

BY RAYMOND SMITH

Changing INSTITUTIONAL CULTURE for First-Year Students and Those Who Teach Them

In the 1990s Indiana University Bloomington began an initiative to improve retention by enhancing the experience for first-year students. The changes that took place were surprisingly far reaching and profound.

FOR AT LEAST TWO reasons that nearly everyone connected with American higher education knows, all but the most selective American universities began attending to retaining students and improving graduation rates in the 1990s. First, there was (and is) little evidence that legislatures would reverse the trend toward tuition-

taxpayer supported) public universities, so the persistence of tuition-paying students toward graduation has assumed greater importance in university strategic planning. Second, universities' commitments to social justice are driving attempts to ensure the academic success (as broadly defined) of at-risk students. In the final analysis, retention seems a rare happy marriage of both fiscal and ethical imperatives.

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Soon the U.S. Department of Education may provide still more incentive for all colleges and universities to track and improve retention and graduation rates. According to the September 20, 2002, issue of the *Chronicle of Higher Education*, the Bush administration is now contemplating determining an institution's eligibility to award federal financial aid *on the basis of retention and graduation rates*. The implications of tying financial aid to student retention and graduation rates are potentially profound, particularly for community colleges and public universities, which typically enroll greater numbers of at-risk students.

But changes in federal financial aid policy were not at issue, though tuition revenue and fair play were, when we at Indiana University Bloomington (IUB), a largely liberal arts university now enrolling about 29,000 undergraduates, began efforts to improve retention. We began this work in an unusual context. In the 1990s Indiana ranked in the bottom decile of states in percentage of its high school seniors who went on to college; in addition, the percentage of the Indiana populace with college or technical degrees was among the lowest in the country. These statistics lent a special urgency to our efforts to increase the number of college graduates produced in Indiana. They also made an impression on the Lilly Endowment, which issued a call for proposals to Indiana colleges and universities for ideas leading to an increase in student retention and ultimately to an increase in the state's college graduation rate.

Even though at that time we had (as we still have) nationally recognized programs designed to encourage the academic success of traditionally underrepresented groups, we had never put them all together into a concerted effort. The call for proposals challenged us to do just that. What we proposed was a rather experimental approach to reshaping the entire ecology of the first year through a broad range of programs and initiatives, rather than concentrating on only a few. We chose to emphasize the first year because the literature and our experience told us that it constituted the most dangerous

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period in our students' progress toward graduation.

What occurred surprised us. In the process of changing the early experiences of our students, we changed, I would argue, the culture of the university itself. Our broad range of initiatives included twelve specifically funded by the Lilly Endowment:

- Revising orientation to facilitate transition
- Revising key introductory courses
- Providing critical literacy courses
- Revising the mathematics curriculum
- Establishing the core curriculum
- Creating freshman interest groups
- Developing additional thematic living units
- Improving residence hall staff selection and training
- Increasing mentoring opportunities for minority and underachieving students
- Improving academic advising for undecided and upper-division students
- Integrating career development into the major
- Coordinating campus retention efforts

For the purposes of this essay, I'll highlight only four of these initiatives—two involving largely administrative changes and two involving curricular reform.

ORIENTATION

UPON RECEIVING the Lilly Retention Grant, one of our first efforts was to change orientation both in duration and emphasis. For a variety of reasons, most of them logistical, our first-year students arrived at our halls of residence about a week before classes started and with relatively little programming in place. These arrangements had predictable results—one administrator wryly described that

week as “Mardi Gras in Bloomington.” In short, we found our students in the very earliest moments of their stay on campus (a critical time, as John Gardner, M. Lee Upcraft, and others have demonstrated) entering and constructing a culture that reduced the possibility of their success. We wanted our students to enter and construct quite a different culture, but we had done little to introduce them to it. Before we revised them, the orientation programs merely prepared students for the academic circumstances in which they would find themselves; they did little to articulate the ethos of the place, which we discovered to be just as important given that 20 percent of IUB’s first-year students are first-generation college goers.

A remedy for the first problem will already have suggested itself to the reader: we pushed students’ move-in closer to the beginning of classes and concentrated programming in the residence halls in that now-shorter period. The second remedy was more complex. How does one begin to prepare students for the social and intellectual demands of a large, new, and often bewildering community? If one takes into account the number of students, faculty, and other university employees, IUB would be one of the ten largest cities or towns in Indiana, a largely rural state; IUB is also more diverse, as the term is typically employed, than most of the state.

One of the strategies developed by the Office of Orientation Programs and other campus entities was to have parents and students view and leave campus with a video entitled *A Sense of Where You Are: A Guide to Success in Your First Year at Indiana University*. The origin of the video is perhaps of more interest, however, than the video itself. After determining that taping faculty experts on student success would render our audiences comatose, we fixed upon the idea of distributing camcorders to about a dozen students and having them give their best advice to novice students on a variety of issues. The results were grainy, incoherent at times, but absolutely spot on, with a dorm-room credibility that faculty experts could never provide. The twenty-three-

minute video (available for viewing via streaming video at <http://www.indiana.edu/~iss/sense>) admittedly attempts to do too much in a short time, but our intentions were good. The video exhorts students to become engaged in the academic culture of IUB, to have a new regard for personal safety, and, unremittingly, to go to class, because absenteeism is a problem frequently cited by even our best instructors and is generally taken to be a sign of disengagement from the life of the university. In an attempt to enlist parents in ensuring student success, we made special attempts to invite them to view the video.

In August of 2002, the video was buttressed by H2O, Hoosier Help Online, a comprehensive Web guide to success at IUB (<http://www.h2o.iub.edu>) organized around four important domains of novice student life: *getting started*, *getting involved*, *getting support*, and *getting around*. The site, which like the video was heavily informed by student consultants, had more than six thousand hits on its top page alone in its first two months.

MATHEMATICS CURRICULUM

IT IS A TRUTH almost universally acknowledged that students have more difficulty in introductory mathematics than in any other corner of the curriculum, and IUB students are no exception. In the fall of 1994, for example, more than 35 percent of the students enrolled in Finite Mathematics (M118), an archetypal liberal arts prestatistics course required for admission to many schools and departments, received a D or an F or withdrew from the course. With that in mind, a sizeable percentage of both the Lilly Endowment funding and the effort of the project coordinators went toward assisting the mathematics department as it worked not to lower standards but to improve the possibility of student success in M118, which enrolls more than four thousand students per academic year. By the fall semester of 2001, the D, F, and withdrawal rates in M118 had dropped to 24 percent.

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Math's approach was from four directions—revising the course, increasing available tutoring, offering a companion course, and televising supplemental instruction. The chair of the mathematics department, who has decades of thoughtful experience in teaching the course, had known for some time that students had difficulties with the course not necessarily because the material was inherently difficult but because of the course's pace. Consequently, for those students whose MSAT scores or whose performance in the early going of the full-speed version of the course suggested that they would profit by an alternative, he redesigned the course by dividing it neatly into two parts, each to be taught over a semester. The results were gratifying: students in the two-semester version of the course, who typically had lower MSAT scores, did better than they might have done in a regular section. In support of M118 classes of either type, the mathematics department used graduate students and talented undergraduates to offer mathematics tutorial programs in IUB's new Academic Support Centers, residential tutorial centers open in the evenings to accommodate students' nocturnal study habits. Additional sections of X101, a companion course to M118 that emphasizes mathematics study skills and enrolls some of the least prepared students, were offered through the Lilly grant. The success rates of these students were slightly higher than those of students in M118 in general.

The fourth element of the mathematics retention initiatives, one that required broad campuswide collaboration, was televised supplemental instruction for M118. Conditions were right for what seemed, to some at the time, like a return to the old days of National Educational Television: almost all students taking a form of the course used the same textbook and took departmental midterms and finals; most first-year students taking the course (nearly all of whom had at least one television) lived in the halls of residence, which are wired for cable television; and, as noted earlier, IUB students seem to study primarily in the evening or early in the morning. In any event, after a semester of planning, the mathematics department offered an interactive call-in show in which a talented and personable mathemat-

ics instructor fielded questions on specific problems; the live show was rebroadcast repeatedly. *The Finite Show* paralleled the rhythms of M118 exactly: special episodes preceded the midterm and finals. It would be fair to say that the production quality was reminiscent of the earliest days of television. Nevertheless, the show, which was light and, well, cheesy, was more popular than we had a right to expect. Course evaluations and angry phone calls when there were technical difficulties told us that the show was watched by a high percentage of M118 students, particularly in the early hours of the morning (to our surprise, prime study time), when the shows were replayed. (Lessons may be accessed at <http://www.imds.iupui.edu/imds/bb.shtml>.)

COORDINATING CAMPUS RETENTION EFFORTS

THE *FINITE SHOW* required the collaboration of an academic department, the halls of residence, and media services. The stage was set for this and other partnerships pertinent to retention by Frosh_Up, a large cross-campus committee dedicated to improving the environment—what the British might call the “surround”—in which our first-year students live. In brief, the aim of Chancellor's Professor George Kuh, first chair of the committee, was to invite units, both academic and administrative, with whom students were likely to be involved in ways important to their engagement as members of the academic community. Consequently, units as far apart in campus organization charts as the Office of the Bursar, Writing Tutorial Services, Summer Sessions, the Career Development Center, Residential Programs and Services, the IU Foundation, University Information Technology Services, and the Undergraduate Library all found themselves as partners in this large enterprise of improving retention by improving the quality of first-year life. These partnerships would have been exceedingly unlikely without the catalyzing effects of Frosh_Up, because IUB, like most large universities, is of necessity divided into administrative silos; in addition, IUB's fiscal policy, Responsibility Centered Budgeting (academ-

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ic units generate their own operating expenses and pay a “tax” for centrally administered services), would on the face of things militate against cross-unit collaboration. It is not too much to say that many of the changes to what I earlier called the ecology of the first year, including the aforementioned changes to orientation and the development of Hoosier Help Online, have been sparked by discussions within Frosh_Up.

KEY INTRODUCTORY COURSES

ALTHOUGH CHANGES in the relationships among administrative units and in their services to students and faculty were critical to our efforts to reengineer the first year, so too were changes in the curriculum outside mathematics. Enrollment patterns revealed that we could in fact determine the courses that a sizeable majority of our first-year students took. With that in mind, members of the Lilly retention team performed a simple calculation to establish which courses students had the most difficulty with; in essence, for these de facto core courses we multiplied enrollment by the percentage of D’s, F’s, and withdrawals. This method provided us with our target courses.

We then invited faculty who were likely to teach these target courses to attend what has come to be known as the Freshman Learning Project (FLP), a two-week faculty seminar dedicated to reshaping gateway courses to improve the chances of student success without relaxing the intellectual demands of these classes. As Joan Middendorf and David Pace recount in “Overcoming Cultural Obstacles to New Ways of Teaching: The Lilly Freshman Learning Project at Indiana University,” the groundwork for the FLP is laid through preliminary interviews of each faculty participant by a team of instructional consultants who work in concert with those faculty members to determine their pedagogical aims and how those aims are realized in the target courses they teach. (Note: Not all FLP fellows teach large courses; some are chosen on the basis of the likelihood of their serving as opinion leaders in departmental curricular changes.)

Though the structure of the seminar has changed in the past four years, by now the curriculum (under the guidance of previous participants) has been established; the emphasis is on applying learning theory and centuries of combined teaching experience to classroom circumstances and assignment design. As one might imagine, there are often sharp disciplinary and epistemological differences among the Fellows, and these are not necessarily resolved during the seminar. One of the most useful sessions addresses the paradox of introduc-

tory courses in research universities like IUB, that is, the difficulties that too often arise when a world-class expert on a subject is confronted by novice learners in that discipline. Taking a page from Sheila Tobias, the science and math educator who sometimes discomfits experts in workshops by having them teach outside their expertise, we invite FLP fellows, as part of their seminar experience, to sit in on a course outside (sometimes far outside) their own discipline, a strategy that almost immediately breeds sympathy for novice learners and encourages faculty to reexamine the rhetorical and cognitive demands of their courses in light of a new understanding of their audiences’ needs.

The effects of the FLP have been wide and deep and promise to be lasting, and it is perhaps within this initiative that we find the most palpable changes to campus culture. FLP fellows have taught thousands of students since participating in the seminar—more than fifteen thousand in the College of Arts and Sciences so far. The fellows almost unanimously report that the seminar has a positive and sometimes even transformative effect. A sociologist, for example, commented, “The FLP has empowered me to take risks in the classroom, to experiment with new ways of teaching. . . . I have learned a great deal from the freshmen who sit in my large lecture classes—things I did not know even as a sociologist with twenty-five years of experience.” A public policy professor observed that the FLP experience was “the most intellectually stimulating two weeks of my fifteen-year career at Indiana University.” Perhaps most telling, one faculty member noted that the FLP did “an enormous amount to improve the quality and legitimacy of conversations about teaching (and, as a result, academic experiences for undergrads) at IUB.” FLP veterans continue to meet, and some have moved to study the efficacy of their course innovations through our Scholarship of Teaching and Learning program.

Because FLP fellows are chosen not only for what they teach but also for their stature as campus opinion leaders, this cadre of faculty is likely to lead the way in curricular matters for years to come. My own sense is that the FLP will now turn its collective attention, because this concern has arisen repeatedly during the seminar, toward the large campus (and national) problem of getting students to shoulder more of the burden of their own educations—in short, to spend more of their time on tasks that the faculty members feel are essential to a liberal education. One fellow said it best: “I have committed myself to avoiding the ‘easy bargain’ that is all too common at universities like IU: professors and students agree to do less, to be less ambitious, to burden each other with fewer obligations.”

RESULTS AND REFLECTIONS

THOUGH ONE would be hard-pressed to discover a corner of the campus that did not collaborate in some way in this five-year initiative, general student retention as measured by gross first-to-third-semester persistence—without taking into account new academic standards, changes in admissions criteria, size of first-year class, and so on—did not improve markedly, though some underrepresented groups showed more than modest gains. Finally, first-to-third-semester persistence remained within a band around 87 percent. The Office of Institutional Research and many of the participating units continue their research into the efficacy of each of the Lilly retention initiatives in improving persistence.

But there are other, less direct measures of success. When the first cohort genuinely under the influence of the initiatives completes its fourth, fifth, and sixth years, we will have a notion of the initiatives' effects on graduation rates. Our rate may be higher than one would expect, if the National Survey of Student Engagement (NSSE) serves as a predictor of graduation rates as well as a measure of student engagement as broadly defined. The NSSE was not available to IUB students in time for us to make clear before-Lilly versus after-Lilly comparisons. Nevertheless, our NSSE scores suggest that we are doing something right. Perhaps, because of retention initiatives that improved the campus living/learning environment, our scores in the five major domains of NSSE in 2000 were higher than they might have been; our scores were indeed higher than the average of other participating Research/Doctorial-Extensive institutions in four of the five domains (we were slightly below the national average in Active and Collaborative Learning for universities like ours). Is our performance on the NSSE related to the Lilly initiatives? Perhaps, or perhaps we may be confusing coincidence with causation.

More study is needed, and we are doing it. Assessment of all the Lilly initiatives is important, continuing, and difficult, given the nature of some of the initiatives; it is hard to gauge, for example, the effects of prematriculation orientation programs on first-to-third-semester persistence, or to determine to what extent watching an episode of *The Finite Show* improves performance in a finite mathematics class. Nevertheless, modifications to the initiatives are taking place in light of funding realities and in view of what we learned over the course of the grant.

What, precisely, did we learn? We learned that concentrating strictly on academic matters is unlikely to improve persistence strikingly across an entire cohort—

in our case, a first-year class of about seven thousand students. Consequently, in future attempts to improve persistence and graduation rates we are likely to concentrate even more on at-risk students and, just as importantly, on other elements of student life—personal finances, adjustment to campus climate, and the like. Freshman interest groups and other living-learning arrangements have proved to be useful ways to have beneficial effects on the whole student. To reach the whole student, cross-campus collaboration is necessary; this collaboration, which can be accomplished without deep reorganization but through the operation of large and informal committees like Frosh_Up, is crucial and should be intentionally sought in any campus retention effort. It was also clear to us from the outset—and here we differ, perhaps, in emphasis from most universities—that targeting certain “dangerous” classes is critical to curriculum-based initiatives. Course-based interventions are, in some respects, a more direct approach to academic problems than the delivery of tutorial services. The demand for one-on-one tutorial services in mathematics and English, which a glance at the literature and the retention initiatives of any number of universities and colleges will demonstrate are widespread interventions, is inexhaustible; and tutorials, when voluntary, are not necessarily sought by the students most in need of them. In fact, large universities should be on their guard to avoid depending solely on the efficacy of student services in retention efforts; though student services, by virtue of their missions, are often easily mobilized in efforts to improve persistence and graduation, the assent and cooperation of the faculty are essential to retention initiatives that have intellectual consequences for everyone involved. Finally, we have found, somewhat to our surprise, that a retention program, however pragmatic its original aims, has had collateral benefits for our faculty as it has for our students.

NOTES

Burd, S. “Bush Administration’s Proposals Reveal Growing Divide Between College Groups and U.S. Education Department.” *Chronicle of Higher Education*. September 20, 2002.

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