

## **CREATING AND SUPPORTING BEST PRACTICES IN STUDENT RETENTION**

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### **Abstract**

Retention and graduation rates are being used with greater frequency by students and their families as important factors in determining college attendance choices. These data are also used in institutional rankings as indicators of quality and effectiveness, and in a growing number of states they are used as a quality metric in performance-based funding for state institutions. There are several compelling incentives for chairs to participate in, create new initiatives, and support programs that enhance student retention. Several campus level programs and three department level initiatives from IUPUI that have been shown to be effective in retaining students will be described.

### **Introduction**

Undergraduate student retention rates, along with graduation rates, in our colleges and universities have drawn increasing scrutiny from legislators, members of governing boards and other constituents including potential students and their families. Those institutions with highly selective admissions criteria are less likely to have problems with either of these statistics because of their uniformly high ability student bodies. However, urban public institutions and community colleges have student populations who are generally less well prepared by their high school experience, are more likely to be first generation college students, are more likely to be from under-represented groups and are more likely to lead lives that are challenged by financial, family and other non-academic factors. At these institutions, lower retention and graduation rates are more common.

Our institutions of higher education are increasingly being held accountable for their success with students. Our constituencies, from the federal government to the individual student, want to know that their investments in higher education are resulting in the intended products – degrees – in sufficient quantities. In more recent years this issue has been coupled with the rapidly growing debt that students accumulate while earning their degrees. It certainly is a problem when a student graduates with six-figure debt and with a degree that predicts a modest income but it is far worse to incur significant debt and not earn a degree.

As a result of the emphasis on retention and graduation rates many of our colleges and universities have developed programs and initiatives that will help beginning students make a successful transition to higher education culture and expectations and that will provide academic, financial and social support of various types in order to achieve to higher levels of student success and retention. Indiana University-Purdue University Indianapolis (IUPUI) has been at the forefront of these efforts for many years. Most of the programs have been developed, adapted and/or implemented through University College (UC), the gateway of entry for all but the highest ability undergraduate students at IUPUI. UC also provides services for students who must fulfill pre-requisites for programs that do not admit freshmen, for students who do not meet the admission standards of their desired programs, and for those students still exploring possible majors. Beyond UC retention programs there are also several others that were developed at the department level under the leadership of the chairs. Department chairs can also have an impact on the success of UC programs by direct participation in those where the department can have impact, by supporting department faculty who work on retention initiatives, and by regularly communicating to their faculty the importance of better retention to the well-being of campus.

## IUPUI

IUPUI is an urban research university with over 30,000 students of whom about 70% are undergraduates. It is home to one of the largest medical schools in the US and also houses the only dental school in the state. IUPUI was created in 1969 by combining two-year campuses of Indiana University (IU) and Purdue University (PU) with IU professional schools. IUPUI remains a complex institution with different degrees of autonomy from IU and PU. All but two of the twenty or so (the number changes frequently due the emergence of new schools and the consolidations of others) schools offer Indiana University degrees, while only Science and Engineering & Technology offer degrees from Purdue University. Indiana University manages the campus and the IUPUI Chancellor reports to the President and Board of Trustees of IU.

For many years IUPUI had retention and graduation rates that were among the lowest in the US. Due to the dedication and creativity of IUPUI faculty and staff, both of these values have risen significantly in recent years, though more work needs to be done. There are several factors that account for the low retention rates at IUPUI. 1. Indiana has one of the lowest rates of higher education attainment in the US. This may be traced to its historic economic base built upon agriculture and manufacturing. The family farm no longer offers a significant employment opportunity and many manufacturing jobs have been permanently lost to low labor costs elsewhere. With the reduction in these traditional options for a career Indiana youth are turning with greater frequency to higher education as first generation (high risk) college students. 2.

Indiana's community college system was not in place until the last decade. Thus, IUPUI was open admission for many years. With the emergence of the community college IUPUI has been slowly raising its admissions standards. 3. Compared to students at peer institutions IUPUI students report working more hours than and spending more time dealing with family issues. 4. IUPUI has had, until 2102, very limited on-campus housing. The new dormitory (a converted on-campus hotel) is already over subscribed and the campus has been approved for another unit of housing.

### **Defining Retention**

The term "student retention" can be used as a general or as a specific term. Here the "retention rate" will be used specifically to indicate the fall-to-fall persistence of first-time, full-time, fall students. It does not address part-time beginners, transfer students and first-time, full-time students who begin their studies in the spring. One may want to know about the outcomes of these other students but they are not part of the official retention rate cohort. The retention rate as just described is the value that is used in institutional rankings.

### **Incentives to Address Low Retention**

First, and actually the most compelling reason, improving low retention rates is the right thing to do. Simply put, admitted students and those who support them - parents, spouses, governmental agencies, etc., expect and deserve our best efforts to ensure success. While reality tells us that there will be some attrition, we should invest our resources, creativity and time in providing the services, support and environments we know will help students succeed.

The second consideration is the fiscal impact of losing a new student after the first year of study. One can easily estimate the amount of income lost when a student does not return for the second year of study. Three years of lost tuition per student not retained can quickly add up to a large sum. An often-overlooked negative consequence related to resources that results from a student who is not retained is that the institution may have to admit more freshmen (delving deeper into the pool results in lower quality) thus creating introductory-level capacity issues and depleting instructional resources while at the same time resulting in either unused capacity in upper level courses or diversion of resources away from their support. More recently, a new fiscal driver has been added to the incentives to address this issue. The Indiana Commission for Higher Education began six years ago to factor retention and graduation rates into its budget proposals for state higher education appropriations. A portion of the state funding for each campus is determined by a formula in which net changes in retention and graduation are significant parameters; campuses that make progress can see a significant increment in their state support.

A third reason retention matters is related to overall student recruitment. In today's world where institutional data are more available, it is not difficult for students and parents to obtain information on student success. Low retention rates are not inducements to attend. A third and related reason is that retention rates are a component in the formula used by organizations that rank colleges and universities. Low ranking damages reputation and makes recruiting more challenging. Low first-year retention rates also later impact 4 and 6-year graduation rates which are also used in establishing institutional rankings.

### **Leadership Challenges**

Not much happens in terms of higher education enterprise without the active participation of the faculty. On issues such as retention, faculty can be unaware, unconcerned or too busy with other matters to become engaged. Thus, it becomes the responsibility of the chair to bring such issues to the faculty as an institutional priority. Using hard data including income lost calculations, impact on graduation rates, institutional ranking and reputation, and increased student debt with reduced ability to meet these obligation would all be appropriate points to include in conversations with faculty about addressing low retention rates.

In reality, only those faculty teaching at the introductory level would likely be directly involved in the development and/or implementation of initiatives to improve student success and to raise retention rates. Faculty teaching upper undergraduate and graduate levels would not be direct participants, although they may benefit indirectly by adapting successful approaches developed for introductory level courses and by having better prepared students in their classes. However, it is worth the effort by the chair to gain the support and commitment of all faculty in order to defuse the negative comments regarding spending additional resources on "marginal" students. Reducing the criticism helps maintain morale among those who are working toward the solution. Those individuals who buy-in will need assurance from the chair as to the value of their work and that they will get the appropriate support to make the changes necessary. As new initiatives are forthcoming and data collected, the chair should take every opportunity to report on their progress to the entire faculty.

It should be recognized that solving the retention problem will be a challenge requiring considerable time and effort from faculty and staff. Thus, there should be some institutional resources available to pay for the materials, training for participating faculty and replacement instructors. Chairs will have to manage the changes within the department to accommodate the new work without overloading either the participating or non-participating faculty.

A final chair activity that might be possible concerns the negotiation of a "sharing the benefits program" resulting from a successful retention effort. Because, as stated earlier,

there are fiscal gains that result from increased retention, chairs may propose that increases in student success in a key first-year course will result in some of the proceeds of increased tuition revenue returning to their unit. These extra dollars could be targeted to areas where all faculty can benefit (e. g. conference travel, increased graduate student support) thereby solidifying the commitment to continue to improve student retention.

### **Retention Programs That Work or That Have Potential**

When embarking on a concerted effort to tackle a problem of low student retention, campuses should consider a number of points. 1. Do not be reluctant to try the successful programs of others. While it is gratifying to create something innovative, the task at hand is complex and several approaches will likely be attempted. 2. On the other hand, an effective program elsewhere may not work locally. Factors responsible for the lack of program mobility include the skills of the individuals who design or implement the program, the fit of the program to the student or campus culture, and the presence or absence of other services and support structures on campus. 3. No single intervention is likely to cure low retention. The reasons why students are academically unsuccessful vary widely, making a single approach unlikely to cure the problem. 4. If you have invested in a program that remains ineffective for 2-3 cycles do not be squeamish about abandoning it for another.

The programs from IUPUI that will be described below vary from long-standing to new, from those designed for general versus targeted student audiences, and from centrally run to locally managed. All are designed to address the first to second year retention rate except for one that is for sophomore and junior students. The outcomes data for the programs described are in some cases supported by rigorous statistical analysis while others were analyzed much more simply.

### **Centralized Programs (UC)**

**Themed Learning Community (TLC).** A TLC is comprised of 3-5 freshmen level classes offered around a common theme for a group of 25 students. Always included is a First-year Seminar class that is team-taught by a faculty member, librarian, advisor, and student mentor. The seminar is linked to sections of courses in majors or pre-professional requirements that have proved challenging to at-risk students. The instructors utilize active and collaborative learning experiences, service learning, co-curricular activities and prepare shared assignments that are related to the theme. Recent examples include: “International Studies: Global Connections & Human Encounters” comprised of History (1800-present), Introduction to International Studies, and a First-year Seminar; and “Baby, I Was Born his Way” comprised of Human Anatomy, Introductory Psychology and a First-year Seminar.

Using a comparison student cohort of unlinked First-year Seminars, those in a TLC showed an average GPA gain of 0.17 over 11 years and an average first to second year retention increase of 3.2% over 10 years. Over this period of time the number participating in a TLC has grown from 138 to 877 while the number of non-participants has diminished from 2017 to 1211 as additional TLC sections have been scheduled.

**Summer Bridge (SB).** SB consists of a two-week, four days per week program that is scheduled just before the start of fall semester. The goals of SB are to ensure a smooth transition to college, get an early introduction to campus, and make connections with faculty, staff and students. The sections are led by faculty or staff members from the various schools on campus. Some SB sections are combined with fall TLCs. In such cases, the topics addressed in the combined SB-TLC sections may change in order to make the transition from summer through fall seamless. Specific elements of a SB include team-building, campus information technology systems, writing, campus resources, ethics, and the management of time, stress and personal money. The session ends with the completion and presentation of a team-based project. Students also get a head start on campus-specific academic objectives such as the principle-based general education curriculum (Principles of Undergraduate Learning) and the RISE initiative (Research, International, Service Learning and Experiential Learning; where students are encouraged to take part in as many of these experiences as possible).

The data on the efficacy of SB has been compelling for a number of years. In fall 2010, those with SB earned an average GPA of 2.98 versus a group (matched in a number of characteristics) of non-SB students whose average GPA was 0.21 lower. African-American students showed even greater gains (SB average GPA 2.66, non-SB average GPA of 2.24). For fall 2011 similar results were seen (overall average GPA of SB of 2.90 and non-SB of 2.71, African-American differential of 2.64 versus 2.15, and Hispanic/Latino differential of 2.90 versus 2.65). Fall-to-fall (2010-2011) retention was 81% versus 73% overall and 77% versus 63% for African Americans in SB and non-SB cohorts, respectively. Over a 5-year period the average retention was 6% higher for those participating in SB.

**21<sup>st</sup> Century Scholars Support Program (21CSSP).** The 21<sup>st</sup> Century Scholars Program was established by the Indiana legislature in 1990 to provide a mechanism for children from economically disadvantaged circumstances to attend college. Potential recipients are identified in the 7<sup>th</sup> or 8<sup>th</sup> grade and are eligible for the scholarship if they graduate from high school with a minimum GPA of 2.0. The program will pay for 15 credits of course work per semester at a public Indiana community college or university. Students must maintain a minimum GPA of 2.0 to remain eligible for the scholarship. The program has a high percentage of first generation students and students from under-represented groups. IUPUI offers additional support in the form of a \$2,000 Pledge Grant called *Jaguar Journey*, provided that the student enrolls in SB or a TLC and participates in mentoring. A minimum GPA of 2.5 is required for continuing the Pledge Grant.

Early cohorts of Scholars performed poorly and so in 2006 the Support Program was developed. It provides academic and tutor support, peer mentoring, personal enrichment workshops, career advising, and social/cultural events. Students are mandated to commit to 8 hours per week of on-campus study hours. From 2006-2011 the retention rate of students in this program increased from 57% to 72%. During the same period of time, the retention rates of all students increased from 67% to 74%.

There are two more recently developed programs that have the potential for effectiveness and thus deserve a mention. The **Electronic Personal Development Portfolio (ePDP)** is an on-line (or paper) journal that is designed to be used throughout a student's entire degree program. The instrument begins with "About Me" and "Why am I here?" and builds a meaningful plan for college. The ePDP promotes self-assessment, exploration, skill acquisition, goal setting, planning and evaluation. A major theme is self-reflection, a skill that is enhanced over time. Ultimately the ePDP may serve as a detailed resume showcasing student learning and experiences.

In its first year use of the ePDP resulted in a gain of about 0.1 in GPA both in first and second semester. The next two years were flat, on average, due largely to the less extensive training that instructors received in its use. The ePDP's impact on student success is subject to the variables associated with instructor reminders and oversight as well as the individual motivations of students to work with it independently. Technology issues have also interfered with student and faculty acceptance of ePDP.

**Diversity Enrichment and Achievement Program (DEAP)** is a program that is open to all, but specifically targets African-American and Hispanic students. Recruitment into the program begins at the time of admission and students are provided a \$500 "scholarship" to attend SB. Participants must attend 4 developmental workshops per year, attend monthly group meetings, have weekly contacts with their peer mentors and attend 2, two-hour on-campus study tables per week. The program provides holistic support that addresses the academic, personal and social needs of the students.

Early results show gains in retention and GPA but the cohorts have been small and the leadership of the program has recently changed.

### **Department-based Programs**

**The Freshmen Work Program (FWP).** The FWP was conceived and implemented in the Department of Biology in 2000. The hypothesis being tested was that on-campus work would be more compatible with student academic success than off-campus work. There has been much research done since that time to confirm this. The idea was proposed to Enrollment Services and seed funding was initially provided for three years. Using the data derived from the seed funding, a successful application was made to a new pool of campus base funding (CTE; Commitment to Excellence; derived from a one-time increment in

undergraduate tuition) that was targeted to improving undergraduate student success. This resulted in \$100,000 annually in ongoing base funding for the program.

The FWP program “employs” students from the first-year freshmen cohort for 10-12 hours per week at \$9/hr. working under a full-time faculty or staff member. The department contributes \$2/hr. and the balance, minus any contribution from federal work-study, is picked up by the CTE grant. Students commit to holding no other employment. Students work in research laboratories, teaching lab preparation and clean-up, and other facilities (greenhouse, animal quarters). Work hours are flexible and changeable (with proper notification) and their supervisors are aware of the students’ course schedules so they can unofficially monitor their progress. The participants became part of teams comprised of advanced undergraduate students and graduate students, staff, technicians and faculty members who can guide and advise them. This helps them become socialized into the disciplinary and campus cultures and opens early opportunities to become active in student clubs and organizations.

The primary outcome of the FWP was a retention rate that was consistently 10% above the campus average. Because of the personal connections with faculty and staff, supervisors also learned what issue prevented students from returning for their second year. Other outcomes included some students who rapidly moved from doing routine work to conducting real experiments and students who became so fascinated with what they were doing that they remained in their labs for years working for pay (grants) or academic credit and generating scholarly products in the forms of conference presentations and peer-reviewed publications. Perhaps in a departure from its roots in supporting at-risk students, the FWP is now so popular that it is now highlighted (along with LHSI; see below) in campus efforts to recruit high ability students.

**Peer-Led Team Learning (PLTL).** PLTL was adopted in Chemistry at IUPUI in 1997 based on the model developed at CUNY in 1994. The format is a 75-minute weekly session (10 students) led by a peer mentor (a recent successful course completer) who facilitates collaborative problem solving. Mentors receive \$600 per section and attend a 1 credit class where they are trained pedagogy, strategy and content. PLTL is supported by funds from CTE and a course fee placed on the freshmen Chemistry course.

PLTL has been successfully used at many institutions and has been reported to increase student success in freshmen Chemistry (Grade of C or better) by 5-20%. Similar results have been achieved at IUPUI. PLTL is now being piloted in organic chemistry and sections have been developed for on-line audiences. Its basic approach is also adaptable to other disciplines.

**Life & Health Sciences Internships (LHSI).** This program differs from the others in that its focus is on second, and to a lesser extent, third year students and by virtue of the fact that it is somewhat selective, requiring students to have GPA of 3.0 in their majors. This

program was designed to fill the gap in related co-curricula endeavors between supportive freshmen level programs (e. g. TLC and FWP) and the junior-senior research and capstone experiences. It was designed collaboratively by the Department of Biology and the School of Medicine to take advantage of the many professional schools on campus and the fact that many students who attend IUPUI do so because they seek admission to these professional schools. Admitted students are placed in their target school working in a laboratory, clinical or other setting, where they work on projects under faculty mentors. The program is funded at \$250,000 in base funding from CTE and pays student stipends (\$10/hr. for 10 hrs./week). The cost of participant conference attendance is also covered. Base funding also covers the salary of a full-time director who is responsible for all aspects of the application process, identifying appropriate internship locations for students, developing career building activities, and organizing a spring poster session for all participants and their mentors.

LHSI has seen great success. In the period of 2007-2013, 98% of the students have graduated or were retained (returned to their academic programs) after the internship. In addition, over half of the 179 graduates through May 2013 entered IU graduate or professional programs. The reputation of this program across all levels of the IUPUI campus is such that students seek this out as a professional honor. The Schools on campus from which participants are regularly drawn have recently invested their own funds to expand this opportunity. A side benefit has been to showcase potential recruits (and the overall quality of IUPUI undergraduates) to the professional schools.

### **Summary and Recommendations**

Student retention has become increasingly important for many of our colleges and universities. The urgency of this matter must be conveyed to our faculties some of whom will be directly involved in identifying solutions while others must be on-board with the effort. Thus, strong chair leadership will be necessary to gain faculty support. Below are some recommendations for chairs who will lead the effort.

1. In order to establish credibility for the retention effort and the expenditure of the resources required, chairs will have to convincingly articulate the negative consequences of the *status quo*. Included would be loss of income (translates into lower department budgets, inability to replace or grow faculty), a diminished reputation (both locally and in institutional rankings, translates into recruitment challenges), and negative political impacts (unhappy families, legislators and board members, federal government, translates into decreased support).
2. Chairs will need to decide which of the array of campus level programs developed are a good fit (based on potential positive impact) for department participation.
3. Chairs should seek creative ideas from within the department for addressing poor retention and seek campus support for programs that show promising results.

4. Those department faculty who are engaged in this work should be publicly supported, encouraged, and recognized for their efforts.
5. Chairs should negotiate/lobby for a portion of the net gain in income resulting from a successful retention strategy as a reward for faculty effort.
6. Solving the retention problem will take time and because of the complexity of its underlying causes will result in some initiatives being ineffective. Chairs must regularly keep faculty and staff informed of the status of campus and local retention efforts as a way to maintain focus over the long haul.

### **Additional Resources**

Additional information on the centralized retention programs (TLC, SB, ePDP, 21CSSP, and DEAP) run out of University College can be found at <https://uc.iupui.edu/> under the Undergraduate Education and Student Services tabs. For a variety of additional information on LHSI go to <http://www.iupui.edu/> and enter LHSI in the *Search* box.