



# C&U

## COLLEGE and UNIVERSITY

*Educating the Modern Higher Education Administration Professional*

### The Evolving Office of the Registrar

#### **Modeling “Throughput Capacity:”**

Using Computational Thinking to Envision More Graduates without Investing More Resources

#### **Determining the Root Causes of Concerns Associated with the Performance Appraisal Process**

#### **College Access Marketing**

# forum

## CAMPUS VIEWPOINT

When Technology Is a Rockin', Opportunity Starts a Knockin'

Mobile Technology and the Unsettled Ocean of Student Services

## COMMENTARY

An Invisible Minority:  
Mexican English-Language Learners  
Are We Ready for the Approaching Demographic Tsunami?

## BOOK REVIEWS

Higher Education?: How Colleges Are Wasting Our Money and Failing Our Kids—and What We Can Do About It



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# THE EVOL

A healthy and productive registrar's office will continue to evolve as institutional needs, conditions, and expectations change. Several recognized leaders in the field were presented with the question, "What direction should that evolution take?" Those leaders' observations and comments have common themes.

In 1995, David Lanier, then university registrar at the University of North Carolina at Chapel Hill, wrote:

*As a result of technology, the registration and records functions are becoming more automated and the registrar is becoming a data manager. Data management is a wonderful responsibility for the registrar to have in the Information Age. However, there is danger lurking in the lure of technology. Technology can turn the registrar into an invisible entity on campus. As faculty and students gain more direct access to data, there is less need to come see the registrar. Is the registrar a necessary position? Will the registrar disappear? (Lanier 1995)*

In 1995 and in his ten-year retrospective paper, Lanier assures registrars that the profession is secure as long as registrars evolve to meet the ever-changing needs of their college or university and of the higher education community. He suggests three important functions for the registrar:

- “[B]e a leader in the development of campus systems that tie the academic and administrative functions together” (Lanier 1995). He notes that academic policy is enforced and data integrity is maintained through controls in these systems.
- “[V]alidate the data that are flowing into and out of the system” (Lanier 1995).

# Vision

## OFFICE *of the* REGISTRAR

■ “[B]e a resource to all the system users of student information” (Lanier 1995). The registrar is in a pivotal position to assist campus users in understanding and using the information that is available.

A healthy registrar’s office will continue to evolve as it considers student, faculty, and institutional needs; staff talents and expectations; technological opportunities; economic realities; space issues; work environments; and where the strategic plan is taking the institution in support of the mission.

At the University of Notre Dame, we wondered if we were evolving so as to best fit and support the institution. We believed our staff were professional, doing good work, and moving forward, but we wondered if we were positioning ourselves well for the foreseeable future. Given that our office is less visible to students and faculty now

that most of our services are accessible online, we wondered how best to “position” the office so that it continues to be recognized as a significant participant in the work of the university. How should we present ourselves to the campus so as to promote significant partnering? Are we organized internally in a way to provide the best support and service to the Notre Dame community? What skills should we be developing in our staff? What tools should we be providing them? How do we manage communications when everyone in the electronic environment is a communicator? Are we missing something?

We decided to seek input from selected colleagues around the country who are registrars or enrollment managers and who have a reputation for innovative thought as well as long-standing and well-known competency in the administration of their offices and staffs. Twelve individuals accepted our invitation to participate. We chose to ask

each participant a few hypothetical questions given the premise of no space or budget constraints. We e-mailed the following questions, arranged and conducted telephone interviews, and recorded our colleagues' responses.

*Suppose that you were able to completely start over...with a blank slate and all the funds and space you needed ...with no obstacles....*

- *What would the staff/services/responsibilities that you would develop look like?*
- *When staffing this imaginary office or the new areas you foresee, what requirements would you place upon their hiring?*
- *What talents do you need in staff who fill the positions?*

Those participating worked at medium and large public or private institutions, and all had worked in higher education for fifteen or more years. By the time of our telephone interviews, all of the participants had considered the questions thoughtfully; many spoke enthusiastically about the ideal staff. Without exception, these individuals had a mental picture of the "tool box" ideal registrar employees should possess and knew how the staff would work best within the institution.

The responses that follow are grouped according to the desired qualifications of the ideal staff, how the staff would be organized, and how the office would work best.

## STAFF QUALIFICATIONS

Staff employed by the ideal registrar's office:

- would have at least a bachelor's degree and strong interpersonal, communications, and technical skills;
- would interact well with students and faculty;
- would be skilled in "data mining," and thus would possess excellent "query" and "reporting skills" and would "provide and analyze data;"
- would be able to develop and run reports and, more important, would be able to manage reporting systems that would allow departments and colleges to query data themselves;
- would be "solid technologists and good communicators"—that is, comfortable with technology because technology pervades the work of the registrar's office;
- would engage in institution-wide planning and strategic thinking;

- would be proficient in "document imaging" and "workflow" technologies; and
- could include recent graduates.

Participants did not focus directly on the "student service" orientation of ideal staff. Nevertheless, effective service to students and faculty was an underlying objective in discussion of the need for staff to possess strong professional, technical, and analytical skills.

## ORGANIZATION

With regard to organization, the ideal registrar's office:

- would not assign titles such as degree analyst and articulation expert but instead would designate employees as Enrollment Management Professional Level 1, 2, or 3 to allow for a melding rather than a separation of duties;
- would cross-train staff and assign broadly defined multi-functional responsibilities rather than have staff function in "silos" with narrowly defined responsibilities;
- would cross-train staff not only within the registrar's office but with the offices of financial aid, admissions, student affairs, etc.;
- would promote staff understanding of its responsibility to "manage student data" in such a way as to ensure "data integrity" and "data access;"
- would promote staff understanding of the importance of organizing around data security and access systems and would work cross-functionally with other offices on "data security teams;"
- would take full advantage of "outsourcing" certain services and operations, such as enrollment verifications, transcript ordering and mailing, and address changes, thereby freeing up FTEs for essential analysis and programming work;
- would be organized around "larger concepts/principles" (e.g., retention, graduation services, client services, alumni services) rather than "functions" (e.g., transcript, registration, etc.);
- would integrate technology experts into its functional staff rather than perpetuate two separate staffs; and

- would contain a “forecasting and planning area” in which staff could strategize in response to students’ unmet academic needs.

## OPERATIONS

With regard to operations, the ideal registrar’s office:

- would form partnerships with other offices and units around broad concepts and principles rather than specific operations;
- would select staff for projects according to their fit, abilities, and style rather than according to organizational responsibilities;
- would support and operate in the area of curriculum management;
- would support “data-driven decision making” and supply appropriate data and information for that purpose;
- would manage processes and deliver information effectively;
- would provide full-featured transfer articulation services;
- would be “proactive” not “reactive;”
- would move its staff from being mere “processors” to being “analysts;”
- would be based on a “system and data analysis mode,” with employees who “think beyond the Registrar’s Office” to the institution’s constituency, rather than being based on a “transactional mode;”
- would be “externally focused” with an “outreach component” that stresses the importance of meeting academic administrators and faculty in their offices for training and discussion around services and needs;
- would ensure that its staff support academic advising and are active in organizations such as the National Academic Advising Association;
- would ensure that its staff are open to the delivery of instruction in new ways and that they find ways to efficiently support faculty who teach outside of the standard term structure;
- would ensure that its staff reach out to faculty by serving with them on committees and on faculty initiatives;
- would ensure that its staff are respected by the faculty and that they support and understand the academic mission;

- would ensure that faculty view registrar’s office staff as colleagues;
- would be open to cultural changes in the institution;
- would ensure that the nature of the office is in concert with the needs of the institution; and
- would anticipate future needs so that work could begin immediately to meet those needs.

Participants’ responses seem to fall generally into four major subdivisions:

- Office organization and job structuring
- Support of the academic units, the faculty, and the academic mission
- Analyst(s), data mining, and data management
- Technologist(s) and technology

In an effort to improve the Office of the University Registrar at the University of Notre Dame, we reviewed the input, considered the advantages, and made changes where appropriate.

## OFFICE ORGANIZATION AND JOB STRUCTURING

### Ideas

Organize teams around more broadly defined “concepts” rather than “functions.” Structure titles and position levels so they are broad rather than specific, *e.g.*, Records Management II rather than Transcript Operations II. Integrate technologists and analysts into the functional staff.

### Advantages

Using more broadly defined terms helps employees understand the full range of their responsibilities and breaks down “functional silos.” It also enables other institutional staff to identify opportunities to “partner” with groups/teams/individuals in the registrar’s office; such opportunities are less likely to be identified when staff responsibilities are more narrowly defined.

### Applications

We decided to implement a team structure based on broader team and position titles: (1) Technology and Training Team, (2) Academic Services Team, (3) Degree Services and Informational Support Team, and (4) Academic Records Team.

## **SUPPORT OF THE ACADEMIC UNITS, THE FACULTY, AND THE ACADEMIC MISSION**

### **Ideas**

Participants often spoke of the importance of aligning the office of the registrar with the faculty, the academic units, and the academic mission of the institution. To this end, they suggested involvement with and support of academic advising, classroom redesign, lecture capture methods, and curriculum work. With regard to academic policy, the registrar should be the go-to administrator when the faculty governance requires statistics/advice/explanations.

### **Advantages**

As the work of the registrar's office becomes increasingly automated, we have less opportunity for direct, in-office contact with faculty. By supporting teaching in the classroom and by being active on curriculum and academic governance committees, we ensure that the registrar's of-

fice remains pertinent and connected to the basic work of the institution: teaching and learning.

### **Applications**

At Notre Dame, the registrar's office assumed responsibility for managing the Summer Session; this includes marketing the session, hiring faculty, and approving courses. In support of the provost's initiative on academic advising, the registrar's office now provides structure and advising tools in degree auditing, monitors the assignment of advisors, and coordinates undergraduate curriculum issues through a new position, that of curriculum manager. The curriculum manager oversees the approval process for all required courses and supports effective academic advising in the colleges and departments. Our work on committees that focus on teaching and learning initiatives continues through active involvement with technologists and faculty in support of classroom innovations and upgrades.



**There's always an  
opportunity  
for Change...**

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## **ANALYST(S), DATA MINING, AND DATA MANAGEMENT**

As registrars, we manage student data. But what role are we playing in examining and interpreting those data for purposes of decision making?

### **Ideas**

Our contact group most often cited “analyst” as a desired skill/position for staff in the ideal registrar’s office. This individual is involved in the process of gathering, modeling, and transforming data with the goal of highlighting useful information, suggesting conclusions, and supporting decision-making. A good first step toward employing analysts is to increase the number of individuals on your staff who have data querying skills (SQL) and who thus are able to report from the data. Challenge your staff to think in a multi-dimensional way as data are processed—that is, have them step back and consider how the data might inform a bigger picture.

### **Advantages**

Most institutional decisions are data driven. Staff who understand the data elements and the relationships among them help maintain the integrity of student data. The institution needs experts who know the data and who interpret them accurately. As data entry and processing have become more automated, we now must turn our attention to helping the institution analyze student data.

### **Applied**

At Notre Dame, we have provided SQL training opportunities for targeted staff, and we have hired individuals who can support web-based reporting. We expect those who are leading processes to run reports to verify the data and to ensure that the processes are working properly. We collaborate with the Institutional Research Office to discuss our reporting projects and to identify reporting opportunities.

## **TECHNOLOGISTS**

The other skill/position most often cited by our “experts” was “technologists.” This includes programmers, project managers, Web developers, workflow specialists, imaging specialists, and analysts.

### **Ideas**

Consider hiring individuals—even for “non-technical” positions—who have technical skills and/or logical reporting language skills. Seek technical support from individuals who understand the functional processes. This could be accomplished either through technologists who are integrated into the registrar’s staff or through technologists who are part of a dedicated technical support team for the office or division.

### **Advantages**

Technologists who are integrated into the staff with functional jobs (*i.e.*, “funky techs”) are familiar with the office’s procedures and processes and hence would likely see opportunities for improvement both technologically and procedurally. However, housing “pure” technologists with the staff or dedicating them to the support of academic/student services is also an effective model.

### **Applications**

For an individual to be employed by the Notre Dame registrar’s office, technological and reporting skills are essential. More than a third of our staff would identify themselves as “funky techs” because of their functional and technical skills. Cross-training activities in reporting and project management are ongoing.

Seeking input from proven leaders in our profession helped us improve the organizational structure of the registrar’s office at the University of Notre Dame. Our conversations both affirmed and informed our current strategy: Evolving services and staff skill sets to meet the changing needs of the institution will ensure that the registrar’s operation remains healthy and engaged.

## **REFERENCES**

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Lanier, D.C. 2006. The mission of the registrar today: A ten-year retrospective. *College and University*. 81(2): 15–19.

## **About the Author**

**HAROLD L. PACE, PH.D.,** is University Registrar at the University of Notre Dame, where he has worked for nineteen years. Previously he served on the staffs at Louisiana Tech University, Texas A&M University, and Lamar University.

# MODELING

# “Throughput Capacity”

*Using Computational Thinking to Envision More  
Graduates without Investing More Resources*

THIS ARTICLE PRESENTS THE DEVELOPMENT, TESTING, AND APPLICATION OF AN ENROLLMENT MODEL. THE MODEL INCORPORATES INCOMING FRESHMAN ENROLLMENT CLASS SIZE AND HISTORICAL PERSISTENCE, TRANSFER, AND GRADUATION RATES TO PREDICT A SIX-YEAR ENROLLMENT WINDOW AND ASSOCIATED ANNUAL GRADUATE PRODUCTION. THE MODEL PREDICTS SIX-YEAR ENROLLMENT TO WITHIN 0.67 PERCENT AND GRADUATION TO WITHIN 0.1 PERCENT. THE MODEL IS APPLIED WITHIN THE CONTEXT OF THE UNIVERSITY OF WISCONSIN SYSTEM'S GROWTH AGENDA STRATEGIC PLANNING INITIATIVE.



The University of Wisconsin System (uws) recently announced its "Growth Agenda" (University of Wisconsin System 2007), a multi-year, UW System-wide initiative to increase the number of Wisconsin residents with postsecondary (associate and bachelor's) degrees. The Growth Agenda asks each uw institution to identify ways in which it can increase its production of graduates with little or no influx of additional State revenue.

The response of several of our sister institutions was direct and immediate: use existing excess capacity within the physical campus to increase enrollment and thereby increase the number of graduates. Our campus did not have this option. The University of Wisconsin–Eau Claire (UW–Eau Claire) is primarily residential, with an undergraduate enrollment of approximately 9,700 students. Often termed the most beautiful in Wisconsin, the campus is nestled between wooded bluffs and the shores of the Chippewa River. These geographical constraints make expansion of the physical campus cost prohibitive. Further, the existing campus footprint is densely populated, its physical plant having been built largely during a period of significant institutional growth in the early 1970s. Remodeling existing buildings to support increased enrollment is not a cost-effective option. Moreover, our existing classrooms are already overfilled with occupancy and utilization rates well above those recommended by institutional planners.

Of course, one possible response to the Growth Agenda is to refuse to contribute. However, such a response not only would be poorly received but also would be financially irresponsible. As one might predict, the UWS leadership fully expects to adjust resource allocations so as to align with contributions to the Growth Agenda. Failure to produce more graduates would mean yet another base budget decrease, essentially forcing the campus to increase enrollment (despite lack of capacity to do so) just to offset the loss in revenue.

With a mandate to graduate more students and literally no means for physical growth, the familiar problem emerged: accomplish more without consuming more resources. Two options presented themselves as viable: grow through increased online enrollment and grow through increased throughput. The first option--increased online enrollment--presumes increased instructional capacity. While this is certainly possible through short-term and distant hires, a number of internal and external forces make this option difficult. The second option--increased throughput--seemed the only one that did not present seemingly insurmountable barriers.

#### **GRADUATION RATES AND THROUGHPUT CAPACITY**

As Figure 1 (on page 10) shows, UW–Eau Claire's five- and six-year graduation rates are competitive: they are greater than those of Carnegie (Midwest) institutions and the UW System. The four-year graduation rate, however, is problematic. Yet it also represents an opportunity: increasing the four-year graduation rate would enable UW–Eau Claire to reallocate "vacated" seats to other students and thereby increase throughput capacity and the production of graduates.

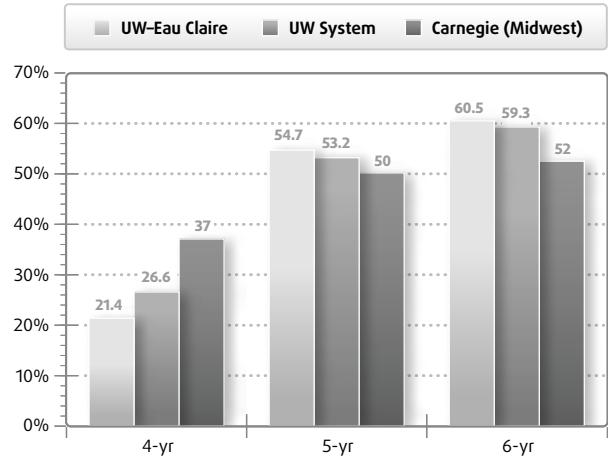
The higher education literature is filled with techniques for increasing graduation rates; our preliminary analy-

sis indicated that some of these might be applicable at our institution. Yet even if they were successful, would the end result allow UW-Eau Claire to contribute to the Growth Agenda? Tying overall enrollment to graduate production requires linking incoming freshman enrollment, transfer enrollment, and persistence rates into a single coherent model.

## COMPUTATIONAL THINKING

“Computational thinking” describes an approach to solving everyday problems that is based on “thinking like a computer scientist” (Wing 2006). By way of example, consider the following: Long lines form in the cafeteria while patrons wait for the short-order cook to prepare their meals. The cook takes each order, turns to the grill, prepares the order, and then serves the next patron. The lines could be shortened by thinking of the cook as a “central processor” and the patrons as “tasks to execute.” Rather than completing each order prior to starting the next, the cook should use “pipelining”—that is, suspending work on one order to begin a second order, returning to the first order in a round-robin format. This article uses two computational thinking techniques—recursion and dynamic programming—to solve the problem of tying overall enrollment to graduate production.

Consider the problem of calculating retention percentages. The percentage of freshmen retained until they are seniors can be expressed as the percentage of freshmen retained until they are sophomores combined with the percentage of sophomores who are retained until they are seniors. Thus, the solution to the larger problem of



**FIGURE 1.** Four-, Five-, and Six-Year Graduation Rates of Carnegie (Midwest) Institutions, UW System, and UW-Eau Claire

four-year retention can be built by combining the solutions to two smaller problems of the same type—namely, one-year retention and three-year retention. Breaking down a problem into smaller problems of the same type is referred to as *recursive decomposition*. Recursive structures often are eloquently traversed using a technique called *recursion*. *Recursion* is the process of breaking an existing problem into smaller problems of the same type, solving the smaller problems, and then combining

the solutions to create a solution to the original problem (Shoenfield 2000). The smaller problems are solved in precisely the same way as the larger problem: each is broken down into yet smaller problems, and their solutions are combined to solve each larger problem. This process is repeated for each sub-problem until the size of the subproblem is small enough to allow it to be solved directly. The directly solvable sub-problem is called a *base case*.

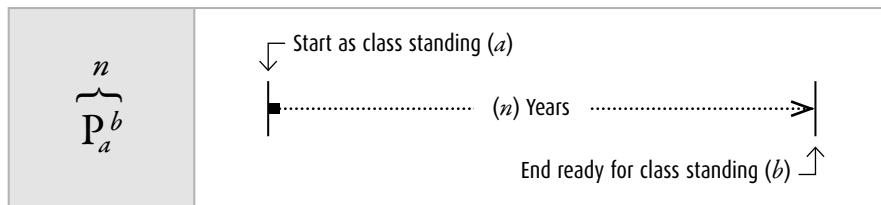
The following example will clarify the power (and limitation) of recursion. Consider the classic Fibonacci number series (Sigler 2002): The first two numbers in the series are 0 and 1 (base cases). The next number in the series is calculated by adding the previous two numbers in

the series. Thus, the third number is also 1, the fourth number is 2, the fifth number is 3, and so on. (See Figure 2.)

Assume we are to calculate the  $n^{\text{th}}$  Fibonacci number for some  $n > 2$  ( $0^{\text{th}} = 0$ ,  $1^{\text{st}} = 1$ ). Using *recursion*, the  $n^{\text{th}}$  Fibonacci number can be calculated by finding the  $(n-1)^{\text{th}}$  Fibonacci and the  $(n-2)^{\text{th}}$  Fibonacci and adding them together. The  $(n-1)^{\text{th}}$  Fibonacci can be calculated by finding the  $(n-2)^{\text{th}}$  Fibonacci and the  $(n-3)^{\text{th}}$

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, ...

**FIGURE 2.** The Fibonacci Number Series



**FIGURE 3.** Diagram of Overall Model

Fibonacci and adding them together. Recall that the first and second Fibonacci numbers are defined to be 0 and 1, respectively. This approach results in the following elegant definition for finding the  $n$ th Fibonacci number for some nonnegative integer  $n$ .

$$\text{Fib}(n) = n \text{ if } n < 2$$

$$\text{Fib}(n) = \text{Fib}(n-1) + \text{Fib}(n-2) \text{ otherwise}$$

Even this relatively simple example illustrates a serious problem with recursion: repeatedly solving the same sub-problems [*i.e.*, calculating Fib(5) requires calculating Fib(4) and Fib(3) but calculating Fib(4) requires calculating Fib(3) and Fib(2) and so forth]. However, the repeated work can be avoided by creating a table of previously solved problems and their corresponding solutions. Therefore, once the Fib(4) is calculated once, it never needs to be calculated again. In fact, with the proper ordering of all sub-problems, we can fill in a table so that all values are calculated before they are needed for any other calculations. Notice that if we solve the smallest problems first (based on the numeric value of  $n$ ), the solutions to these problems are available to build the solutions to the next largest problems: From 0 and 1 we can calculate 1; from 1 and 1, we can calculate 2, and so on.

This technique of ordering all sub-problems so that their solution is calculated prior to being needed is another form of computational thinking called *dynamical programming* (Bellman 2003). For the Fibonacci problem, we require a table of only two previous values. For example, we can add 0 and 1 to get 1; saving 1 and 1 allows us to calculate 2; saving 1 and 2 allows us to calculate 3; saving 2 and 3 allows us to calculate 5; and so on.

In the following sections, the computational concepts of recursion and dynamic programming are applied to cre-

ate an efficient and effective model tying graduation rates to transfer and retention rates and, ultimately, to throughput capacity.

## THE MODEL

In developing the model, several simplifying assumptions were made:

- Full years—not individual semesters or sessions--are modeled.
- Students can progress, at most, one enrollment class (freshman to sophomore, sophomore to junior, etc.) per year.
- Students cannot lose enrollment class standing (*e.g.*, “revert” from sophomore to freshman).
- All students in an enrollment class progress at the same rate, regardless of their status upon joining the class or how long they have been in that class (*e.g.*, transfer students progress at the same rate as non-transfer students).
- Finally, a student takes at least four years to graduate.

The model is based on determining the percentages of students who progress through the various class standings per year (*i.e.*, the percentages of students progressing between two class standings during a one-year period). Figure 3 illustrates the notation of the model.

For example, the expression shown to the right represents the percentage of students who begin a year as freshmen who end the year ready to become sophomores (*i.e.*, will begin the next year as sophomores).

$$\overbrace{P_1}^2$$

The model uses retention rates based on historical data as *seed* percentages. The percentages that, after one year, a freshman will remain a freshman, a sophomore will re-

main a sophomore, or a junior will remain a junior are represented in Figure 4, columns A–C respectively (these are referred to as *stagnation rates* throughout the remainder of this article).

A	B	C
$\overbrace{P_1^1}^1$	$\overbrace{P_2^2}^1$	$\overbrace{P_3^3}^1$

**FIGURE 4.** Sample Expressions Representing Stagnation Rates

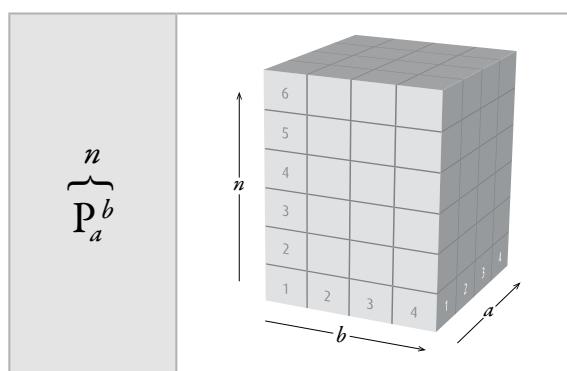
Overall retention rates to the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> years are represented as  $P_{2nd}$ ,  $P_{3rd}$ ,  $P_{4th}$ ,  $P_{5th}$ ,  $P_{6th}$ ,  $P_{7th}$ , respectively. Being retained to the fourth year does *not* imply being retained as a senior but rather describes being retained as a freshman, sophomore, junior, or senior.

The model is composed of three specific sub-models: the *retention model*, the *enrollment model*, and the *graduation model* as described in the sections that follow.

### The Retention Model

Referring to the table used in the *dynamic programming* computational thinking technique, the retention model is a three-dimensional table (retention cube) formed by the three dimensions of each percentage as shown in Figure 5.

Each layer of the retention cube is a 4x4 table of retention percentages. For example, the initial layer, for  $n=1$ ,



**FIGURE 5.** Retention Model

is shown in Figure 6 using the three historical stagnation rates for our campus (shown in light gray).

The value in the cell is to represent the percentage of the freshman class that progresses from one class standing to the next. The cells in dark gray in Figure 5 are not possible given the assumptions that a student can progress, at most, one class per year and that students cannot move to an earlier class. Therefore, these cells are assumed to be 0.0%. The cells in medium gray are computed as described in the following sections.

### Modeling "After One Year"

After one year, each retained starting freshman student will be either a freshman or a sophomore (recall our earlier assumptions). Therefore, the percentage of students retained to the second year is equal to the percentage of students retained to the second year as freshmen plus the percentage of students retained to the second year as sophomores. (See the equation in Figure 7.)

As expected with *dynamic programming*, the values on the right-hand side of the equation (in Figure 7) are already known (historical data in this case). Thus, the rate of (freshman to sophomore) progression can be computed directly.

### Modeling "After Two Years"

At the start of the third year, each retained student will be a freshman, a sophomore, or a junior. Therefore, the percentage of students retained to the third year is equal to the sum of the percentages of students retained to the

	1	2	3	4
1	15.9%			
2		68.8%	77.0%	
3			9.7%	85.4%
4				46.2%

**FIGURE 6.** Initial Layer ( $n=1$ ) of Retention Model

third year as freshmen, as sophomores, and as juniors. (See Figure 8.)

### *As Freshmen*

To be retained as freshmen after two years, the only possibility is that students are retained as freshmen after one year and then stayed freshmen through the second year. The percentage of freshmen who remain freshmen after one year is represented by the expression to

$$P_{\text{2nd}} = \frac{1}{P_1^1} + \frac{1}{P_1^2} \quad - \text{ therefore } \rightarrow \quad \frac{1}{P_1^2} = P_{\text{2nd}} - \frac{1}{P_1^1}$$

(values known)

**► FIGURE 7.** Equation #1

### *As Juniors*

There is only one way for a freshman student to be retained as a junior after two years: they must have transitioned from freshman to sophomore in the first year and from a sophomore to a junior in the second year. (See the equation in Figure 11.)

Not all of the values on the right-hand side of the equation in Figure 11 are known. At first, this appears to be a breakdown in the dynamic programming technique. However, recall that the equation in Figure 8 provides the overall constraints on all the second-year percentages (see the expression to the right). Therefore, starting with the equation in Figure 8 and substituting the equations in Figures 9–11 yields the results shown in Figure 12 (on page 14).

Thus, Figure 11 shows the direct calculation of the one unknown value on the right-hand side of the equation, allowing the calculation of the percentage of students retained as juniors after two years. Also, as shown in Figure 13 (on page 14), we can calculate other percentages for use later in the computational process.

The remainder of the model is developed through this same process. (For the sake of brevity, it is not provided

$$P_{3rd} = \overbrace{P_1^1}^2 + \overbrace{P_1^2}^2 + \overbrace{P_1^3}^2$$

**► FIGURE 8.** Equation #2

$$\overbrace{P_1^1}^2 = \overbrace{P_1^1}^1 \times \overbrace{P_1^1}^1$$

► FIGURE 9. Equation #3

$$\overbrace{P_1^2}^2 = \left( \overbrace{P_1^2}^1 \times \overbrace{P_2^2}^1 \right) + \left( \overbrace{P_1^1}^1 \times \overbrace{P_1^2}^2 \right)$$

**► FIGURE 10.** Equation #4

$$\overbrace{P_1^3}^2 = \underbrace{\overbrace{P_1^2}^1}_{\text{(seed)}} \times \underbrace{\overbrace{P_2^3}^1}_{\text{(unknown)}}$$

**► FIGURE 11.** Equation #5

$$\begin{aligned}
 P_{3rd} &= \left( \overbrace{\frac{1}{P_1^1}} \times \overbrace{\frac{1}{P_1^1}} \right) + \left( \left( \overbrace{\frac{1}{P_1^2}} \times \overbrace{\frac{1}{P_2^2}} \right) + \left( \overbrace{\frac{1}{P_1^1}} \times \overbrace{\frac{1}{P_1^2}} \right) \right) + \left( \overbrace{\frac{1}{P_1^2}} \times \overbrace{\frac{1}{P_2^3}} \right) \\
 &\quad \downarrow \text{therefore} \\
 P_{3rd} &= \overbrace{\frac{1}{P_1^1}} \times \overbrace{\frac{1}{P_1^1}} + \overbrace{\frac{1}{P_1^2}} \times \overbrace{\frac{1}{P_2^2}} + \overbrace{\frac{1}{P_1^1}} \times \overbrace{\frac{1}{P_1^2}} + \overbrace{\frac{1}{P_1^2}} \times \overbrace{\frac{1}{P_2^3}} \\
 &\quad \downarrow \text{therefore} \\
 \overbrace{\frac{1}{P_2^3}} &= \frac{\left( P_{3rd} - \left( \overbrace{\frac{1}{P_1^1}} \right)^2 - \left( \overbrace{\frac{1}{P_1^2}} \times \overbrace{\frac{1}{P_2^2}} \right) - \left( \overbrace{\frac{1}{P_1^1}} \times \overbrace{\frac{1}{P_1^2}} \right) \right)}{\overbrace{\frac{1}{P_1^2}}}
 \end{aligned}$$

 **FIGURE 12.** Equation #6

here. The model itself, as well as the complete mathematical derivation, is available from the lead author.)

Figure 14 (on page 15) presents the completed retention cube for our campus (percentages are rounded to a single decimal point for readability). Again, cells in light gray indicate historical data used to seed the calculations; cells in medium gray represent calculated values; and cells in dark gray represent zero percentages based on the assumptions described previously.

$$\overbrace{\frac{2}{P_2^2}} = \overbrace{\frac{1}{P_2^2}} \times \overbrace{\frac{1}{P_2^2}}$$

$$\overbrace{\frac{2}{P_3^3}} = \overbrace{\frac{1}{P_3^3}} \times \overbrace{\frac{1}{P_3^3}}$$

$$\overbrace{\frac{2}{P_2^3}} = \left( \overbrace{\frac{1}{P_2^2}} \times \overbrace{\frac{1}{P_2^3}} \right) + \left( \overbrace{\frac{1}{P_2^3}} \times \overbrace{\frac{1}{P_3^3}} \right)$$

 **FIGURE 13.** Equation #7

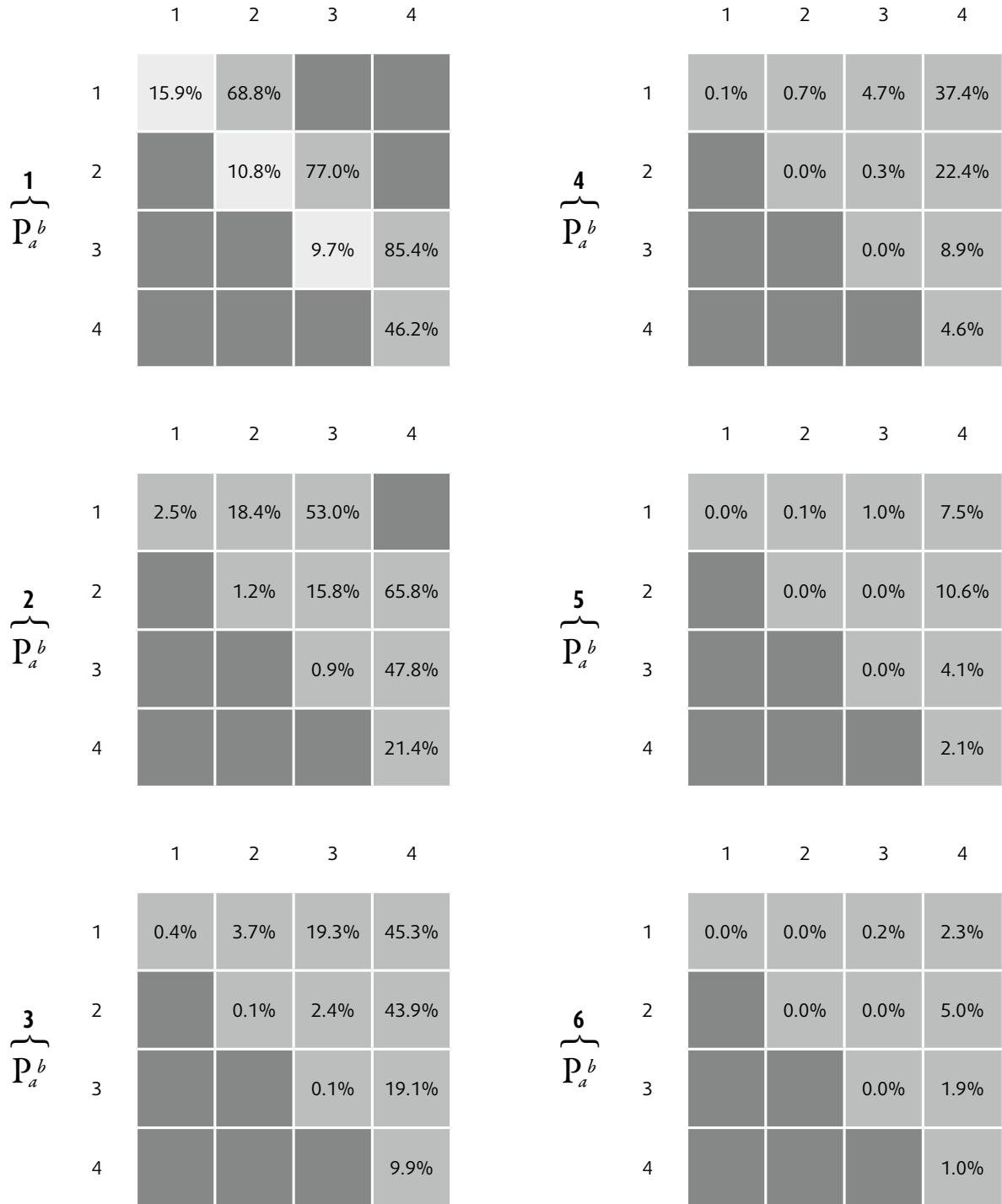
### The Enrollment Model

The retention cube allows continuing student enrollment to be calculated easily for each class standing. Transfer student enrollment is included as a percentage of each class standing. For example, a sophomore transfer rate of 10 percent adds 200 sophomore students to a sophomore enrollment of 2,000 continuing students. The equation in Figure 15 (, on page 16) illustrates how these two enrollments are combined to determine the enrollment of the subsequent class standing.

Enrollment is based on each freshman class because the percentage model describes the percentage of freshmen progressing to and through the various class standings. The resulting enrollment model for our campus is shown in Table 1 (on page 17). The cells shown in medium gray are actual historical data whereas the values in dark gray cells are calculated by the model.

### The Graduation Model

With the retention and enrollment models in place, the graduation model can be calculated as described in the following sections.



■ FIGURE 14. Completed Retention Cube for UW-Eau Claire

$$\begin{aligned}
\text{Continuing Juniors}_{2007} = & \\
& \left( \left( F_{2006} \times \frac{1}{P_1^3} \right) + \left( TS_{2006} \times \frac{1}{P_2^3} \right) \right) \\
& + \left( \left( F_{2005} \times \frac{2}{P_1^3} \right) + \left( TS_{2005} \times \frac{2}{P_2^3} \right) \right) \\
& + \left( \left( F_{2004} \times \frac{3}{P_1^3} \right) + \left( TS_{2004} \times \frac{3}{P_2^3} \right) \right) \\
& + \left( \left( F_{2003} \times \frac{4}{P_1^3} \right) + \left( TS_{2003} \times \frac{4}{P_2^3} \right) \right) \\
& + \left( \left( F_{2002} \times \frac{5}{P_1^3} \right) + \left( TS_{2002} \times \frac{5}{P_2^3} \right) \right) \\
& + \left( \left( F_{2001} \times \frac{6}{P_1^3} \right) + \left( TS_{2001} \times \frac{6}{P_2^3} \right) \right)
\end{aligned}$$

F=Freshmen; TS=Transfer Sophomores

**FIGURE 15.** Equation #8

$$4_{yr} = \frac{3}{P_1^4} \times \frac{1}{P_4^{\text{Grad}}}$$

**FIGURE 16.** Equation #9

$$\frac{4}{P_1^4} \times \frac{1}{P_5^{\text{Grad}}} = (5_{yr} - 4_{yr})$$

**FIGURE 18.** Equation #11

$$\frac{1}{P_4^{\text{Grad}}} = 4_{yr} \div \frac{3}{P_1^4}$$

**FIGURE 17.** Equation #10

$$\frac{1}{P_5^{\text{Grad}}} = (5_{yr} - 4_{yr}) \div \frac{4}{P_1^4}$$

**FIGURE 19.** Equation #12

### In Four Years

Given our assumptions, there is only one way to graduate in four years. Therefore, the equation shown in Figure 16 can be used to represent the four-year graduation rate ( $4_{yr}$ ). The expression on the right side of this equation represents the percentage of seniors who graduate after a single year as seniors (*i.e.*, they don't become "super seniors"). Its direct computation can be made using the equation in Figure 17.

### In Five Years

To graduate in five years, students must progress from freshmen to seniors in four years and then graduate in the fifth year (see Figure 18). The percentage of students doing so may be calculated using the equation in Figure 19.

### In Six and Seven Years

Following the same reasoning, the percentages of students graduating in the sixth and seventh years are calculated as shown in Figure 20, on page 18.

The predicted number of graduates for a year is calculated by using the percentages of freshmen from each of the six prior years who have progressed to become seniors (plus the transfer students) in that year and multiplying the number who are seniors by the corresponding graduation percentages calculated in Figures 17, 19, and 20.

## PERFORMANCE OF THE OVERALL MODEL

The overall model combining the retention, enrollment, and graduation sub-models can be evaluated against actual data from the same time period. Table 2 illustrates the error rates between the predicted values from Table 1 and the actual values for each of the given years.

**Table 1.**  
*Enrollment Model for UW-Eau Claire*

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
New Freshmen	2,025	2,026	2,068	1,987	1,818	1,963	1,990	1,966	1,986	2,023	1,950
Continuing	638	618	515	598	526	380	431	424	366	428	379
Transfers	114	134	145	151	66	132	124	123	124	126	122
Total Freshmen	2,777	2,778	2,728	2,736	2,410	2,475	2,545	2,513	2,476	2,577	2,451
Sophomores	1,912	1,908	1,882	1,861	1,936	1,791	2,133	2,193	2,189	2,188	2,229
Transfers	190	237	251	235	255	268	271	279	278	278	283
Total Sophomores	2,102	2,145	2,133	2,096	2,191	2,059	2,404	2,472	2,467	2,466	2,512
Juniors	1,657	1,750	1,775	1,812	1,733	1,860	1,815	1,881	1,926	1,925	1,934
Transfers	102	140	142	127	138	115	131	135	139	139	139
Total Juniors	1,759	1,890	1,917	1,939	1,871	1,975	1,946	2,016	2,065	2,064	2,074
Seniors	2,332	2,357	2,432	2,594	2,590	2,584	2,577	2,460	2,475	2,559	2,573
Transfers	84	83	72	96	95	70	85	81	82	84	85
Total Seniors	2,416	2,440	2,504	2,690	2,685	2,654	2,662	2,541	2,557	2,643	2,658
Total Enrollment	9,054	9,253	9,282	9,461	9,157	9,162	9,558	9,542	9,564	9,750	9,695

**Table 2.**  
*Error Rates between Predicted and Actual Values, 2005–09*

	2005	2006	2007	2008	2009
New Freshmen (n)	1,990	1,966	1,986	2,023	1,950
Continuing (n)	431	424	366	428	379
Transfers (%)	-8.02	-15.97	-13.34	-5.79	-18.34
Total Freshmen (%)	-0.42	-0.92	-0.76	-0.30	-1.10
Sophomores (%)	14.76	13.16	15.07	19.62	12.68
Transfers (%)	14.80	16.05	8.58	-5.16	9.72
Total Sophomores (%)	14.76	13.48	14.30	16.20	12.34
Juniors (%)	1.87	2.23	2.14	-0.55	3.72
Transfers (%)	9.83	16.75	-0.93	-12.26	-9.56
Total Juniors (%)	2.36	3.09	1.92	-1.43	2.70
Seniors (%)	-0.84	-1.48	-1.71	-3.45	-7.66
Transfers (%)	3.72	-19.62	-16.66	-4.05	-22.80
Total Seniors (%)	-0.70	-2.18	-2.27	-3.47	-8.24
Total Enrollment (%)	3.52	2.96	2.90	2.21	0.67

As expected when using averages, the model demonstrates a pattern of over- and under-estimating. Nevertheless, the sum of the estimates is a relatively accurate prediction of total enrollment. In 2009, using full estimated values from all previous years, the model predicts a total enrollment of 9,695; with an actual enrollment of 9,630, the error rate is only 0.67 percent. The model pre-

dicts 1,876 graduates in 2009; with 1,875 actual graduates, the error rate is only 0.053 percent.

#### APPLICATION TO THE GROWTH AGENDA

Recall that the original motivation for developing the overall model was to support the development of the UW-Eau Claire planned contribution to the UWS

$$\frac{1}{P_6^{\text{Grad}}} = (6_{\text{yr}} - 5_{\text{yr}}) \div \frac{5}{P_1^4}$$

$$\frac{1}{P_7^{\text{Grad}}} = (7_{\text{yr}} - 6_{\text{yr}}) \div \frac{6}{P_1^4}$$

**FIGURE 20.** Equation #13

Growth Agenda. In response to multiple constraints, UW-Eau Claire chose to contribute to the Growth Agenda by accelerating degree progression for all students and by leveraging the resulting available upper-division capacity through increased enrollment of transfer students. The model we developed allowed experimentation with multiple factors influencing the number of graduates each year, including:

- Transfer rates for students entering UW-Eau Claire as freshmen, sophomores, juniors, or seniors.

- Freshman enrollment for full-time, first-time freshman class.
- Retention rates to the 2nd through 7th years.
- Graduation rates for four-, five-, and six-year graduation.

Experimenting with values for these factors, the differences between the resulting figures and those predicted by the original model indicate the relative impact of each factor. For example, increasing the four-year graduation rate from 25.7 percent (the actual rate used in the original model) to 46 percent causes the total enrollment in 2009 to decrease from 9,695 to 9,004 and also causes the number of graduates in 2009 to decrease from 1,875 to 1,794 (this is not surprising given the decreased size of the senior class). “Backfilling” the vacated seats with increased numbers of upper-division transfer students (from 7.2 percent of the junior class and 3.3 percent of the senior class to 17.9 percent and 16.5 percent, respectively) returns overall enrollment to 9,695 and increases the number of

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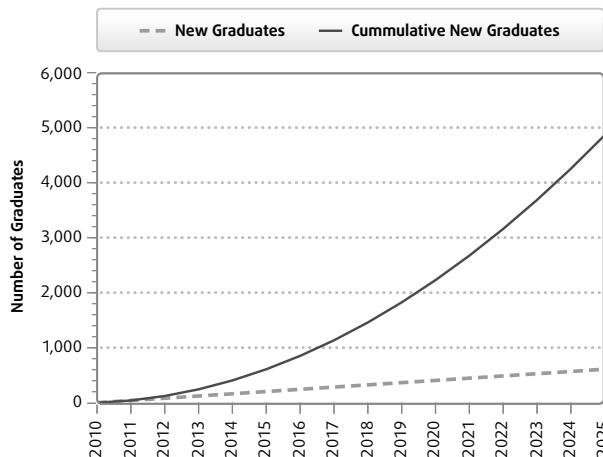
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**FIGURE 21.** Projected Increase in Number of Graduates of UW-Eau Claire, 2010–25

graduates in 2009 to 2,267. Without increasing overall enrollment, 391 additional graduates can be produced! Reducing freshman enrollment from approximately 1,950 to 1,800 and “backfilling” with additional upper-division transfer students allows for a total enrollment of 9,695 students and 2,484 graduates (up from 1,875)—an increase of more than 600 graduates! Modest increases in the second-, third-, and fourth-year retention rates and a slightly increased sophomore-year transfer rate restore upper-division transfer rates to obtainable levels while supporting the greater number of graduates.

In the end, experimentation with the model allowed an estimated contribution to the UW System Growth Agenda (shown in Figure 21) without significantly increasing UW-Eau Claire’s total campus enrollment and therefore the total cost to the State of Wisconsin.

In the years to come, UW-Eau Claire will implement proven best practices from around the nation to achieve the retention and graduation rates needed to support this growth. The use of computational thinking will have resulted in identification of a meaningful solution to the problem of producing more graduates without consuming more resources.

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## About the Authors

**MICHAEL R. WICK, PH.D.**, is the Associate Vice Chancellor for Academic Affairs and Dean of Graduate Studies at the University of Wisconsin - Eau Claire. Before taking this position, Dr. Wick served as Director of the First Year Experience Program and, before that, as Chair of the Department of Computer Science. Since receiving his doctorate in Computer Science from the University of Minnesota in 1989, Dr. Wick has published over three dozen refereed articles on topics ranging from artificial intelligence, to liberal education reform, to higher education administration.

**PATRICIA A. KLEINE** is the Provost and Vice Chancellor for Academic Affairs at the University of Wisconsin-Eau Claire. Prior to her current appointment, Dr. Kleine was the Dean, College of Education and Professional Studies and Graduate Division, at Eastern Connecticut State University. Her academic career began at Wright State University (Dayton, Ohio) as a research/statistics professor and department chair. A prolific grant writer and researcher, Dr. Kleine’s scholarly interests have ranged from identification of under-achieving, urban, gifted children, to women in educational administration, to strategic planning in higher education.

**ANDREW J NELSON** is the Director of Institutional Research at the University of Wisconsin-Eau Claire. Mr. Nelson has a total of 6 years experience in Institutional Research in the University of Wisconsin System, four of those years at the University of Wisconsin-Eau Claire. Previously, Mr. Nelson was the Director of Institutional Research at the University of Wisconsin-Platteville, where he also received his BS in Computer Science and a BA in History.

*Determining the Root Causes of Concerns Associated with the*

# PERFORMANCE APPRAISAL PROCESS

When a new vice president of enrollment institutes a performance appraisal system, the fallout in the office of admissions is negative. But is it the process itself or something else that makes the staff unhappy? Action research provides the answers as well as some surprising insights and a number of solutions.

Many organizations use formal appraisals to measure employee performance. Augustana College's Office of Admissions introduced an appraisal process in 2006. Subsequently, staff expressed a number of concerns, ranging from confusion about the process to its link to compensation. Action research proved essential for understanding the problems; it also revealed some solutions.

## **BACKGROUND**

Augustana College, in Rock Island, Illinois, is a private, coeducational, residential, tuition-driven liberal arts and

sciences college with an enrollment of some 2,500 students. *U.S. News & World Report* ranks it among the top 100 liberal arts colleges in the nation. Augustana's Office of Admissions maintains principal responsibility for student recruitment. Staff are expected to maintain the highest level of professionalism; to possess in-depth knowledge of the admissions process; to have excellent communication and interpersonal skills; and to demonstrate enthusiasm for Augustana.

Of the eleven members of the admissions counseling staff (including myself), all have a bachelor's degree; four

have a master's degree; and two were enrolled in master's degree programs at the time of the research. Eight are graduates of Augustana. Individual staff members' service to the college ranges from fifteen years to less than six months; the average tenure is 4.2 years. Three have admissions experience at other colleges. Three-fourths of the staff held the position of admissions counselor as their first professional job.

Counselors have similar responsibilities for promoting and representing Augustana, counseling students, and implementing best admissions practices. Collegiality is common, and independence and flexibility are valued.

Until July 2005, leadership in Augustana's Office of Admissions had been consistent: Both the vice president of enrollment and the director of admissions had served for more than fifteen years. In July 2005, I joined the organization as vice president of enrollment after serving in the same capacity for three years at Elizabethtown College and in admissions overall for ten. Augustana's director of admissions resigned in July 2005, so for the 2005–06 academic year, I fulfilled those responsibilities as well. I was charged with putting in place a formal performance appraisal process for the 2005–06 academic year.

In January 2005, Augustana College had adopted a strategic plan that had among its primary components increasing enrollment; enrolling an increasingly diverse student body; and improving the overall quality of the student body. Competition for students in the Midwest was (and remains) intense, and an impending and significant change in the demographic profile of the college-bound population, combined with a downturn in college-bound demographics overall, loomed on the horizon. This challenge, along with a commitment to achieve the goals described in the strategic plan, demanded at a minimum that the admissions staff be highly motivated. An effec-

tive performance appraisal (PA) system was important to ensure employees' high-level performance as well as their commitment to the College's strategic goals. Poor morale or overall dissatisfaction ultimately could have a negative impact on the College's overall finances: Tuition accounts for 88 percent of revenues (Schermer 2006).

When I joined Augustana, my intention was to review previous PAs in order to develop a baseline of knowledge; in fact, I learned that no formal PAs had been conducted at least for the previous five years; neither did any records exist for informal appraisals. One staff member explained that while there was no formal process, the director of admissions met informally with each staff member on an annual basis.

At the request of the president, I introduced and conducted a formal PA process in spring 2006. I chose to utilize a process and instrument I had used successfully at another institution. It included a formal appraisal instrument, a formal self-appraisal instrument, and a meeting with each employee to discuss performance and goals. Everyone participated in the process, and no one formally opposed it.

In the ensuing months, increasing concerns surfaced. Employees expressed concerns about the purpose and goals of the process. One asked why the PA was necessary at all given that none had been implemented in the past. Others questioned the purpose and value of specific sections of the appraisal. Having participated in a PA process in my previous position, I myself found the process at Augustana unsatisfactory: It did not seem to align performance with strategy, and the differences between my appraisals and employees' self-appraisals were substantial. In place of the contents of the PA overall, self-appraisals, and the information they provided, the process itself became the focal point. The disconnect between my expectations

as leader and those of my employees was clear. I feared that if I did not identify the source of the problem and resolve it, the risk to morale could prove significant. It was my responsibility to remedy the situation before a new director of admissions administered the next round of appraisals, in spring 2007.

It was unclear whether employees' concerns—as well as my own—related to the PA itself or originated in the lack of appraisals in prior years. Possible answers included misalignment of employees' and leaders' expectations; poor appraisal processes, training, and instruments; limited understanding of the role and function of admissions offices at other institutions; or something wholly unrelated to the appraisals.

## LITERATURE REVIEW

A review of the literature related to performance appraisals helped shape my research and provided ideas about solutions. Although considerable literature exists, much of it focuses on developing an appraisal process rather than on improving an existing one. In fact, the literature focuses primarily on either eliminating appraisals altogether or on providing how-to guides and suggestions for best practices (see, e.g., Illini Union 2002; McNamara 1999; Seavers 1979; and Toolpack Consulting n.d.). The research I reviewed focuses on strategies for making the performance process relevant, aligning PA with strategic goals, and examining the connection between PA and compensation.

Wright (1997) identifies common problems associated with appraisals, including inconsistency in rating scales, poor evaluator training, supervisor misuse of the process, and non-objective or irrelevant standards. Other problems include systems that require too much from a supervisor. Personal rather than organizational values may creep into the system. Communication between supervisor and employee about consistency in rankings may be nonexistent, or the validity of the ranking may be compromised because of supervisor resistance to the scale. Also, appraisals may interfere with the coaching relationship that should exist between supervisor and staff (Oberg n.d.).

Mani (2002) argues that effective appraisals are a "critical linchpin" in human resource management. They are critical for helping poor performers improve and for providing specific feedback and reinforcement to strong performers. Bolman and Deal (1997) write, "Assessing

performance or productivity of an individual, department, or program is a major undertaking. Evaluations consume substantial time, effort, and money, leading to lengthy reports presented with considerable ceremony."

Goodale (1993) suggests that processes designed without management and staff collaboration are often ineffective. He also describes seven ways to improve appraisals. Beyond a "collaborative approach," to include group discussion of goals and identification of the items to be evaluated, Goodale (1993) suggests including key elements such as the need for feedback and for planning future goals. He describes the following as essential: clear objectives; focusing on observable behaviors; avoiding personal feedback; listening first and talking later; being positive first and negative later; and probing first and prescribing later. (Because the process I used had been developed at another institution and thus may have been perceived as being "forced" upon Augustana, it seemed particularly important to consider these recommendations.)

In an article about Merrill Lynch & Co.'s transformation from a traditional to a new performance appraisal system, Fandray (n.d.) discusses two important elements of the PA process: the evaluation scale and peer input. First, Fandray cites Merrill Lynch's move from a five-point to a three-point scale, which makes it more acceptable for employees to be placed in the middle category. (The Augustana form used a five-point scale.) Second, Fandray discusses Merrill Lynch's new practice of allowing employees to solicit peer and client feedback as part of the review.

Another aspect of performance appraisals is the connection between objective and subjective evaluation criteria. Wright (1997) suggests that it is "more important to measure what counts than what is countable." Anthony, Kacmar and Perrewe (2002) suggest that it is important for an organization to choose how much of an appraisal should be objective.

It was important to me to determine whether staff members were being evaluated in the right areas for the type of work they performed. There is considerable literature in the areas of management performance and psychology about the relationship of job requirements to appraisals. Goleman, Boyatzis and McKee (2002) propose more contemporary evaluation—for example, of employees' self-awareness, self-management, social awareness, and relationship management—rather than the more tra-

ditional evaluation of employee performance across certain designated areas.

Finally, I surveyed the literature related to appraisals for team-based organizations. Huszczo (1996) argues that it is necessary to use an alternative approach in appraising members of a team. He suggests that it is critically important both to include criteria such as contribution to team goals and to cite relevant team-oriented behaviors.

## METHOD

I was responsible for leading and managing this project with input from others. I invited vice presidents and admissions counselors at other institutions to participate in an online questionnaire. I worked collaboratively with a small team, including the director of admissions, the director of human resources, and a representative of the admissions staff. Augustana's director of institutional research was consulted about survey construction and bias. The team helped interpret the data and thereby limited the potential for biased interpretation, reviewed drafts of research findings, and helped identify potential solutions.

Action research is characterized by its emphasis on identifying problems and solutions (Dick 2002). Coghlan and Brannick (2005) describe the central characteristic of action research as "a scientific approach to study the resolution of important social or organizational issues together with those who experience these issues directly." Cummings and Worley (2005) identify eight steps toward effective action research methodology: problem identification, consultation with a behavioral science expert, data gathering and preliminary diagnosis, feedback to a client or group, joint diagnosis, joint action planning, action, and data gathering after action. Most action research models share an emphasis on accurate diagnosis, aggressive data gathering, and collaborative solutions.

Dick (2002) suggests that action research is most appropriate in situations that involve reflection about an ongoing process. He emphasizes that action research is distinctive in that it asks participants to contribute through "natural processes" and "qualitative data."

**Table 1.**  
*Pearce, Robinson and Sandburg's (1989) Six-Step Model*

Step	Activity
1	Recognize the problem.
2	Diagnose the situation.
3	Involve members, gather data, confirm the problem, and gain ownership.
4	Involved members select a solution.
5	Plan the intervention and implement it.
6	Evaluate change.

The current research is based on Pearce, Robinson and Sandburg's (1989) Six-Step Model (*see Table 1*). The Six-Step Model is appropriate because of its reliance on involving members of the organization and because of its emphasis on gathering data and confirming the problem before attempting a solution.

It was essential that the data be valid. Fink (2006) writes, "Reliable and valid surveys are obtained by making sure the definitions and models you use to select questions are grounded in theory or experience." To ensure the validity of the data, I employed several strategies: Use of multiple data-gathering methods allowed "source triangulation" as defined by Patton (2002). Using various data-gathering methods allowed for comparison of questionnaire and interview responses. Second, I worked with team members to ensure that the purpose of the data gathering and the procedure were readily understood. The team helped develop the questions for the survey and for a group interview. We also assessed the reliability of the instruments by administering the same survey to the same people on multiple occasions to determine whether answers were consistent, a method suggested by Fink (2006).

My primary data-gathering method was a questionnaire developed for Augustana staff and for admissions staff members at similar institutions. (*See Appendix A*, on page 33, for a list of participating institutions.) Despite certain problems associated with questionnaires, such as non-empathy, predetermined questions, over-interpretation of data, and response bias, they nevertheless are useful for

collecting qualitative data (Cummings and Worley 2005). Questions were divided into sections that focused on demographic information, experience with performance appraisals, compensation, areas of assessment, and objective and subjective evaluative criteria from outside and inside the organization. (See Appendix B, on page 33.)

In November 2006, which was approximately four months following the performance appraisal process, I e-mailed a link to the web-based questionnaire to Augustana admissions staff, all of whom (with the exception of myself) participated. I also e-mailed the link to colleagues at nearly 20 colleges and invited them to share the questionnaire with their staffs. Seventy-five admissions officers from other colleges completed the questionnaire.

Although interviewing is a common research method, several weaknesses—including time and expense, interviewer bias, difficulty interpreting results, and self-reporting bias (Cummings and Worley 2005)—are associated with it. Nevertheless, interviews promote dialogue.

I therefore interviewed ten staff members, all of whom had completed the questionnaire. Seven had completed the appraisal process in the past year (the other three staff members were new). Although I had planned initially to conduct the group interview as the introductory data-gathering method, it served in the end as a follow-up to the questionnaire and thus helped verify data. In addition to the group interview, I invited staff members to meet individually with me to discuss the PA further; five of the ten did so. (See Appendix C, on page 37, for the group interview questions and protocol. Similar questions were explored during the individual staff interviews.)

## RESULTS

The most significant and conclusive findings were as follows:

- Augustana staff members' experience with PA was similar to that of admissions staff at other colleges.
- Overall satisfaction with the PA process was greater than originally believed.

Now, that's a  
*smart* catch.



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- Specific aspects of the PA rather than the process itself resulted in staff members' concerns.
- Training for the PA was inadequate.
- Staff expressed a strong desire for greater involvement in development of the PA.
- A clear set of criteria for PA assessment was identified.
- More specific and relevant goal setting would improve the PA process.

### **Similarities**

The questionnaires revealed a number of similarities between the Augustana staff and admissions officers at other colleges in terms of both demographics and experience with the PA process. (Table 2 summarizes both samples' number of years of experience in admissions.) Although the gender makeup of the respondent groups was statistically different (70 percent of Augustana respondents were female compared to 53.3 percent of respondents at similar schools), the data did not reveal any significant differences in responses by gender. Whereas 60 percent of Augustana respondents had worked in professions other than admissions, 70 percent of respondents from other schools had done so.

The entire Augustana College sample had experience with the PA process, compared to only 74.3 percent of respondents from other schools. Nevertheless, the data revealed significant common experiences, reinforcing the theory that the staff at Augustana are not demonstrably different from those at other colleges that have a PA process. Notably, 80 percent of survey respondents from both groups experience PA annually; similar percentages from both groups described the PA process as formal (*see Table 3*).

Table 4 presents other similarities in admissions staff members' experience of the PA process. The percentages given are those of respondents who indicated that they "agree" or "strongly agree" with the corresponding statement.

Additional areas of similarity had to do with training for the PA (60 percent of respondents at both Augustana and other colleges described training for the PA process as "excellent" or "good") and the validity of rankings (50 percent of Augustana respondents and 58 percent of respondents from other colleges described the validity of

**Table 2.**  
*Number of Years in Admissions*

Number of Years	Augustana College Respondents (%)	Other School Respondents (%)
Zero to Two Years	40	40
Three to Five Years	30	31
Six to Ten Years	10	11
More than Ten Years	20	21

**Table 3.**  
*Frequency and Description of PA Process*

Description	Augustana College Respondents (%)	Other School Respondents (%)
Annual Appraisal	80	80
Described PA Process as "Formal"	60	58

**Table 4.**  
*Experience of the PA Process*

Experience	Augustana College Respondents (%)	Other School Respondents (%)
My supervisor both outlined and clearly stated the purpose of the PA.	80	80
I believe it would improve the PA process if my supervisor clarified the process.	40	41
The PA process would be improved if a greater connection existed between individual performance and the goals of the admissions office.	70	76

**Table 5.**  
*Training for the PA and the Validity of PA Rankings*

Statement	Augustana College Respondents (%)	Other School Respondents (%)
Training for performance appraisal process is "excellent" or "good."	60	60
Validity of rankings provided by supervisor is "excellent" or "good."	50	58

**Table 6.**  
*Connection between PA and Performance and Job Satisfaction*

Statement	Augustana College Respondents (%)	Other School Respondents (%)
The connection between day-to-day performance and the PA is "essential" or "very important."	50	58
The connection between the content of the PA and overall job satisfaction is "essential" or "very important."	66	62

**Table 7.**  
*Important Outcomes of PA*

Outcome	Augustana College Respondents (%)	Other School Respondents (%)
Constructive Criticism	90	85
Clarification of Future Goals	90	92
Discussion with Supervisor	100	89
Reflection on Past Achievements	80	77

their supervisors' rankings as "excellent" or "good") (*see Table 5*).

Similar percentages of respondents from Augustana and other colleges described the perceived connection between the PA and day-to-day performance as "essential" or "very important" (50 percent and 58 percent, respectively) and described the connection between the content of the PA and overall job satisfaction as "essential" or "very important" (66 and 62 percent, respectively). (*see Table 6*).

"Important outcomes" of the PA process were ranked similarly by respondents from both groups (*see Table 7*).

A final area of similarity between the groups related to the degree of connection between PA and compensation (*see Table 8*, on page 27).

These findings indicate that concerns about the PA process at Augustana were not the result of significant demographic differences from admissions staff members at other similar colleges; further, experiences of PA processes are relatively consistent among staff members at similar institutions. This information provided the foundation for investigating which aspects of the PA experience were different for Augustana staff and for determining whether those differences were related to staff members' concerns. Augustana staff members' questionnaire and group and personal interview responses revealed that the PA process was better understood and appreciated than I had believed originally: All Augustana respondents indicated strong agreement or agreement with the statement "I understand the purpose of the PA process;" 60 percent described themselves as "very satisfied" or "satisfied" with the process. Only 10 percent of Augustana staff indicated that they were only "somewhat satisfied" with the process. And although 30 percent indicated they were "unsure," it is reasonable to believe that those were the responses of new staffers who had yet to complete the PA.

In both the group and individual interviews, staffers expressed appreciation for as well as understanding and broad acceptance of the PA. They also evidenced clear understanding of the PA's overall purpose, citing the critical nature of a PA to self-improvement, the need for an annual "report card," and the level of professionalism the PA upholds. When asked to discuss features of the process they liked, subjects cited its thoroughness, balanced approach (*e.g.*, self-appraisal as well as supervisor appraisal), depth of analysis, usefulness as an outside assessment of

performance, and limited emphasis on objective criteria. In four of the five personal interviews, subjects said their early concerns were due not to the PA process itself but to its being new.

### Differences

The interviews made it clear that despite widespread acceptance and understanding of the PA, certain aspects of it were problematic; it was these that likely were the source of staff members' general concerns. Several differences between the questionnaire responses of Augustana College and "other colleges" admissions staff members provided the basis for conclusions about potential interventions.

More than the responses of staff from other colleges, those of Augustana admissions staff indicated dissatisfaction with specific aspects of the PA process—notably, related training, development, frequency, supporting evidence, and relationship to day-to-day performance (*see Table 9*).

Interviews confirmed the survey findings: Certain aspects of the PA were problematic. Staff articulated additional concerns: Some perceived an hour-long PA meeting with their supervisor as intimidating; it was difficult to know which goals to set; because the supervisor's appraisal was not provided in advance of the meeting, it was difficult to know how to react; and portions of the appraisal were cited as irrelevant (*e.g.*, health and occupational safety) and as too broad (*e.g.*, communication skills).

Both the questionnaire and interview responses revealed dissatisfaction with training for the PA. Because 30 percent of Augustana staff identified training for the PA as "poor"—compared to only 16 percent of staff from other colleges—this area was investigated further in interviews. Nearly all Augustana respondents said they felt underprepared for the PA and that training was inadequate. One said that as a first-year counselor she did not know what to expect and that she would like to have a mentor for the process. Another said the process needed to be different for new staff.

The questionnaire results also revealed a significant difference between Augustana and "other colleges" in the proportion of staff involved in designing the PA process. Augustana staffers said they were concerned that no counselors were involved in developing the process. They suggested that such involvement would result in greater

**Table 8.**  
*Relationship between PA and Compensation*

Statement	Augustana College Respondents (%)	Other School Respondents (%)
"Strongly agree" or "agree" that there should be a strong connection between compensation and the PA	80	79
Believe a "much stronger" connection should exist between compensation and the PA	20	29
Believe a "somewhat stronger" connection should exist between compensation and the PA	42	42
"Strongly agree" or "agree" the PA process would be improved if a greater connection existed between compensation and individual performance	60	61

**Table 9.**  
*Differences in Experiences of the PA process*

Statement	Augustana College Respondents (%)	Other School Respondents (%)
Training for the PA process was poor.	30	16
Staff had a role in developing the PA process.	10	23
The appraisal occurred too infrequently.	30	17
Explanations of ratings/rankings were "excellent" or "good."	50	69
There was a connection between day-to-day performance and the PA process.	12	40

buy-in and in a better process overall. Both the questionnaire and group interview results confirmed that the "imposition" of the PA process at Augustana was a problem and that staff involvement would be beneficial.

**Table 10.**  
*Top-Ranked Criteria for Assessment  
(Augustana College)*

Criterion	Essential or Very Important (%)
1 Communication skills	100
2 Overall performance	100
3 Initiative	100
4 Leadership ability	100
5 Critical thinking and decision making	100
6 Knowledge of personal strengths and weaknesses	100
7 Integrity and honesty	100
8 Ability to plan	100
9 Goals, objectives, and expectations/ Knowledge of work/Quantity of work/ Relationship with colleagues	89
10 Confidence in abilities/Achievement of specific objectives	88

**Table 11.**  
*Top-Ranked Criteria for Assessment (Other Colleges)*

Criterion	Essential or Very Important (%)
1 Communication skills	100
2 Quality of work	94
3 Overall performance	92
4 Knowledge of personal strengths and weaknesses	92
5 Integrity and honesty	92
6 Knowledge of work	90
7 Timeliness of work	90
8 Relationships with colleagues	90
9 Achievement of specific objectives	86
10 Awareness of the needs of the office and institution/Commitment to mission/Initiative/Goals, objectives, and expectations	86

## WHAT TO MEASURE

Questionnaire and interview responses generated a valuable set of criteria for a newly designed assessment tool. Admissions staff from Augustana and other colleges identified many of the same criteria from a list of 28. Table 10 lists Augustana staff members' top-ranked areas for assessment; Table 11 lists those identified by staff members at "other colleges."

Rankings by staff at Augustana and at other colleges revealed agreement upon a core set of criteria. The same criteria were cited during interviews as essential or important.

## GOALS

Two responses from the questionnaire suggested that Augustana staff wanted to strengthen the connection between goals and performance. Only 60 percent of Augustana respondents (compared to 92 percent of those from other colleges) indicated "strong agreement" or "agreement" about the connection between strategic goals and performance, revealing a lack of clarity related to goals. Seventy percent of Augustana respondents "strongly agreed" or "agreed" that the PA process would be improved if individual performance and goals were more closely connected. Both of these themes were reinforced during interviews.

Considerable discussion during the group interview focused on the difficulty of establishing goals and on their "fuzzy" nature. Further, there was concern about how to measure "soft" versus "hard" goals.

## SECONDARY FINDINGS

Secondary findings pertained to the value of PA criteria, but the data did not suggest that this related to Augustana staff members' concerns. The interviews generated some useful qualitative information. Beyond significant agreement in the group and personal interviews that it is difficult to establish proper objective criteria, participants cited the following: too much reliance on numeric measures and ethical concerns that could stem from an increased focus on "numbers" rather than on high-quality counseling. Staff also saw a danger in emphasizing individual performance over team performance.

Despite concerns about the use of objective data in the PA process, 89 percent of Augustana admissions staff indicated that it is "very important" or "important." The

disparity between staff members' questionnaire and interview responses made it difficult to learn anything conclusive about this topic.

Both the interview and the questionnaire responses revealed that supervisor evaluation is the single most important element of assessment. All Augustana College respondents rated supervisor feedback as "essential" or "very important." No other category received such a high level of agreement. Interviews also revealed the importance of supervisor feedback. One admissions counselor said, "The boss is the boss, and I want to hear what the boss thinks of me.... That's what matters."

Although data did not suggest that subjective evaluation from outside the organization should be abandoned, there was agreement during the group interview and several personal interviews that it would be difficult to obtain accurate information from such evaluations. Several staff members suggested that such information would be unduly biased because it would be likely that only people with a favorable or unfavorable opinion would respond to requests for feedback.

A final, less conclusive finding related to the connection between the PA and compensation. Staff from both Augustana and other colleges expressed a desire for a stronger connection between the PA and compensation, but no more than 30 percent of either group said that a stronger connection was necessary.

## DISCUSSION

This project revealed that staff concerns related to performance appraisal originated to some degree in each of the areas posited at the onset of the research. These included:

- A lack of performance appraisals in prior years and staff resistance to formal appraisals;
- A lack of alignment between what employees and leaders seek from a performance appraisal;
- Poor processes, training, and instruments for performance appraisals;
- Limited understanding of what other admissions offices do to evaluate staff performance; and
- Other conditions unrelated to the performance appraisal process.

This study of staff attitudes about the performance appraisal provided a framework for making informed

decisions about future PAs. The "other colleges" sample provided a context to ensure that decisions to improve the PA were not made in a vacuum and to ensure as well that the findings regarding the PA process at Augustana were not so idiosyncratic as to be non-applicable.

The data also revealed more than adequate information about Augustana staff members' specific concerns. Despite staff members' overall support for PA, the data revealed certain aspects and elements of the process that needed to be addressed: lack of training, limited staff involvement in its development, poor guidance for developing goals, and use of an inappropriate instrument for the admissions profession.

The data also revealed that Augustana's admissions staff overall is very similar to those at other institutions in terms of attitude about PA. This finding, which amounted to "norming," allowed for the study of differences between the samples and resulted in turn in discovery of some anomalous conditions at Augustana. Establishing each finding within the larger context of the admissions profession aided in solving the problems at our campus.

The data revealed that concerns about the PA process at Augustana were overstated. My team and I alike were surprised by staff members' overwhelming support for the PA and by their understanding of the purpose of the process. The results supported Mani's (2002) assertion about the value of the PA and could be interpreted as employee and management buy-in to the process.

This finding elicited some speculation on the part of the team. Appraisals occurred in July 2006, and it was then that concerns were voiced. Team members concluded that staff members' initial concerns had diminished over time. A second theory was that the admissions staff had warmed to new leadership and were more willing to accept new initiatives. It was important to consider these theories before taking any next steps. (It would be misguided to entertain solutions based on a misguided belief that the process itself was broken.)

At the same time, it was possible to over-interpret this finding by suggesting that all was well with the PA. In fact, the research indicated that it was possible both to support and understand the process overall and to find some aspects troubling. The questionnaire did not provide the qualitative details necessary to identify these specifics, but the interviews did.

The staff's strong interest in being involved in the design of the PA confirmed Goodale's (1993) concerns about the ineffectiveness of a process that fails to include collaboration. Qualitative information gathered through interviews reinforced this.

Data were considerably less conclusive about the perceived value to the PA of objective versus subjective information. It is possible that while almost all information is important at some level, only feedback provided by a supervisor is critical. This supports Wright's (1997) theory about assessing what counts. Although respondents rated almost all criteria as somewhat important, it is possible that the majority of the PA should be focused on subjective criteria from within the organization. (This is what Anthony, Kacmar and Perrewe [2002] suggest.)

Data affirmed the importance of aligning the PA to emphasize work done. Questionnaire and interview responses alike indicated that staff considered some areas in the appraisal irrelevant (*e.g.*, occupational safety and health, administrative skills, and future performance).

Data also confirmed the hypothesis that it is important to assess admissions counselors' emotional intelligence competencies (EICs), *e.g.*, self-awareness, self-management, social awareness, and relationship management (note the similarity to the areas discussed by Goleman, Boyatzis and McKee [2002]). Of the assessment areas ranked highest by both research samples, the following would be considered EICs: integrity and honesty, knowledge of personal strengths and weaknesses, relationships with colleagues, achievement of specific objectives, and initiative. Data thus suggested that it would be prudent to align the performance appraisal with EICs.

Data related to the connection between the PA and compensation revealed that most people in admissions understand that the connection is not direct. (Those who choose higher education as a career may understand that rewards are not primarily in the form of salaries.) Data suggested further that while a somewhat stronger connection is desirable, it is not essential.

Survey data revealed little about the importance of assessing team-like behaviors (Huszczo 1996). In fact, team-like behaviors were mentioned only once, during a group interview about the use of objective information (*e.g.*, admissions numbers) as assessment data. Several participants commented that this seemed contrary to what they per-

ceived as a team responsibility for achieving enrollment goals. Nevertheless, it is possible that several of the areas respondents identified for assessment—particularly those that represent EICs—measure individual performance as it relates to team performance. For example, some staff mentioned “awareness of the needs of the office and institution” and “relationships with colleagues.”

## SOLUTIONS

In response to questionnaire and interview data and analysis, three specific interventions were undertaken to improve the PA process at Augustana: improve training for the PA; develop a specific framework for identifying and establishing assessment goals; and involve staff in the development and design of a new assessment instrument.

The core objectives of the implementation plan were to change staff perceptions of those aspects of the PA deemed problematic; to improve the PA experience overall; and to properly align the tools used in the PA.

Each data-gathering process revealed staff members' desire to improve the process for all. Ultimately, staff proposed the changes, which helped with buy-in. It was my job to help the group create a vision of what “success” would mean.

Although I anticipated little resistance to the proposed solutions, I used three strategies to minimize it:

- share data in summary format;
- articulate the benefits of changing those aspects of the PA identified as problems; and
- ensure that staff understand what change means.

I discussed change within the context of an ending, a period of confusion, and a new beginning (Bridges 1980). Because I had neglected to present this at the outset, staff had perceived the PA process as an imposition.

Data suggested that training was a significant concern. Staff made helpful suggestions during the group interview, including providing examples of previous PAs to new staffers, assigning a PA mentor to new counselors, and developing a PA guide.

In response to considerable staff concern about goal – setting, we worked to define a framework within which goals would be considered. For example, Seijts and Latham (2005) distinguish between “learning goals” and “performance goals”: “Learning goals” emphasize knowl-

edge expansion and skill acquisition; “performance goals” emphasize performance specifically (*e.g.*, increase sales, expand market share, etc.). To help guide goal setting, staff members would be given definitions of learning goals and performance goals and would be asked to establish their goals in each area.

Data confirmed that admissions counselors expect the PA to align with work requirements. An appropriate step was to design an assessment around those areas of importance identified by questionnaire respondents.

We decided that after the new and improved PA process was implemented the next year, the success of all these steps would be evaluated by holding individual meetings and by using a follow-up questionnaire. Those aspects that had been deemed problematic would be evaluated specifically. It was my hope that the data would confirm the success of our interventions.

## REFLECTIONS

In retrospect, the questionnaire was too long and tried to evaluate too much. It did not allow for subtlety, which ultimately proved important in identifying which aspects of the process were problematic. The questionnaire did prove useful as a source for triangulation, but it had limited “take aways.”

This project revealed that admissions staff overall embrace the PA as important to professional growth. I realize in hindsight that I mistakenly believed the source of the problem to be the process itself. This doubtless led to some bias in the construction of the data-gathering instruments. This same miscalculation led to an overstatement of the problem that became apparent only after the data were gathered, analyzed, and interpreted.

Overall, the data provided for thoughtful decision making and provided the context within which to identify problems with confidence. The questionnaire data likely will be of interest to admissions professionals at other colleges.

The group interview, personal interviews, and subsequent follow-up conversations improved my understanding of the problems I identified. I realized in hindsight that these conversations should have occurred before I administered the performance appraisals.

In truth, the problem started when I quickly put into place a PA process that was neither well understood nor appreciated. My haste resulted in a flawed process.

## CONCLUSION

Action research proved vital to resolving problems related to implementation of a performance appraisal process at Augustana College. Guided by Pearce, Robinson and Sandburg’s (1989) Six-Step Model, the research identified three problematic aspects of the PA: poor training, misunderstanding about goal setting, and limited buy-in. Together, admissions staff and leaders have taken steps to address each of these concerns. Performance appraisal has been restored to its rightful place as an essential process both for reflection on past performance and for goal setting in support of institutional objectives.

This project restored my confidence in the value and importance of a thorough performance appraisal process that emphasizes quantitative and qualitative assessment. In the months following, I worked with the admissions staff at Augustana to design new performance appraisal instruments for conducting a self-appraisal and management-appraisal. These instruments include assessment criteria in the following critical areas: communication, performance objectives, learning and team contribution; and a goals section in each category. Once we developed instruments, which were informed by this project, we gained permission from Human Resources to use our customized instruments and have been using them successfully since.

The following performance appraisals were developed and are being used annually:

- Admissions Counselor/Staff Self-Appraisal
- Admissions Counselor Supervisory Appraisal
- Dean of Director of Admissions Self-Appraisal (Assesses similar areas, but includes a specific section on leadership)
- Dean or Director of Admissions Supervisory Appraisal
- Third-party (faculty, other staff, prospects, parents, etc.) Performance Appraisal

In addition to developing new instruments and gaining permission to use these customized instruments, we have included a session about performance reviews and what to expect as part of our new employee orientation program. We also include the performance instruments in the materials we provide to new employees. Finally, the research enabled us to develop a program that focuses on the right things for admissions professionals: an opportunity for

feedback from a supervisor, an assessment of the emotional intelligence competencies (EICs) that are critical to effective counseling, and a measured use of numeric measures that balance team contribution with individual achievement.

Our process is no longer broken, and one long-term staff member included the following comments in her review of the process:

“...the new process was an improvement over the old (and a vast improvement over not doing one at all). It seemed to prompt more discussion and allowed me to focus on those things I do well and what I need to improve upon. I especially liked that it incorporated the specific things that are important not only to the office, but to the college as a whole, reflecting many of the skills we have been working to improve upon on our way to excellence and elegance.”

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## About the Author

**W. KENT BARND** is Vice President of Enrollment, Communication and Planning at Augustana College in Rock Island, Illinois. He served previously at Elizabethtown College in Elizabethtown, Pennsylvania.

## APPENDIX A

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### Institutions Participating in the Survey

- Albright College, Reading, PA
- Augustana College, Sioux Falls, SD
- Brandeis University, Waltham, MA
- Capital University, Columbus, OH
- Carthage College, Kenosha, WI
- Concordia University, Moorhead, MN
- Elizabethtown College, Elizabethtown, PA
- Elmhurst College, Elmhurst, IL
- Gettysburg College, Gettysburg, PA
- Gustavus Adolphus College, Saint Peter, MN
- Illinois Wesleyan University, Bloomington, IL
- Lebanon Valley College, Annville, PA
- Lycoming College, Williamsport, PA
- Muhlenberg College, Allentown, PA
- St. Olaf College, Northfield, MN
- Susquehanna University, Selinsgrove, PA
- Texas Lutheran College, Sugin, TX
- Wartburg College, Waverly, IA

## APPENDIX B

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### Questionnaire for Admissions Officers

1. How long have you worked in the field of admissions/enrollment?
    - [ ] 0–2 years
    - [ ] 3–5 years
    - [ ] 6–10 years
    - [ ] more than 10 years
  2. Have you worked in a profession other than admissions?
    - [ ] yes
    - [ ] noIf yes, what profession? \_\_\_\_\_
  3. Please indicate your gender.
    - [ ] female
    - [ ] male
  4. Does your organization conduct performance appraisals of admissions staff members?
    - [ ] yes
    - [ ] no
- Current Experience with Performance Appraisals**  
(Question 5 was asked only of the Augustana sample.)
5. Have you been appraised in your current role?
    - [ ] yes
    - [ ] no
  6. Do you complete a self-appraisal as part of the performance appraisal process?
- [ ] yes  
[ ] no
7. Did you have a role in developing the performance appraisal process?
    - [ ] yes
    - [ ] no
  8. How would you describe the performance appraisal process your organization uses?
    - [ ] formal
    - [ ] informal
  9. How frequently is an appraisal conducted?
    - [ ] annually
    - [ ] every six months
    - [ ] more frequently than every six months
    - [ ] Unsure
  10. In your organization, do you believe performance appraisals occur...?
    - [ ] too frequently
    - [ ] too infrequently
    - [ ] just frequently enough
    - [ ] unsure
- With regard to your current performance appraisal systems...**  
(Possible responses to questions 11a–12f are: *Strongly Agree, Agree, Somewhat Agree, Strongly Disagree.*)

- 11a. I understand the purpose of the performance appraisal process.
- 11b. My supervisor both outlined and clearly stated the purpose of the performance appraisal.
- 11c. I have asked my supervisor for an explanation of the purpose of the performance appraisal.
- 11d. I have asked a colleague for an explanation of the purpose of the performance appraisal.
- 11e. I believe it would improve the performance appraisal experience if my supervisor clarified the purpose of the performance appraisal process.

*With regard to my current appraisal system...*

- 12a. The performance appraisal system is connected to my institution's strategic goals.
- 12b. During my performance appraisal, the strategic goals of the institution are discussed within the context of individual performance.
- 12c. A clear connection between my individual performance and the strategic goals of the institution is important.
- 12d. The performance appraisal process would be improved if it were more closely aligned with the institution's goals.
- 12e. A clear connection between my individual performance and the goals of the Office of Admissions is important.
- 12f. The performance appraisal process would be improved if a greater connection between individual performance and the goals of the Office of Admissions existed.

*Please rate the following aspects of your current appraisal process*

(Possible responses to questions 13a–13d are: *Excellent, Good, Average, Poor, Unsure, or Not Applicable*)

- 13a. Explanation of ratings/rankings associated with performance appraisal
- 13b. Training for the performance appraisal process
- 13c. Emphasis on objective performance criteria (*e.g., numbers, goals, etc.*)
- 13d. Validity of the rankings provided by supervisor
- 14. If your appraisal process utilizes rankings or ratings, do you believe it would improve the appraisal process if you knew how your rankings compared to others?
  - [ ] yes
  - [ ] no
  - [ ] uncertain
  - [ ] not applicable because our process does not use rankings/ratings
- 15. If your appraisal process uses ratings/rankings, would it improve your understanding of your individual performance if you knew where your rankings were in relation to others?
  - [ ] yes
  - [ ] no
  - [ ] uncertain
  - [ ] not applicable because our process does not use rankings/ratings
- 16. How important are the following aspects of your current performance appraisal system? (Possible responses to questions 16a–17g are: *Essential, Very Important, Important, Not Important, or Unsure*)
  - 16a. How important is the connection between your day-to-day performance and the performance appraisal process?
  - 16b. How important is the connection between your achieved results in a given year and the content of your performance appraisal?
  - 16c. How important is the connection between the content and the outcome of your performance appraisal (*e.g., affirmation, guidance, feedback, compensation, etc.*)?
  - 16d. How important is the connection between the content of your performance appraisal and your overall satisfaction with your work?
  - 17. How important are the following outcomes for the performance appraisal process?
    - 17a. Professional guidance

- 17b. Affirmation of a job well done
- 17c. Opportunity for discussion with supervisor
- 17d. Opportunity to clarify future goals and set expectations
- 17e. Opportunity to reflect on past achievements
- 17f. Opportunity to discuss compensation
18. How would you rate your satisfaction with your current performance appraisal?
- Very Satisfied
  - Satisfied
  - Somewhat satisfied
  - Somewhat dissatisfied
  - Very dissatisfied
  - Unsure
- Compensation and the Performance Appraisal Process**
19. I believe there should be a strong connection between compensation and the performance appraisal process.
- Strongly Agree
  - Agree
  - Somewhat disagree
  - Strongly disagree
  - Unsure
20. How would you characterize the connection between your current appraisal process and your compensation?
- Very strong connection
  - Strong connection
  - Average connection
  - Limited connection
  - No connection
  - Unsure
21. How strong a connection between your performance and the performance appraisal process should exist?
- Much stronger than currently exists
  - Stronger than currently exists
  - Somewhat stronger than currently exists
  - The same as what currently exists
  - Less than what currently exists
22. Do any of the following have an impact on the perceived connection between compensation and your performance?
- The college has limited resources.
  - My supervisor is not aware of all I do.
  - Admissions officers are paid poorly everywhere.
  - My supervisor compensates team members evenly.
  - It is difficult to clearly identify outstanding achievement in order to enhance compensation.
  - Other (please specify)
23. I believe the performance appraisal process would be improved if a greater connection existed between individual performance and compensation.
- Strongly Agree
  - Agree
  - Somewhat disagree
  - Strongly disagree
  - Unsure
24. Important areas of assessment for the performance appraisal
- Please rate the importance of the following characteristics as they relate to assessing the performance of an admissions staff member. (Possible responses are: *Essential, Very Important, Important, Not Important, or Unsure*)
- a) Goals, objectives, and expectations
  - b) Knowledge of work
  - c) Job factors
  - d) Quality of work
  - e) Communication skills
  - f) Initiative
  - g) Administrative skills
  - h) Appreciation of diversity
  - i) Commitment to mission
  - j) Supervisory skills
  - k) Occupational safety and health
  - l) Overall performance
  - m) Planning, organizing, implementing, and evaluating
  - n) Leadership qualities
  - o) Resourcefulness
  - p) Relationship with colleagues
  - q) Critical thinking/decision making
  - r) Knowledge of individual strengths and weaknesses

- s) Confidence in abilities
- t) Integrity and honesty
- u) Professional development
- v) Future performance
- w) Awareness of the needs of the office and college
- x) Mentoring others
- y) Conflict management skills
- z) Achievement of specific objectives
- aa) Cooperative spirit

***Importance of Objective Criteria to Performance***

(Possible responses to questions 25—27 are: *Essential, Very Important, Important, Not Important, or Unsure*)

- 25. Conversion of inquiries to applications
- 26. Conversion of applications to enrollments
- 27. Retention of enrolled students
- 28. Does your current performance appraisal process include objective criteria similar to those mentioned above?
  - [ ] yes
  - [ ] no
  - [ ] unsure
  - [ ] not applicable

(Possible responses to questions 29—32 are: *Essential, Very Important, Important, Average Importance, No Importance*)

- 29. How important do you believe objective criteria (such as those mentioned above) are to the performance appraisal process?

Importance of subjective criteria from outside the organization:

- 30. Feedback from guidance counselors
- 31. Feedback from prospective students
- 32. Feedback from admissions officers outside the organization

- 33. Does your current performance appraisal process include subjective criteria similar to those mentioned above?
  - [ ] yes
  - [ ] no
  - [ ] not applicable

(Possible responses to questions 34—37 are: *Essential, Very Important, Important, Average Importance, No Importance*)

- 34. How important do you believe subjective criteria from outside the organization (such as those mentioned above) are to assessing your performance?

***Subjective criteria from inside the organization***

- 35. Feedback from supervisor
- 36. Feedback from prospective students
- 37. Feedback from other admissions officers/ colleagues
- 38. Does your current performance appraisal process include subjective criteria such as those described above?
  - [ ] yes
  - [ ] no
  - [ ] unsure
  - [ ] not applicable

- 39. How important do you believe subjective criteria (such as those described above) are in assessing performance?
  - [ ] Essential
  - [ ] Very important
  - [ ] Important
  - [ ] Average importance
  - [ ] No importance
- 40. Would you like to share any strategies you believe are effective related to the performance appraisal process for admissions officers?

## **APPENDIX C**

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### **Group Interview Protocol**

As you know, I am conducting a research project that focuses on the performance appraisal process for admissions officers at private colleges, including Augustana. I have several questions I would like to ask you during the course of the next 60 to 90 minutes. Although I will be recording this meeting, no answers will be attributed to any one person for the purposes of the research. Your candor is invited.

In addition to this group meeting, you are invited to meet with me individually at a later time to address similar questions. As you know, I have already surveyed you and others in the admissions profession to gather more information about this important process.

This project is designed to provide a better understanding of the performance appraisal process and, if possible, to identify ways to make the process more satisfying for everyone involved. It is my intent to conclude the project no later than March 1, at which time I will be happy to share my findings.

I would like to thank you for your participation and candor. Your input is critically important.

### ***Interview Questions:***

- Do you think the purpose of the performance appraisal process is clear? If so, why? If not, why?
- What do you like about the performance appraisal process?
- What do you dislike about the performance appraisal process?
- If given the chance, what would you change about the performance appraisal process?
- Are there deficiencies with the current process?
- Do you believe you were properly prepared for the performance appraisal process (e.g., did you know what to expect)? If not, why? What could have been done to improve your preparation?
- What role should subjective items play in the appraisal process?
- What role should objective items play in the appraisal process?
- Currently, is too little or too much emphasis on one or the other?
- What do you believe is most important to evaluate? Team performance? Individual performance?
- What connection exists between compensation and performance appraisals? Is the connection too strong? Too weak?

COLLEGE ACCESS MARKETING (CAM) IS A RELATIVELY NEW PHENOMENON THAT SEEKS TO POSITIVELY INFLUENCE THE COLLEGE-GOING RATE. THIS REPORT DEFINES CAM, DESCRIBES CAM EXAMPLES, AND DISCUSSES HOW CAM SEEKS TO COUNTER BARRIERS TO COLLEGE. IT EXPLORES FOUR MAIN ELEMENTS OF CAM: INFORMATION, MARKETING, ADVOCACY, AND SOCIAL MOBILIZATION. FURTHER, IT IDENTIFIES THEMES AMONG THE CAM LITERATURE THAT ILLUSTRATE ITS VALUE. IT EXPLAINS CAM'S ROLE IN SUPPORTING ACCESS TO HIGHER EDUCATION, DISCUSSES THE SHORTCOMINGS OF THE LITERATURE, AND IDENTIFIES AREAS FOR FURTHER RESEARCH. AS CAM EVOLVES, SO WILL ITS EFFECTIVENESS IN PROMOTING HIGHER EDUCATION AND FACILITATING COLLEGE ENROLLMENT.



# “Going to college”

is an expression that has been used since the first college in the United States opened in the 1600s (Cabrera and Burkum 2001). Since then, colleges have promoted and advertised themselves, often selling the education they provided. According to Gastwirth (2007a), the Ad Council promoted “going to college” prior to the 1970s as a way to increase college attendance. In the 1990s, to further increase the college-going rate, the concept of college access marketing (CAM) emerged and the expression was coined (Gastwirth 2007b). (CAM is so new that it does not appear in the online college access glossary hosted by the National College Access Network.) CAM is a public awareness effort designed to positively influence the college-going rate. The intent of CAM is to “change students’ behaviors...related to preparing for, attending, and succeeding in college” (Mize 2008). On the basis of public opinion research, the National Center for Public Policy and Higher Education (2009) states that the American

population “believes that college access is declining” (p.1). The American population’s perception is their reality.

From a practical perspective, CAM seeks to influence the predisposition and the search stages of the college choice model developed by Hossler and Gallagher (Hossler, Schmit and Vesper 1999). This model explains the process of how students prepare for and enter higher education. According to Hossler and Gallagher (1999), students experience three stages in the college choice process, and CAM can shape students’ perspectives through psychological constructs (Hossler and Palmer 2008; Hossler, Schmit and Vesper 1999).

With college access a top priority of educators, legislators, and business professionals, there has been a surge of marketing and awareness campaigns to increase the college-going rate. The blending of college access and marketing is not new, but thanks to foundations, higher education associations, college access marketing, and non-profit organizations, financial and other resources are being invested to encourage students to pursue a college education and consequently to increase college enrollments. This paper seeks to define CAM, to identify and describe CAM examples, and to determine whether CAM is an effective tool—all through a review of related resources.

At its core, CAM is really a form of advocacy, communication, and social mobilization (Grimm 2001). CAM advocates for enrollment in higher education and *communicates* directly using college-going messages to mobilize individuals to choose college. The origin of such communication and mobilization efforts lies with work the Ad Council (2010) undertook in 1942. Examples of advocacy and social mobilization efforts include the “just say no” to drugs campaign,” the “campaign for tobacco-free kids,” and the “only you can prevent forest fires” slogan featuring Smokey the Bear (Ad Council 2010). Overall, the goal of CAM is to create social change by influencing students’ decision making.

Today, CAM has many faces. According to Christensen (2010), “A college access marketing campaign may comprise

a single project or an ongoing, reiterative program” (p. 1). CAM initiatives range from national efforts and statewide projects to limited campaigns and electronic implementations. The main components of CAM are information, marketing, advocacy, and social mobilization. An assessment of CAM thus requires a review of these four elements.

## ELEMENTS OF CAM

The literature on CAM is relatively young, dating only to the 2000s. Much of the literature describes examples of CAM campaigns; a few more recent pieces include evaluative research. Before surveying the literature, a description of CAM’s four components is necessary.

### Information

The primary goal of any CAM campaign is the distribution and sharing of knowledge. This is referred to as the *content*. Conley (2005) acknowledges that “college preparation is knowledge-intensive” (p. 21). To prepare to enter college requires students to obtain a vast array of information to make effective decisions. Daun-Barnett and Das (2007) identify “information necessary to navigate the decision and choice processes” as one of the four college access dimensions and assert that lack of information is often an access barrier for students (p. 5). Former U.S. Secretary of Education Margaret Spellings once said, “We found that access to American higher education is unduly limited by the complex interplay of inadequate preparation, lack of information about college opportunities, and persistent financial barriers” (English and Tillary 2009). Lack of information is one of the primary challenges Spellings and others have identified as a barrier to higher education enrollment. CAM is implemented with the intent of providing information to students so they can prepare for and enter college.

### Marketing

Marketing is an organized method of convincing an audience using promotional techniques. For CAM, marketing is the approach and design that works to communicate college preparatory information. According to Coles and Krywosa (2007), CAM “uses marketing techniques to motivate people to take steps to further their education.” It incorporates awareness campaigns, Web sites, access portals, social networking, media purchases, slogans/taglines, advertising, public relations, testimonials, logos,

and branding. CAM marketing efforts are shifting toward increased use of electronic media, such as social networking Web sites. Marketing demands that CAM campaigns have compelling messages and carefully identified target audiences (Grimm 2001).

### Advocacy

Generally speaking, advocacy is a public recommendation of a person, place, or thing. In regard to college access, advocacy is defined as publicly supporting a college education. As of 2003, only 27 percent of all adults in the United States age 25 years or older had earned a bachelor’s degree (Stoops 2004). Clearly, much work needs to be done to convince the American public of the benefits of a college education. According to Grimm (2001), CAM is essentially *issue branding* in which a coalition of college advocates is framing the issue of “going to college.” Issue branding is the connection among advocacy, marketing, and social mobilization.

### Social Mobilization

Social mobilization is an organized effort to encourage individuals to take action. Gastwirth (2007a, p. 1) refers to college attendance as a “great social concern” primarily because of higher education’s connection to prosperity in the United States. CAM therefore aims to mobilize awareness so as to instigate action—specifically, to increase knowledge about the benefits of college and, thereby, to increase enrollment. CAM campaigns are a form of social mobilization that “influence[s] peoples’ attitudes about going to college” (Daun-Barnett and Das 2007, p. 2). According to Gastwirth, CAM campaigns have five main behavioral change goals: aspiration, academic preparation, availability, affordability, and application (as cited in Kanoy and Watts 2005). Gastwirth (2007a) elaborates that CAM campaigns are “most effective when they are focused on concrete, specific and actionable positive behavior changes” (p. 20). Those actions and behavior changes include thinking about and planning to pursue a college education and actually taking the steps to put oneself on that path.

## REVIEW OF THE LITERATURE

Now that information, marketing, advocacy, and social mobilization have been explained and linked, it is time to survey the CAM landscape. Of the 25 sources of infor-

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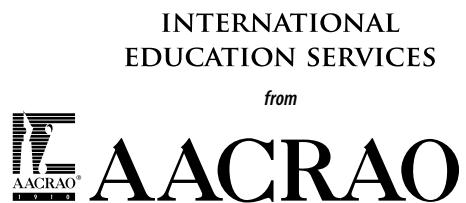
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mation related to CAM reviewed, there are eight different types of content. This literature included five research reports, one campaign report, six PowerPoint presentations, three white papers/proposals, two general articles, four “how to” pieces, one Web site, and one corporate publication. Although each of these offered a varying perspective on CAM, some common themes emerged, including use of Web sites and Web portals, statewide approach, collaboration, a focus on content, and marketing.

Because of their ability to reach thousands of students efficiently, Web sites are a primary component of CAM. The State of North Carolina first created and launched a CAM-based Web portal in July 2000 (Kanoy and Watts 2005); the site frequently is referenced by others because it was the original online college access portal. Such sites are essentially electronic tools that serve as a one-stop Web presence where students can learn about and embark on the steps toward college preparation. According to the Washington Higher Education Coordinating Board (2009), a Web portal is “a public-facing Web site that offers a broad array of information and services from diverse sources in a unified fashion, giving the customer the option of accessing a subset of resources anonymously or a fuller, richer, and more customized set of resources through registration and authentication” (p. 1). Providing information with dynamic functionality, Web portals constitute an integrated CAM solution, bringing together previously decentralized content and linking information for students. For example, the North Carolina site ([cfnc.org](http://cfnc.org)) includes a high school planner, college preparation content, career planning information, tools for the college search process, information about financial aid, and links to college applications (Kanoy 2006). Watts (2009) points out that the Web portal solution is beneficial because it is accessible, current, interactive, and versatile. Most of the literature focuses on the content and technological functionality of CAM sites rather than on the marketing aspect per se.

Other state examples of Web portals and Web sites include Ohio’s ([www.ohiocap.org](http://www.ohiocap.org)), Oklahoma’s GEAR UP site ([www.okhighered.org/gearup](http://www.okhighered.org/gearup)), and New Hampshire’s Get Ready NH! ([www.getreadynh.org](http://www.getreadynh.org)) (Christensen 2010). A distinguishing feature of state and national Web sites is their target audience paths. Most provide links based on grade level (*i.e.*, eighth grade, eleventh grade, etc.). Knowing your audience is one of the core principles

of CAM (Coles and Krywosa 2007). CAM sites use marketing phrases such as “more opportunity” and “advancing your education” and show photos of graduating students in their caps and gowns (Ohio Board of Regents 2010). West Virginia’s new portal ([cfwv.org](http://cfwv.org)), hosted by the College Foundation of West Virginia (2010), has a tagline of “learn more. earn more.” Marketing is evident in taglines such as Oklahoma’s portal phrase: “Click, Compare, Choose” (Oklahoma 2010). Maine uses a “kick start” theme featuring a donkey (Kick Start Maine 2010).

At the national level, [knowhow2go.org](http://knowhow2go.org) is the most well-known and branded CAM-based Web site. In fact, knowhow2go has expanded its presence through the creation of state versions of the site. Knowhowtogo describes four steps in the college preparation process: be a pain, push yourself, find the right fit, and put your hands on some cash (Learn More Indiana 2010a). This short and clever list is designed to be easy to recall, uses youthful language, and keeps the message simple.

Another feature of CAM that is described in the literature is *alliances*. CAM efforts are most effective when they are undertaken in collaboration with organizations such as governments, foundations, corporations, and schools. According to Coles and Krywosa (2007), CAM must engage key stakeholders and identify partners. Coalitions are pivotal to the success of CAM efforts. Some organizations even brand their partnership initiatives. For example, the State of Indiana has branded a “College Success Coalition” with an identity and a charge to support the journey to college (Learn More Indiana 2007b). This formalized approach unites organizations for the benefit of connecting, collaborating, convening, and communicating (Learn More Indiana 2007b). To launch the Ohio College Access Portal, the State of Ohio partnered with the Ohio Board of Regents, the Ohio Department of Education, the Ohio College Access Network, and GEAR UP to achieve its goals (Ohio Board of Regents 2010). Legislative mandates about collaborations and partnerships have been recommended. In North Carolina, as in other states, partnerships play a critical role in keeping stakeholders informed and engaged (English and Tillery 2009). Gastwirth (2007a) asserts that collaboration is necessary because “there are so many moving parts involved in the college-going process” (p. 13).

The non-profit Pathways to College Network is a leader in CAM. It created <[www.collegeaccessmarketing.org](http://www.collegeaccessmarketing.org)> in order “to provide advice, support, and resources to college access marketing practitioners” (Southern Regional Education Board 2010). The premier destination for CAM researchers, implementers, and proponents, it is a repository of links to college access Web sites as well as to multiple state case studies. The site has impressive search functionality, linking to 35 state and national CAM campaigns. Despite the lack of content in the news section, the site is a rich resource for college access marketers.

At the core of CAM efforts is the delivery of information intended to better prepare students for college. Thus, most CAM campaigns focus on such topics as academic preparation for college, applying for college, paying for college, and career planning. The North Carolina Web portal described above intentionally matched its content to Tafel’s “five As of college access.” Thus, *aspiration* served as the theoretical basis for the site’s career planner; *academic preparation* was addressed through the site’s student planner; *affordability* was achieved through the “paying for college” section of the Web site; *availability* through an online college fair; and *applications* through links to online college applications (Watts 2009).

CAM is a strategy being implemented at the national, state, and local levels. Nationally, organizations including the Ad Council, the Lumina Foundation, and the American Council on Education (ACE) (among others) partnered to launch the “KnowHow2Go” campaign. At the state level, CAM efforts are under way: Thanks in part to funding from the Kresge Foundation and community-based foundations, the Michigan College Access Portal (MiCAP) recently launched. At the local level, the University of Michigan–Dearborn (2010) branded a “Thinking About Tomorrow Program” designed to help students focus on their future (the marketing theme originated with the song “Don’t Stop Thinking about Tomorrow”).

A few sources in the literature—for example, awareness studies by the Ad Council and an evaluation report by the CFNC organization—describe the results of CAM efforts. Because of its involvement with the KnowHow2Go campaign, the Ad Council conducted national surveys in 2006 and 2009. The 2006 survey evaluated the attitudes, behaviors, and perceptions of students and parents. Benchmark data indicated that college aspirations were high; that

teens rely on themselves to navigate the college search process; and that parents play an important role (Ad Council 2006). While not specifically tied to CAM, these data were used to make decisions regarding the future direction of the knowhow2go.org campaign. The 2009 survey, which focused on attitudinal and behavioral measures, found that awareness of the campaign’s messages appeared to be strong (Ad Council 2009).

Also in 2009, North Carolina published a 76-page summary report on “best practices for a statewide college access Web portal” (Tillery and English 2009, p. i). The authors focus on the “planning” and “applying” portions of the College Foundation of North Carolina (cfnc.org) Web site. Although a student awareness study was completed, the authors cite neither the date nor the source. Tillery and English demonstrate growth in student account creation, but it is unclear from the report whether inactive accounts were being purged annually. (If inactive accounts were not being purged, the data could be misleading.) A limitation of the study is that it uses first-time freshman counts to measure cfnc.org’s performance. A significant section of the report features Web analytics on 32 Web pages within cfnc.org. The report concludes with seven recommendations on topics such as education partnerships, Internet platforms, awareness and marketing, training and outreach, needs assessment, financial resources, and staffing. Overall, the scope of the report is very limited, focusing on the Web portal rather than on the entire state’s CAM efforts.

## METHODS

Having defined and reviewed the various aspects of CAM, the next level of understanding of CAM can be attained by evaluating its effectiveness. According to Gastwirth, the “evaluation of ‘social marketing’ campaigns is extremely difficult because measures of success are often unclear or elusive and it is difficult to demonstrate causation” (as cited in Fox and Kotler 1980). If the ultimate goal of any CAM is to increase the college-going rate, then there are some specific ways to evaluate its effectiveness. One measure is application milestones, but the most common way is to measure changes in college enrollments (Dougherty, Long and Singer 2009). Both of these measures have limitations. For example, even though CAM may be claimed

as one factor, many more factors conduce to increase applications to college.

Data collection and analysis are critical to measuring success. It is no different for CAM. Currently, results of CAM are measured in very specific ways: Web site usage of portals, actual college enrollments, percentage increases, and behavioral changes. Swail (2007) proposes evaluating CAM from three perspectives: process evaluation, impact analysis, and cost analysis. These components comprise a comprehensive approach by which to determine effectiveness. There is little evidence that statewide campaigns, portals, and Web sites are making a difference, primarily because little research has been conducted. While a site might have factual and informative content and an eye-catching message and graphics, it cannot fulfill its purpose if prospective college students either do not use it or do not find it appealing. Even though CAM is young, it needs evidence of success in order to maintain credibility and longevity.

## RECOMMENDATIONS

CAM was designed to serve as a means of increasing the college-going rate. However, the limited literature is not results oriented and so does not enable validation of that intention; it is unclear whether CAM is having an impact. It is ironic that researching CAM is analogous to a high school student searching for information about college: A variety of recommendations can be made.

The drawback of individual state CAM campaigns and Web sites is that they constitute a fragmented approach rather than a cohesive national effort. While state portals and models promote interests in each particular state, there are limitations. For example, a transfer student from out of state might not know about the existence of an “in-state” portal and so might fail to access important content. A “states portal clearinghouse” with links to all state portals could benefit national and regional transfer students.

Because college marketing Web sites are so numerous, little is known about which content is most valuable to users. Surveys, focus groups, and usability studies should be conducted to make this determination. Of course, a limitation of this recommendation is that students do not always know what they do not know—a phenomenon known as *agnosognosia* (Thornton II and McEntee 1995).

An element missing from the CAM Web sites is an overview of their marketing aspect. For example, no stud-

ies of the “brand” of the sites or marketing attributes such as taglines, graphic elements, etc. seem to have been conducted or published. This merits further research, particularly given states’ need to differentiate their sites from those of other states.

Given the lack of assessment of CAM initiatives, the National College Access Network (NCAN) could take the lead and become a repository of CAM evaluations. A leader in college access issues, NCAN could create a division devoted exclusively to CAM. This would fit its mission of sharing best practices—that is, those grounded in research and results.

Another recommendation is the development of universal college access indicators—a variation of key performance indicators (KPIs)—that could be used to evaluate the success of college access campaigns. Possible indicators might include awareness, actions taken toward application, and college entrance, among others.

Missing from the CAM literature is information about the role of colleges and universities. Higher education institutions could engage their admissions, marketing, and public relations offices to launch a CAM campaign. These offices typically have access to a wealth of resources that could be leveraged to raise awareness about access to college. Moreover, their experience marketing their own schools would have some transferability to a CAM initiative. Ultimately, institutions might set aside their competitive marketing in lieu of the common good of increased higher education enrollments.

Also unaddressed by the literature is the cost of CAM campaigns—and, by extension, cost-benefit analysis of CAM. Given the variety of CAM campaigns, there is likely to be a comparable diversity of financial investment. Effective assessments and evaluations of CAM must consider its cost, particularly when the success or failure of an effort is being measured. Since print and web-based media are expensive, cost is an important consideration.

Another component largely absent from the literature is commentary and reflection on the creative aspect of marketing messages and designs. This could be referred to as the creative capital of CAM. No real review or study of the aesthetics of the materials—print or electronic—exists. This merits further research.

Most important, research about CAM is limited. More empirical research is needed to fully evaluate the effective-

ness of CAM. Perhaps it is too early to assess CAM campaigns—particularly those targeted at the middle school population, for whom expected outcomes cannot be measured until at least five years later. More strategic plans and proposals for CAM should include a major component devoted to assessment, data collection, and evaluation. Overall, CAM is still growing into its own. By implementing these recommendations, CAM's presence and effectiveness can be strengthened.

## CONCLUSION

CAM is striving to have an impact by increasing college attendance. With information, marketing, advocacy, and social mobilization as its foundation, CAM is both vast and specific. It has grown out of struggling economies, the need for a better workforce, and college access inequities (Mize 2008). According to the National Center for Public Policy and Higher Education (2009), preserving college access is a national priority. The overarching goal of CAM is to connect students to college through information sharing, interaction, and attitude shifting (Daun-Barnett and Das 2007). CAM is still considered to be an emerging field. More than a “movement,” it has become integrated into our work and plans and is essential for ensuring that college enrollments continue to increase. Ultimately, CAM will shape the future of American higher education.

CAM is now playing a pivotal role in pre-college guidance (Hossler and Palmer 2008). Daun-Barnett and Das (2007) stipulate that there are four broad dimensions of college access: accessibility of information, academic preparation, cost of college, and encouragement to attend. College access marketing works primarily to leverage the dimensions of “encouragement to attend” and “accessibility of information;” it touches only briefly on the other two dimensions.

Given the rapid expansion of social networking media, CAM will continue to wield influence in the electronic world. As other types of media are created and evolve, CAM will have opportunity to utilize technological tools to spread knowledge about college preparation and aspirations. CAM alone cannot and will not change the percentage of students enrolling in college. However, it can be a powerful influence. CAM is designed to mobilize young people to take positive actions toward college enrollment. Whether the goal is to increase access by a certain percent-

age or to bring thousands of young people to the doors of higher education, CAM has the power to shape the future. Only when the gap between the educated and the non-educated is closed will CAM be unnecessary. For now, the United States and its education advocates have a long road ahead. CAM seeks to shift, challenge, and change the mindsets of the American people.

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## About the Author

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**CHRISTOPHER W. TREMBLAY** is Executive Director of Enrollment Management and Interim Director of Financial Aid at the University of Michigan-Dearborn. He previously served as Director of Admissions at UM-Dearborn and Gannon University. Tremblay earned both his bachelor's and master's degrees from Western Michigan University. He has a post master's certificate in enrollment management from Capella University, and is a doctoral student at UM-Dearborn studying educational leadership. He has published articles in *College & University*, the *Journal of College Admission*, *Journal of College Orientation and Transition*, and the *Journal of Intergroup Relations*. He has presented at 30 association conferences for AACRAO (SEM), the College Board, NACAC, MACAC, PACAC, MACRAO and NODA. Active in college access initiatives, Tremblay serves on the advisory board of Project ACE, a Local College Access Network (LCAN) in the State of Michigan.

**AUTHOR'S NOTE:** This article was written during a class entitled "College Access and Choice in the U.S.", taught at the University at Buffalo by Assistant Professor Dr. Nate Daun-Barnett.

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### When Technology Is a Rockin', Opportunity Starts a Knockin'

BY C. MICHAEL COOK

The stone age of college and university admissions was characterized by paper, snail mail, large file rooms, and cumbersome admission processes. Employees who remember typewriters and microfiche will tell you they walked to work in the snow! Given all of the manual work that had to be done before a letter of admission could be mailed, it's a wonder anyone was ever admitted.

Even more frightening to recall is that only fourteen short years ago, approximately 36,000 applications for admission to Michigan State University arrived hand printed on paper in sealed envelopes. Mere application processing time, including mail handling, data entry, and document filing, averaged at least 30 minutes per application. In contrast, most universities today have converted to electronic applications. This technological advance saves as much as 20,000 work hours per year for large universities, liberating at least ten staff members to perform other key tasks. Consider other benefits of the electronic application process: the need for expert handwriting interpretation is eliminated; the number of data entry errors is reduced; and application processing time is shortened significantly.

Similarly, imaging solutions have improved processes by eliminating paper handling, storage, and management. Again, a technological advance has resulted in savings of

time, money, and file room space. Other benefits of electronic workflow and file review are reduced numbers of misplaced files and further shortening of the admissions process. By now, most of us take these changes for granted; a new norm has emerged.

Nonetheless, we find ourselves at the dawn of a new wave of admissions technology options: The door to innovative opportunities for improvement has been cracked open even wider. The timing for further streamlining of admissions processes is critical as most higher education institutions continue to slash their budgets. Like most other administrative offices in higher education, admissions offices are being forced to do more with less. Just when the system seemed optimal, reductions in staffing and resources leave administrators searching for more horsepower. As the late blues crooner Stevie Ray Vaughan sang, "Kick off your shoes, start losing the blues, this old house ain't got nothing to lose." Given tighter budgets, reduced staffing, and formidable competition, we need to seize upon process improvement when opportunity does come a knockin'.

One of the most significant technological innovations in our business is the delivery of electronic transcripts. In 2006, Michigan State University joined with Connect-EDU and the University of Michigan to develop and

promote an e-transcript service for high schools. Today, all public high schools in the state of Michigan are sending electronic transcripts to universities. E-transcripts are a welcomed efficiency associated with a paperless process. No envelopes need to be opened; no documents need to be scanned. (They also save a lot of trees.)

PDFs are sent directly to the imaging server, and it's off to the races. Right? But wait, there's much, much more: What if you could receive the e-transcript data in XML format from a Web service providing data encryption and server to server authentication? In laymen's language, that means the transcript data would be sent securely from the high school to your systems. A growing number of technology vendors are offering such service in full compliance with guidelines provided by the Postsecondary Electronic Standards Council (PESC), an organization devoted to promoting the standard exchange of student data among institutions.

O, the things we could do! XML delivery service allows continuous e-transcript data to flow seamlessly to admissions offices without even a push of a button. Student electronic data can flow through your admission processes before you brush your teeth in the morning! Admission counselors can pre-select acceptable high school academic courses, allowing computer code to automatically recalculate GPAs, and thereby eliminating yet another tedious and time-consuming manual process. By the time the admissions counselor finishes her first cup of coffee and turns on her computer, applicants' records—received only moments ago—are in an electronic queue, ready for review. What once took weeks to accomplish manually now is achieved in mere moments; our definition of efficiency again is rewritten. Having student information in databases rather than on paper enables endless possibilities for reports and customized records review. (We love our tech staff at Michigan State University!)

Our most recent technological endeavor is the creation of a comprehensive student portal. The basic value of offering a student portal is in the ability to provide personalized customer service while reducing the number of telephone calls to the admissions office. The portal notifies prospective students of application and associated document status, significantly reducing the 500 phone calls per day typically received by the admissions office. We hope to get even more bang for the buck: Our portal will allow

applicants to make changes to their applications, such as term, major, and address updates. At present, the multi-step (and time-consuming) process requires a phone call from the applicant, a documented comment sheet from the phone staff, scanning of the comment sheet into our imaging server, and manual change to the student information system by yet another staff member (we have more fun watching grass grow). The student portal's object-oriented coding will handle such tasks independently and lickety-split, updating the applicant's Student Information System record and sending a copy of the transaction to the student's imaging folder. Staff will be free to focus on other responsibilities. We also are making a process improvement leap by providing non-admit decisions via the portal. Applicants will receive automated e-mail messages any time there is a change to their application status. By providing admission decisions online, we have the opportunity to end our practice of mailing more than 8,000 withhold and denial decision letters per year.

Customer Relationship Management (CRM) systems emerged nearly a decade ago. The fundamental purpose of CRM is to manage recruitment communications with prospects, applicants, and admitted students. A growing number of vendor-provided CRM systems have been introduced, each with unique bells and whistles to further support and optimize customer service. The ultimate test of a CRM system is how well it supports increased application counts and associated yields in specific market segments. Of course, this measure of success is affected by the extent to which staff recognize the opportunities for improvement by utilizing such a tool to reach enrollment targets. These opportunities vary by institution, but success hinges on a well-developed communication plan for specific markets. For example, a solid tactical communication plan may focus on assisting students by prompting them when required documents are missing or when an action is required. Triggers can be set based on pre-selected conditions to automatically communicate the desired message to a student. This message may be sent as an e-mail or as a printed letter, or it may provide notice of a telecounseling follow-up. Without a CRM system, the procedure requires staff initiative, staff-produced reports, and a well-managed protocol. Because prospective students can be guided through the admissions process by a series of CRM communications customized according to

their market segment and application status, calls to the office are minimized and admission decisions are rendered more quickly. CRM systems also are designed to maintain comprehensive student data not typically maintained in Student Information Systems. For example, both ACT and SAT data imports include valuable demographic and special interest data for each test taker. Triggered communications, whether written and/or scripted telecounseling messages, can be sent strategically as part of an effort to improve targeted market and yield activities.

Once upon a time, the admissions process involved tedious, labor-intensive work. Today, hundreds or perhaps even thousands of students were admitted to colleges and universities during the time it took to read this article. Technology-driven solutions have helped admissions offices stay competitive by streamlining the application process and improving prospect and applicant communications. As a result, more students are receiving admission decisions earlier in the cycle; institutions thus have the potential to increase yield and improve their competitiveness. One of the most important things to remember in today's competitive admissions market is to keep your eye on the ball. Things change quickly. Where will the next

wave of technology-driven opportunities surface? How can it help us decrease workload and improve customer service? How can we further improve our processes while budgets continue to decrease? All that is required is solid leadership, an experienced tech staff, and—most important—a mind open to change.

Finally, it occurred to me in writing this article that two of the best ways to learn about innovative technology and its impact on process improvement are to attend a conference and to read tech-related publications. Hence, Michigan State University's Office of Admissions is hosting an admissions technology listserv for anyone interested in sharing and learning more about this subject. To self-subscribe to the ADMISSIONSWIRED listserv, go to <<http://list.msu.edu/cgi-bin/wa?SUBED1=admissionswired&A=1>>.

We look forward to discussing best practices and to raising the bar on the quality of the college admissions process.

## About the Author

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**C. MICHAEL COOK, M.S.,** is Senior Associate Director in the Office of Admissions at Michigan State University (East Lansing).

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ADMISSIONS' EVOLVING ROLE: FROM GATEKEEPER TO STRATEGIC PARTNER \* THE AMERICAN WAY OF STUDENT AID \* STATE COLLEGE SAVINGS PLANS AND PREPAID TUITION PLANS: A REAPPRAISAL AND REVIEW \* AFFIRMATIVE ACTION: WHAT IS NEXT? \* THE "INSIGHT RESUMÉ": OREGON STATE UNIVERSITY'S APPROACH TO HOLISTIC ASSESSMENT \* HOLISTIC METHODS OF ASSESSMENT: THE VIEW FROM THE UNIVERSITY OF MICHIGAN \* SMALL PRIVATE LIBERAL ARTS COLLEGES: RECRUITING CHALLENGES AND OPPORTUNITIES \* COMMUNITY COLLEGE ADMISSIONS: KEEPING THE DOOR OPEN \* TECHNOLOGY-ENHANCED RECRUITMENT COMMUNICATIONS \* INTERACTIVE SERVICES: STAYING IN TUNE WITH A WEB-SAVVY GENERATION \* FACULTY'S ROLE IN RECRUITMENT \* LOW-IN-COME STUDENTS: OUTREACH AND RETENTION \* AFRICAN-AMERICAN STUDENTS: RECRUITMENT AND RETENTION \* HISPANIC STUDENTS: RECRUITMENT AND RETENTION \* ASIAN PACIFIC AMERICAN STUDENTS: RECRUITMENT AND RETENTION \* INDIGENOUS STUDENTS: RECRUITMENT AND RETENTION \* VETERANS ENGINEERING RECRUITMENT AND RETENTION \* RECRUITMENT OF TRANSFER STUDENTS \* HOMESCHOOLED STUDENTS: BACKGROUND AND CHALLENGES \* RECRUITING MILITARY STUDENTS \* REACHING THE ADULT MARKET \* RECRUITING LBGT STUDENTS \* INTERNATIONAL STUDENTS: MARKETING AND RECRUITMENT \* THE NEW TOEFL \* THE DREAM ACT AND IN-STATE TUITION FOR UNDOCUMENTED STUDENTS \* DELIVERING OUTSTANDING SERVICE ADMISSIONS PROCESSING \* DEVELOPING A NEW XML STANDARD \* PREDICTING ENROLLMENTS AND YIELDS \* ENHANCING ACADEMIC EXCELLENCE AND DIVERSITY \* PREDICTING GRADUATING PERFORMANCE: GEORGIA STATE UNIVERSITY'S FRESHMAN INDEX \* ADVANCED PLACEMENT PROGRAM: ITS INFLUENCE ON ACADEMICS AND ADMISSIONS

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### Mobile Technology and the Unsettled Ocean of Student Services

BY TIM FLOOD AND TOM BLACK

Imagine for a moment that we live in an ocean among an abundance of aquatic life that populates a beautiful underwater world. We call this world ‘home.’ These oceanic surroundings are all we have ever known. While this world has its everyday challenges, for the most part we love it! Everything we need to sustain ourselves—food to eat, a place to rest, familiar creatures whom we know and understand—is available here. We know what to do and how to succeed in this world.

Then one day something enters our world and changes it profoundly. It is still our home, and yet it feels so very different!

Mobile technology is one of several currents that upset our relatively placid world of admitting, enrolling, advising, serving, and graduating students. “Now hold on a second!” we say. “We’ve been involved with technology since we began in this profession! Technology is not really *new* to us!” But we know the disquieting truth: With mobile technology, *so much* is new—indeed, foreign—to many of us, and it is being delivered at an exponentially faster pace than other technological revolutions before it. Things *are* different!

Our task as participants in this changing environment is to understand our altered world and respond.

#### HOW iSTANFORD CHANGED OUR WORLD

For us, creation in 2008 of an iPhone app for Stanford called iStanford gave us a deep and penetrating look at the changes mobile technology presents for our campus. We want to share with you a little of the iStanford story.

A free mobile app, iStanford is available to anyone. It was initially developed to run on the iPhone and iPod Touch, but the app is now available on the Blackberry (Droid and other versions are being developed).

We must begin our story with a confession: *We could not have been successful had we obeyed all the laws—the givens—of our time-honored profession!* Indeed, we would not have begun the project at all. Our decision to do the project was an intentional choice to understand what was changing our world; it was a choice to take an adventure: We wanted to see if we could connect our Stanford administrative systems to the iPhone, an iconic device that had only recently been introduced—with great fanfare—to the marketplace.

We haven’t always been quick to adopt the new. And one of the things very different about the new ‘ocean we live in’ is *the pace* at which new technology engulfs us.

Our story began when Tom bought an iPhone. Like so many others, he found that his iPhone provided a break-

through user experience. He loved its ease of use and the way it maximized the user experience. Once Tim saw how much Tom could do with his new tool, he ran out and bought one too. We both observed how many people were using iPhones on campus. Then, during one of our brainstorming sessions, Tom held up his iPhone and said, “I wonder what we could do with this..” The ‘we’ referred to our role as university administrators. Could administrators use the iPhone to provide administrative services? Tim noted that the iPhone already interacted with very large backend systems to present news, YouTube videos, weather, maps, and the like, and that at Stanford, Web services and RSS feeds might be keys to ‘releasing data’ from PeopleSoft. Two rather addictive dreamers started to dream.

Tom contacted our campus Apple representative, Sylvia Herrero, who put us in touch with one of our undergraduates, then sophomore Kayvon Beykpour.

When we sat down with Kayvon in April 2008, on the advent of the release of Apple OS to worldwide developers, we realized that we were dealing with a special person. Smart, ambitious, results oriented, and charismatic, Kayvon also expressed a profound desire to do something significant and lasting for Stanford. He already had formed the company Terribly Clever Design (TCD) along with a few other Stanford students. During our first meeting, we outlined the initial four functional components, or ‘tiles,’ of iStanford: courses, athletics, maps, and directory. We also decided that TCD, a commercial entity, would function as an Application Service Provider (ASP) for Stanford, developing the software, retaining software rights, and running the system from its servers. We agreed further that TCD would offer the same service to other institutions. Two weeks later, Kayvon pre-

**R**egistrars and their staffs are not usually hired to be highly experimental—or so goes the perception! Although registrars’ responsibilities vary somewhat from campus to campus, their essential tasks are to carry out the will of the faculty in enforcing curricular and academic policy and to ensure the integrity and preservation of the academic record. Being adventurous and experimental is not the typical job description of a registrar.

Of course, this general perception is quite unfair. Registrars and admissions officers have both created and endured many changes in our field. Remember when touch-tone registration was new? Many of us successfully braved the choppy waters of that technology. Remember when EDI was the new thing? Same story. And remember when we all developed homegrown systems and turned them loose on our campuses? We did the same thing again as we converted to vendor systems. For all our reputation of being hidebound and conventional, we in fact have an enduring tradition of looking innovation square in the eye and bravely change after change.

sented initial mock-ups. Soon thereafter we met members of his team (they *were* terribly clever!), and we were off and running.

### BROKEN LAW #1: THOU SHALT EXALT STRATEGY ABOVE ALL THINGS.

As we began consulting various colleagues on campus, our intentions were met with a mix of enthusiasm and caution. Caring individuals intensely committed to doing the best for Stanford admonished us: *Perhaps it would be more prudent if you develop a mobile strategy before getting ahead of yourselves.* But this only makes sense in the world to which we are accustomed. We know from experience that long and complex projects require careful strategy and planning. But strategy usually takes a long time to develop, requiring careful consultation with campus and vendor partners, consensus and executive buy-in, and a documented strategic plan. Yet everything about the nature of the mobile explosion we were committing ourselves to explore flew in the face of the traditional approach. New hardware and software were hitting the marketplace at an exponentially quicker pace. If the project were conducted in the traditional way, the

technology would change before we completed specifications! We *didn’t want* a long project! Instead, we aimed for a very short project with a quick payback—one that would emulate the delivery of mobile apps to the marketplace at breathtaking speed.

How has not having a strategy turned out? For the students who developed the app, iStanford has created instant fame in the iPhone world. The student team won the 2008 AT&T Big Mobile contest and a \$10,000 prize for the best student-developed mobile application. TCD quickly began to sell the product to other campuses (as we

had initially forecast), and in 2009, TCD was purchased by Blackboard. It is now being offered globally as Blackboard Mobile Central.

On campus, iStanford was met with almost universal acclaim when it was released in October 2008. Within hours of the first release of iStanford in the Apple App Store, it was being heralded in more than a dozen blogs. iStanford appeared the envy of many. Tom, Tim, and Kayvon were invited to address a private audience of international developers at the Apple WorldWide Developers Conference in San Francisco. Interest in iStanford grew intensely and had broad appeal not just to students, faculty, and staff but also to alumni, visitors, and parents. (iStanford is now featured on the Stanford home page.) In stark contrast to the days when we roamed campus asking organizations to participate in iStanford without funding support, departments suddenly were wondering how they could be involved. Eventually, we formed a steering committee to put some level of policy and guidance around what was re-branded as the ‘Stanford Mobile Program,’ reflecting growing interest in making iStanford functionality not only more extensive but also more ubiquitous across mobile platforms. It seemed more appropriate *now* to take a strategic view while at the same time remaining committed to innovation. Our work is far, far from done.

We offer the following by way of concluding our confession: The success of iStanford may suggest that we had it all figured out before we began. In fact, we didn’t. We certainly didn’t have a ‘mobile strategy.’ We had *no experience* in mobile technology, really, and would not have known how to create a cogent, thoughtful strategy had we been asked to do so. We were simply being playful and experimental. We were pushing ourselves—and, by implication, our institution—to do more.

We do not pretend to know what it is like at your institution. But our experience with mobility leads us to wonder if perhaps mobility itself evokes a new response from us. Perhaps it requires a new way of thinking: *Have a mobile experience, generate some excitement, learn about mobility, and then build an informed strategy.*

### **BROKEN LAW #2: THOU SHALT AWAIT STANDARDIZATION.**

Early on, several technical advisors cautioned that there was little standardization in the mobile sector. We actually

knew that. “But wait,” we were told. “Pay it more heed!” “There is a large cost to moving forward at this time.” “You don’t yet know which devices will endure and which will be the duds of yesteryear.” “You’ll only be able to program for one device.” “What if a better one comes along?” “And why the iPhone? Why not the BlackBerry?” (There was no Android then. But there is always something old and stale and something hot and new.) We were pummeled with sound, legitimate questions such as these. In fact, they were expressions of another ‘given’ we were being admonished to observe: *Wait until standardization and market saturation tell you what is safe to pursue.*

Well...we would still be waiting! The mobile marketplace is volatile. None of us can ever fully understand the twists and turns of such a marketplace; none of us knows what a safe bet is; none of us can pick the successful device of the future; none of us has a crystal ball. Is it wrong to move ahead in spite of this? For Stanford, nothing would have been learned or gained by waiting. Mobile technology is about experimentation, adventure, and innovation. Does it require a different response from us?

Experience teaches that reasons *not* to act are always abundant. But perhaps mobility is a different creature that has invaded the ocean in which we swim. Perhaps it requires a new response: *Small, innovative projects are the new order of the day. Bold is better. Lack of standards can be just another reason not to act.*

### **BROKEN LAW #3: THOU SHALT DEVELOP THY USERS’ INTERFACE.**

From the onset of the project, we turned over all design of the User Interface (UI) portion of iStanford to the student team. This was a truly different approach from the tried-and-true method of presenting a UI to your user, obtaining feedback, returning to the drawing board, presenting another view, and so on. This was the method Tim was used to, particularly with his background in the PeopleSoft Student Administration system. He was particularly interested to see how Kayvon and TCD would approach design of the courses tile, for which course and class schedule information would come from PeopleSoft. And while initial implementation would only enable students to search for courses, we knew from the beginning that we wanted eventually to support enrollment as well.

The results were fascinating! *Kayvon and his team designed the tile from the standpoint of students who simply wanted to find courses in which they could enroll!* They had no knowledge of PeopleSoft, so their design was flawed. Yet it approached course search in the same way Google approaches document search: with a search box into which the user types search terms. In contrast, PeopleSoft searching was more laborious and complex, more embedded in its own underlying database design. In the end, we modified TCD's design because it had to link to PeopleSoft in the background via a Web service. But the refreshing approach to UI remained.

Perhaps mobility is about something quite different from the ERPs to which we have become accustomed. Mobility seeks to create easy-to-use, simple, friendly end-user experiences. If that is one of the characteristics very different from that of our ocean, then *perhaps our users know what they want better than we do and can develop better user interfaces than we can.*

#### **BROKEN LAW #4: THOU SHALT DEVELOP ALL THINGS ALIKE.**

What were we doing? We were creating a UI other than PeopleSoft! Our students already had PeopleSoft. Wasn't that enough? And if we were going to have multiple UIs, didn't they all have to function the same way? We felt as if we were violating additional givens we had cherished over the years: *All things must be equally complex and must be presented equally, and one is superior to many.*

Despite being very effective in supporting the enrollment process, our portal to PeopleSoft, which we call 'Axess,' has not been very popular on our campus. Students and faculty were writing to us, the general theme being "Can't you do better than this?" We did not cherish such comments and so were initially defensive, but they reflected the honest feelings of our constituents. "Perhaps," we reasoned, "if students and faculty have alternative ways of approaching the information, PeopleSoft as a UI will become less of an issue."

While we were building iStanford, we also were working with another group of creative Stanford students, the CourseRank team, led by Stanford graduate student Filip Kalisz. CourseRank was already popular on campus and provisioned from the same information provided to TCD for iStanford. CourseRank provided a highly used

platform for searching for classes (it also used the same approach as Google!) and augmented it with a slick social network so students could assist others with their course selections. We employed the CourseRank team to create ExploreCourses, yet another course search method. Each of these methods became very popular. None functioned identically.

Compared to PeopleSoft, iStanford enrollment was simplified: it was less functional and therefore less complex. "If you couldn't add or drop in iStanford," we reasoned, "well, you always have PeopleSoft."

And what did we get for our sins? Well, a few staff complained when some of the data in ExploreCourses proved incorrect. We had to fix those problems. But we received *no complaints* from students and faculty. In fact, these different methods seemed to enjoy great popularity. The community took pride in knowing that Stanford students had designed these UIs. And the designs were simpler, more straightforward, and more user friendly.

Tim uses Evernote and 2Do on his iPhone and iPad and on any computer with a browser. Evernote stores his notes securely in the cloud; 2Do lets him track all the things he has to do, also in the cloud. The UI for these is unique to each device: it is different on the iPhone, different on the iPad, and different on the Web. Yet he moves from one device to another on a daily—sometimes on an hourly—basis. The thinking is different.

Mobile technology is saying something new to us: *Relax! Your users will adapt to differences—as long as you design with them in mind.*

#### **BROKEN LAW #5: THOU SHALT GUIDE THY USERS EVERY STEP OF THE WAY.**

It is time for another confession: We provided no iStanford user documentation, no how to. Initially, we did not even promote iStanford very much. People learned about it by word of mouth. But the most important given we brushed aside was that *all users require documentation.*

"Not in the mobile world," we assert. In fact, quite the reverse is true: Mobility seems to thrive on UIs that are intuitive (if indeed they are intuitive—and, by the way, all mobile apps are *not* that intuitive!). If intuitive interfaces are a closely held value in the mobile world, then little documentation, if any, *should be required.*

Perhaps intuitive UIs are another difference in the ocean in which we swim. *It is possible that our users are more intelligent than we think and can figure things out for themselves.* They just want systems that are easier to use!

### **BROKEN LAW #6: THOU SHALT NEVER RELY ON STUDENTS.**

There are good reasons for this given: Many of us have been burned by the promising flame of young, intelligent, energetic students who can develop applications seemingly overnight and thus appear to relieve us from the long queue of requests that will never reach high priority with our development teams (if we have them). The good news is that their work is often quick and cheap (even free sometimes); you have total control; you get just what you want; you avoid the developer's priority queue; and the system usually works. But hold on for the bad news: the student developer leaves school; your application is undocumented so no one knows how to maintain it; the application and the technology it runs on age over time; the technology stack is different from what the rest of the university uses; the application is disconnected from the rest of the university; there is no funding to sustain the application; and the application is costly to maintain (if it is maintained at all). Further, you may inadvertently provide students with access to confidential information with no protection for the university. So...an apparent short-term godsend can quickly become a long-term problem! *Using students should be a concern unless...*

...you can take advantage of students' youthful energy, passion, and expertise while mitigating the risk. At Stanford, we have contractually engaged our students to provide services. While hardly a guarantee, this approach transforms students into vendors and requires both students and Stanford to anticipate and think through the potential for longer-term issues. Taking this approach required us to formally ask and answer the following questions:

**Table 1.**  
*Mobility challenges us to think differently.*

Givens Ways of Thinking	Different Ways of Thinking
Thou shalt exalt strategy above all things.	Have an experience, generate some excitement, learn, then build an informed strategy.
Thou shalt await standardization.	He who waits will fall behind.
Thou shalt develop thy users' interface.	Our users know what they want better than we do and can develop better user interfaces than we can
Thou shalt implement all things alike.	Relax! Your users will adapt to differences—as long as you design with them in mind
Thou shalt guide thy users every step of the way.	It is possible that our users are more intelligent than we think and can figure things out for themselves. They just want systems that are easier to use!
Thou shalt never rely on students.	Given the right conditions and controls, students can be employed effectively, and the institution can remain safe. This kind of experience can be an invaluable part of your students' education.

- Who will own the intellectual property (in our case, the application code)?
- How will the system be sustained?
- What technology stack will be used?
- What is the timeframe for delivery?
- How much will it cost—both to develop and to sustain?
- What are the deliverables, and do they include technical documentation?
- Where will the application run? On whose servers will it run?
- What institutional policies—including information security, PCI compliance, and privacy/confidentiality—govern the vendors' work?
- What are the contract termination contingencies?
- Etcetera!

Is this approach a panacea? Hardly! (Any vendor/institution relationship is laden with risks.) Nevertheless, it formalizes the engagement and ratchets up the seriousness of purpose in the minds of both parties. In the case

of iStanford, it also required us to think beyond the here-and-now results we were seeking.

Beyond the contractual aspects of the agreement, we cannot emphasize enough the importance of objectively assessing—as best you can—the character and maturity of the students you hire. Working with students can be seductive—their energy so strong, their minds so quick, their talent so apparent! Yet it is difficult, and we are not always good at it. Should you choose nevertheless to take this approach, we recommend that you strive to gauge the character of prospective student employees just as you would gauge the performance of a prospective vendor. That is exactly what you are creating: a vendor relationship.

Our experience is that *under the right conditions and controls, students can be employed effectively, and the institution can remain safe.*

Another potentially important variable is at play: What is the long-term benefit of this experience to students you employ? Our assessment thus far is that *their experience can be an invaluable part of their education.* In fact, our belief is that they benefit profoundly from experience developing real-world systems as a complement to their academic work. Hiring a student design team required our willingness to mentor the students—some more, some less. (Some students are more mature than others.) While this may (or may not) launch the students into a software business of their own, we never lost sight of the fact that they are still young, still inexperienced, and still have a lot to learn. Our engagement with them likewise was an engagement with ourselves to make the extra effort to mentor—and thus to draw on and develop our own reserves of patience and judgment. Engaging faculty members in a project can add to the mentors who may be needed when students are hired.

Oh ...and did we mention that we had *a lot to learn ourselves?*

## CONCLUSION

We value the “laws,” or rules of our profession. We also value freedom to determine what is right in a situation.

For example, strategy (Law #1) helps us both to avoid bad risk and to define but mitigate risk that occurs with any new venture. But sometimes you can see a good risk and take the plunge. We saw that we had an opportunity, great students, and that the technological challenge was not as daunting as it appeared. Aside from the many obviously sound reasons for seeking standardization (Law #2), it helps you avoid being overly tied to one company. However, when one company sets a bar so high that others will clearly follow, it may be worth considering a different option. We usually define our users’ systems (Law #3) because we know that data. Yet sometimes we need to “think outside the box.” We understand that user interfaces that function exactly alike (Law #4) potentially reduce questions and confusion and that having support structures (Law #5) assists users when they get into trouble. Yet what if we can design an approach that is so simple there is little to be confused about and with a different expectation level? With over 64,000 downloads of iStanford so far, we had to design a different approach. We certainly agree with caution in using students (Law #6); if we choose to work with them, then we take on the additional responsibility of training them to be vendors. This is an educational task, since we administrators are taking on an additional responsibility to educate and prepare the next generation of technologists.

Our aim in writing has been twofold: to assimilate the mobile world experiences we have had and to share them with you. Our initial metaphor of a profoundly changed ocean closely matches our experience. Certainly, the environment we exist in caused us to examine how we might adapt. Mobility required us to re-examine our core beliefs about how things must be and to challenge ourselves to consider new ways of thinking that better adapt to the new reality in which we all find ourselves swimming.

## About the Author

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**TIM FLOOD** is Senior Technology Consultant at Stanford University. Follow Tim's blog at [www.twflood.com](http://www.twflood.com).

**TOM BLACK** is Associate Vice Provost for Student Affairs and University Registrar at Stanford University.

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### An Invisible Minority: Mexican English-Language Learners

BY ANN ROEMER

Ever since the founding of this country, equality, freedom, and justice have been the underlying values of America's political and educational systems. Thomas Jefferson, founder of the University of Virginia, believed in intellectual freedom and in education of the citizenry as means of preserving the new republic. More than 150 years later, higher education policymakers in the United States began to incorporate these values into their admissions decisions by including ethnic and racial diversity as a stated goal, not only for the purpose of redressing past injustices but also to prepare citizens to be successful in an increasingly multicultural society.

Diversity initiatives, in the form of affirmative-action measures, resulted in an immediate increase in minority enrollment throughout the country; minority enrollment reached its peak in the mid 1970s. In the 1980s, affirmative action was undermined by increasing tuition rates and decreased federal and state spending on financial aid. In the 1990s, court decisions in California and Texas favored white plaintiffs who claimed reverse discrimination. Again, fewer blacks and Latinos enrolled in college. For example, after the *Hopwood* decision, Texas A&M University eliminated affirmative action in the state, affecting a nearly 20 percent decrease in the enrollment of blacks and Latinos. Minority parents may have assumed

that the university no longer cared about diversity and/or that support and retention programs had been eliminated (Finnell 1998). Ironically, as our country's population has become increasingly diverse, our colleges and universities have become increasingly homogeneous, *i.e.*, "whiter" (Orfield 1998). This is due in part to today's acrimonious anti-immigrant political climate and in part to admissions and financial aid policies (Niskey 2007). Those American ideals of equality and justice seem to have faded away.

As white students continue to dominate this nation's university campuses, the future appears bleak for minority groups, especially blacks and Latinos. As a group, Hispanics are the least educated minority in the country (Gándara 1995): They have the highest high school dropout rates of all minority groups (Llagas 2003). Yosso (2006) describes the societal inequalities and educational limitations for Chicanas/-os in the educational pipeline: Of 100 Chicanas/-os who enter elementary school, 44 will graduate from high school, 26 will enroll in college, and only seven will earn a bachelor's degree.

Let me clarify the terminology used to describe the ethnic group under consideration in this article: The terms *Hispanic* and *Latina/o* are misleading in that they can refer to a white, highly educated Cuban in Miami as well as to a black, working-class Puerto Rican in New York

City and a brown, Mexican-American migrant worker in rural Texas. Yet those are the labels most commonly used to identify a person from a Spanish-speaking country. *Chicana/o* specifically denotes someone of Mexican origin and has political connotations (Acuña 2004, Yosso 2006). It typically refers to an individual in the United States who is a second- or third-generation immigrant who is “English dominant”—that is, more proficient in English than in Spanish. Because this article focuses on a group of students who have spent most, if not all, of their lives in Mexico, I call them Mexican. They are in the United States legally.

Individuals of Mexican origin make up the majority of the Hispanic group. Soon, their numbers will overtake those of all other minorities in this country. Although they have been the subject of a considerable number of education research studies, one group of Mexican students has been overlooked almost completely: those who enter U.S. high schools as sophomores, juniors, and seniors and who are not proficient in English. These English language learners, or ELLs, are not eligible for Advanced Placement courses, nor are they considered for recruitment by U.S. higher education institutions. Perhaps, however, they *should* be.

Not only are these students (for lack of a better term, MELLS, or Mexican English-language learners) invisible to college and university admissions officers, but they also have been neglected by researchers. Uhl Chamot (1999), who studies the literacy and academic achievement of English-language learners in the United States, acknowledges that most research has focused on elementary students. Callahan (2005) writes that most research pertains either to adults or to K–6 immigrant students, not to adolescents in grades seven through twelve. Why is this group of high-school MELLS invisible? And what can be done to include these students in the pool of freshman applicants?

## RUNNING THE LANGUAGE RACE/ LOSING ON THE ACADEMIC TRACK

The MELLS on whom this article focuses are those students who attended elementary and middle school in Mexico and whose schooling in Mexico has been interrupted. Upon arrival in the United States, these students are enrolled immediately in English as a Second Language (ESL) or English for Speakers of Other Languages (ESOL) courses, where they spend their time learning English—not math, science, or history (Collier 1987). If they are in a high-qual-

ity ESL program, those subjects will be taught (although at a more basic level); unfortunately, however, many ESL programs do not offer content-based instruction. Instead, students tend first to learn the informal, spoken language of their peers. While they may give the impression that they know English, their *academic* language ability—that is, their use of English in an academic context, and not just orally but also in reading and writing—takes four to six years to develop (Uhl Chamot 1999).

Because of the complexity of the academic content at the high-school level, MELLS teenagers may be falling even farther behind their American-born peers than their younger Mexican counterparts:

*In secondary school, the level of cognitive complexity and sequential content knowledge needed for each subject is extremely dependent on prior knowledge. If academic work in the first language is not continued at home or at school while secondary students are acquiring the second language, there may not be enough time left in high school to make up the lost years of academic instruction* (Collier 1989).

This predicament is like an uneven see-saw: As MELLS’ English language skills slowly increase, their conceptual and factual knowledge decrease at a faster rate.

Even as MELLS fall behind their peers academically, they also are excluded from the social networks that provide knowledge and opportunities to other students. In their study of Mexican-origin high school students, Stanton-Salazar and Dornbusch (1995) found that

*the process of inclusion in mainstream institutions is aided when cultural and linguistic capital are converted into instrumental relations with institutional agents who actively transmit valued resources, special privileges, and personal assurances of future institutional sponsorship.... The level of social capital inherent in the student’s network is positively related to the student’s proficiency in and use of English, with English serving as a proxy for the accumulation of cultural capital* (p. 120).

“Institutional agents” include high school personnel such as teachers, coaches, and counselors. College and university admissions officers also are institutional agents who never give heed to MELLS, either because they never

graduate from high school or because their ACT and/or SAT scores are so low that they are not even considered as prospective students.

Imagine how difficult it must be for these young people to be uprooted from their lives and transplanted across the border, far from their homes, extended families, and familiar classrooms. In “Learning English and Learning America: Immigrants in the Center of a Storm,” Olsen (2000) describes the social marginalization of ESL students in U.S. high schools. One young immigrant, a sophomore named Samiya, described how she was treated in school: “I was like a shadow.” Other ESL students related incidents of public ridicule by mainstream adolescents, sometimes for their poor English and at other times for speaking their native language (Olsen 2000, Valenzuela 1999).

### **Subtractive Schooling**

In addition to being marginalized socially and academically, MELLS are enrolled only rarely in white, middle-class suburban schools with the resources to support high standardized test scores and access to higher education. More often, they attend schools such as the one described in Angela Valenzuela’s (1999) book *Subtractive Schooling*, where 70 percent of the freshmen do not graduate. Her ethnographic study includes accounts of “institutionalized neglect,” as happens when, for example, ESL teachers have no textbooks and when students attend class for more than a month and yet have no teacher.

Not surprisingly, institutionalized neglect also occurs in states other than Texas: In Arizona, only 12 percent of English-language learners pass the state’s exit exam in reading and writing the first time they take it (Center on Education Policy 2007). As a corrective, the Center calls for more teacher training and for more resources for ELLs. Olsen (2000) writes that in California, “Most high schools still provide insufficient English language development and still prevent access to a full academic core curriculum.” If English-language learners are neglected in schools in Arizona and California—two of the states with the highest number of Latino immigrants—then imagine how invisible they must be in other states, where their numbers are much lower.

This gloom-and-doom view of Mexican English-language learners is rarely challenged in the United States. Rather, it is taken for granted because it reinforces the

mainstream, white, middle-class American stereotype that most minority groups attend poor schools and are academic under-achievers. However, many of these MELLS, given the opportunity, would prove better prepared and more motivated for higher education than their American school-educated classmates.

### **MELLS AS ASSETS—NOT LIABILITIES**

There is considerable evidence that given more time to improve their English, MELLS could go on to earn undergraduate degrees. Research shows that (1) students who are educated in their native language can transfer that knowledge to a second—or even third—language; (2) Mexican schools can be more rigorous than American schools; and (3) recent immigrants often are much more motivated than their U.S.-schooled *compañeros*. So instead of perceiving Mexican English-language learners as liabilities, perhaps we should see them as assets.

Uhl Chamot’s (1999) research shows that students who are literate in their native language can apply those skills to their knowledge base in English. This holds true for other subjects as well. For example, students who learn geometry and algebra in Spanish can transfer those math skills to English. We should not assume that just because these students don’t know English, they don’t know anything else. Callahan (2005) studied recent immigrants in California secondary schools; most were Latinas/os, with high amounts of previous schooling. She found that previous schooling was more important than English-language instruction vis-à-vis their subsequent academic achievement.

Other research shows that elementary schools in Mexico, though they may have fewer resources than U.S. schools, are more successful at educating their youngsters. The recent immigrants whom Valenzuela (1999) interviewed at a Houston high school told her that Mexican teachers were more caring and that their Mexican schools were, in some ways, better than their American school. In his ethnographic study of a village in Mexico with a high level of immigration to and from the United States, José Macías (1990) observed that the national curriculum for grades 1 through 6 in Mexico is more demanding than that of the American school his daughter attended. The teachers he interviewed in San Felipe (a pseudonym) recounted that the children who returned to the community from the United States often were required to repeat grade lev-

els because the American schools had not adequately prepared them. Padilla and González (2001) found that

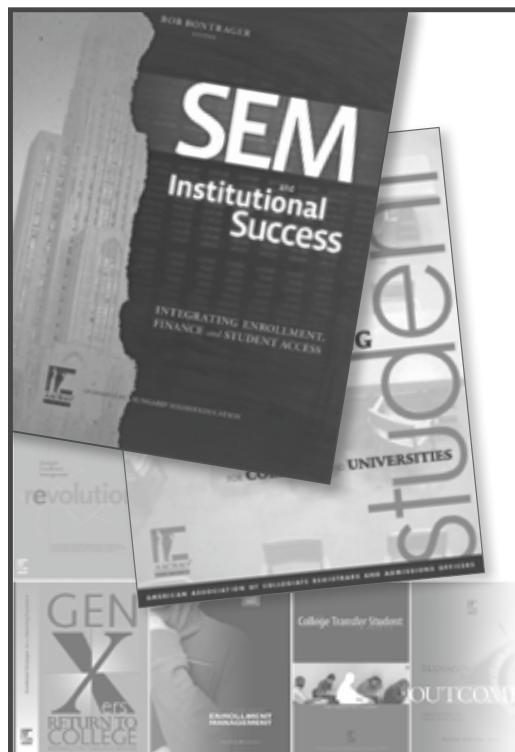
*regardless of place of birth, general-track and college-track students who received some schooling in Mexico reported higher grades than students with no schooling in Mexico.... Interestingly, even the small sample of u.s.-born youth in the college track who had schooling in Mexico reported higher GPAs than their u.s.-born counterparts who had not received schooling in Mexico (p. 738).*

Certainly, we cannot generalize from these accounts about *all* elementary and high schools in these two North American nations. Nevertheless, the stereotype in this country that needs debunking is that Mexican schools are always inferior to those in the United States.

A third reason that MELLS should be seen as assets is that they are highly motivated academic achievers who value education. Valenzuela (1999) recognized a sharp delineation between Chicana/o high-school students who

had been raised in the United States and recent immigrants from Mexico who were English-language learners. The latter were seen as having more *empeño*, or diligence, than their English-speaking, Chicana/o peers. Valenzuela attributes their academic success to a combination of *empeño* and social capital. Duran and Weffer (1992), who studied successful Mexican immigrants in a secondary-level math-science enrichment program, also found that recent immigrants were more successful than their counterparts who had spent many years in the United States.

If universities truly want to enroll more Latinos, they should be providing MELLS the opportunity to learn English and to go on to higher education. Instead of ignoring these students, they should be including them in their recruitment activities. Just because MELLS are more proficient in Spanish than in English does not mean that they are academically unprepared; as cited above, research indicates that they are better candidates for higher education than many of their u.s.-educated counterparts.



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## MAKING MELLS MORE VISIBLE

Given the difficulties that confront older Mexican English-language learners, it is not surprising that many of them drop out of school. However, some efforts are being made to reach out to this “minority within a minority” and to encourage them to continue their education.

The government of Mexico has initiated a binational agreement with the United States—and Texas, in particular—to help MELLS from kindergarten through college through a program called LUCHA, Language Learners at the University of Texas at Austin’s Center for Hispanic Achievement. LUCHA recognizes Mexican high-school students’ academic work in Mexico by providing transcript analysis for more than 20 school districts in Texas. Students receive credit on their American transcripts for coursework they completed in Mexico. And while MELLS learn English in Texas, they take online courses offered by qualified teachers in Mexico. The program objective is to prepare MELLS to pass the Texas Assessment of Knowledge and Skills, a requirement for high school graduation.

Some colleges recognize the potential of MELL students. Miami-Dade College, for example, asks applicants who took ESOL during their junior or senior year at an English-speaking high school to take an English-proficiency placement test. Students then are placed at one of six levels of an English for Academic Purposes program. Upon completing the program, students may enroll in general-education classes required for their majors.

Other institutions, such as George Mason University, offer a summer bridge program for exceptional ESL students:

*Each year, the George Mason Office of Admissions conditionally admits approximately 20–30 non-native English-speaking freshmen who have strong academic records from Virginia high schools but limited English skills. These students are required to attend the Bridge Project Summer Institute, an intensive five-week program that focuses on developing the reading, writing, speaking, and listening skills needed for academic study at a university. The Institute also familiarizes students with the culture of the university and introduces them to the campus and the services available to them, especially computer labs and the Writing Center.*

The Bridge Project Summer Institute is offered by George Mason’s English Language Institute, which belongs to a consortium of university- and college-intensive

English programs (UCIEP). UCIEP members cultivate the academic language skills and cultural knowledge that MELLS need to be successful in their pursuit of a post-secondary education. At more than 30 UCIEP schools, completion of the intensive English program fulfills the institution’s English proficiency requirement. If, as happens at Miami-Dade College, admissions officials were to ask applicants to identify themselves as non-native English speakers, they might readily identify those who belong to this minority group, *i.e.*, MELLS. They then could refer the students to an intensive English program at their school or at a nearby community college, where the students would be tested for academic proficiency in English so they could be placed in the appropriate level of coursework. MELLS who are not identified as non-native English speakers and who apply to a college or university are less likely to succeed in their education.

Admittedly, in recommending that college admissions officers consider students who need to improve their English, I am motivated at least in part by self-interest. As the director of an intensive-English program, I myself would like to see more geographic and socioeconomic diversity among the students in my program: most are international students from East Asia and the Middle East. I recognize the importance of diversity and envision international and immigrant students learning from one another. (I concede that MELLS’ admission is premised on their immigration status, which determines their eligibility for federal financial aid.)

I agree that “diversity should not be an addendum but rather a condition of and prerequisite for excellence” (Chubin and Malcom 2006). Enrollment managers can and must take steps to stop the backlash against diversity initiatives on campus. I recommend in particular that colleges and universities reach out to the MELL minority group in an effort both to diversify the student body and to encourage academic excellence.

Social scientists such as Gurin *et al.* (2004), who have researched the effects of campus diversity on a national scale and who have testified before the U.S. Supreme Court, have written about the importance of college students’ interactions with diverse peers and the learning and democracy outcomes that result from these everyday interactions. They have found that a diverse campus environment influences students’ intellectual engagement and motivation:

*These results repeatedly substantiate that actual experience with diversity fosters civic preparedness for participation in a diverse democracy where cultural competence, capacity to work well with people from various backgrounds, and consideration of multiple points of view are crucially needed* (Gurin et al. 2004).

A white undergraduate student at the University of Michigan wrote the following about how much she learned from being on an ethnically diverse campus:

*I come from a homogeneous white, small-town environment, and my experience here has really opened my eyes. I consider myself extremely fortunate to have met people during my freshman year who are largely responsible for who I am now. My six best friends could not have been more different from me. Michelle is from Saudi Arabia but is half American, half Thai. Ana is from Madrid, Spain, and is a really strong, feminist woman. Cornelia is African American from Chicago. Suneela is Indian. My roommate, Grace, is Chinese and very religious. Brandi is white but she grew up poor and has beaten the welfare system. She is the most determined person I have ever met. Grace and Suneela are first-generation Americans and still have strong ties to their native cultural traditions and language. And, of course, everybody else offered me perspectives I had never thought about or considered before.*

*I am sure that I could have taken some classes and learned about all of the different things these people have taught me during my years at Michigan. That would have been interesting, but because these women became my friends, I got to learn about it and experience it. I think that having the experiences is really the only teacher that ever changes how a person thinks about and sees the world. As fantastic as U of M classes can be, I know that they would never have affected me to the extent that these women have* (Gurin et al. 2004).

We live in a different world from that of Thomas Jefferson and George Washington: Just consider the fluidity of our national borders and the speed and ease with which people today can travel internationally. But we still believe in equality, freedom, and justice. Let us act accordingly.

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## About the Author

**ANN ROEMER** is Associate Professor at Utah State University, where she is the Director of the Intensive English Language Institute.

### Are We Ready for the Approaching Demographic Tsunami?

BY BOLGEN VARGAS AND JILL E. CONLON

For those of us at the high school and college levels who have been tracking the demographic changes occurring throughout the United States during the past few decades, it came as no surprise when recent U.S. Census statistics revealed that the 2010 kindergarten class is 25 percent Hispanic, up from 19 percent in 2000, and 5 percent Asian, up from 4 percent in 2000. The class is 13 percent black, down from 15 percent in 2000, and 53 percent white, down from 59 percent in 2000.

Demographic projections have been telling us that a drastic change is taking place at all levels of education. They also tell us that the percentage of high school students who are ethnic minorities will soon be the majority. And yet these populations' high school graduation and college-going rates remain significantly lower than their white peers'. High school graduation data are undeniably bleak for the very populations that will be increasing. If the status quo continues—including high school dropout rates of more than 40 percent in many cities—then we are heading toward the demographic tsunami of an under-educated and unprepared workforce.

Black and Latino populations' high school graduation rates lag behind those of Caucasian and Asian students by 20 percentage points. And there is well-established evidence that fewer than half of all students in our 50 largest cities

graduate from high school; most of these students are minorities. According to the "Cities in Crisis" report (2008), Detroit, Michigan, graduated fewer than 25 percent of its students. We have known of such data for years, and yet minimal impact has been made on the high school graduation rates of our growing numbers of urban ethnically diverse students, particularly black and Hispanic students. If we do not invest in narrowing the gap by improving academic outcomes for minority students, then our citizenry, our work force, and the American dream of greater prosperity for the next generation will be seriously impaired.

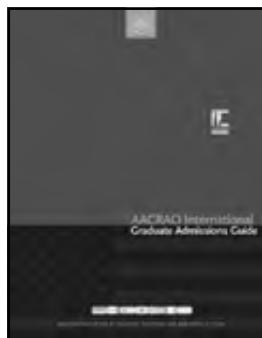
While much attention has been focused on what K-12 schools should be doing to improve education outcomes for all students, recent research demonstrates that multiple forces must work to overcome the numerous risk factors that impede the academic success of urban youths, who are predominantly African American and Hispanic. Community agencies, neighborhoods, and schools all have opportunities to improve outcomes for students at greatest risk. Given the plethora of resources at their disposal, our colleges and universities—particularly those located within urban centers—have an even greater opportunity—and responsibility—to participate in the solution. In fact, colleges and universities cannot afford to do nothing and yet expect to maintain (let alone increase)

student participation in postsecondary education. We all must invest in the academic success of our increasingly diverse K–12 student population. Of course, common sense tells us that colleges should be fully invested in addressing the dismal high school graduation rate of the very population that is growing. If it is not, then who will comprise the next entering college class? If we fail to increase the high school graduation rate of our increasingly minority—and soon to be majority—student population, a tsunami of sorts will hit not only the nation's colleges but also its workforce and society.

So today we rise to meet the challenge and take the opportunity to prepare the high school Class of 2023 to become more than history predicts it will. Too much of the conversation about retention and academic success segregates K–12 efforts from those of postsecondary education. We must combine forces in order to affect significant change beginning with the entering kindergarten class of 2010. We are familiar with the Obama Administration's aggressive efforts to reform K–12 education. What is miss-

ing is colleges' and universities' aggressive response to demographic realities through partnerships with elementary and secondary schools in support of college readiness.

Even after years of awareness of changing demographics, colleges and universities still have dismal success in their recruitment of faculty and staff of diverse backgrounds. The good news is that where college leadership has made such recruitment a top priority, there has been notable progress; these universities are positioned well for this transformative period of changing demographics. Al Simone, former president of Rochester Institute of Technology (RIT), dealt head-on with the lack of diversity on his campus. He understood that a racially, ethnically, and culturally diverse faculty and staff were essential to his institution's success. According to the Chronicle's *Almanac of Higher Education 2010* (2010), RIT has the highest percentage of minority faculty—17 percent—in the region. Bryn Mawr College leadership responded to changing demographics while sustaining the College's historical mission to provide "access to excellence." President Jane



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McAuliff sets the tone with her commitment to a diverse community. This fall's incoming class comprises more than 20 percent first-generation students, 33 percent students of color from the United States, and 25.6 percent women from countries outside the United States.

Although there are other examples of forward-looking institutions, practices are not sufficiently embedded or widespread to meet the current demographic challenge. Few examples exist of colleges and universities engaging in the challenge to improve high school graduation rates. What can college and university leaders do?

We suggest honest assessment of the institution's commitment to recruiting diverse students as well as faculty and staff; to addressing the ever-increasing financial barriers that prevent prospective first-generation college students from enrolling; and to understanding and addressing the high attrition rates of black and Hispanic students who do enroll. In addition to these traditional strategies, we propose the following bold efforts in acknowledgment of the urgency with which we need to effect change:

- If every college and university would adopt a low-performing urban kindergarten class and allocate some of its intellectual, social, and human capital to the effort, we could make progress over the next twelve years such as we have failed to make over the past twelve.
- If more colleges and universities—elite private as well as public institutions—would adopt a “campus school” model and host an under-performing urban K-12 program or a city charter school on their campuses, we could convince more urban youths that they do indeed belong at college, that higher education is not something for “other people.”
- If colleges and universities with decreasing traditional, residential enrollments would host public residential schools for urban youths (such as the SEED school, the nation’s first urban public boarding school, located in Washington, DC), we could expose urban minority young people to a world outside their troubled neighborhoods. (The SEED school, whose enrollment is based on a lottery system, serves an urban, mostly poor, mostly black student population; of the 92 percent of students who graduate, 95 percent attend college.)

borhoods. (The SEED school, whose enrollment is based on a lottery system, serves an urban, mostly poor, mostly black student population; of the 92 percent of students who graduate, 95 percent attend college.)

- If colleges and universities offered “Fresh Air” summer residential school for urban youths, then students would make more academic progress come September. Many such opportunities have been piloted on a small scale and for select students. We need to mobilize the entire community of colleges and universities to partner with struggling urban schools to begin to mitigate the multiple risk factors our urban youths face today. Otherwise, we fail them all.

Sandy Baum writes, “Increasing enrollment among Hispanic Americans and other underserved groups is necessary but not sufficient. We must also ensure that students have the information and the opportunity to enroll in the institutions that will best meet their needs” (Baum, 2010). Yet if we do not first improve students’ graduation rates, we lose any further opportunity.

We face today as an opportunity. Let’s consider the kindergarten Class of 2010—the high school Class of 2023—a wake-up call—an opportunity—to reshape the future of this next generation of learners. We have twelve years to make it happen; let’s not waste them.

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## About the Authors

**BOLGEN VARGAS, ED.D.**, is School Counselor at Greece Arcadia High School and former President of the Rochester City School Board of Education.

**JILL E. CONLON** is a Higher Education Enrollment Consultant.



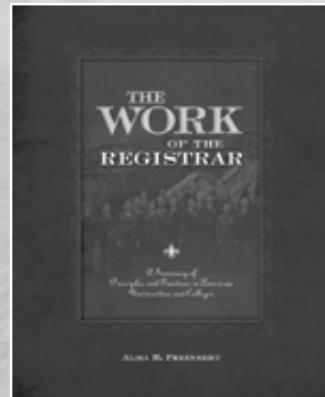
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### HIGHER EDUCATION?: HOW COLLEGES ARE WASTING OUR MONEY AND FAILING OUR KIDS—AND WHAT WE CAN DO ABOUT IT

BY ANDREW HACKER AND CLAUDIA DREIFUS  
HENRY HOLT AND COMPANY, LLC. 2010. 288 PP.

Reviewed by Roland Pearsall

Over the past few months, *Higher Education?*, by Andrew Hacker and Claudia Dreifus, has garnered a multitude of attention-grabbing press reviews. *USA Today* referred to it as a “blistering attack on American colleges and universities” (Donahue 2010) while *The Wall Street Journal* described it as a “powerful indictment of academic careerism” (Square Books, n.d.). Without question, the venomous nature and divisive opinions of this work live up to such descriptions. Make no mistake about it: Many regard the work as controversial. Hacker and Dreifus have much to say—none of it too pleasant—regarding tenured faculty, overpriced university administrators, gargantuan budget-consuming athletics, and the financial burden a university education is to the average American family. All of the authors’ criticisms and suggestions are for the benevolent purpose of improving quality and affordability. But as an exposé of universities, what does *Higher Education?* have to add?

The basic argument that underpins *Higher Education?* has been around for some time: Though often capable

of great works, our universities do not deserve a saintly image. When intelligent analysis or speculation is supported by good-quality research, castigation of the appropriate spheres may be justified. However, the chief flaws of *Higher Education?* are its lack of accurate supporting research and skillful analysis. Spurious claims, sweeping generalizations, and summary dismissals run rampant throughout. This of course raises immediate red flags with regard to the authors’ conclusions. This is a shame, because a couple of the authors’ arguments merit closer study regardless of whether higher education authorities agree with them. That said, the work is of only marginal interest even to those who wish to read all available literature pertaining to American higher education.

The best part of *Higher Education?* is the section exploring the disparity between tenure-track professors and adjuncts. Though a tad extreme, there is some truth to the assertion that exploitation is taking place in “the academic counterparts of sweatshops.” (p.59) For example, although many adjuncts’ academic backgrounds are roughly on par with those of tenure-track professors, their university colleagues often give them short shrift. It is common knowledge that adjuncts typically earn a much lower per-course income and do not receive benefits. The authors also discuss how the tenure system sometimes

provides poor-quality professors with guaranteed lifetime employment. So what do the authors propose to fix this scenario? They believe that phasing out tenure and employing some “variant of a contract system” with five- or seven-year renewable terms would be a start (pp. 151–2). Certainly the best course of action is open to debate. The authors invite readers to contemplate other topics pertaining to professors, such as universal treatment and streamlined compensation. Although Hacker and Dreifus believe that universities can incorporate practices more in line with the mainstream workaday world, their supporting evidence is less than satisfactory.

The authors’ usage of nebulous data regarding the average salaries of tenured faculty is astounding. They assert that average Yale University and Kenyon College professors earn \$820 and \$242 an hour, respectively; amounts based solely on numbers of hours in the classroom because all hours outside the classroom are “less real than contrived” and so cannot be quantified (p. 25). These are heavy-handed assertions. It is dangerous to make claims

without even attempting to support them. Without question, the numbers of hours faculty members work outside the classroom vary depending on academic subject and institution. Even so, the authors fail to present this information reasonably. The authors’ contempt for faculty members’ “outside work” is clear enough. Indeed, research is one of the areas hit hardest.

The authors believe much research is frivolous. Unfortunately, like most sections of the book, the section on research is set up in the manner of a classic “straw man” argument. After describing sabbaticals in their worst possible light, the authors cite research topics such as “kingship and conflict under Louis the German,” “women’s hockey,” and “middle-aged policemen,” and write that “time and energy and resources...should [instead] be devoted to better classroom teaching” (pp. 85–6). Again, the authors put forth an extremely distorted point of view. These subjects are not particularly common in research studies. Certainly, the balance between teaching and research is a topic that needs to be debated. Reasonable arguments



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could be made that the current system needs revision. The authors would have been much more effective had they taken a more level-headed approach to the topic.

With regard to pedagogy, the authors again offer much criticism. This section includes two tables: “New Liberal Arts” and “Simple Suggestions.” The former lists four extremely specialized (rather comically so) courses at major universities, including “Quest, Riddle, and Redemption in Modernism” at Stanford. What was the authors’ purpose in including such a table? Again, the authors present an unnecessarily distorted picture, this time of the liberal arts curriculum at most universities. University majors typically have a core curriculum, of which such “experimental” courses would never be part. In addition, the authors’ portrayal and subsequent dismissal of certain teaching methods in “Simple Suggestions” reveal how out of touch they are with modern higher education. They advise professors to “stop PowerPointing” because the slides “etch the day’s outline in stone; new ideas can’t be added... as...on...chalkboard” (p. 88). Of course, it is Hacker and Dreifus’s prerogative to not like PowerPoint. But their imprecise statement relating to new ideas ignores the fact that any half-decent professor does not merely read from the slides, they add new and pertinent information. Many instructors provide their PowerPoints to students to print and bring to class. Regardless, students are expected to take additional notes. Thus, it is *very* possible to “add new ideas” with PowerPoint. (Never mind that type is easier to read than handwriting and that PowerPoints keep the instructor from having to rewrite the same information for every class section.) Concerns about college students spending “their entire college career in darkened rooms” (p. 88) with no professor-student interaction are hysterical and unfounded. Professors can (and often do) switch readily from PowerPoint to other forms of instruction during class time. Without question, PowerPoint would *not* be ideal for all instruction. However, it can be of great value when utilized properly and in moderation.

Neither are university administrators free from the sledgehammer wielded by Hacker and Dreifus. The authors devote much space to revealing the inconsistent and at times inflated salaries of college presidents. (It is true that *some* in this population are easy targets.) Astonishingly, Hacker and Dreifus also rake a number of mid-level administrators over the coals. In summary, the authors

argue that many positions (such as credential specialist) “are unnecessary; they get paid too much, so get rid of them.” Rather than focus on the functions these individuals perform, the authors describe such workers as “adept at weaving webs of words...to justify their presence” (p. 31). The authors’ portrayal assumes that these positions have no value; instead, the authors should have thoroughly described what each particular kind of worker brings to the table. Then, the authors could have assessed how “dispensable” (or vital) certain workers’ skills actually are. Unfortunately, Hacker and Dreifus describe a wide spectrum of mid-level positions and provide simplistic solutions and superficial commentary. (A number of the positions they describe—such as vice president for student success—do not even exist at all universities.) Apparently, the authors are in an area beyond their comprehension. They fail to effectively explore why American universities have hired additional administrative personnel over the last few decades.

Although few sections of *Higher Education?* offer substantial insight, the work can be regarded—at least to some extent—as a guilty pleasure. Nowhere is this more apparent than in the pages dedicated to student affairs. The authors refer to one student affairs position as “babysitting coordinator” and ask whether it is necessary (pp. 29, 31). They also present an amusing (if completely unrealistic) scenario of a young undergraduate student being delivered a “special occasion cake” by one university professional and then having to see another for diet or health assistance when they “overdose on the pastry” (p. 33). No matter how humorous the story, it makes for poor analysis. Few universities cater to students in this way; the fictitious cake scenario presents student affairs in the worst possible light. Students’ well-being and comfort are important, so how exactly should the system be revised? As usual, Hacker and Dreifus offer no specific suggestions and so betray—again—their lack of understanding.

The authors do little to hide their contempt for college athletics. On the whole, the authors’ attempt to debunk a series of myths relating to college athletics is only partly successful. For example, the authors offer engaging (though not comprehensive) alternate viewpoints in their exploration of whether college teams actually turn a profit and inspire school spirit. In contrast, Hacker and Dreifus argue against the idea that enrolling athletes creates a more diverse campus: They focus exclusively on the *number* of

minority students being entered into the student body. Citing Rutgers University, the authors conclude that a basketball team with eleven African Americans would make little difference to the campus's overall enrollment of 26,479. The authors also assert that aside from football and basketball, other sports teams are "overwhelmingly white" (p. 162). What Hacker and Dreifus do not focus on is the greater visibility of football and basketball in comparison to other sports. Players in strong college football and basketball programs have the potential to make a local (and sometimes national) impact. Although the myth-debunking section is periodically of interest, the authors' suggestions for improving college athletics are some of the most outrageous in the entire book.

In a previous section, the authors provide some examples of universities losing money as a result of litigation. In the first of two cases relating to football, two students were awarded \$2.8 million as a result of alleged sexual assault by Colorado football recruits. In the second case, a former player was awarded \$7.5 million after sustaining debilitating brain injuries while playing for the school. The authors state, "[These] cases...would not have arisen if schools didn't have big-time football" (p. 123). This kind of misrepresentation seems typical of Hacker and Dreifus, who later state, "We're not supporters of any varsity sports.... The only good college sports are club teams with volunteer coaches" (p. 163). This statement stands as one of the most remarkable quotations in the entire book. How would the authors propose to end big-time college athletics in the United States? Although the writers reveal some of the shortcomings of university athletics, their "solution" has *no* possibility of being implemented. If reformers are to be successful, they must have some understanding of what would work in the real world. It is clear that the authors have little to contribute. They offer only disdain for anything and everything not related directly to academics.

After anonymously joining a Dartmouth tour for potential applicants and parents, the authors note that typical questions related to parking spaces and fraternity dues. They earnestly request, "How about treating applicants to a special lecture by an exciting professor? Dartmouth visitors might take away a lot more..." (p. 33). This is an excellent if unrealistic idea. How many seventeen-year-olds

would be bowled over by a lecture from a "brilliant theologian?" Overall, Hacker and Dreifus seem woefully out of touch with the very demographic they claim to represent. It is important and necessary for universities to stress the importance of and their commitment to academics. But whether the authors like it or not, amenities often play a major role in the prospective student's decision to attend a particular college.

In the final assessment, *Higher Education?* offers occasional insights, and can be fitfully amusing. However, it falls considerably short of being a truly authoritarian work on American higher education. Making college better and more affordable for American families is of paramount concern, yet deciding what has to be done is no easy task. Perhaps the authors deserve some credit. Trying to help our universities *is* a noble undertaking. But there are far too many troubling aspects of *Higher Education?*. Hacker and Dreifus appear incapable of presenting, exploring, and understanding the multiple sides of the arguments they cite. Moreover, universities are not solely responsible for their shortcomings: Hacker and Dreifus do not so much as mention external factors such as decreased state and federal funding. Viewed cynically, *Higher Education?* is a crass money-making endeavor in tough economic times. The work appeals to those readers who *do not* know the ins and outs of American higher education. The cover, which describes colleges as "wasting our money and failing our kids," smacks of sensationalism. On the whole, the authors give little indication that they understand what actually is wrong in American universities. As expected, they offer next to nothing as to what can be done about it.

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## About the Author

**ROLAND PEARSALL** is pursuing a Masters of Arts in Higher Education Administration at Boston College. He currently holds a B.A. in English from the University of Connecticut.



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