial difference from paper evaluation reporting systems. |
| Costs | Concerns cost savings over paper-based systems because, for example, the paper and personnel costs for processing ratings forms are less. |

### Table 2: Limitations

| Response Rates | Indicates concern that online systems have lower response rates than paper-based systems; however, some studies indicate that it is feasible to obtain high response rates via the Web. |
| Response Biases | Reflects the possibility that a group responding to an online rating may not be representative of an entire class. |
| Comparability | Indicates that questions exist regarding the comparability of online and paper-based ratings. |
| Dependence on Technology | Refers to the technology-related accessibility issues at institutions that need to be weighed when considering online ratings systems. |
| Convenience versus Inconvenience | Indicates that online ratings systems are not inherently convenient (i.e., due to technology accessibility issues) and that this factor thus needs to be considered in designing and initiating an online system. |
| Cost | Reflects that while online ratings systems overall cost less than paper-based systems, the initial transition to an online system is costly. |
| Anonymity and Confidentiality | Indicates that online ratings systems must be designed to protect students; this includes educating students as to extent of the protection afforded them in order to help them feel more at ease about using the system. |
| Data Access | Indicates that questions exist regarding who should have access to online student ratings data. |
| Control | Regards the concern that exists over the lack of control surrounding data collection (i.e., the feeling that peer pressure may influence student feedback when students complete ratings outside of class). |
| Culture Change | Reflects the possibility that stakeholders may exhibit resistance to the change from paper-based to online systems of ratings. |
seems prudent to suggest further study on the possible response bias of online student ratings. At the same time, Layne, DeCristoforo, and McGinty (1999) pointed out that paper ratings may actually foster a serious nonresponse bias because they are typically one-shot procedures that may not account for student absentees on the administration day. They stated, “Electronic surveys can be completed by students at various times during a specified period of time, whereas the traditional method is essentially a one-shot, hit-or-miss procedure” (p. 223).

The issue of comparability arises in Chapter 4 of the text in which McGhee and Lowell discuss a study conducted at the University of Washington that dealt with the comparison of online student ratings of distance-learning courses with paper-based student ratings of on-campus courses. The conclusions of the study indicate that the overall evaluations were basically similar. However, McGhee and Lowell note that a further design in which some distance-learning courses would additionally be evaluated via paper-based means and some on-campus courses would additionally be evaluated via online means, is needed in order to account for the effects of mode of instruction and mode of data collection. Regarding the effects of mode of data collection, Layne, DeCristoforo, and McGinty (1999) conducted a study of electronic versus paper-based student ratings of instruction at a southeastern university and found that mode of data collection was not significantly impacted by survey method. More recently, related research by Carini et al. (2003) examined the effects of mode of data collection between electronic and paper-based versions of a national survey instrument taken by students from multiple institutions and found only small distinctions.

Regarding the cost limitations of online student ratings systems, as aforementioned, Bothell and Henderson discuss the costliness of development in Chapter 7. Additionally, they point out that an effective comparison of costs cannot be accomplished if the cost categories compared are not the same. They argue that the manner in which costs have been handled in the few relevant cost comparison studies to-date support this notion. Thus, in outlining a set of cost categories, an important feature of Chapter 7 is the provision of a possible model for comparing the costs of online student ratings and paper-based student ratings. In the last chapter of the text, Ballantyne echoes the sentiments of Bothell and Henderson in stressing the need for cost-effectiveness studies of online and paper-based systems in addition to the comparative cost studies that have been undertaken to-date.

In discussing the reporting aspects of online ratings systems in Chapter 6, Llewellyn highlights some of the concerns and unresolved issues that became apparent in the experiences of Georgia Tech. One concern was the guarantee of anonymity of student responses, which was secured by maintaining student identification numbers and a list of their completed surveys in separate databases. However, a general perception was that students felt more secure completing online ratings versus paper-based ones because there was no longer the possibility that they could be identified by their handwriting.

Touching upon the issue of data control, in Chapter 10 Ballantyne indicates that faculty members need to be assured that only their students complete course evaluations, and that the student completes only one evaluation per course. For instance, she stresses that an authentication system should be developed to recognize and protect student passwords so that students cannot submit multiple surveys. On the other hand, regarding assurances to students that surveys are conducted in a controlled environment, computerized versions of student ratings may prevent violations of survey administration, as indicated by Layne, DeCristoforo, and McGinty (1999), because they can be conducted without involvement of instructors. Meanwhile, regarding the limitations of online ratings systems related to data access, Llewellyn remarks in Chapter 6 that one largely unresolved issue deals with who should have access to the online results and to what extent (e.g., access to only core questions or open-ended questions as well).

Regarding the limitation of culture change, in Chapter 1 Sorenson and Reiner provide a useful overview of organizational issues, including organizational change theory. They particularly highlight questions to consider as well as strategies for dealing with possible objections, such as ensuring the development of a convenient and secure system that takes into consideration the unique needs and concerns of a particular institution.

In conclusion, in Chapter 2 of the text, Hoffman poses the question of “How prevalent is today’s use of the Internet for student evaluation of course and instruction in higher education?” (p. 25). Sorenson and Reiner remark that before the publication of Online Student Ratings of Instruction the only study that existed on the number of institutions using online student evaluations was by Hmieleski and Champagne, who found that as of the year 2000, only 2 percent of the nation’s 200 most-wired institutions utilized them. In contrast, Hoffman conducted a study of 500 U.S. colleges and universities randomly selected from the 2002 Higher Education Directory. One of his findings was that 10 percent of respondents used the Internet as their primary means for student ratings of instruction for all courses. Hoffman thus concludes that there has been an 8 percent increase since the study conducted by Hmieleski and Champagne of the use of the Internet as a primary means for student ratings. However, it may be likely that the increase is possibly even larger because Hmieleski’s study involved the nation’s “most wired” institutions, whereas Hoffman’s did not even consider this aspect.

Sorenson and Reiner indicate that the focus of Online Student Ratings of Instruction is on encouraging collaboration. They state that its authors are ‘early adopters’ of online student ratings of instruction and aim to provide valuable insights and tools to those considering online systems of student ratings. For instance, an extensive index of Web sites of institutions that use online ratings is provided in Chapter 1.
A few of these Web sites provide insightful examples of online ratings instruments, but a number of them were direct interfaces with institutions’ online systems and not much could be learned from them, as they required user authentication to enter. However, the book overall provides a useful and in-depth examination of the benefits and limitations of online student ratings and serves as a resource for decision-makers at institutions considering implementing an online system of student ratings.

References
Theall, M. 2000. Electronic course evaluation is not necessarily the solution. Available at: http://ts.mivu.org/default.asp?show=article&Id=823

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Buster-Williams, Kimberley, *Staying Fit While on the Road, Letters to Fellow Recruiters* (commentary), Fall 2003, 43–44.


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Sjogren, Cliff and Campbell, Paul, *The International Baccalaureate: A Diploma of Quality, Depth, and Breadth* (international resources), Fall 2003, 55–58.

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