

Recruiting and Retaining Information Technology Staff in Higher Education

An EDUCAUSE Executive Briefing developed in cooperation with the College and University Professional Association for Human Resources and the National Association of College and University Business Officers

In the mid-1990s, a number of studies and reports described a crisis in information technology (IT) staffing nationwide. A report issued in 1999 by Peter Freeman and William Aspray, *The Supply of Information Technology Workers in the United States*, analyzed previous studies and shortage claims and determined that although data collected to date were inadequate to draw conclusions about a mismatch between supply and demand for IT workers, there was a preponderance of quantitative and qualitative evidence that suggests (1) overall there is a shortage of IT workers or at least a tight labor market in the U.S., and (2) there are shortages both in specific geographic regions and in specific occupations.¹

Colleges and universities depend on the effective use of IT for instruction, research, and administration. As the demand for IT professionals continues to exceed the supply, the higher education community is facing a growing staffing challenge. Just as industry has had to respond to the tight labor market, so too each campus must develop its own multi-faceted approach to recruiting and retaining the IT professionals it needs to meet ever-expanding technology requirements.

The recruitment and retention of IT professionals is a campuswide problem. In many cases, internal obstacles pose as many difficulties for IT recruiting as external pressures. It is the role of the president to ensure that an atmosphere exists that encourages flexible and innovative approaches to the problem. In short, this is a campus leadership issue.

*In many cases,
internal obstacles
pose as many
difficulties for IT
recruiting as
external pressures.*

The Issues

In 1999, a working group of IT professionals, human resource (HR) professionals, and business officers began meeting electronically under the auspices of EDUCAUSE in cooperation with the College and University Profes-

sional Association for Human Resources (CUPA-HR) and the National Association of College and University Business Officers (NACUBO). This working group represented a broad spectrum of institutions—from community colleges to liberal arts colleges to research universities—from diverse geographic areas. The group was asked to identify and explore major HR issues on campus in the area of information technology. Four arenas were proposed for in-depth discussion:

- Recruitment—finding and hiring qualified candidates
- Retention—retaining employees through innovative compensation and/or benefit packages and attractive working conditions
- Retraining—developing employees to meet current and future technology needs
- Restructuring—creating new job descriptions and/or job classifications to better reflect the emerging new IT functions and to provide flexibility in this changing profession

Subgroups were formed to address these issues through several weeks of online discussion. The following sections summarize their discussions.

RECRUITMENT

Although there has been a good deal of media hyperbole about the IT recruitment crisis, most people in the IT and/or HR fields in higher education agree that recruitment problems are reaching unprecedented levels. The staffing crisis has caused IT departments to work more closely and in new ways with HR departments to implement innovative approaches. Campus IT departments are also looking to industry for best practices in recruiting. Some of these strategies are transferable and they are being employed in non-IT areas such as fundraising, where professionals also are in high demand.

On the whole, institutions tend to have a more keen awareness of gaps in direct customer support areas than in backroom operations. At some institutions, senior management and/or state legislatures have demonstrated an understanding of and a concern for the implications of the problem. They have developed compensation practices designed specifically to attract new IT staff.

At other institutions, there is a reluctance to change or make exceptions to existing policies for IT staff. Unfilled positions continue to be viewed more as a "cost savings" than as a lost opportunity. There appears to be a lack of appreciation for the short- and long-term impact of not addressing the issue, and a failure to grasp its negative impact on the institution's strategic success overall.

RETENTION

A study of turnover rates for IT professionals in higher education has never been conducted on a nationwide scale, so it is not possible to ascertain if the current rate of attrition is rising, falling, or stable. Anecdotally, the IT staff turnover rates appear to be in the range of 12–15 percent, which is consistent with industry estimates.

Generally, the most turnover appears to be among staff with three to seven years of experience and a salary level below \$35,000. The technical knowledge areas that seem to have higher turnover rates include Web production, data networking, Java, UNIX, client-server, and database administration.

There appears to be a widespread, fatalistic view that competition with the private sector for IT workers is a battle that higher education cannot win. Compensa-

*The opportunity for training
can be an incentive in
the recruitment of new IT
staff and the retention
of existing staff.*

tion is generally cited as the key issue. The level of and approaches to compensation often are not in step with local IT markets.

Outside of common retention strategies such as promotion, training, compensation, management practices, and organizational culture, other issues appear to play a role in the active engagement of IT professionals. Experience has shown that involving talented IT staff in strategic thinking and planning about campus IT issues is a powerful approach to retaining them.

It is clear that location plays a large role in both recruitment and retention. Size and location of the community, proximity to high-technology centers and cities, cost of living, commute, lifestyle, and pace all can be counted as factors. For those located in thriving economies with low unemployment, the challenge to offer compensation that is

attractive for the "hot" technologies is especially great.

Finally, characteristics of the work environment that were at one time unique to higher education, such as casual dress and work-hour flexibility, are becoming industry norms. Higher education, however, is still generally viewed as a less-high-pressure environment, since institutions are not linked to the whims of Wall Street.

RETRAINING

Client-server and Web-based technology implementations, the lack of qualified applicants for vacant technology positions, and the need to retain staff through technology transitions are driving the current need to update the skills of IT professionals. The need for ongoing training is viewed by the IT profession as an expected consequence of the constant change in technology.

Training as an issue is interwoven and interconnected with several of the other issues. The opportunity for training can be an incentive in the recruitment of new IT staff and the retention of existing staff. Staff with new, "hot" technology skills may require adjustments in job classification. This, in turn, may require an increase in compensation to retain them.

RESTRUCTURING

This category encompasses three organizational design features: job structure, job classification, and organizational structure. Regularly updating job structures (perhaps every two years) helps to ensure that the needs of specific campus departments are being met. Job reclassification supports flexibility in the deployment of staffing resources and appears to be a factor in retention because it increases job and career development opportunities.

A sophisticated organization and classification process permits institutions to

better compare and compensate employees based on market factors. Some institutions are experimenting with new organizational structures to increase the accountability of IT organizations for user satisfaction.

CHALLENGES AND OBSTACLES

A litany of challenges to making progress with IT staffing issues runs the gamut from internal to external and from operational to systemic. Three barriers cited most consistently include:

- resistance to change
- poor communication channels
- HR policies

Organizational agility is not a widely held institutional value in higher education. Campuses often are slower to react to market forces than companies whose survival depends on their competitiveness. Structures or practices that make it difficult to communicate the nature and scope of the problem to the appropriate stakeholders can impede problem-solving efforts.

The greatest challenge appears to be HR policies, especially those at public institutions. Union policies also present obstacles to be overcome. Designed for consistency, fairness, and equity across functional areas, these mechanisms make it extremely difficult to craft effective recruitment and retention efforts in this highly competitive situation. For many schools, state legislators impose these limitations.

Many of the issues surrounding the recruitment and retention of IT staff are the same as for any staff. For example, challenging assignments and the opportunity to learn new skills appear to be keys to the retention of IT staff—as they are for most individuals. The fact that the market offers IT professionals significantly higher remunerative opportunities creates a

dilemma for higher education institutions that are not accustomed to treating one group of staff differently from others.

HR'S ROLE

The critical role of the human resource department was underscored repeatedly in working group conversations. It is the HR staff who ensure that the compensation structure is in alignment with the organizational goals. In a decentralized organization, they maintain consistency for technology positions across the institution, so that competition for IT staff within the organization does not become a prob-

Campuses often are slower to react to market forces than companies whose survival depends on their competitiveness.

lem. There was consensus that there is no substitute for a healthy, ongoing relationship between IT and HR leaders on campus.

General Principles

Institutions that have had greatest success in overcoming internal obstacles share the following characteristics:

- The highest levels of campus administration recognize the existence of an IT staffing crisis and accept their role in addressing the challenge
- The relationship between IT staffing and institutional objectives and strategies is well understood

- Collaboration between HR, IT, and other parties to pursue a coherent institutional strategy to address the IT staffing crisis is mandated from the top down
- Internal equity concerns, within IT and between IT and other departments, are evaluated in the larger context of institutional needs
- Financial and non-financial rewards are balanced to create a competitive, holistic compensation and reward package, recognizing the financial limitations within which most organizations operate
- IT job announcements, position descriptions, hiring practices, and so forth draw upon industry best practice and accommodate existing market conditions to the degree possible

Some Guidelines

Working group discussions suggested the following guidelines:

RECRUITMENT

A key task of HR and IT managers is to focus attention on the relationship between IT staffing and institutional objectives. Staff skills and competencies should be aligned clearly with organizational needs. Administrators and officers must be given the clearest possible picture of the impact of IT staffing on the institution's ability to provide competitive learning and research opportunities for students and faculty as well as to undertake student recruitment, fund-raising, and other administrative responsibilities.

RETENTION

Retention must be considered from a holistic perspective. It begins with well-constructed jobs that combine the right mix of activities and challenges. A well-designed hiring process attracts the individual whose value system, talents, and skills will match those of the

Tactics that Work

- To develop larger pools during recruitment, use:
 - a toll free number to make it as easy as possible for candidates to call
 - alternate sourcing options such as placement firms
 - contract recruiters
 - more creative advertising and job fairs
- Reduce dependence on the available pool of IT workers by “growing your own” staff through:
 - internships: offer stipends to students who work while they complete their education
 - apprenticeships: pay entry-level salaries to employees as they learn on the job
 - faculty expertise: send staff to relevant courses offered on campus
 - training program developed with a vendor: build in-house expertise in specific programs
 - partnership program with a local technical college:
 - offer internships and apprenticeships
- In addition to building in-house staff, consider expanding the use of consultants, contract workers, and outsourcing firms for special projects and even ongoing operations when this makes sense
- Meet the specific needs of individual IT staff by increasing managerial discretion and flexibility through:
 - alternative job classification approaches such as broad-banding
 - systems based on core aptitudes and competencies rather than task-based job descriptions
 - bonuses, mid-year raises, project completion incentive pay, retention bonuses, employee referral bonuses
- Tap graduates from your institution in computer science and information resource management programs for entry-level jobs

institution. An effective strategy also includes effective appraisal, promotion, succession planning, training, compensation, and management practices. A mechanism to track turnover that includes exit interviews can help an institution craft a strategy suited to local conditions. Also, the unique dynamics of the knowledge worker suggest that institutions may need to focus more on deploying non-financial forms of recognition as well as on paying for the individual rather than the position. IT skills are highly transferable and higher education does com-

pete with industry for workers with these skills. Understanding this means considering industry salary surveys as opposed to relying on higher education salary surveys.

RETRAINING

To maintain an adequate level of technology support in a rapidly changing environment, training of IT staff is essential to the long-term well-being of the institution. It should be integral to the annual review and goal-setting process. A baseline goal for training for each employee should be set, and an adequate

budget provided. Training should include both technical and interpersonal competencies. The success or failure of an implementation process often rests on the adequacy of interpersonal skills. Self-directed career development should be encouraged and facilitated.

RESTRUCTURING

IT has become such a dynamic field that flexibility appears to be the key in this arena. The ability and the willingness to modify job structure, job classification, and organizational structure as often and as quickly as necessary are important elements in a successful recruitment and retention strategy for IT professionals.

Moving Forward

From a national perspective, there are a number of projects and studies that CUPA-HR, EDUCAUSE, and NACUBO can undertake to support development of effective campus practices in this arena. At the local level, it is the president who will need to encourage the strategic thinking and action necessary to attract and retain the individuals responsible for the technological capabilities upon which each campus now relies. *e*

Endnote:

1. Peter Freeman and William Aspray, *The Supply of Information Technology Workers in the United States* (Washington, D.C.: Computing Research Association, 1999). [www.cra.org/reports/wits/cra.wits.html]

EDUCAUSE, CUPA-HR, and NACUBO recently distributed a copy of this executive briefing to 3,700 U.S. college and university presidents and chancellors. The briefing is also available online at www.educause.edu/pub/eb/eb1.html. Additional resources related to the intersection of information technology and human resources in higher education are available at www.educause.edu/issues/hrit.html.