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# **The Cost of IT Staff Turnover: A Quantitative Approach**

Dewitt Latimer, University of Tennessee



## Overview

Today's information- and skills-based service economy places an increasing emphasis on the acquisition and maintenance of human or intellectual capital—the knowledge, skills, and experience held by people. Postsecondary institutions are highly dependent on skilled knowledge workers, who now constitute a growing share of nonacademic institutional staff. In particular, institutions are experiencing a growing dependence on information technology (IT) professionals to maintain and improve many aspects of their day-to-day operations.

Hiring and retaining IT workers is a chronic challenge for higher education institutions. This stems, in part, from the shortage of qualified IT workers. Another factor is that well-qualified individuals often find employment—with better salaries and benefits—outside of higher education. As a reflection of its importance, IT staff recruitment and retention has been among the top issues identified by EDUCAUSE members for several years. Although the IT workforce is of particular importance to information technology organizations, colleges and universities face similar recruitment and retention challenges for other positions as well (for example, certain academic disciplines, scientific/technical specialists, medical technicians). It is possible that changes in the labor market, due to corporate downsizing, for example, will be good for higher education. Institutions observed an increase in the number of applicants during the final quarter of 2001, although improvement in the general economy may make this shift transitory.

For years, colleges and universities have relied on the quality of work life (QWL) factors associated with academe to help offset the salary differential between higher education and the private sector. But the QWL effect is waning as the salary gap widens.

When qualified candidates are finally identified for hard-to-fill positions, IT or otherwise, colleges and universities often exhibit illogical or irrational behaviors. What institution has not encountered one (or both) of the following scenarios?

Scenario 1. State University is engaged in a search for an IT network specialist. The search has identified a pool of seven qualified candidates. The most qualified candidate stipulated a salary well above the state guidelines and was not extended an offer. The last candidate in the pool (one with minimal qualifications) wanted \$51,000, a figure \$3,000 above what human resources (HR) allowed for the position. As a result, HR declined to sign the request to make an offer, recommending that the department either get the candidate to accept a salary of \$48,000 or reopen the search. The position had already been vacant for four months.

Scenario 2. County Community College had a valuable employee who received an offer from another institution that was \$4,500 above her current salary. Although the department chair appealed to human resources to match the offer, the salary increase was not approved because of a policy of no midyear salary adjustments. The employee left County Community College. Ultimately, the individual who filled the vacant position was paid \$6,000 more than the employee who left.

Countless times each year, colleges and universities incur significant costs to recruit, place, and train new employees. Unfortunately, too little attention is paid to these costs when making retention or hiring decisions.

- In the case of the first scenario, the inability of the institution to permit a \$3,000 salary differential resulted in cumulative costs approaching \$50,000 to reopen and complete the search. The costs of the search were borne largely by the department, even though the salary refusal was made by human resources.
- In the second scenario, the requested \$4,500 salary adjustment for an experienced employee was refused, ultimately costing the institution an additional \$6,000 per year in salary for an inexperienced person.

In both cases, the institution incurred direct costs (expenses to bring candidates in for interviews, relocation costs, professional development and training costs) and indirect costs (lost productivity of the search committee, time to orient the new candidate to the institution, loss of institutional knowledge).

A rule of thumb sometimes used is that it costs half a year's salary to hire a replacement. This may underestimate the costs of a typical search for several reasons. First, the costs are distributed across multiple departments at multiple levels—no single area shoulders the full brunt of the expense. Second, a majority of the expense is reflected in indirect costs, things that do not show up directly on a monthly expense report. Lost productivity is the primary contributor towards the costs of conducting a search.

- Lost productivity of the incumbent
- Lost productivity from the subsequently vacant position
- Lost productivity of those members participating in the search
- Diminished productivity of the new hire as he or she adapts to the new role
- Lost productivity of the incumbent's peers as they shoulder the displaced work
- Lost productivity during the on-the-job training of the new hire

From the vantage point of overall cost and productivity, many of higher education's recruitment and retention practices are "penny wise and pound foolish."

The purpose of this Research Bulletin is to establish a quantitative framework for calculating what it costs to hire and place individuals, whether they are in information technology or other disciplines. Once an institution can quantify the costs associated with filling positions, it will be better able to make judgments about the trade-offs between these costs and retention-based incentives, such as modest salary differentials at the time of hire.

## Highlights of the Model

The staff turnover process can be broken down into three phases: separation, acquisition, and knowledge transfer and training. During each of these phases, direct and indirect costs are incurred by the organization. Direct costs are those expenses that are easily identified and associated with a specific activity. Indirect costs are not as easily identified or quantified. Few argue that indirect costs exist; however, financial calculation of these indirect costs is often a subjective process that varies from institution to institution.

Separation costs are those expenses associated with the disassociation of the employee from the position. They may include actual contract buy-outs, litigation costs, decreased productivity, loss of institutional knowledge, and any acts of malfeasance. If an employee simply leaves, to take a better offer elsewhere, for example, then there may only be separation costs associated with the pay-out of accumulated leave and the loss of productivity. If an employee becomes disgruntled for a period of time prior to departing, then an organization may experience decreased productivity from the individual (and the employee's peers) and incur costs associated with any ill will the individual may exhibit towards the organization. If an employee leaves feeling that unfair treatment or discriminatory behavior was exhibited towards him or her, legal expenses may be incurred by the institution.

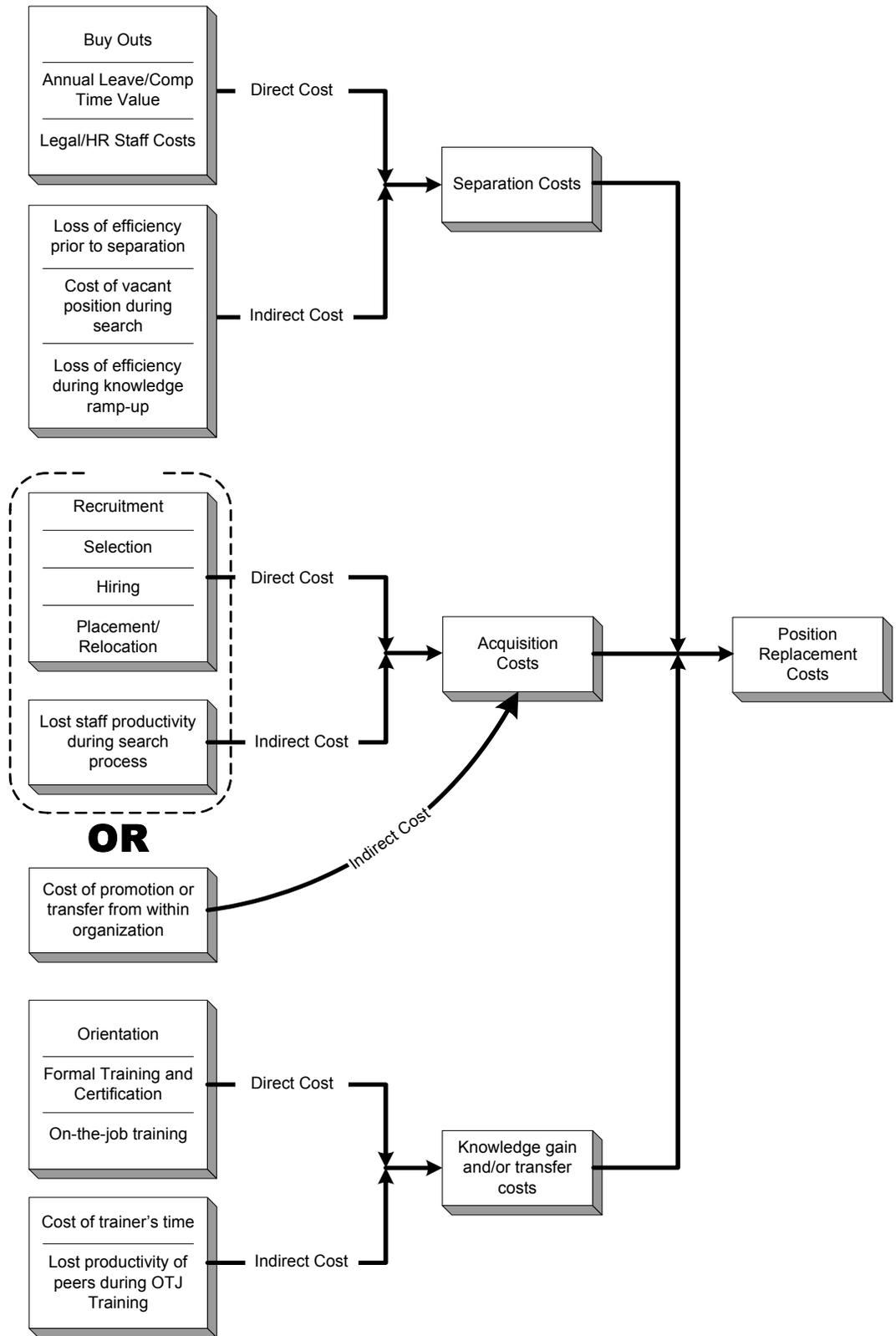
Acquisition costs include items related to the recruitment, selection, and placement of a new individual. Advertisement costs, transactional costs for paperwork processing, lost time and productivity of the search committee, interviewing, reference checking, and relocation costs are some typical examples.

Beyond separation and acquisition costs, there are expenses associated with orientation and subsequent training of the new employee. A rule of thumb is that it takes two to three months for a new employee to reach a basic level of competency in the new organization. In addition to the direct costs associated with learning, there are the indirect costs of diminished productivity between the new hire and the former employee. Hopefully this balance declines as the new hire gains experience and ultimately reaches or surpasses the previous employee. In some cases, however, the new employee performs below the level of his or her predecessor. The costs of this lost productivity can be very real, in some cases requiring the institution to hire another employee to "take up the slack."

## Components of the Model

As stated previously, there are individual components that represent direct and indirect costs associated in the separation, acquisition, and knowledge transfer/learning phases (see Figure 1) of hiring a new employee. The tables that follow identify specific cost components and provide brief descriptions. Note that even though indirect costs may be significant, these items are sometimes difficult to quantify. In addition, indirect costs at one institution may be considered direct costs at another.

**Figure 1. The Cost of Filling a Vacant Position (adapted from Flamholtz)**



## Separation

Depending on how the position becomes vacant and its level in the organization, significant expenses are often incurred as the incumbent leaves the position.

Direct Costs	
Buyout	Buyout costs include annual leave cash-out, incentives, and other contract separation costs.
Litigation	Legal costs can be incurred associated with wrongful termination or gender/equity issues that may be brought against the institution.
Indirect Costs	
Lost productivity	The outgoing employee loses productivity while becoming disenchanted about the position or while seeking another job. Other employees in the unit may lose productivity as a result of the employee's behavior.

## Acquisition

The acquisition phase has three main components—recruitment, selection, and placement. Total acquisition costs can vary widely. For senior faculty or administrative positions, recruitment is typically from a national pool, sometimes involving professional search firms. Technical and support staff positions may be less costly, with much of the recruitment being locally or regionally focused. Even so, institutions incur costs for ads, management of necessary paperwork, and the time of a variety of individuals.

Direct Costs	
Ad placement	Advertisements must usually be placed in local newspapers, discipline-specific magazines, or national media. Rates vary widely. Ads placed on local bulletin boards, institutional Web sites, or association Web sites generally carry some charge.
Search firm fee	For selected searches, institutions will retain search firms; fees vary.
Time of search committee	Although committee members contribute their time to searches at no additional fee, there is an opportunity cost associated with their time.
Time of HR staff	Costs arise from processing paperwork, routing approvals, and so forth.
Contract labor	An outside contractor with equivalent skills may have to be called in to fill the vacant position while the search is proceeding.
Indirect Costs	
Lost productivity	The unit experiences lost productivity while the position is vacant. This may result in a direct cost when the position is filled with a temporary employee or a contractor and therefore lessening the productivity loss of the vacant position. Contract labor is seldom hired to supplement lost productivity of the search committee.

## Selection

Once recruitment is underway, time must be allocated for the selection process. The majority of the cost associated with this phase comes from the time of the search committee. Committee members spend time contacting references, verifying credentials, conferring with each other, and so on. During the selection process individuals are brought in for interviews. Depending on the position, this may include out-of-town travel for the candidate and sometimes a spouse.

<b>Direct Costs</b>	
Site visits	Travel and entertainment expenses are associated with bringing the candidate(s) in for an interview.
Time of search committee	Committee members contribute their time to the search; however, there is an opportunity cost associated with temporarily refocusing their efforts.
Time of others in department	When candidates are interviewed, many in the department are involved in the interview. Although this time appears to have no cost, other activities are pushed back during these periods.
<b>Indirect Costs</b>	
Lost productivity	In this phase the indirect costs of lost productivity continue.

## Relocation

Once a selection has been made, the institution incurs costs for relocation. In the case of a national administrative or faculty search, relocation costs may involve house-hunting trips for the new hire and spouse, moving expenses, and so on. In the case of staff positions, personnel policies may prohibit reimbursement for relocation expenses. Even in the case of an employee who moves from one department to another, there are some relocation expenses such as issuing new keys, changing parking permits, or moving office items.

<b>Direct Costs</b>	
House hunting	Costs are associated with a new employee's search for housing.
Moving expenses	Costs are often seen for moving personal belongings from previous location/institution to the new location/institution.
Time of departmental staff	Some amount of staff time is required to process paperwork, route approvals, issue reimbursement checks, and so forth.
<b>Indirect Costs</b>	
Lost productivity	The new hire loses productivity while coping with various facets of relocation. There may also be lost productivity for others in the unit as they help the new employee get situated.

## Knowledge Acquisition and Training

Once a candidate has been selected, a process of personal development and acculturation to the institution begins. Individuals must learn about the institution, the department, and the new position. Many institutions require new hires to participate in orientation sessions. Others provide on-the-job training. In some cases, additional off-site training is required as the new employee gains needed certifications.

<b>Direct Costs</b>	
Orientation	The institution provides orientation sessions for new employees.
Training	In some cases, new employees are required to complete additional training (or on-the-job training) to raise their skill level.
<b>Indirect Costs</b>	
Lost productivity	The new employee loses productivity while learning about the institution and the new job. Other employees in the unit may lose productivity as they help the new hire adjust.
Institutional knowledge	The outgoing employee will take institutional knowledge that the new employee must gain through experience. Rarely is this institutional knowledge archived for future employees.

## What It Means to Higher Education

This model provides a framework that institutions can apply (and/or modify) when considering hiring and retaining knowledge workers. Higher education often approaches hiring as a “cost neutral” process; as one can now see, significant costs are associated with employee separation, acquisition, and development. It is true that while a position is vacant, lapse-salary dollars are accrued that can help offset some of the expenses, but this generally only helps to cover direct expenses and pales in size against the indirect costs accrued. This also assumes that central administration does not sweep lapse-salary into a central pool—a practice that is increasing in popularity as operating budgets get tighter.

In cases where a hiring decision is aborted because of a discrepancy of a few hundred or few thousand dollars in salary, the institution likely sustains additional costs that will take years to recoup. In Scenario 1, a salary discrepancy of \$3,000 resulted in cumulative costs to the unit of \$50,000. Assuming the new employee was as productive and valuable as the outgoing one, the institution would need an additional eight years to recover the cost of the search. Put another way, for the price of the search process, the institution could have paid the original employee the additional \$3,000 per year for more than 16 years.

## **Institutional Memory**

Not only do the economics of this scenario argue for a new way of evaluating counter-offers and employee-retention strategies, but institutional memory and productivity are affected, as well. When experienced employees leave, the institution typically suffers a significant loss of institutional memory. This can be particularly crippling in some areas of information technology where there is little documentation for legacy system modifications, or in rapidly changing fields such as networking or Web services. In fact, the loss of institutional memory can be damaging in virtually any discipline. When that institutional memory is lost, the entire unit may suffer a loss of productivity as a result.

## **Offers and Counter-Offers**

This framework can be used to provide department and human resource personnel with a way to evaluate the merit of exceeding established salary limits. At many institutions, deans successfully argue for salary increases on behalf of valuable faculty based on the projected costs of replacing them. This is an extremely rare occurrence for professional/technical positions (which tend to be nonexempt). However, the costs to the unit of replacing these individuals can be significant. This framework will help units evaluate what course of action represents the most cost-effective strategy.

Borrowing from the logic of utility decision analysis, it is sometimes more cost effective to pay an individual more to accomplish work. For example, it may be more cost effective for the institution to pay a more skilled individual \$55,000 as a network administrator than paying two people \$35,000 to accomplish the same work. In many cases, more skilled individuals (who tend to earn more) are more productive and have greater problem-solving skills. To avoid the direct and indirect costs associated with replacing an experienced employee, institutional resources may be used to best advantage by raising a salary or making a counter-offer.

## **Personnel and Salary Guidelines**

The biggest challenge for many postsecondary institutions, particularly state-supported ones, may lie in state personnel guidelines and salary schedules. Particularly for IT employees, position descriptions and salaries may be out of date; they are rarely competitive with positions outside of academia. If this framework is valid, it raises questions about the rigidity of state and institutional salary guidelines. Although policies and guidelines are established to ensure equitable treatment, they may have the unintended consequence of creating additional expense that represents a questionable return on the institution's investment.

## **Validation**

The purpose of this Research Bulletin is to describe a framework. A subsequent ECAR Research Bulletin will document the validity of this approach when applied to a number of different searches across a variety of postsecondary institutions.

## Retention Strategies

Presuming that the figures used to illustrate concepts in this Research Bulletin are generalizable for postsecondary institutions, the implication is that colleges and universities should pay increasing attention to their retention strategies and factors that affect the QWL. There is unlikely to be a rapid shift in existing personnel policies and salary schedules at state institutions. However, employee retention is based on more than salary. While business and industry have paid greater and greater attention to retention strategies and the quality of life in the workplace, this level of attention is relatively rare for higher education institutions. The figures resulting from this framework suggest that directing additional resources to employee retention may be a better use of funds than mounting new searches to replace departed employees.

The caliber of employee for a college or university has a significant impact on the institution's productivity (instruction, research, service), its ability to attract and retain students, and its public presence. Higher education, almost by definition, requires knowledge workers. There is great value to the human and intellectual capital of our institutions. There is also great cost associated with its turnover.

## HR as a Strategic Partner

By and large, the HR component of most postsecondary institutions remains an administrative processing house. HR professionals play a strategic role within the organization when they have the ability to translate organizational strategy into action. But many times, the hands of even the most insightful and skilled HR professionals are tied by bureaucratic and financial policies that exist outside the realm of the HR organization. HR professionals acting as strategic partners do not always agree or go along with the decisions of the executive team, which should force serious discussion of how the organization should be created and managed to accomplish a given organizational strategy.

To function as strategic partners, HR professionals must excel in the following tasks:

- They must establish an organizational architecture and be able to use it to translate strategy into action.
- They must perform effective organizational analysis to gain insight into the dynamics of the human resources and practices within their organization to achieve optimal use of intellectual capital.
- They must be able to set priorities for initiatives and then follow through on them.

When HR professionals work as strategic partners, they work with the executive team and line managers alike to establish and manage a set of dynamic HR processes, enabling optimal retention and use of the organization's intellectual capital.

## Key Questions to Ask

Ensuring that colleges and universities have the best possible employees requires attention to recruitment, retention, and quality of work life issues. As your institution evaluates its competitiveness in attracting and retaining knowledge workers—and the costs of staff turnover—a series of questions can guide those discussions:

- How often is salary an irreconcilable issue in hiring or retaining personnel?
- Are there personnel/HR guidelines that allow the unit to adjust salaries to retain valuable employees? Are they flexible enough to offset the typical costs of a search?
- What is the average time-to-hire and cost-to-hire at your campus?
- Does your institution track the number of searches it performs in a given year? Do you look for trends within these data?
- How many individuals are involved in conducting this search? Search committee members? Staff resources (such as secretaries or human resources)?
- Could your time-to-hire and cost-to-hire be reduced by using outside search and placement firms?
- Are the individuals being hired as “good” as the ones leaving the positions? How long does it take for the new hire to attain the same skill/knowledge level as the incumbent? Or, would the institution be better off if the incumbent had been retained?
- Does the institution have an employee retention strategy?
- Other than salary, are you addressing other quality of work factors to improve retention?
- When considering the costs of a search, what is the “return on investment” of retaining the incumbent versus performing the search?

## Where to Learn More

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## **About the Author**

*Dewitt Latimer (dewitt.latimer@kent.edu) is Executive Director of Statewide IT Infrastructure at The University of Tennessee.*

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