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William R. Smith, Julie Horine Edminster, and Kathleen M. Sullivan

A Content Analysis of College and University Viewbooks (Brochures)
Robert E. Hite and Alisa Yearwood

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Book Review
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With the new year upon us, the Editorial Board of College & University pledges to continue to make College & University a professional journal in which you can take pride.

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Manuscript Preparation

Manuscripts for feature articles should be no longer than 4,500 words. Manuscripts for guest commentary and book reviews should not exceed 2,000 words. Letters to the editor will ordinarily be limited to 200 words.

All submissions must be saved to an IBM-compatible disk (Microsoft Word, preferably) and include a hard-copy original printed on 8.5" x 11" white paper. Because the Board has a blind review policy, the author's name should not appear on any text page. A cover sheet should include the title of the manuscript, author's name, address, phone and fax number, and e-mail address.

References should be formatted in the author-date style and follow guidelines provided on page 526 of The Chicago Manual of Style, 14th edition. A list of references should appear at the end of the article. Text citations also follow the author-date format; examples may be found on page 641 of the Manual. For more information or for samples, please contact the C&U Editor.

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This review may take as long as three months, after which the C&U editor will inform the author of the manuscript’s acceptance or rejection.
Beginning in fall 1994, Carnegie Mellon began a re-engineering project to review its University enrollment process. This review revealed three interdependent enrollment processes (registration, financial aid, and billing and collections) that were fragmented, inconvenient, time consuming, bureaucratic, labor intensive, prone to error, and inconsistent across colleges.

The original organization was comprised of six distinct offices. The Enrollment Services Department was created in July 1996, and is organized by outward focused functional teams, and a vision and mission based upon the delivery of innovative student services. Each year continues to bring increased student satisfaction, new technological enhancements, a reduction in non-value added steps, and a more efficient enrollment services delivery focus.

Critical success factors have been:
- The realignment and ownership of the prospective student financial aid process within the Office of Admission.
- The development and internalization of the mission, vision, and values within Enrollment Services.
- The creation of a performance evaluation tool reflecting the values and mission, which has evolved into a performance management process, enabling the growth of the new organization.
- Cross-functional training initiatives and group behavioral change evolving into teams.
- The implementation of technology initiatives (automated need analysis and packaging, electronic funds transfer, online registration, database query access, and automated loan certifications).
- The implementation of student Web-enabled services (access to view student academic, financial, and account information, change addresses, request enrollment verifications, and graduation application).
- The implementation of administrative Web-enabled processing (electronic grade submission, online graduation data maintenance, and certification).

Carnegie Mellon University began a re-engineering project in 1994 to review the University's student enrollment process. The Enrollment Services Department was created in July 1996, replacing the Offices of Financial Aid, Cashier, Student Employment, ID Card, and Registrar.

The re-engineering of Enrollment Services has represented transformational rather than incremental change for the staff, organization, and institution. It has had tremendous impact on people, processes, and technology. We experienced dramatic learning curves during the first year of implementation, and have learned that continuous training is crucial, and have made that part of our operational schedules. One of the greatest challenges is addressing the lack of the traditional supervisory relationships within the new flattened organization, and enabling groups to evolve into self-directed work teams. Technology has eliminated routine transactions, and is releasing staff time to focus on problem solving. New types of “leaders” within the organization are developing, who are becoming responsible for teaching and learning, and enabling groups to problem identify and problem solve. After our second year, the majority of our staff had acclimated to these changes and continued to grow and develop. We are currently at the end of our fourth year, and have experienced significant changes in the evolution of team culture, customer service focus, and the depth and breadth of expertise as a student services organization.

The University
Carnegie Mellon is a national research university of approximately 8,000 students and 3,000 faculty, research and administrative staff. Industrialist and philanthropist Andrew Carnegie, who wrote the time-honored words, “My heart is in the work” founded the institution in 1900 in Pittsburgh when he donated the funds to create Carnegie Technical Schools. Carnegie’s vision was to open a vocational training school for the sons and daughters of Pittsburgh’s working class. When the school was...
renamed Carnegie Institute of Technology in 1912, it took another important step in its transition into one of the nation's leading private research universities. In 1967, Carnegie Tech merged with the Mellon Institute to form Carnegie Mellon University.

**Background**

Our re-engineering story found its beginnings in the summer of 1992, when the University President initiated a campus-wide effort toward Total Quality Management (TQM). At that time, over 150 senior administrators, faculty, and staff attended a weeklong training session in Rochester, NY with our corporate TQM partner, Xerox. This set the stage for campus-wide re-engineering discussions and efforts. Shortly thereafter, the Vice President of Enrollment instituted the financial aid policy group, to review the University's financial aid strategies and policies, especially as they related to freshmen recruitment.

In July 1994, the Vice President of Enrollment and the Vice President of Business Affairs and Planning announced a new initiative. In a continuing effort to improve university procedures, the enrollment process would be re-engineered in order to improve student services and to increase student satisfaction. A core team was established during the fall of 1994, which included the Associate Vice President for Planning and Budgets, the Cashier, the Director of Financial Aid, the University Registrar, and the Director of Enrollment Systems. This group embarked on four months of data collection and analysis, benchmarking, and focus group discussions in order to define the problems.

The research done by the core team resulted in the following evaluation of the current state: “During the enrollment process, students usually required information from the Registrar, Financial Aid Office, and Cashier, or they visited the incorrect office and were referred to multiple offices. Systems support and policy currently did not allow for student self enrollment. The processes were paper intensive, relied heavily on mail and walk-in visits, and required excessive sign-off and controls. In fiscal year 1994, the financial aid expenditures exceeded budget by approximately $1.8 million, and student receivables continued to exceed desired levels.”

The core team developed a desired state of affairs: “Consistent services and messages would be provided to students. The enrollment process would be streamlined in order to minimize the number of required steps for a student to successfully enroll, and provide a single point of contact (virtual/physical service center) to accommodate all transactions and respond to all questions regarding the enrollment (registration, aid packaging, and payment) process. Seventy percent of all of the current transactions and information requests (which were being handled through walk-in visits through the Registrar, Cashier, and Financial Aid Offices) would be handled electronically. The remaining 30 percent would be accommodated through a single physical student enrollment servicing location. In addition to front door customer service, all processing functions would be coordinated, in order to eliminate duplication of efforts, mailings, and redundant filing. The goal would be to gain efficiencies across the staff functions, and to ensure the accountability and fiduciary responsibility of these administrative departments, particularly as it relates to adherence to budget, billing, and collection (minimizing receivables).”

This core team process review led to the creation of the Enrollment Process Re-Design Team (EPRT) in spring 1995. To achieve these objectives, the Associate Vice President of Planning and Budgets chaired EPRT. This team included the core team (the Cashier, the Director of Financial Aid, the University Registrar, and the Director of Enrollment Systems), two faculty members, two associate deans, the Assistant Vice President for Computing and Information Systems, and an undergraduate student. This team met throughout the spring 1995 semester. Figure 1 shows the relationship of the EPRT to the campus community and various constituent groups. The EPRT developed a final report, including objectives, recommendations and implementation plans in June 1995.

The Enrollment Process Re-Design Team objectives were several:

- Satisfy student enrollment requirements;
- Eliminate non-value added activities;
- Reduce points of contact, and the time to complete process steps;
- Reduce process costs in central and academic units;
- Eliminate redundant effort and inspection; and
- Maximize cash flows to the University.

**FIGURE 1: ENROLLMENT PROCESS RE-DESIGN TEAM (EPRT) STRUCTURE**

The EPRT Project Recommendations were:

- Create a zero-stop enrollment environment for students to complete the enrollment process; and where problems occur, allow students one-stop problem resolution, enabling students to graduate from Carnegie Mellon.
Significantly improve student satisfaction with administrative support services.

- Achieve a leadership position in enrollment services by coupling the reorganization of enrollment services with technological enhancements.
- Improve employee satisfaction by equipping employees to more effectively serve our students.
- "Catch up" with other institutions in terms of the use of technology to better serve students in the enrollment process.

**The Enrollment Services Process**

These recommendations from the EPRT resulted in the Enrollment Services Process Implementation Team (ESPRIT). The ESPRIT Team directed the re-engineering implementation efforts during the 1995-96 academic year. That team included the Vice President of Enrollment, Director of Financial Aid, University Registrar, Cashier, Director of Public Relations, Director of Enrollment Systems, Enrollment Group Director of Special Projects, and a Human Resources Employment Specialist. One of the first recommendations of the EPRT report, to be implemented in August 1995, was the creation of a student service center as the front door for the Office of the University Registrar, Financial Aid Office, Card Xpress Office, Student Employment Office, and the Cashier. Figure 2 shows the design structure of the student service center.

The center would be designed so staff service representatives could meet and resolve 80 percent of customer problems on their first contact. Where support was needed, either on a process or knowledge basis, other staff would be in position to assist the service representatives. The ESPRIT team continued to review the enrollment process and to further refine the problem statements from students' point of view. Enrollment process problem statements were modified as follows from two viewpoints:

**Prospective Students**

Two interdependent processes (admission and financial aid) that were:

- Separate and fragmented
- Inconvenient and time consuming
- Bureaucratic, labor intensive, and prone to error

**Current Students**

Three interdependent processes (registration, financial aid, and billing/collection) that were:

- Separate and fragmented
- Inconvenient and time consuming

- Bureaucratic, labor intensive, and prone to error
- Costly

In view of these refined problem statements, and based on additional focus groups, these enrollment process student requirements were developed:

- Recognize the student as a responsible participant
- Be consistent across the University
- Establish clear and consistent decision rules
- Have output directly accessible by students
- Decentralize input to students
- Convenient and coincides with scheduling constraints
- Provide timely and accurate information
- Have accessible and meaningful advising
- Provide financial counseling
- Improve student account invoicing process
- Make decision support tools available

These student requirements would serve as the backbone for the ESPRIT team's work in guiding decision-making and initiatives in our overall goal to improve student satisfaction and services.

**The Birth of Enrollment Services**

As part of the implementation process, it was decided that the Office of Admission would take over the financial aid process for prospective and entering students. The Cashier's Office, Card Xpress Office, Financial Aid Office, and the Office of the University Registrar would be combined into one new office, Enrollment Services. This way, students would deal with a single administrative unit rather than three separate departments. Figure 3 depicts the new organizational structure. As part of this initiative, system support development would be essential. In addition, as part of the re-organization, processes would have to be re-designed and staff would have to be re-aligned.

We knew that staff positions would have to change, and expected that most, if not all of the current positions within these offices would be impacted. A position was defined as an impacted one if the responsibilities of that position changed by 50 percent or more as a result of the re-engineering effort in the Enrollment Group. We made the redeployment commitment to
staff that everyone would continue to have a job within the Enrollment Group. In addition, no staff member would lose any salary level, and that career counseling services including skills inventory, résumé preparation and production, office space and computer facilities, mock interviewing, and job hunting ideas would be provided to all staff. Also, selection decisions would be based on whether a re-deployed employee met minimal qualifications rather than preferred qualifications, and Human Resource representatives would advise employees of available jobs that appeared to match their skills.

During the spring of 1996, all staff applied for and interviewed with the Vice President of Enrollment and a Human Resources specialist. Staff were then appointed into their new positions, to be effective July 1996. During this time, vast amounts of training occurred, so that staff could train their successors as well as be trained in their new responsibilities.

As Enrollment Services was being created, ESPRIT sought to establish a number of “Quick Wins” in order to improve the enrollment process for students in the short-term:

- Use e-mail as the preferred communication medium for students
- Develop electronic funds transfer for lockbox payments
- Standardize registration process
- Improve student account invoicing process
- Automate needs analysis and aid packaging
- Create electronic grade submission
- Provide departmental student information system query access
- Document processes and policies

The team also acknowledged various policy issues that would need to be resolved as it identified technological opportunities to aid the new enrollment process. As part of system development, electronic funds transfer with the bank was implemented in fall 1995, eliminating various data entry steps. As part of the financial aid process improvement, automatic needs analysis was developed and implemented in spring 1995, and automatic financial aid packaging in the spring of 1996. These efforts, along with extensive training and the outsourcing of family financial payment planning outsourcing, enabled the Office of Admission to take ownership of the financial aid awarding process for entering students. These quick wins enabled us to take our first steps toward the new process and to begin to improve student services.

We also worked to develop process measures to assess our success. These measures included student satisfaction, response time for numerous sub-processes (registration, financial aid awards, obtain information, etc.), office visits to resolve problems, process steps, and process cost. Students were surveyed via e-mail and visit cards to determine how we were doing. They were always happy to tell us how they felt.

ESPRIT also identified and examined a number of enablers and barriers to changing and improving the enrollment process. These factors were instrumental in our presentations to focus groups and various campus constituencies by assisting us with targeting our messages to their particular concerns.

**PROJECT ENABLERS:**

- Consensus that the current process is broken;
- Student and stakeholder desire to improve the current process;
- Good existing technological base on which to build;
- Supportive and involved senior management; and
- The resulting process will be simpler.

**PROJECT BARRIERS:**

- Cost of implementation;
- Perception of loss of control by academic departments;
- Fear that new process will create more work;
- Fear that we might not get it right the first time;
- Campus cynicism regarding this type of process change;
- Perception that project goal is to save money rather than to improve service;
- Perceived coupling between enrollment process and academic advising;
- Lack of understanding by current enrollment service staff that re-design requires dramatic change;
- Question of will information technology perform as desired;
- Time;
- Fear of change by administration dictum;
- No departmental incentive for modifying course scheduling; and
- Faculty not well informed.

ESPRIT developed strategies, cost analyses and timeframes in order to overcome each barrier. Part of this strategy included regular communications with key stakeholders and students as the plan was rolled out. These groups included Student Senate Academic Affairs Committee, College Student Advisory Committees (SACs), President’s Student Advisory Committee,
Grassroots Student Organization, Enrollment Division Staff, University TQM Steering Committee, President's Council, Academic Council, University Education Committee (UEC), Associate Deans' Council (ADCC), Associate Deans for Graduate Programs (ADGP), Faculty Senate, and College and Department Administrators. Communication methods included monthly e-mail updates, a semester newsletter, focus groups, meetings, and presentations. We worked with these groups to implement our quick wins, to share information, and to reduce and/or eliminate barriers to implementation. Then, in the summer of 1996, Enrollment Services was created, and staff members were placed into their new positions.

Enrollment Process Re-Engineering Projects

The next step for Enrollment Services was the continued development of technology and system support. In the summer of 1996, we worked to improve invoice processing to deliver student account invoices to students at more than one address, and to suppress those invoices for students who were departmentally supported. In concert with this initiative, we began the development of Student Information On-Line (SIO). SIO is our student accessible Web site that permits students to view their biographical data, addresses, student account, schedule, and grades. This was rolled out over several weeks and students were found to be extremely supportive.

At the same time, we were piloting a faculty electronic grade submission process. This process allowed faculty to either submit a file of grades to a secure server, or to access an authenticated secure Web server, entering their grades in real-time. We started small with a core group of twenty faculty and expanded it through college and department demonstrations, and one-on-one training sessions. Much to our surprise, the College of Fine Arts faculty led the initiative with tremendous support! This process culminated in spring 1997 with the Provost announcing to the campus community (after he was a user), that grade scanners would no longer be accepted, and that all grades would be entered via the E grades Web site. At that same time, we worked with the Administrative Computing division to put the University's Faculty Course Evaluations on the Web. This page allowed students to view the course evaluations, addresses, student account, schedule, and grades. This was rolled out over several weeks and students were found to be extremely supportive.

Another spring 1997 initiative included the rollout of a new university ID card, which included a digitized photo and a standard ABA magnetic stripe, to allow for the continued upgrading of our dining system software. We also expanded E grades, adding the capability for faculty to access course rosters through the Web whenever they wish. This allowed Enrollment Services to stop printing and distributing paper rosters, and gave faculty the opportunity to have rosters on demand and the ability to download their student data into grade books as they wished.

Several initiatives were begun in order to meet redesign objectives and student requirements. Among them was development of a Web-based O n-L ine Registration system in fall 1997. Also that fall, a Query Student Information System Access (QSIS) was created, which was a database query application for academic departments so that they could obtain student and course lists and labels. In fall 1998, SIO was expanded by providing students with the ability to change their addresses via the Web; Federal Stafford and PLUS loan certifications were automated; and provision was made for automated electronic transfers of loan disbursements directly to student accounts. By spring 1999, our students were able to apply for graduation online, and academic departments were given Web access to add, modify, and maintain graduation data and certifications. Later that year, a process was developed by which enrollment payment clearances were automated so that manual data review was unnecessary.

Several projects are continuing to be implemented. Several years ago, we began work on an academic audit project to provide students with Web-based audit access. That project should be fully implemented this year. In addition, there will be further expansions to SIO, providing students with the display of their Hope and Lifetime Learning tax credit information, financial aid document tracking, and aid award display; and also with the ability to electronically order enrollment verifications. We've developed Course Information On-Line (CIO), which provides students with course descriptions, prerequisites, and checks to see if they've met those prerequisites, and if there is space in the course for them (prior to course registration). We've redesigned our cash operations functions, so that Enrollment Services now only handles student account functions, and University banking functions are handled by our Financial Services department.

In the works is a re-design of our Enrollment Services Web pages (www.cmu.edu/hub) so that they are organized by constituent and provide our customers with an integrated array of services. This will include the ability to download or to print most of our forms. In addition, present projects include the use of Web-enabled student account credit card payments, which will automatically post payments directly to the student's account and deposit the funds into the University's bank account. We continue to work with our Dining Services on the expansion of our available dining options off-campus, and plan to integrate our campus ID card with our Housing Office's use for room access.

There are many plans for the future. Among these is the integration of our class schedule, CIO, and undergraduate catalog. We plan to expand SIO so that students will be able to request grade mailers (only if they want them) and transcripts. We're working on the development of a Faculty Information O n-L ine Web site, so that faculty will have access to the information they need (rosters, grades, policies, classrooms) and can see information about their students (academic advising and audit information). Similarly, we plan to develop a Parent Information O n-L ine Web site, so that parents can get access to financial aid documents, awards, loans, and student account information that their student chooses to release to them. And, lastly, we plan to eventually integrate our class schedules, CIO, catalog, OLR, and academic audit into an electronic curriculum advisor, in order to provide students with a suggested schedule that should shift a further burden away from the course registration process.
Enrollment Services Organization
Re-Design Goals
Enrollment Services continues to grow and to evolve. Staff continue to expand their collective ownership and together as a learning organization, we have developed our Mission and Vision statement:
“O ur vision is to be a unified service organization which continues to pioneer and deliver innovative enrollment services through empowered staff.

Through our Mission, to provide services which:
- Facilitate student enrollment,
- Guide students and families as administrative and financial partners,
- Support University academic and administrative activities,
- Fulfill the requirements of our external customers, and
- Emphasize commitment and professional development among our staff.”

Our specific goals for staff and our organization are as follows:
- Develop the infrastructure to enable effective learning and staff development leading to superior performance;
- Manage the overlap between the old and new mindsets;
- Harness the collective genius of staff, and encourage collaborative teaching and learning;
- Empower staff to challenge assumptions without invoking defensiveness;
- Develop a culture that encourages thinking and proactive problem solving, and minimizes anxiety; and
- Understand that training and continuous professional development are critical for success in developing staff knowledge, skills, perspectives, and behaviors.

This past fall, we expanded our performance evaluation process. Our performance evaluation form evolved into a new Performance Management Process. As part of that process, we worked with staff to re-affirm our core values, the behaviors that exemplify those values, and to define individual and team goals and objectives. As we define and clarify our expectations,

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we meet with staff to focus on their tasks, responsibilities and accountabilities. These are on an individual basis, as a team member, and as an Enrollment Services staff member. We continue to work with staff to measure team growth and development that supports the linking of the organization vision and values to the measurement of behaviors required for success.

Lessons Learned
We’ve learned many lessons in experiencing our successes and developing our opportunities. A critical success factor is to have an executive sponsor who is the process champion (such as a Vice President and/or Provost), who serves as the primary change agent. This executive sponsor leads the way, holds back critics, and is the one who encourages, persuades, and reminds all campus constituencies that the core business of our institution is to provide our students with a valuable educational experience. Our Vice President for Enrollment has served us well in this capacity. This support allows Enrollment Services to focus on the design and implementation of automated and Web-enabled enrollment processes and services, which allows our students to focus on their educational learning experiences, and minimize the time they have to spend on the administrative tasks of the enrollment process.

We have also learned that to be fundamentally successful, the directors of this new organization have to simultaneously drive the technological and behavioral changes. They have to modify perspectives and approaches to process problem identification and resolution. The directors’ ability to share power and collaborate has proven to be essential for our success and for the success of our staff in meeting and exceeding students’ expectations. The directors fulfill the role of change agents on a daily basis, as we remind everyone that change will continue as new ways to do old jobs are created.

It is important to acknowledge the impact of a change process of this magnitude on the staff within your organization and those who will feel the repercussions outside of your organization. One of the greatest challenges will be to manage the staff’s perceived loss of power, control, and competence. Resistance to this change will be greater than you anticipate but can be addressed effectively over time, and with adequate time to communicate the change. Allow time for change and the opportunity to communicate the change to all constituencies. However, we have learned that there is not and never will be adequate time to communicate. After the change effort has been implemented, it will be equally challenging to manage the overlap between the old mindset and the new mindset, and to address the enrollment process as the combination of many interactive and interdependent processes instead of the historical singular processes we have known.

It is important to carefully design the enrollment services model for staffing and for servicing. It is equally important to design an implementation process which takes into consideration the phases of the organization’s growth, and to allow the flexibility to change the model or the implementation as the new organization evolves. We’ve learned to develop an aggressive implementation schedule, and to know when to adjust the timelines. It is okay to change the plan.

The inclusion of Human Resource staff in the implementation of our re-engineering project was invaluable, for us and for our staff, from the design of positions within our model, to offering résumé writing and interviewing techniques, and general advice to us and to our staff.

Incorporate teaching and learning into your organization’s strategic plan. Make staff accountable to teach one another and to learn from one another. Develop effective learning processes. Allow time for the learning curves of staff. Gaining depth and breadth of expertise will take time, but will be noticeable and measurable within a reasonable period of time.

We found that having an integrated student information system with system resources for modification, improvement, and continued development has been critical for our success. Related to that, it is important for the process to be measured in order to illustrate that progress has been made to stakeholders and to staff. Another important lesson is that possessing vision, patience, flexibility, and stamina are of great value as each process is improved and changed. And, last but not least, plan to celebrate each success!
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Credential Evaluations that Set the Standard for Excellence
Factors Influencing Graduation Rates at Mississippi’s Public Universities

Abstract

The relative importance of socioeconomic status, considered in combination with other student input characteristics in predicting baccalaureate degree completion, has not been thoroughly examined. The purpose of this study is to examine the relationship between five independent variables (gender, ethnicity, ACT Composite Score, high school grade point average, and Pell Grant status) and one dichotomous dependent variable (baccalaureate degree completion) at the eight public four-year institutions of higher learning in Mississippi. Logistic regressions were applied to a database of 12,044 first-time full-time black students and first-time full-time white students enrolling at the eight public four-year institutions of higher learning in Mississippi for the academic years 1990-91 and 1991-92. Results are presented in terms of odds ratios.

Findings suggest that of the five independent variables studied, high school grade point average was generally the strongest predictor of baccalaureate degree completion for students in Mississippi institutions of higher learning, although the significance of predictors varied by demographic subgroup and by type of institution. For example, the only significant predictor of baccalaureate degree completion for black males at the state’s large comprehensive institutions was socioeconomic status as measured by Pell Grant status. Although this study provides some guidance as to which input factors contribute to baccalaureate degree completion, more research is needed on the interactions between race and gender. Research also is needed to determine how institutions might improve their capacity to meet the needs of low socioeconomic status students to increase their persistence through graduation.

Researchers have long debated the factors that affect college graduation rates. Socioeconomic status, race, gender, standardized test scores, high school grade point averages, type of institution attended, and financial aid are all factors that are thought to have an impact on graduation rates. A common approach to analyzing graduation rates is through production function studies, i.e., studies that look at which “inputs” produce certain “outputs.” In other words, which “input” factors produce the “output factor” of baccalaureate degree completion?

Recent studies (Astin et al. 1996; Coleman et al. 1966; Smith 1995) have shown that demographic variables (e.g., race and gender), institutional types, and student input variables (e.g., ACT Composite Score and high school grade point average) are significant predictors of graduation rates. The relative importance of these measures, however, is a matter of national debate.

The bulk of the research dealing with the input variables of standardized admission test scores and high school grades has examined the predictive effect of test scores or high school grades on college grade point averages, not on graduation rates. Most of these studies also have compared the effectiveness of using American College Testing (ACT) or Scholastic Achievement Test (SAT) scores to predict college grade point averages versus using high school grade point averages to predict college grade point averages (Jenkins 1992). In a study examining the use of two different methodologies for predicting college grade point averages at more than 160 institutions, Noble (1991) found that the ACT/Course Grade Information System (CGIS) model was slightly more accurate than the model based on only four self-reported grades. Thus, Noble concluded that the best model for predicting college GPA was based on ACT scores and high school grade point averages.

A smaller body of research has examined the impact of grants on student retention and graduation rates. Andersen (1992) stated that in the early 1970s, the federal government created a need-based grant program that became known as the Pell Grant. Originally, this program was designed to broaden access...
for low-income students, enabling them to pursue a college education. The federal grant program has been given credit for the increased college participation rates of non-whites that began in the early 1970s.

Research on graduation rates, however, shows that financial aid cannot overcome differences in socioeconomic status. Students in the top quarter by status have graduation rates of over 50 percent (in public institutions) as compared to graduation rates of 31 percent (in public institutions) for those students in the lowest quarter by socioeconomic status (Porter 1989). After controlling for certain student characteristics, Astin (1978) (as cited in Frances and Harrison 1993) found that students with grants are less likely to drop out than students with loans. Ohrfield (1992) found that the shift from grants to loans at the federal level has had a disproportionate impact on historically black institutions that have been especially threatened by federal government proposals to base an institution’s eligibility to accept Pell Grant funds in part on graduation rates. The proposed federal crackdown on institutions with low graduation rates would have a disparate impact on historically black institutions since these institutions have traditionally served an at-risk college population that is heavily dependent on need-based financial aid such as the Pell Grant.

Since the Pell Grant is a need-based grant, this study used the Pell Grant as a proxy for socioeconomic status. Andersen (1992) points out that a student who receives a Pell Grant is ipso facto in a lower socioeconomic class than those who do not receive Pell Grants. Thus, one purpose of this study was to determine if the conclusions regarding the meta-analysis of production function studies conducted by Hanushek (1986) are still supported regarding socioeconomic status as a predictor of academic progress. While Astin (1996) and Smith (1995) and others have examined standardized test scores and high school grade point average, and having a Pell Grant. Because of this assumption, the predictive regression was tested for all three-way interactions with race and gender. For descriptive purposes, separate regressions then were computed by race and gender, broken out by type of institution. All logistic regressions were summarized by odds ratios.

Logistic regression is the method of choice for analyzing the effects of independent variables on a dichotomous dependent variable. Holding the other independent variables constant, the independent variable being examined is increased by one unit to see how this increase changes the odds of a student graduating. The stronger the relation between this independent variable and graduation, the farther the odds ratio will be from one. If the variable is positively related to graduation, the odds ratio will be greater than one. If the variable is negatively related to graduation, the odds ratio will be less than one.

**Variables**

The independent variables in this study were gender, race, type of institution attended, ACT Composite Score, high school grade point average, and whether a student received a Pell Grant. Levels of the variable “type of institution attended” included “comprehensive” and “urban and regional.” Comprehensive institutions included the state’s three largest universities, which are predominately white institutions and range in size from 11,443 students to 15,718 students. The five smaller, four-year, public institutions were classified as urban and regional institutions for purposes of this study. Three of these institutions are historically black institutions ranging in size from 2,445 students to 6,292 students and the other two are predominately white institutions ranging in size from 3,314 students to 4,048 students. The dependent variable in the study was the students’ success or failure in obtaining a degree within a period of six years (by 1995-96 for the 1990-91 cohort and by 1996-97 for the 1991-92 cohort), or 150 percent of normal time for completion.

**Design and Analytic Strategy**

This study used a retrospective prediction methodology. The data were gathered from 1990 through 1998 and stored in the Management Information System (MIS) database of the Mississippi State Institutions of Higher Learning. Logistic regression was used to model the relationship between each potential predictor of graduation and graduation by type of institution and to model the combined relationship between the potential correlates of graduation and graduation by type of institution. It was assumed a priori that there might be interactions between race, gender, and the other potential correlates of graduation, namely, ACT score, high school GPA, and having a Pell Grant. Because of this assumption, the predictive regression was tested for all three-way interactions with race and gender. For descriptive purposes, separate regressions then were computed by race and gender, broken out by type of institution. All logistic regressions were summarized by odds ratios.

Logistic regression is the method of choice for analyzing the effects of independent variables on a dichotomous dependent variable. Holding the other independent variables constant, the independent variable being examined is increased by one unit to see how this increase changes the odds of a student graduating. The stronger the relation between this independent variable and graduation, the farther the odds ratio will be from one. If the variable is positively related to graduation, the odds ratio will be greater than one. If the variable is negatively related to graduation, the odds ratio will be less than one.

**Results**

Overall, graduation rates varied to some extent by gender and varied dramatically by race. Table 1 shows graduation rates by race, by sex, and by race and sex by type of institution for the public, four-year institutions of higher learning in Mississippi. The graduation rate for males at all institutions as a group was 41.8 percent, while the graduation rate for females was 46.5 percent. At comprehensive institutions, the graduation rate for black males was 28.3 percent, while the graduation rate for white males was 52.3 percent. For black females at comprehensive
institutions, the graduation rate was 41.5 percent, while for white females the graduation rate was 53.8 percent. At urban and regional institutions, the graduation rate for black males was 27.6 percent, while the graduation rate for white males was 42.7 percent. For black females at urban and regional institutions, the graduation rate was 37.0 percent, while the graduation rate for white females was 54.0 percent.

A series of univariate logistic regressions resulted in odds ratios that further clarified relationships among gender, race, institution type, and likelihood of graduating. For example, Table 2 shows that across all institutions studied, women were 1.2 times as likely to graduate as were men and that white students were 2.17 times as likely to graduate as were black students. This series of logistic regressions also yielded odds ratios that described the effects of one-unit increases in measures of academic background. For example, across all institutions, a one-unit difference in academic background as measured by ACT Composite Score and Pell Grant status was associated with changes in the odds of graduating. For black females at all institutions as a group, high school grade point average, ACT Composite Score, and Pell Grant status) and baccalaureate degree completion by race and gender at all public four-year institutions of higher learning in Mississippi.

The multivariate analysis resulted in odds ratios that varied not only by race, but by race within type of institution. For example, the only significant predictor of baccalaureate degree completion for black males at all institutions as a group was the high school grade point average. At comprehensive institutions, however, the only significant predictor of baccalaureate degree completion for black males was Pell Grant status. The probability that a black male who received a Pell Grant would graduate was approximately 50 percent as high as the odds that a black male who did not receive a Pell Grant would graduate. Further, at urban and regional institutions, the only significant predictor of baccalaureate degree completion for black males was the high school grade point average, which had an odds ratio of 2.75. That is, the odds that a black male would graduate from an urban and regional institution increased by a factor of 2.75 for a one-point increase in high school GPA.

For black females at all institutions as a group, high school grade point average, ACT Composite Score, and Pell Grant status were all significant predictors, with the high school grade point average being the strongest predictor, followed by the ACT Composite Score and Pell Grant status.

### Table 1: Graduation Rates by Race, Sex, and Race and Sex by Type of Institution for All Public, Four-Year Institutions of Higher Learning in Mississippi

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Obtained Degree</th>
<th>Did Not Obtain Degree</th>
<th>Total Students</th>
<th>Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All IHL Institutions</td>
<td>5,351</td>
<td>6,693</td>
<td>12,044</td>
<td>44.4 percent</td>
</tr>
<tr>
<td>Blacks</td>
<td>1,796</td>
<td>3,502</td>
<td>5,298</td>
<td>33.9 percent</td>
</tr>
<tr>
<td>Whites</td>
<td>3,555</td>
<td>3,245</td>
<td>6,800</td>
<td>52.3 percent</td>
</tr>
<tr>
<td>Males</td>
<td>2,203</td>
<td>3,064</td>
<td>5,267</td>
<td>41.8 percent</td>
</tr>
<tr>
<td>Females</td>
<td>3,148</td>
<td>3,629</td>
<td>6,777</td>
<td>46.5 percent</td>
</tr>
<tr>
<td>Comprehensive IHL Institutions</td>
<td>3,497</td>
<td>3,463</td>
<td>6,960</td>
<td>50.2 percent</td>
</tr>
<tr>
<td>Whites</td>
<td>3,068</td>
<td>2,716</td>
<td>5,784</td>
<td>53.0 percent</td>
</tr>
<tr>
<td>Blacks</td>
<td>429</td>
<td>747</td>
<td>1,176</td>
<td>36.5 percent</td>
</tr>
<tr>
<td>Males</td>
<td>1,617</td>
<td>1,681</td>
<td>3,298</td>
<td>49.0 percent</td>
</tr>
<tr>
<td>Females</td>
<td>1,880</td>
<td>1,782</td>
<td>3,662</td>
<td>51.3 percent</td>
</tr>
<tr>
<td>Black Males</td>
<td>126</td>
<td>319</td>
<td>445</td>
<td>28.3 percent</td>
</tr>
<tr>
<td>Black Females</td>
<td>303</td>
<td>428</td>
<td>731</td>
<td>41.5 percent</td>
</tr>
<tr>
<td>White Males</td>
<td>1,491</td>
<td>1,362</td>
<td>2,853</td>
<td>52.3 percent</td>
</tr>
<tr>
<td>White Females</td>
<td>1,577</td>
<td>1,354</td>
<td>2,931</td>
<td>53.8 percent</td>
</tr>
<tr>
<td>Urban and Regional IHL Institutions</td>
<td>1,854</td>
<td>3,230</td>
<td>5,084</td>
<td>36.5 percent</td>
</tr>
<tr>
<td>Whites</td>
<td>487</td>
<td>475</td>
<td>962</td>
<td>50.6 percent</td>
</tr>
<tr>
<td>Blacks</td>
<td>1,367</td>
<td>2,755</td>
<td>4,122</td>
<td>33.2 percent</td>
</tr>
<tr>
<td>Males</td>
<td>586</td>
<td>1,383</td>
<td>1,969</td>
<td>29.8 percent</td>
</tr>
<tr>
<td>Females</td>
<td>1,268</td>
<td>1,847</td>
<td>3,115</td>
<td>40.7 percent</td>
</tr>
<tr>
<td>Black Males</td>
<td>464</td>
<td>1,219</td>
<td>1,683</td>
<td>27.6 percent</td>
</tr>
<tr>
<td>Black Females</td>
<td>903</td>
<td>1,536</td>
<td>2,439</td>
<td>37.0 percent</td>
</tr>
<tr>
<td>White Males</td>
<td>122</td>
<td>164</td>
<td>286</td>
<td>42.7 percent</td>
</tr>
<tr>
<td>White Females</td>
<td>365</td>
<td>311</td>
<td>676</td>
<td>54.0 percent</td>
</tr>
</tbody>
</table>

### Table 2: Results of Univariate Logistic Regressions Examining the Relationship Between Each Independent Variable and Baccalaureate Degree Completion

<table>
<thead>
<tr>
<th>Variables</th>
<th>All Institutions</th>
<th>Comprehensive Institutions</th>
<th>Urban &amp; Regional Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio</td>
<td>P value</td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>Female</td>
<td>1.206</td>
<td>0.0001</td>
<td>1.097</td>
</tr>
<tr>
<td>White</td>
<td>2.172</td>
<td>0.0001</td>
<td>1.967</td>
</tr>
<tr>
<td>Pell Grant</td>
<td>0.568</td>
<td>0.0001</td>
<td>0.586</td>
</tr>
<tr>
<td>ACT Composite</td>
<td>1.122</td>
<td>0.0001</td>
<td>1.103</td>
</tr>
<tr>
<td>HS GPA</td>
<td>2.686</td>
<td>0.0001</td>
<td>2.183</td>
</tr>
</tbody>
</table>

Note: These are univariate analyses.
point average having the largest odds ratio by far. At comprehensive institutions, the only significant predictor of baccalaureate degree completion for black females was the high school grade point average, which had an odds ratio of 2.322. At urban and regional institutions, high school grade point average and ACT Composite Score were significant predictors of baccalaureate degree completion for black females, but the high school grade point average was a stronger predictor with an odds ratio of 2.481 compared to an odds ratio of 1.104 for the ACT Composite Score.

The data showed that regardless of race, students who received Pell Grants had a reduced chance of graduating. The significant predictors for white males at all institutions as a group were high school grade point average and Pell Grant status. At comprehensive institutions, high school grade point average and not receiving a Pell Grant were significant predictors of baccalaureate degree completion. The high school grade point average for white males had an odds ratio of 2.194. The results showed that white males who received a Pell Grant at a comprehensive institution found their chances of graduating reduced by almost 50 percent compared to white males whose socioeconomic status was sufficiently high to render them ineligible for a Pell Grant. At urban and regional institutions, the only significant predictor of baccalaureate degree completion for white males was the high school grade point average which had an odds ratio of 2.037.

For white females, as with black females, high school grade point average, ACT Composite Score, and Pell Grant status were all significant predictors, with the high school grade point average having the largest odds ratio by far. At comprehensive institutions, high school grade point average, ACT Composite Score, and Pell Grant status were all significant predictors of baccalaureate degree completion for white females, with the high school grade point average having an odds ratio of 1.942. At urban and regional institutions, high school grade point average, ACT Composite Score, and receiving a Pell Grant were significant predictors of baccalaureate degree completion for white females, but the high school grade point average was a much stronger predictor with an odds ratio of 2.377 compared to an odds ratio of 1.005 for the ACT Composite Score.

Examination of logistic regressions using multivariate analysis revealed that there are differences in the strength of the relationship between the combined independent variables (gender, race, ACT Composite Score, high school grade point average, and the receiving of a Pell Grant) and the dependent variable (baccalaureate degree completion) by type of institution (comprehensive or urban/regional).

Conclusions
Findings from this study indicate that high school grade point average is a stronger predictor of baccalaureate degree completion than the ACT Composite Score. Results suggest that socioeconomic status is also a powerful predictor of baccalaureate degree completion. In fact, for black males enrolling in the state’s large, comprehensive state universities, academic background had little effect on the likelihood of graduation. Only socioeconomic status was a significant predictor of graduation for this group. The effects of high school grade point average, ACT Composite Score, and socioeconomic status on baccalaureate degree completion were found to vary by race and gender and by type of institution attended.

<table>
<thead>
<tr>
<th>Type of Institution/ Race and Gender</th>
<th>Number of Observations</th>
<th>HSGPA Odds Ratio</th>
<th>P value</th>
<th>ACT Composite Odds Ratio</th>
<th>P value</th>
<th>Pell Grant Odds Ratio</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Males</td>
<td>2,128</td>
<td>2.129</td>
<td>0.0001</td>
<td>1.023</td>
<td>0.1644</td>
<td>0.842</td>
<td>0.0864</td>
</tr>
<tr>
<td>Black Females</td>
<td>3,170</td>
<td>2.429</td>
<td>0.0001</td>
<td>1.074</td>
<td>0.0001</td>
<td>0.831</td>
<td>0.0215</td>
</tr>
<tr>
<td>White Males</td>
<td>3,139</td>
<td>2.137</td>
<td>0.0001</td>
<td>1.007</td>
<td>0.5016</td>
<td>0.578</td>
<td>0.0001</td>
</tr>
<tr>
<td>White Females</td>
<td>3,607</td>
<td>2.020</td>
<td>0.0001</td>
<td>1.043</td>
<td>0.0001</td>
<td>0.737</td>
<td>0.0003</td>
</tr>
<tr>
<td>Comprehensive Institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Males</td>
<td>445</td>
<td>1.257</td>
<td>0.1899</td>
<td>1.063</td>
<td>0.1392</td>
<td>0.531</td>
<td>0.0046</td>
</tr>
<tr>
<td>Black Females</td>
<td>731</td>
<td>2.322</td>
<td>0.0001</td>
<td>1.021</td>
<td>0.5198</td>
<td>0.948</td>
<td>0.7829</td>
</tr>
<tr>
<td>White Males</td>
<td>2,853</td>
<td>2.194</td>
<td>0.0001</td>
<td>0.997</td>
<td>0.8084</td>
<td>0.576</td>
<td>0.0001</td>
</tr>
<tr>
<td>White Females</td>
<td>2,931</td>
<td>1.942</td>
<td>0.0001</td>
<td>1.041</td>
<td>0.0009</td>
<td>0.765</td>
<td>0.0005</td>
</tr>
<tr>
<td>Urban &amp; Regional Institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Males</td>
<td>1,683</td>
<td>2.725</td>
<td>0.0001</td>
<td>1.025</td>
<td>0.1798</td>
<td>1.039</td>
<td>0.7397</td>
</tr>
<tr>
<td>Black Females</td>
<td>2,439</td>
<td>2.481</td>
<td>0.0001</td>
<td>1.104</td>
<td>0.0001</td>
<td>0.861</td>
<td>0.1022</td>
</tr>
<tr>
<td>White Males</td>
<td>286</td>
<td>2.037</td>
<td>0.0023</td>
<td>1.06</td>
<td>0.1321</td>
<td>0.691</td>
<td>0.2023</td>
</tr>
<tr>
<td>White Females</td>
<td>676</td>
<td>2.377</td>
<td>0.0001</td>
<td>1.055</td>
<td>0.0364</td>
<td>0.651</td>
<td>0.0186</td>
</tr>
</tbody>
</table>
References


During the 1980s, the number of graduating high school seniors declined by 10 percent” (Dunn 1994). This was the so-called “baby bust” and it was the impetus for institutions of higher education to consider the design and implementation of a marketing strategy. America’s colleges and universities had been forced by the shrinking numbers of traditional students and state funds to undertake a more active recruitment process. Admissions professionals no longer were performing the role of gatekeeper; they were transformed into market analysts, enrollment specialists, and planners. “Colleges and universities are relying increasingly on marketing innovations to solve the problem of too many schools and not enough incoming students” (Hebel 1993). Now, even though the “echo boom” (children of “baby boomers”) began entering colleges and universities in 1995, institutions of higher education have not diminished marketing related activities. Traditionally, when students applied to college the recruitment process began. Today, the application process is not the first step. Institutions are often doing research first, identifying desirable students, and then aggressively persuading those students that an institution is the best choice for meeting their needs and wants. One important aspect of a marketing mindset is each school is forced to clarify its mission as an institution and to identify whom it wants to serve (Kotler and Fox 1985).

Many colleges and universities are compelled to carry out an admissions strategy plan because there are too few applicants or they would like to increase the quality of applicants (Hoffman 1997). In the past, institutions of higher education chose to focus on their name and believed they did not compete for students. Because educational institutions are in competition for resources, they must use existing assets to greatest advantage. Some of these assets include: program quality, program uniqueness, price, convenience, reputation, etc. (Kotler and Fox 1985). “In today’s competitive drive to attract the most talented students, colleges must use a variety of assets as direct advertising tools. One of the most salable and viable assets to collegiate marketing strategy is the school’s image” (Timberlake 1990). It is imperative for colleges and universities to distinguish themselves from others and to understand their strengths and weaknesses. They are learning how to capitalize on strengths and minimize weaknesses. Every educational institution holds a “position” in the minds of those who have seen or know about the institution. A market position is how an institution is perceived in the mind of the public relative to competition. It is important to position an institution correctly in the market. Research will reveal an institution’s current position, and it may then be determined if a change is necessary. Determining the desired position leads to a focus on how to create that image in the minds of consumers (students), parents, legislators, alums, and the public at large.

As the “echo boom” entered college and university classrooms in 1995, it has become apparent that this generation of students is characterized by greater diversity, racially and ethnically, and will provide a challenge to educational marketers. Effective advertising starts with clear communication objectives. These objectives stem from an institution’s prior strategy decisions on the target market, market position, and marketing mix (Kotler and Fox 1985). The “student as a consumer” concept is being addressed with greater attention than ever before, and many educational marketers are launching creative marketing campaigns in order to compete. In the following section, previous research regarding the marketing of colleges and universities will be presented. Thereafter, a content analysis of institutional viewbooks (brochures) will be provided.

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A Content Analysis of College and University Viewbooks (Brochures)

Robert E. Hite and Alisa Yearwood

In the competitive environment in which colleges and universities operate, many are utilizing marketing strategies to attract students and distinguish themselves from other institutions. One of the primary tools for student recruitment and image development is the viewbook or brochure which provides a first look at institutions. The purpose of this study was to systematically examine the content and components of such publications. The results also indicate the type of image that colleges and universities are seeking to portray. Institutions of higher education will be able to compare their publication with these findings and gain guidance for making improvements.

Abstract

In the competitive environment in which colleges and universities operate, many are utilizing marketing strategies to attract students and distinguish themselves from other institutions. One of the primary tools for student recruitment and image development is the viewbook or brochure which provides a first look at institutions. The purpose of this study was to systematically examine the content and components of such publications. The results also indicate the type of image that colleges and universities are seeking to portray. Institutions of higher education will be able to compare their publication with these findings and gain guidance for making improvements.
Previous Research

Colleges and universities have been embracing the discipline of marketing in recent years. Shena Simon College in Manchester, England hired IFF Research to carry out a marketing review in order to gain a “wider view” of the market. IFF collected brochures from sixth-form colleges throughout Britain. Through this research, IFF recommended that all publicity material should incorporate college themes. There should be a clear common vision of what a college means to people on the inside and outside of the institution. IFF urged the college to “make more of its people” in its brochures and to include case histories of students. IFF explained that colleges were “missing the trick if they don’t explain what it is like to be a student there” (Merrick 1993).

Northwestern University’s Associate Provost of University Enrollment, Rebecca Dixon, provided information on how that university is being marketed. Many schools are trying to copy the business world by marketing themselves as “brands,” with the product being education. At Northwestern, emphasis is placed on ethnic and socioeconomic diversity and the fact that many students are the first in the family to attend college. Northwestern is highly committed to giving financial aid and uses this to its advantage. Northwestern presents itself as a medium-sized school, which implies that it is big enough to provide excellent education with diverse students, faculty, and course choice, but small enough for individual attention. “Northwestern would rather meet the challenge of explaining who they are than to try define themselves by comparisons” (Schwartz 1993). Many schools throughout the U.S. have begun to look at marketing higher education in much the same way as a business would market products. There are those in academia who do not favor this customer-driven approach. Most agree that a compromise should be met between administrators, faculty, parents, and the students. A dean of a large business school stated that “our goal is to become more like Wal-Mart in satisfying our customers.” A senior university administrator declares in a meeting that “if the customers are unhappy with the menu, then that restaurant goes out of business.”

SPRUCING UP VIEWBOOKS (BROCHURES)

With increasing competition, many colleges and universities have taken a second look at the first “view” prospective students get of the campus. Viewbooks or brochures have become a “metaphor for the essence of institutions,” says Megan Tallbott, of Frankfurt Balkind Partners, an advertising-and-marketing company that helps colleges prepare these brochures. Colleges and universities have come to realize that four-color brochures, videotapes, telephones, billboards, and bumper stickers are routine recruitment tactics (Chait 1992). Schools are converting from “filling the viewbook with photographs” to symbolism and graphic design to convey feelings about institutions. “There can be no one right choice” of style for viewbooks “as long as there is an understanding of the audience,” says Bob S. Topar, owner of Topar & Associates, a college marketing company (Martino 1995). Some schools are even going so far as to hire consultants to look at the letters and brochures sent out to high school students. Some consultants assemble small groups of students, ask them for reactions to specific language and pictures a school is contemplating using, and then informing the school of what works and what does not (Sanoff and Glastris 1995).

Based on the previous research cited above, no comprehensive studies were found which examined the content of college and university viewbooks (brochures) in the United States. For the purposes of this study, a random sample of viewbooks from colleges and universities throughout the United States was analyzed in order to provide results that could be applied to the entire nation. Viewbooks are important because they often provide prospective students with a “first look” at an institution.

Methodology

RESEARCH OBJECTIVES

The objectives of the content analysis of college and university viewbooks (brochures) were the following:

1. To categorize the physical components of the viewbooks (brochures).
2. To determine the message content of different colleges and universities based on size, type of school, enrollment, location, etc.
3. To identify the type of image schools with different characteristics are seeking to portray.

In order to meet these objectives, each viewbook was analyzed based on the items shown in Table 1.
A random stratified sample of colleges and universities was chosen from each category of the U.S. News and World Report Web site. The sample included liberal arts, women’s, religiously affiliated, public, private, national, and regional schools, as shown in Table 2. Colleges and universities throughout the United States were contacted by phone and were asked to send the viewbook (brochure) that is sent out when prospective student inquiries are received. Therefore, the viewbooks analyzed were the most recent edition from each institution. The sample consisted of 91 colleges and universities representing every state. Each brochure (viewbook) was individually inspected for the components shown in Table 1. The publications analyzed were for the 1998-99 academic year.

### Results

#### Overall Ranges for Tuition, Enrollment, Number of Pages, and Pictures

The colleges and universities in this study were found to have enrollment ranging from 137 to 41,000. In-state tuition ranged from $2,200 to $32,000, and the out-of-state tuition range was $4,200 to $28,448. The average number of pages in the brochures was 37; with 4 being the least and 287 being the most. The average number of pictures was 46; with 0 being the least and 144 being the most.

#### Cover Components

Table 3 shows a breakdown of the cover components found in the brochures and viewbooks that were reviewed. Eighty-eight percent of those reviewed had pictures on the front cover, most of which depicted student life. Six percent of the covers were plain (one color, no graphics, no pictures, etc.) with nothing but the name of the school. Nineteen percent of the covers were plain, but did include pictures. Covers that were plain with a slogan and plain with a logo were 3 percent and 4 percent, respectively.

<table>
<thead>
<tr>
<th>Component</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture on Cover</td>
<td>80</td>
<td>88%</td>
</tr>
<tr>
<td>Slogan</td>
<td>49</td>
<td>54%</td>
</tr>
<tr>
<td>Picture with Slogan</td>
<td>46</td>
<td>51%</td>
</tr>
<tr>
<td>Plain with Picture</td>
<td>17</td>
<td>19%</td>
</tr>
<tr>
<td>Logo</td>
<td>15</td>
<td>16%</td>
</tr>
<tr>
<td>Colorful (4 color)</td>
<td>14</td>
<td>15%</td>
</tr>
<tr>
<td>Colorful with Picture</td>
<td>13</td>
<td>14%</td>
</tr>
<tr>
<td>Picture with Logo</td>
<td>11</td>
<td>12%</td>
</tr>
<tr>
<td>Plain (just name of school)</td>
<td>5</td>
<td>6%</td>
</tr>
<tr>
<td>Plain with Logo</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Plain with Slogan</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Colorful with Logo and Slogan</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Colorful with Slogan</td>
<td>1</td>
<td>1%</td>
</tr>
</tbody>
</table>

Colorful covers (more than one color, graphics, drawings, etc.) were found on 15 percent of the viewbooks. Fourteen percent of the covers were colorful with pictures; 2 percent were colorful with a logo and a slogan; and 1 percent was colorful with only a slogan.

Of the publications reviewed 16 percent contained logos and 54 percent contained slogans on the covers. Fifty-one percent of the covers had pictures and slogans, and 12 percent had pictures and a logo.

#### Components of Content

The results regarding the components of content are shown in Table 4. Student life pictures were found in 96 percent of the brochures. Seventy-six percent featured athletic pictures consisting of football, basketball, cheerleaders, stadiums, etc. Campus housing pictures appeared in 38 percent of the publications.

### Tables

**Table 1: Content Analysis Criteria**

<table>
<thead>
<tr>
<th>Cover</th>
<th>Components</th>
<th>Message Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture</td>
<td>Number of pages</td>
<td>Image</td>
</tr>
<tr>
<td>Plain</td>
<td>Number of pictures</td>
<td>Mission statement</td>
</tr>
<tr>
<td>Colorful</td>
<td>Student life</td>
<td>Location emphasis</td>
</tr>
<tr>
<td>Logo</td>
<td>Athletics: pictures</td>
<td>Academic programs</td>
</tr>
<tr>
<td>Slogan</td>
<td>Housing: pictures</td>
<td>Faculty</td>
</tr>
<tr>
<td></td>
<td>Student/teacher relationship: pictures</td>
<td>Student life</td>
</tr>
<tr>
<td></td>
<td>Clubs/organizations: pictures</td>
<td>Athletics</td>
</tr>
<tr>
<td></td>
<td>Faculty: pictures</td>
<td>Clubs/organizations</td>
</tr>
<tr>
<td></td>
<td>Mascot</td>
<td>Student/teacher relationship</td>
</tr>
<tr>
<td></td>
<td>Web site</td>
<td>Accreditation</td>
</tr>
<tr>
<td></td>
<td>Application insert</td>
<td>Student opinions</td>
</tr>
<tr>
<td></td>
<td>Frequent Q &amp; A</td>
<td>Ranking statement</td>
</tr>
<tr>
<td></td>
<td>Financial aid information</td>
<td>Diversity</td>
</tr>
<tr>
<td></td>
<td>Financial aid form</td>
<td>Campus setting</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td>History</td>
</tr>
<tr>
<td></td>
<td>Immunization form</td>
<td>Career connections</td>
</tr>
<tr>
<td></td>
<td>Student profile (age/gender/ATC)</td>
<td>Faculty opinions</td>
</tr>
<tr>
<td></td>
<td>Map</td>
<td>Co-op/internships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Honors programs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visit us</td>
</tr>
</tbody>
</table>

**Table 2: Types of Schools Included in the Sample**

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private/National</td>
<td>23</td>
<td>25%</td>
</tr>
<tr>
<td>Private/Regional</td>
<td>30</td>
<td>33%</td>
</tr>
<tr>
<td>Public/National</td>
<td>23</td>
<td>25%</td>
</tr>
<tr>
<td>Public/Regional</td>
<td>14</td>
<td>16%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Women’s College or University</td>
<td>6</td>
<td>7%</td>
</tr>
<tr>
<td>Liberal Arts College or University</td>
<td>21</td>
<td>23%</td>
</tr>
<tr>
<td>Religiously Affiliated</td>
<td>27</td>
<td>30%</td>
</tr>
<tr>
<td>Private Universities and/or Colleges</td>
<td>54</td>
<td>59%</td>
</tr>
<tr>
<td>Public Universities and/or Colleges</td>
<td>37</td>
<td>41%</td>
</tr>
<tr>
<td>College</td>
<td>27</td>
<td>30%</td>
</tr>
<tr>
<td>Universities</td>
<td>64</td>
<td>70%</td>
</tr>
</tbody>
</table>
Student/teacher pictures were found in 65 percent of the brochures, while club and organizational pictures appeared 9 percent of the time. Faculty pictures were seen in 34 percent of the publications, and the mascot of the school was only pictured in 9 percent of the brochures. Some 92 percent of the schools mentioned their Web site and encouraged its use for more information. A little over half (52 percent) of the publications contained application inserts, and frequent questions and answers appeared in 13 percent of the publications. Financial aid information was given 88 percent of the time, but financial aid forms were present only 10 percent of the time. Technology was either pictured or mentioned in the text of 65 percent of the brochures. Immunization forms were found in only 2 of the 91 publications reviewed. Student profiles appeared 33 percent of the time. Maps giving directions to the school and/or maps of the campus were provided in 69 percent of the publications.

**MESSAGE CONTENT**

Table 5 shows the results involving message content. Twenty-five percent of the schools included a mission statement in their brochures. Fifty-five percent of the schools emphasized their location in an attempt to persuade prospective students. A little over half (53 percent) of the schools chose to go in depth about academic programs, mentioning each school (college), majors (departments) within each, and the opportunities available. Forty-one percent of the schools chose to just list the academic programs offered. Out of the 91 brochures reviewed, 6 percent did not mention their academic programs at all. Faculty were briefly mentioned in 29 percent of the publications, emphasizing things such as highly qualified, among the elite, excellent researchers, etc. Thirty-four percent included the percentage of faculty that have advanced degrees or the highest degree attainable in their field. Interestingly, faculty were not highlighted at all in 37 percent of the publications.

Student life was discussed in 85 percent of the publications. Athletic teams and programs were mentioned 76 percent of the time, stating such things as "of the Big 10," championships won, intramurals offered, fun, etc. Clubs and organizations such as student activities council, student government, honor societies, greek life, and many other extracurricular activities were found in 81 percent of the publications. The student/teacher relationship, which mainly consisted of statements such as: very close, available and willing to provide one-on-one instruction, very caring, etc. was stressed in 54 percent of the viewbooks.

A accreditation of a school was mentioned 43 percent of the time. Student opinions on the kind of education they are receiving, student life, career connections, opportunities available, etc. appeared in 57 percent of the publications. Faculty opinions about the school, programs, students, etc. appeared in 23 percent of the publications. Ranking statements were found 42 percent of the time.

With the increasing level of cultural diversity in the United States, 60 percent of the schools were compelled to emphasize the diversity of students, faculty, and activities in their brochures. The architecture, landscape, and layout of the campus setting was mentioned in 21 percent of the publications. The university or college's history was mentioned 35 percent of the time.

Career opportunities and connections information were included in 65 percent of the brochures. Co-op and internship opportunities were mentioned 63 percent of the time. Honors programs and student research opportunities were mentioned in 42 percent and 36 percent, respectively.

Seventy-nine percent of the schools encouraged and emphasized the importance of visiting the campus to see what the school is all about and how it can meet one's needs and desires.

<table>
<thead>
<tr>
<th>Table 4: Components of Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Components</strong></td>
</tr>
<tr>
<td>Student Life Pictures</td>
</tr>
<tr>
<td>Web site</td>
</tr>
<tr>
<td>Financial Aid Information</td>
</tr>
<tr>
<td>Athletic Pictures</td>
</tr>
<tr>
<td>Map</td>
</tr>
<tr>
<td>Student/Teacher Pictures</td>
</tr>
<tr>
<td>Technology</td>
</tr>
<tr>
<td>Application Insert</td>
</tr>
<tr>
<td>Housing Pictures</td>
</tr>
<tr>
<td>Faculty Pictures</td>
</tr>
<tr>
<td>Student Profile</td>
</tr>
<tr>
<td>Frequent Q &amp; A</td>
</tr>
<tr>
<td>Financial Aid Form Insert</td>
</tr>
<tr>
<td>Clubs/Organizations Pictures</td>
</tr>
<tr>
<td>Mascot Pictures</td>
</tr>
<tr>
<td>Immunization Form Insert</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5: Message Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component</strong></td>
</tr>
<tr>
<td>Mission Statement</td>
</tr>
<tr>
<td>Location Emphasis</td>
</tr>
<tr>
<td>Academic Programs</td>
</tr>
<tr>
<td>In depth</td>
</tr>
<tr>
<td>Not Mentioned</td>
</tr>
<tr>
<td>Faculty</td>
</tr>
<tr>
<td>% With Highest Degree</td>
</tr>
<tr>
<td>Not Mentioned</td>
</tr>
<tr>
<td>Student Life</td>
</tr>
<tr>
<td>Athletics</td>
</tr>
<tr>
<td>Clubs/Organizations</td>
</tr>
<tr>
<td>Student/Teacher Relationship</td>
</tr>
<tr>
<td>Accreditation Statement</td>
</tr>
<tr>
<td>Ranking Statement</td>
</tr>
<tr>
<td>Student Opinions</td>
</tr>
<tr>
<td>Faculty Opinions</td>
</tr>
<tr>
<td>Diversity</td>
</tr>
<tr>
<td>Campus Setting</td>
</tr>
<tr>
<td>History</td>
</tr>
<tr>
<td>Career Connections</td>
</tr>
<tr>
<td>Co-op/Internship</td>
</tr>
<tr>
<td>Honors Programs</td>
</tr>
<tr>
<td>Student Research</td>
</tr>
<tr>
<td>Visit Us</td>
</tr>
</tbody>
</table>
Discussion
The results indicate that large colleges and universities portrayed the "our size means opportunity, quality, enrichment, excitement, diversity (you want it, we've got it image)." In other words, bigger does mean better. The smaller colleges and universities tended to rely on "the home away from home, community, small class size, close student/teacher relationship, comfort, quality, and large enough to provide variety, small enough to feel like home" image. Both small and large schools found it important to emphasize the quality of education which is provided. The religiously affiliated schools focused on educating the whole person, and the women's colleges and universities focused on women leading in the classroom, on the playing fields, in all activities, and in life. Virtually all of the schools reviewed tried to send the message that their institution helps students achieve more than a career; they learn as much about life as coursework, and become the best individuals they can be in many respects.

It is recommended that institutions of higher learning indicate what it is like to be a student at their institution. Eighty-five percent of the publications reviewed contained explanations and/or opinions on what student life is like at that school, while 15 percent did not discuss this important issue. Of those institutions that did provide insight into student life, the main focus was on developing lifelong friendships, the variety of extracurricular activities, fun, excitement, community, support, diversity, stimulation, and a chance to truly be oneself. In other words, the college years are some of the most important, fun, and interesting times of life.

Athletics, clubs, and organizations were mentioned in short paragraphs or listed with a few pictures. When student/teacher relationships were mentioned, the main emphasis was on closeness, willingness and time to provide individual attention, knowing students by name, and wanting to help students get the most out of their education. Many of the schools computed the student/teacher ratio to further emphasize the close relationship and allow prospective students to feel somewhat at ease knowing they would not be in huge classes and only be known as a number.

The slogans that were present on the covers of the brochures or viewbooks represented a wide range of thoughts and ideas. Some examples include the following: A Sense of Purpose; Making a Difference; The Education You Want; The Education You Need; The Education for Life; What Do You Want to Be? Consider the Possibilities; Take the First Step; Golden Opportunities; and Yesterday, Today, and Tomorrow. The slogan and pictures on the cover provide the first impression of the school. It is important that the cover gains attention and provides the desired institutional image.

Whether a brochure or viewbook is effective is determined in part by the marketing objectives of an institution. Future research is suggested which examines what students are interested in knowing about an institution and what persuades them to attend certain colleges or universities. This study lays the groundwork for what has actually been included in viewbooks. Institutions of higher education will be able to compare their publication with these findings and gain guidance for making improvements.

Limitations And Suggestions
For Future Research
The purpose of this study was to examine the content of college and university viewbooks. It should be noted that the effect of various components (or viewbooks in total) was not examined. Future research is recommended which studies the effectiveness of the various components in attracting students. It would be helpful to institutions of higher education to know what type of information attracts the most qualified students.

References
Gose, B. 1996. hoping to attract more applicants, colleges wine and dine high-school counselors. The Chronicle of Higher Education. 43(9) (October 25): A 43-A 44.
The growing number and complexity of National Collegiate Athletic Association (NCAA) regulations have led to changes in university admissions' and registrars' offices. Many institutions have expanded their staffs or reassigned job responsibilities to meet compliance standards. They recognize the need for specific expertise and focus to keep up with the rules and to implement an effective, efficient compliance system. Although student-athletes are typically a small percentage of the general student population, they continue to require increasing attention from registrars and admissions officers.

Institutional Control
The athletic compliance community has expanded beyond the athletic department, as athletic compliance has become an institutional responsibility. Admissions officers, registrars, financial aid officers, general counsel, and internal auditors are just some of the higher education professionals, who, along with athletic administrators must now learn NCAA rules, implement and manage a compliance system for the relevant issues, evaluate compliance efforts, and take responsibility for compliance results.

The expansion of the athletic compliance community can be traced to a philosophy of institutional control infused in college athletics over the past two decades. The concept is now formalized in the NCAA Constitution. Section 2.1.1 of the Constitution states, “It is the responsibility of each member institution to control its intercollegiate athletics program in compliance with the rules and regulations of the Association.”

Institutional control is a shared responsibility under presidential authority. Under these concepts, various campus constituencies are expected to play an active role in administering an effective rules-compliance program, and chief executive officers are specifically held responsible for the administration of the athletic program.

Role of Registrars and Admissions Officers
The role of registrars and admissions officers is to promote and protect the academic integrity of the institution. The NCAA Principle of Sound Academic Standards states, “Intercollegiate athletics programs shall be maintained as a vital component of the educational program, and student-athletes shall be an integral part of the student body. The admission, academic standing and academic progress of student-athletes shall be consistent with the policies and standards adopted by the institution for the student body in general” (Article 2.4, 2000-2001 NCAA Manual).

Registrars and admissions officers are institutional authorities for the admissions and academic issues mentioned above. Therefore, in the spirit of institutional control and shared responsibility, they must implement a compliance system to meet NCAA academic standards (Article 23.2.2.1 of the 2000-2001 NCAA Manual). Under these standards, an institution must demonstrate that:

- It admits only student-athletes who have a reasonable expectation of obtaining academic degrees.
- Its academic standards and policies applicable to student-athletes are consistent with those adopted for the student body in general.
- The same agencies that admit, certify the academic standing of, and evaluate general students also perform these duties for student-athletes.

More specifically, admissions officers must compare the academic profile of entering student-athletes with other student-athlete subgroups and with the general student population and account for any discrepancies. They must also compare the

Commentary
by Deborah A. Katz, J.D., Ph.D.
graduation rates of student-athletes with other student-athlete subgroups and with the general student population and account for any discrepancies. Registrars must verify that student-athletes meet initial eligibility, continuing eligibility, general eligibility, and transfer eligibility requirements that apply based on the student-athletes’ status.

The Importance of Registrars’ and Admissions Officers’ Roles
Institutions with rules violations are subject to harsh penalties. The actual costs of noncompliance depend on the severity of the violation. For schools with major violations, penalties come in a variety of forms, including television bans, loss of scholarships, student-athlete ineligibility, lost revenue, competitive losses, and negative publicity. Obviously, student-athletes and university administrators feel the effects of these penalties. Loss of playing time and media exposure can hurt a student-athlete’s professional sports opportunities. Personnel may find their jobs in jeopardy.

Athletic compliance may comprise a small part of an admissions officer’s and a registrar’s job responsibilities, but it is a highly visible part of their jobs carrying costly penalties for noncompliance.

College Athletics Reform
College athletics enjoy tremendous popularity and commercial success. However, these achievements come with a price, as institutions compete for talented athletes, fan loyalty, corporate support, and media attention. The lure of economic opportunities and rewards has enticed many to bend and break rules in an effort to create winning athletic teams. This bending and breaking of the rules is not being tolerated in today’s age of accountability.

Growing commercialism and scandals have prompted public scrutiny, demand for reform, external review and intervention, and IRS investigations of universities’ tax-exempt status. The athletic and academic communities are left with questions about the educational benefit of athletics, the academic and fiscal integrity of institutions, and the equity of opportunities for all students.

The NCAA and its member institutions are searching for a balance between the growing commercialism and educational mission of colleges and universities. They have responded to the demands for reform with legislation and a restructured governing body to address reform issues. Recent legislative requirements include Division I athletics certification, compliance program review, and rules-compliance education. The restructuring has promoted greater autonomy for each division and more control by the chief executive officers of the member schools.

Athletics Certification and Compliance
Athletics certification and compliance evaluation are the specific means by which Division I institutions are held accountable for rules compliance. Every ten years, each Division I institution participates in the certification program, which includes a campus-wide self-study and an external review by a group of peers. An interim report must be filed with the NCAA halfway through the cycle. The purpose of the certification process is to examine the fundamental concepts of institutional control and integrity by focusing on four general areas:

- Governance and commitment to rules compliance
- Academic integrity
- Fiscal integrity
- Equity, welfare, and sportsmanship

It is important to note that under the governance and commitment to rules compliance principle, all Division I institutions are required to have their athletic compliance program evaluated by an authority outside the athletic department at least once every three years.

Risk Management
Due to the high stakes of athletic compliance, it is important to understand your role as a member of your institution’s athletic compliance team and to be prepared. The NCAA asks its members to “Know the C.O.D.E.” in order to strengthen their compliance programs. The C.O.D.E. encompasses four key elements:

Communication: Communicate compliance objectives, responsibilities, policies, and procedures.
Organization: Structure to promote institutional control, shared responsibility, and presidential authority.
Documentation: Document compliance objectives, responsibilities, policies, and procedures.
Evaluation: Evaluate staff and system on an appropriate and periodic basis.

While no compliance program can completely eliminate rules violations, it can provide organizational control to prevent or detect infractions and to respond to infractions when they do occur. Use the Risk Assessment Checklist to determine your department’s compliance health. (See Figure 2.)
Additional Resources
For registrars and admissions officers looking for resources to aid them in their athletic compliance roles, several reliable resources are available. In addition to helping you keep up with the latest compliance news and legislative issues, these resources can assist you in promoting communication amongst your colleagues and in providing training and materials regarding NCAA rules and system development:

- Athletic Compliance Central (www.brickerconsulting.com and click on College Athletics Division) (See Figure 1.)
- NCAA Web site (www.ncaa.org)
- AACRAO Web site (www.aacrao.org)
- Your athletic conference office (complete listing under “Hot Links” at Athletic Compliance Central)
- Your school’s athletic program
- Outside consultant

Conclusion
The push for commercial success in university athletics has strengthened. In turn, the risks for public scrutiny and noncompliance have increased. The integrity of athletics programs has become an institutional issue with responsibilities and penalties attached. From athletic directors and institutional leaders to admissions officers and registrars, everyone must play their part in helping their institution maintain compliance. Learning the NCAA rules and understanding your role in this process will benefit your institution, your students, and your athletic program.

### FIGURE 2: RISK ASSESSMENT CHECKLIST

A basic athletic rules-compliance program evaluation tool for registrars and admissions officers

**Communication:** How are compliance objectives, responsibilities, policies and procedures related to your department communicated internally and externally?

- Is a commitment to rules compliance communicated?
- Are key compliance tasks and responsibilities communicated?
- Does your department have a liaison designated to communicate with other campus departments?
- Do you have a comprehensive rules-compliance program that covers your compliance issue(s) with appropriate campus constituencies?

**Organization:** Who participates in the compliance process and what are their roles?

- Does a senior level administrator take a leadership role in establishing the department’s commitment to compliance?
- Does your department work with the athletic compliance officer?
- Does your department participate in related compliance issues and do you have final authority?
- Are your department’s compliance responsibilities identified and assigned to an appropriate individual(s)?
- Do you have a formal process to internally report alleged violations, to investigate them, and to notify the NCAA and conference office of confirmed violations?

**Documentation:** How are the compliance program policies and procedures documented?

- Are compliance policies and procedures documented clearly and available?
- Do you maintain supporting documentation to verify the application and effectiveness of your policies and procedures?
- Are compliance responsibilities documented in job descriptions, letters of appointment, and contracts?
- Is your commitment to rules compliance documented and distributed internally and externally to appropriate groups?

**Evaluation:** How is the compliance program evaluated?

- Do senior-level administrators approve policies and procedures in critical and sensitive compliance areas?
- Are staff members evaluated periodically on their compliance responsibilities?
- Are mechanisms in place to provide continuing and regular administrative oversight in key compliance areas?
- Is the compliance program subject to a review at least every three years by an authority outside the athletic department?
To respond to a question from the University of Connecticut’s faculty athletics representative about “priority registration” for athletes, I sent a brief survey to the registrars of Big East Conference institutions. The summary of responses I provided the faculty member helped him respond to an assertion that Connecticut and Boston College are the only Big East schools that do not allow all athletes to register before other students. He reported that it led to quite a productive discussion with the student athletes and that their concerns have now shifted to issues relating to parking.

No priority registration for athletes:
- Boston College
- Saint John’s University
- Temple University
- University of Pittsburgh
- Villanova University

Some of the registrars from these institutions mention that they regularly hear that their institution is “the only Big East school that does not have priority registration for athletes.”

Provides priority registration for athletes:
- Seton Hall University—Athletes all register during the senior registration period.
- Syracuse University—For semesters in which they have competition or scheduled practice, athletes register after seniors, along with honors students, disabled students, and others.

- University of Connecticut—70 athletes, identified by the director of the Counseling Program for Intercollegiate Athletes, are allowed to register during the earliest registration period. Most semesters only 50 or so take advantage of this privilege. Other groups with priority registration are University Scholars (15 or so), some students with disabilities (identified by the Director of the Office for Students with Disabilities), and some students in a mentoring program for freshmen. Priority registration works differently for the last group, mentored freshmen students: they register with the first group of students in their class, rather than with the first group of seniors.

- University of Miami—A number of groups get priority registration: honors students, resident assistants, admissions ambassadors, athletes, band members, students identified by the deans, etc. Honors students and admissions ambassadors register before the other groups.

- University of Notre Dame—Athletes register in the first two days of the three registration days assigned to their class.

- Virginia Tech—Registration is a two step process. Course requests are processed through a batch registration process that does have priorities built in: disabled students, honors, athletes, seniors, juniors, sophomores, freshmen—in that order. After that process, students are allowed an opportunity to go through drop/add to change their schedules. There are no priorities in this step. About 67 percent of the course requests submitted are successfully met…so there is significant activity during the drop/add periods. The registration process allows all students to utilize “free time” requests to block times in their schedules where no courses can be placed.

No response was received from Georgetown University, Providence College, Rutgers University, or West Virginia University.

Jeff von Munkwitz-Smith has been University Registrar at the University of Connecticut since 1996. From 1983-1996, von Munkwitz-Smith served as Associate Registrar at the University of Minnesota. He earned his Ph.D. in South Asian Languages from the University of Minnesota in 1995, and currently serves as AACRAO’s EDUCAUSE/CUMREC Interassociation Representative.
Why Are Foreign Student Records So Different?
A Beginner’s Guide to Foreign Educational Documents

Often persons new to foreign credential evaluation are initially bewildered by the varied formats of the foreign records they confront. If they have previously evaluated U.S. transcripts, they first ask themselves how they can possibly evaluate records so different than their U.S. counterpart. One might think that previous experience in evaluating U.S. transcripts would be useful in learning how to evaluate foreign records, but previous experience in evaluating U.S. transcripts might serve as a hindrance in dealing with foreign records.

There are several features of U.S. transcripts that might not be found with foreign educational credentials:

Grades and Grading Practices
The interpretation of foreign grades and grading practices is perhaps the single most difficult (and at times the most subjective) aspect of what we do when reviewing foreign educational records. Needless to say, not all foreign educational systems utilize a letter grade system similar to that used by most U.S. schools. Even when you see letter grades used, it is likely that the foreign system is not at all like the U.S. system. To cite just a few examples:

- The use of percentage marks is seldom similar to the percentage grades used in the U.S. In India, it is common to see percentage marks as low as 40 percent (or even as low as 33 percent) as a passing grade. Obviously, in the U.S. systems a 40 percent would not be close to passing. Yet in India, a 40 percent would be considered a perfectly acceptable passing mark, comparable with a U.S. letter grade of C.

- The traditional Indonesian grade scale of 1-10 (10 highest, with 6 as the lowest passing grade) reflects some unusual practices generally not found in the U.S. It is said that grades of 10 are reserved for God, 9 for the Saints, 8 is usually given to one student once a year, and passing grades of 6 and 7 are the only remaining marks available to award most students. The interpretation of Indonesian grades takes on whole new meanings. Without knowing Indonesian grading practices, an applicant’s average of 6.7 might initially appear to be average. However, once realizing grades of 9 and 10 are never awarded, an average of 6.7 suddenly appears to be acceptable.

- The use of letter grades is often quite different from common usage in the U.S. Where in the U.S. letter grades of A, B, and C are passing, in the United Kingdom on the General Certificate of Education Advanced (“A” level) Examinations, grades of A, B, C, D, and E are completely satisfactory passing marks with E being comparable with a U.S. mark of C. Most U.S. schools would never award transfer credit or advanced standing for previous study with a grade of E, but an E on an “Advanced” level examination is worthy of consideration for transfer credit or advanced standing.

- In the U.S. the “lowest passing grade” in a course is usually a D. It is perhaps better to recognize our D as a conditional mark, rather than the lowest passing grade. In most foreign education systems the “lowest passing grade” should not be compared with our D, but rather the U.S. grade of C. Our D is a conditional grade: D in a sequential course means the next course in that series cannot be taken; often a course in the major in which a D is received will have to be repeated for a grade of C or better; and no one can graduate with a D average. Before comparing any foreign grade with our D, make sure there are similar conditions inherent with that foreign grading system.

“Upper Level/Lower Level” Coursework
Within the world educational community, the typical U.S. undergraduate degree is unique in its structure. Almost half of the U.S. undergraduate degree requirements fall under the definition of “general education,” or “liberal arts education.” Our undergraduate degree generally requires the completion of a minimum of 120 semester credit hours usually completed over a period of four years. These attributes allow U.S. institutions to “divide” the U.S. bachelor’s degree into two approximately equal halves.

Foreign systems do not follow our structure for their first degrees. Most do not have “general education” as a significant component of their structure. A student in most other educational systems would be taking mostly their “major” subjects for their degree. Foreign students enrolled in professional programs such as
law or medicine are enrolled in those programs from their first day at university. They do not have to complete an undergraduate degree prior to enrolling in a professional school for law or medicine.

This means that foreign degrees are not easily divided into "lower level/upper level" courses. It is possible that some courses taken as part of a foreign first degree program might compare with our graduate level courses. Some courses taken early in their degree program might compare with our "upper level" courses. It is even possible that a course taken late in the degree program could represent our "lower level" courses.

It is unlikely that most foreign credential evaluators can make determinations of "upper level" or "lower level" courses without review by your faculty. Usually it will take a review by faculty in the subject field to determine if a particular course from outside the U.S. compares with our lower level or upper level course. Such faculty review will almost always require the foreign student to present copies of course syllabi, or descriptions, which are usually available. When syllabi or descriptions are not available, a faculty member might require an applicant to outline the topics covered in a course.

Credit Hours

Most U.S. college or university transcripts express the time spent in specific courses in terms of credit hours, and usually we define an undergraduate semester credit hour as one credit hour for every 15 hours of classroom contact. (Though we also define different ratios for practical and laboratory experience.) Unfortunately for evaluators of foreign credentials, most foreign records do not express time spent in "credit hours" and when some do it probably does not represent the same as it does in U.S. schools. Some foreign records provide details of time spent (contact hours) while others provide almost no information other than course title (some don't even provide a mark or grade for individual courses).

An excellent premise to keep in mind is, "One year equals one year." It might seem obvious, but in an overwhelming number of cases U.S. institutions would not want to award more credit in transfer from overseas study than could typically be earned at the U.S. institution.

In cases where a definition of a credit hour on a foreign record appears the same as commonly used by U.S. institutions, the reviewer may not want to accept the number of credits as posted on the foreign record. Sometimes a country's definition of "credit hour" appears to be the same as that of the U.S., but students routinely earn 21 to 25 (or more) "credits" each and every term. In such circumstances the reviewer may still not want to award more than 30 undergraduate semester credit hours for one year of full-time study.

Accreditation

One of the basic precepts of any process to award transfer credits, or to recognize degrees earned, is to certify that previous study was completed at "accredited" institutions. Such "accreditation" usually means that the institution is regionally or nationally accredited, and sometimes that a particular discipline is programatically or professionally accredited.

T he question the international education service staff of AACRAO probably hears more than any other is, "Is this foreign institution accredited?" A accreditation is very much an American phenomenon, necessary because we do not have a Ministry of Education. In most countries, the state or federal Ministry of Education creates the university, supervises the university, and empowers that university to award degrees. Thus, with foreign institutions the question becomes, "Is this institution recognized by the Ministry of Education?" (or some other similar, appropriate Ministry, such as the Ministry of Health for some health-related programs, or the Ministry of Transportation, or some engineering-related programs).

If an applicant has completed his or her previous education at a foreign institution that is not recognized by the appropriate Ministry, the reviewer probably will not want to treat that applicant as any applicant from a non-accredited U.S. institution.

"Official" Records

Most U.S. institutions require applicants from U.S. institutions to provide official copies of their transcripts for admissions consideration. "Official" is usually defined as mailed directly from the institution attended to the institution to which the student has applied, without the records being in the possession of the student.

U.S. institutions need to be careful in their international applicant instructions with regard to the issue of official records. "Official" records might have different meanings for different cultures. From India, and other countries, "official" records are generally regarded as the original set of records issued only once, and are issued only to the student. An applicant from India will be justifiably reluctant to send you their "official" records—and U.S. institutions really don't want to be receiving "official" Indian records considering the liability incurred in returning such records to the applicants. It is better to ask your applicants from India to provide you with "attested" copies of their records. Such "attested" copies should be prepared and verified by the Indian universities' Records (Registrar's) Office. Evaluators of foreign credentials need to use the available resources and training to learn what to ask for, what they can expect to receive, and how to evaluate the records.

Conclusion

The evaluation of foreign educational credentials for admission to U.S. institutions is clearly more time consuming and difficult than for U.S. records. Yet the job is not insurmountable. There are resources, and training available—much is available through AACRAO, and from NAFSA: A Association of International Educators—but the process does require funding to purchase the necessary publications and/or to obtain the necessary training, and especially the time to learn the profession. Those in the profession will tell you that the evaluation of foreign educational credentials can be a rewarding and interesting career.

If you have other questions about reviewing foreign educational credentials, or need training in how to evaluate records from outside the U.S. educational system, please contact AACRAO's Office of International Education Services at (202) 296-3359, or e-mail oies@aacrao.org.
Managing Technological Change
By A. W. (Tony) Bakes
Jossey-Bass 2000
$34.95
235 pages

Technology is a word very much a part of our vocabulary and one applied to a variety of situations. Managing Technological Change is a "must read" for anyone grappling with the effects of the Internet and Web-based instruction. This book deals primarily with the capability of adapting technology to the classroom. But as the author observes, introducing technology into an organization is more than a tactical development; it usually foretells changes in the structure of that entity and the manner in which its work is accomplished.

One of the virtues of this book lies in the experience of its author, the director of Distance Education and Technology in the Division of Continuing Studies at the University of British Columbia. He is also a founding member of the British Open University, often cited as the model for distance education delivery in our time. He brings to his task a practical, results-oriented approach that is tailored to the culture that characterizes modern higher education. His prose is relatively free of jargon and obscure terms that add little to the message. On occasion he does use terms like "Fordist" to describe an industrial, assembly line model and "pre-Wattist" to liken a collegiate calendar to the pace of an early agrarian society. But these examples are rare.

The advantages of using project and resource management are explained and contrasted with what the author terms the "Lone Ranger" model in which reliance is placed on a single individual, and obscure terms that add little to the message. On occasion he does use terms like "Fordist" to describe an industrial, assembly line model and "pre-Wattist" to liken a collegiate calendar to the pace of an early agrarian society. But these examples are rare.

The task of overcoming faculty inhibitions and reluctance to use technology to enhance the quality of one's teaching is acknowledged. Approaches to making this easier to accomplish are discussed. Institutions like Virginia Tech are cited, for example, for linking the introduction of a modern desktop computer to the participation of faculty in a development program designed to help overcome resistance to change. Issues involving intellectual property, copyright, and revenue generation are recognized and each given brief treatment.

From the standpoint of this reviewer, perhaps the most useful chapter deals with the calculation of costs associated with the use of technology to further instruction and how those costs are melded into a tuition charge. The reader is taken step-by-step through an analysis of the elements to be considered in completing a cost study. In so doing the process for setting a tuition rate for courses enhanced by technology is demystified. The model that results appears to be useful, even if modified to accommodate institutional specific needs or quirks.

The use of inter-institutional collaboration as a means of spreading the use of scarce knowledge and resources is discussed. It is recognized that partnerships, strategic alliances, and consortia all have their place in the university of the future. The author examines critically present-day examples like the Western Governors' University, the Southern Regional Electronic Campus, and the California Virtual University. A model structure is outlined that recognizes the bureaucratic and administrative hurdles inherent in any effort to give form and substance to an ambitious vision.

The author clearly advocates the use of technology in the teaching and learning processes. But he is also realistic in terms of the practicality of fusing advanced technology and traditional methods of teaching. He is careful to point out the Faustian aspects of relying too heavily on costly technology at the expense of other programs. But he believes the investment is critical because he sees an "increasing differentiation between institutions, even institutions in the same sector, based on their use of technology for teaching and learning." To ignore or severely limit the use of technology is a route to institutional decline in his view.

From the parochial view of a registrar, this reviewer would like to have seen included a chapter devoted to academic support for distance education of the kind found in a typical registrar's office. There is some brief mention of this in relation to the University of British Columbia but little detail is provided. Reference is made to the "one stop shopping" concept presently in vogue on many campuses. But one wonders: What should be the extent of the coordination between those responsible for the planning of innovations in course delivery and the registrar, the provider of a number of essential academic services? Are there aspects of a partnership that need to be recognized and nurtured, especially in the formative stages of distance education development? Moreover, in a rendering of those services, are some considered to be of greater importance than others in the support of education at a distance? Unfortunately, these questions are not fully discussed in this work. But given the author's breadth and depth of experience and the clarity with which he addresses a number of topics, this reviewer would have welcomed a more comprehensive treatment of these issues.

Included is a comprehensive bibliography with liberal use of British and Canadian as well as American titles. In addition, sprinkled throughout the text are references to Web sites which a conscientious reader can consult. They serve to enrich the printed material or, in some instances, illustrate opposing points of view regarding a subject under discussion. The author is a welcome feature and particularly apropos given the subject matter. For those who prefer to dip into a text at significant points; there is an excellent executive summary that can assist a reader, caught in a time crunch, to target attention to a particular area of interest.

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