“Developing an IT staffing and organizational model to accommodate the changing IT environment and facilitate openness and agility” is a 2014 EDUCAUSE top 10 IT issue. Today’s higher education IT organization needs a “lean and mean” cadre of staff who possess skills that are both deep and broad. Recruiting and developing the right team requires considerable time, effort, and resources. How, then, do you make the most of this investment and retain the individuals who provide so much value to the IT organization? This research bulletin uses data from ECAR’s study on the higher education IT workforce to provide CIOs and managers with:

- An understanding of the demographic makeup of today’s higher education IT staff
- The professional activities and skills staff consider important to their success
- Attitudes and perceptions staff have toward their current position, their work environment, and their institution
- The factors that underlie staff retention
- Recommendations for managers seeking to create a better work environment, increase staff motivation, and facilitate staff retention

Who Are the Higher Education IT Staff?

The workforce study respondents included 806 nonmanagement staff. The majority were male (63%) and white (88%), with a median age of 48. The median salary was $65,000. The majority (84%) had at least a four-year degree, and more than one-third (37%) had a master’s degree. Nearly three-fourths (73%) worked in central IT, and nearly all (94%) were permanent, full-time employees. The five most populous domains in which they work were:

- Information systems and applications (16%)
- IT support services (16%)
- Educational technology services (14%)
- Administration and management of IT (14%)
- Enterprise infrastructure and services (14%)

The median length of time staff have worked in their current position was 5 years, and the median length of time they have worked at their current institution is 11 years, suggesting that many have been promoted or transferred from within. This fact can be viewed as a positive in that—because many staff
have held previous positions in the same institution—there has been opportunity for managers to observe, identify, and possibly nurture homegrown talent, and selecting for talent is one of the most important actions a manager takes in making hiring decisions. Recruiting from within is also more cost-effective and cost-efficient. However, if managers are using an availability heuristic in looking for talent mainly within the institution, they may be unnecessarily limiting themselves to the scope of talent that is merely most accessible and not availing themselves of the fresh talent and ideas that those outside the institution may provide. External recruitment can also help motivate current staff to achieve more to enable them to get a promotion, and it can open up opportunities to improve workforce diversity.

### Professional Activities, Skills, and Obstacles to Success

#### Professional Development Activities: Encouragement Is Important

The workforce survey asked staff which professional activities they had engaged in during the past two years, as well as which of them “contribute or would contribute to your professional growth and development in your current position.” It also asked about the extent to which their managers encourage them to engage in these activities. Figure 1 displays these findings in order of percentage participation.

![Figure 1. Participation in and supervisor encouragement of professional activities](image-url)
Staff rated all of these activities as relatively important to professional development (all had an average rating between 3 and 4 on a 5-point scale). Staff engage in certain activities, however, more than in others. More than three-fourths read about current IT and higher education news; however, less than one-fourth have taught a class, participated in management training, earned a certification, or written an article within the past two years. In addition, many activities have participation rates that do not align with their perceived level of importance. For example, taking a formal technology training class was rated as one of the most important professional growth and development activities on the list, but fewer than half of staff have taken such a class in the past two years. One might hypothesize that professional development activities were some of the first items to be cut with recent budget declines. Data from the EDUCAUSE Core Data Service (CDS) reveal that spending for travel and training has increased significantly in recent years, from a median of $677 per staff FTE in 2011 to $833 per FTE in 2013. Perhaps this is evidence of an increased focus on professional development that will continue to trend upward.

Some activities (e.g., reading about current IT and higher education news, engaging in informal peer networking) are engaged in by many staff regardless of whether they are encouraged to do so by their managers. For other activities (e.g., attending IT conferences, taking formal technical training classes, engaging in formal peer networking, completing a stretch assignment), the percentage of staff who participate nearly matches the percentage who receive encouragement from their managers to participate in these activities. Some of these encouragement/participation relationships may be a product of circumstance in that some activities require time off or funding that necessitates permission and, therefore, tacit encouragement. In no case, however, does management encouragement greatly exceed the level of participation. This suggests that manager encouragement is important for many of these activities and that staff will participate in them at least to the level of this encouragement. Indeed, analyses of the workforce data show that participation is significantly correlated with manager encouragement for all these activities. In addition, providing opportunities for—and encouraging staff to participate in—the professional activities managers and staff deem most important for their professional development may make a difference in their motivation, creativity, and satisfaction.

**Professional Skills: Communication Is Most Important for Success**

Figure 2 displays the percentage of staff who state that the particular skills listed are “very important” to their success. The relative importance of these skills varies somewhat depending on staff’s particular domain. For example, the “ability to manage services” ranks appreciably higher for those in educational technology services, and “technical proficiency” ranks lower for those in administration and management of IT. However, for all domains, the “ability to communicate effectively,” which is considered a “soft skill” rather than a technical skill, outranks all others. It is noteworthy that staff recognize that communication is the most important skill for their success. Arguably, the ability to communicate and the actions that underlie this ability (listening, offering ideas and feedback, apologizing when appropriate, thanking people) are key to becoming more successful in any career and are important indicators of managerial ability.
Obstacles to Success: Some Staff Say They Lack Clear Goals and Sufficient Resources to Be Effective in Their Jobs

The workforce survey asked staff to rate the extent to which a number of issues were obstacles to their effectiveness in their current IT position. Figure 3 outlines the percentage reporting that each is a “big obstacle” (rating of 5 on a 1–5 scale). Note that none of these issues is rated as a big obstacle by a majority of staff. However, the top 5 are rated as a big obstacle by over one-fourth of staff. A scan of this data shows that the top perceived obstacles are organizational in nature, whereas the issues least often rated as a big obstacle are personal in nature. This finding reflects a perception that the problem is external and that staff do not believe that gaps in their skills are a problem. Although certain individuals are prone to blaming other persons or events for their problems or failures (which is known as an “external locus of control” or “external attributional style” in the social sciences), this certainly is not the case for all or even most staff. Moreover, 4 of the 5 top perceived obstacles are at least partially under a manager’s control, given that they deal with a lack of clear, consistent goals and a lack of resources.

Figure 2. Percentage of staff stating skills are “very important” to their success
### The Important Factors Underlying Staff Satisfaction and Retention

Staff were asked a number of questions about their satisfaction with their work environment and current position. Figure 4 outlines the percentages of staff who agreed/disagreed with these statements and portrays an IT workforce that is generally satisfied. However, for every two staff members who agree with the specific statement “Overall, I am satisfied with my current position,” there is one staff member who disagrees. Moreover, the workforce study found that two out of five IT staff are at high risk for leaving their institution to pursue another job opportunity. Thus, it is worth exploring which other factors are important for staff retention.
A few of these results bear further consideration. Whereas a lack of resources was ranked as a top obstacle in figure 3, here we find that most staff agree they have the materials and equipment they need to do their job well. These are not conflicting findings: rather, most of the one-fifth of staff who do not agree they have the materials and equipment to do their job well are the same staff who view this lack of resources as a big obstacle to their success. Similarly, the percentage of staff who disagree with the statement, “I know what is expected of me at work” are mostly the same staff who view a lack of clear, consistent goals as a big obstacle.  

The workforce survey also asked staff what was most important for retaining them at their current institution. Following are the top 5 factors:

- Benefits (nonsalary)
- Quality of life
- Work hours
- Colleagues
- Geographic location
Anecdotally, one of the concerns voiced by CIOs and managers is that retaining staff is difficult because they can find higher-paying jobs in the industry sector; however, it is noteworthy that IT staff do not identify salary as a top 5 factor in whether they stay at their current institution.\textsuperscript{16} In addition, the idea that IT staff can earn more outside higher education is not supported by salary data.\textsuperscript{17} Therefore, rather than focusing on factors like salary that are relatively less important and less controllable, managers may want to focus on whether they are providing or promoting the more important factors over which they do have some control. For example, given that higher education IT staff value the quality of life and work hours that accompany their positions, managers may want to ensure that flexible schedules remain on the table for their staff. Because they also have influence over the IT work environment and the people they hire, managers may want to ensure they are nurturing collegiality and hiring with consideration of fit with the existing team and culture. Also, managers may want to forge or enhance relationships with human resources; to the extent they can, they should champion those benefits their staff find valuable (health care, retirement, paid time off, etc.).

**Management Engagement**

Figure 5 shows the percentage of staff who agreed that their managers are engaging in what many would regard as best management practices.\textsuperscript{18} It is noteworthy that many of the items on this list are related to communication, an ability deemed the most important skill for success among both managers and staff in the workforce study. Three-fourths of staff agreed that their manager provides formal feedback annually; however, more regular feedback is less frequent. Two-thirds also stated that their manager creates an open atmosphere. However, fewer than half (39\%) agreed their manager sets clear and consistent goals, and many view a lack of such goals as a big obstacle to their success (figure 3). In addition, fewer than half (37\%) said their managers are involved in their professional growth and skills development. It is notable that this item is last on the list but is fundamental to providing the quality of life and meaningful work that employees seek, as described by Amabile and Kramer:

This pattern is what we call the progress principle: Of all the positive events that influence inner work life, the single most powerful is progress in meaningful work; of all the negative events, the single most powerful is the opposite of progress—setbacks in the work. We consider this to be a fundamental management principle: facilitating progress is the most effective way for managers to influence inner work life.\textsuperscript{19}
Recruiting and developing the right IT team takes considerable time and resources. When employees leave the institution, they take with them much more than the additional time and resources needed to hire someone new. They also take the store of knowledge, continuity, and history they have built over what is often years of employment at the institution, and that is difficult or impossible to replace. Therefore, higher education IT staff are valuable assets, and retaining them should be a priority. Managers should ask themselves whether they are engaging in the activities that promote the retention of IT staff.

Key Questions to Ask as a Manager

- **Am I emphasizing the mission and vision of the institution and the IT organization on a regular basis?** Connecting employees to a mission or vision increases the value they place on themselves and their position, as well as the importance of working in higher education.

- **Am I setting clear, consistent goals for my staff, and am I ensuring they have the resources they need to reach these goals?** A lack of clear goals and a lack of resources are what some staff perceive to be the greatest obstacles to their effectiveness.

- **Am I encouraging and providing opportunities for the professional development of my staff that contribute most to their growth as employees?** Developing staff is one of the hallmarks of a great manager.

- **Am I asking my staff for feedback on (a) our organization’s processes, (b) what they need to do their jobs more effectively, and (c) my performance as their manager?** Encouraging people’s ideas, listening to them, and soliciting contrary opinions are key habits of successful managers.
• Am I providing opportunities for small wins for each of my staff, and am I celebrating those wins when they occur? Research shows that celebrating small wins can significantly alter the quality of life for staff, which is a major factor underlying retention.24

• Am I promoting and/or providing a work environment that maximizes what staff find valuable in a higher education IT position? Quality of life, work hours, and quality colleagues are elements over which managers have at least partial control and are some of the top factors that underlie staff retention.

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Citation for This Work

Notes
3. See the data tables at the ECAR IT Workforce Research Hub for more detailed demographic information.
6. EDUCAUSE Core Data Service.
7. Buckingham and Coffman, First Break All the Rules.
8. Skills were rated on a scale from 1 (not at all important to my success) to 5 (very important to my success). The percentage of those choosing a "5" rating are displayed.
11. Many of these items were adapted from Buckingham and Coffman, First Break All the Rules.
12. “Agree” percentages reflect those who responded “agree” or “strongly agree,” and “disagree” percentages reflect those who responded “disagree” or “strongly disagree.”
14. As revealed through crosstabs analysis.
15. See Bichsel, Today's Higher Education IT Workforce, for a complete list.
16. See Bichsel, *Today's Higher Education IT Workforce*, for a more detailed discussion of the factors keeping higher education IT staff in their current positions.


22. Buckingham and Coffman, *First Break All the Rules*.
