Given today's continuous advancements in technology, all information technology organizations share the need for flexibility and employee development. To address these needs, both Virginia Commonwealth University (VCU) and the California State University (CSU) system recently implemented broad-banded classification and compensation approaches for their information technology organizations based on the job design concepts developed by the CSU and reported in CAUSE/EFFECT in Summer 1994: Organizational Effectiveness and Changing Job Design In The Information Technology Community, by Elsa Swan and Celeste Giunta. This paper discusses the two approaches highlighting their similarities, differences and lessons learned.
INTRODUCTION

Today, universities are being challenged to meet increasing demands for educational and administrative services through the use of innovative information technology and human resource systems. In light of this challenge, most information technology organizations share two key organizational needs: ongoing flexibility and employee development. Essential to information technology meeting its mission in education are human resource systems which support flexibility in assigning work and which allow an organization to better capitalize on its available skills mix, as well as encourage and reward employee development and performance.

To address these needs, both the California State University (CSU) system and Virginia Commonwealth University (VCU) created human resource and information technology partnerships. The integrated human resource solutions developed through these partnerships utilize a broadbanding approach to classification and compensation. Both universities built their programs based on the job design model developed by the CSU and reported in CAUSE/EFFECT in summer 1994: Organizational Effectiveness and Changing Job Design In The Information Technology Community, by Elsa Swan and Celeste Giunta.

The CSU and VCU both recently implemented their programs. The CSU program is more loosely structured and focuses on broader definitions as it covers information technology organizations across its 23 campuses. The program utilizes broadly defined job families with skill-based levels to promote and accommodate continual employee development and pay-for-performance to reward performance and development. Additionally, the CSU implementation process involved successfully negotiating after a number of initial difficulties, the new compensation structure with union representatives. The VCU program just finished its first year as a pilot program. This program focuses on employee competencies and integrates them into the performance management and pay-for-performance process in order to reward performance and competency development. The pilot covers employees in both the university’s and the hospital’s information technology organizations.

This paper begins with a brief discussion of the organizational pressures that were the impetus for change and then provides an overview of the human resource trends that guided the development of an alternative approach to classification and compensation. The specifics of each university's program are then presented. These presentations are followed by discussions highlighting the similarities and differences of the two programs based on their unique environments and the lessons learned.

IMPETUS FOR CHANGE

The impetus for change in both universities came from without and within the organizations. External pressures for change include shrinking state funds and resources, at the same time demands for educational access and accountability for technology services are expanding. Responding to
these pressures and the increased competition for resources and revenues requires that information technology organizations have the flexibility to work smarter and use resources more effectively.

From within each organization, the information technology managers, and in many cases employees, were frustrated by the limitations of the existing human resource structures. Classification and compensation structures were seen as barriers to the effective organization of work and the utilization and development of human resources. The CSU and VCU structures, like those of most public entities, are based on narrowly defined and task driven hierarchical classifications (job definitions) embedded in equally rigid compensation structures. These systems cannot readily adapt to the dynamic nature of information technology work in today’s environment.

As human resources began to partner with information technology managers, common themes emerged in both universities. Fundamentally, each organization identified a need for a classification structure that would provide the flexibility to achieve its goals by assigning work in a way that expedited its completion and optimized the use of the available skill mix. This structure needed to be supported by an equally flexible, market competitive compensation structure that provided greater opportunity to promote and reward performance and development on the basis of competencies and skills valued by the organizations.2

HUMAN RESOURCE TRENDS

The crux of traditional compensation structures, such as those used by CSU and VCU, is the job—a set of discrete tasks. Frustrated managers can probably count the times they have heard, “we pay for the job, not the person”, when trying to recognize a top performer. The reality is each individual brings a unique contribution to his or her job and disregarding this contribution has always been problematic. People, not jobs, accomplish work.

A key driver to change human resource systems is the dissolution of the discrete job as we know it today.3 Economic and business realities have crept into higher education resulting in staff reductions, increased competition for resources and the demand for point of service customer response.4 Together, these work place trends have meant a decentralization and broadening of job responsibilities—shifting away from a set of discrete, ongoing tasks to a “whatever it takes to get the work done” approach.5

In response, human resource systems, particularly compensation systems, have begun to evolve. The traditional, rigid structures designed to limit discretion and favoritism and to provide budgetary controls are being replaced by more flexible, innovative programs, which place the art of managing back into the hands of the managers. Integral to the development of the job design model and supporting compensation structures implemented by CSU and VCU are three interrelated human resource trends. They are briefly described below.
1) **Skill & Competency-Based Systems.** Skill and competency-based programs are person-based rather than job-based. In their truest form, they pay strictly for the skill sets or competencies possessed and applied by the person. They do not measure job tasks or content for pay determination. The terms skills and competencies are often used interchangeably. A useful distinction is to use skill when referring to tactical capabilities and competencies to refer to those underlying so-called “soft skills,” such as problem solving, future thinking and communication skills, that are essential for successful job performance. Skill and competency-based programs are often used to support cross training and teaming initiatives.

The programs developed by CSU and VCU are more of a skill/competency influenced approach designed for knowledge workers. The term knowledge worker refers to the fact that much of the work in information technology is performed in the mind using a varied, abstract knowledge base. Often, work cycles are long and complex making it difficult to get a snapshot of the full depth and diversity of the work. As a result, traditional, static job definitions and job evaluation criteria, such as scope of responsibility, do not capture the full essence of information technology work.

Both the CSU and VCU programs utilize skills and competencies to define levels within job families and performance guidelines, rather than static, hierarchical, task driven levels. Pay, however, is not strictly driven by skills and competencies. In the CSU model, skill requirements and development are key factors for progression within a broad classification, but job content is still the main determinant of pay. The VCU model uses a similar approach, but expands on the use of competencies relating them directly to the performance management and pay-for-performance process.

2) **Broadbands.** To support broader jobs and recognize a greater variability in individual skills and competencies, most competency-based programs use a broadbanded compensation structure. Traditional pay ranges have a fairly narrow spread from the minimum to maximum pay rates of 20-50% and are designed to reflect a range of pay for a discrete job. Broadbands, on the other hand, tend to have a range spread of 70-150%. They allow for a broader view of work and more readily accommodate variable levels of skill, performance and progress. Generally, they are designed to streamline pay administration and encourage lateral career growth.

The broadbands utilized by both the CSU and VCU are more accurately described as career bands. The bands encompass all the levels of a job family (e.g. Programmer I, II, etc.), which are referred to by both universities as a classification. The range spreads are from 90%-150% based on the market rates for the job family as defined by each university. The focus in both structures is on lateral growth and development through the skill/competency levels.

3) **Performance Management.** As the nature of jobs changes, it is critical to ensure that performance management systems change accordingly. The introduction of competencies enhances the ability of the performance system to recognize how work is accomplished, as well as what is
accomplished. Many organizations are using peer reviews, team appraisals and other innovative approaches to address these emerging needs. At this point, the CSU is working to integrate skill assessment into the performance management process. The VCU program, on the other hand, has integrated competency measurement into its performance review process and is using this as criteria for making salary increase decisions. Additionally, VCU provides for peer reviews and other multisource assessments and team recognition.

**THE JOB DESIGN MODEL**

The job design model developed by the CSU and implemented by both universities evolved based on the two key goals identified: flexibility and skill/competency development. The key design strategy to address both goals was to focus on broader job functions and skills sets, rather than just on specific job tasks. This strategy was consistent with current trends and provided the opportunity to expand job recognition to include the contribution of the individual.

Focusing on functional differences allowed the CSU to collapse the information technology community from over twenty discrete classifications into six broad classifications: Analyst/Programmer, Operating Systems Analyst, Network Analyst, Information Technology Consultant, Equipment/Systems Specialist and Operations Specialist. Each resulting classification is inclusive of all job levels. For example, the Analyst/Programmer classification encompasses the previous classifications of Programmer I, II and III and Associate Systems Analyst, Assistant Systems Analyst, Staff Systems Analyst and Senior Systems Analyst. Work descriptions within each broad classification are organized into core functions which are major categories of work with common skill sets. Additionally, each classification encompasses the convergence of data, voice and video technologies. VCU replaced three dozen discrete classifications with six similar classifications. They were customized to reflect the full spectrum of technology jobs on the campuses, in administrative departments, and in the hospital.

Based on the analysis of existing work through the data collection process, only three distinct levels were clearly distinguishable within each classification. In the CSU, they are called foundation, career and expert. VCU refers to them as competency levels 1, 2, and 3. The foundation or first competency level defines a narrow range of skills appropriate for entry level positions. The career or second competency level encompasses a broad range of skill and pay and is intended to accommodate the majority of employees through most of their careers. The expert or third competency level is reserved for the top technical echelon. The work at this level is characterized by its complexity and strategic orientation.

Creating broad classifications inclusive of all levels, rather than traditional discrete, incremental classifications, provides several key advantages. First, the approach is more suited to information technology workers because it broadens the focus from job content and scope to include the knowledge, skills and contributions of the individual doing the work. Second, as a position evolves
or individual skills develop, the approach provides the opportunity for more natural, fluid growth and development without artificial job level barriers. Finally, changes in work assignments are readily accommodated without an immediate need to review classification or level assignments.

THE CSU SOLUTION
The California State University System includes 22 campuses ranging in size from 650 to 29,350 students, plus a Chancellor’s Office. The system is the largest in the nation, with approximately 326,000 students and 36,000 faculty and staff. Information technology departments across these campuses are very decentralized and report to campus management. Their diversity in terms of management philosophy, organizational structure, information infrastructure and resources mandates a more flexible structure. Additionally, non-management employees are covered by several system-wide collective bargaining agreements.

Project Initiation & Partnerships
Within the CSU, the need to make changes to human resource systems was recognized by information technology managers almost a decade ago. At that time, they formed a task force to begin analyzing alternatives. Chief among their concerns was the lack of any incentives to maintain and enhance knowledge and skills. In the face of rapidly advancing technology, they felt the skill pool within the CSU was falling behind and needed to be revitalized.

In 1991, a formal partnership was forged between the system-wide human resource staff and the technology task force. As the project proceeded, it was necessary to expand the partnership to include a broader range of campus human resource and information technology management. Because these classifications are covered under collective bargaining, it was also necessary to meet contractual requirements regarding informing, discussing and conferring with the union relative to different aspects of the program.

Study Process
The CSU program completed negotiations and began implementation in spring 1996. The project was organized into four key phases: (1) data collection which included gathering position data through a questionnaire, focus groups with constituent groups and external research; (2) design and development which included partnering with two committees to troubleshoot the approach; (3) negotiations with the union regarding a new approach to classification and compensation and; (4) implementation which involved extensive joint management training with human resource and information technology managers throughout the system.

Key to the ultimate acceptance and support of the approach was the partnering with two constituents groups. A team of human resource representatives worked to troubleshoot the approach from an operational classification perspective, while a subject expert team, comprised of information technology managers, looked at job content and skill requirements. This group was
instrumental in the development of the skill level guidelines which identified skills and competencies key to success in information technology positions.

Use of Skill-Based Levels

To support the administration of the three broad skill level definitions, skill level guidelines were developed in partnership with the subject expert team. Initially, the team set out to define a list of specific skill requirements associated with each skill level within each classification. As they worked, it became clear to the team that it was replacing one kind of rigidity and specificity--job tasks--with another--job skills. Through their struggle with this dilemma, a set of criteria began to emerge. These criteria became the skill level guidelines which serve the dual purpose of evaluating position specific skill requirements to determine skill level within a classification and evaluating individual skill application and performance.

The guidelines are comprised of three core skill/competency dimensions that were identified by the team as critical to successful performance in information technology work. Following is a description of each dimension and excerpts from the guidelines. The descriptions under each skill level and dimension are meant to show a natural progression of development.

1) **Technical Know-How** which encompasses depth, breadth and integration of knowledge;
2) **Critical Thinking Skills** which cover problem solving, organizational, self and project management, and future thinking skills and;
3) **Interactive Capabilities** which include listening, communication, team and leadership skills.

### Skill Level Guidelines - Excerpts

<table>
<thead>
<tr>
<th>Skill Level</th>
<th>Foundation</th>
<th>Career</th>
<th>Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical Know-How</strong></td>
<td>Basic knowledge of specialty area with limited ability to integrate elements within the specialty.</td>
<td>Functional, working knowledge of specialty area. Capable of integrating skills and knowledge from other specialties.</td>
<td>Advanced and comprehensive knowledge of specialty area. Capable of substantial integration from other specialties to achieve innovative results.</td>
</tr>
<tr>
<td><strong>Critical Thinking Skills</strong></td>
<td>Capable of solving problems where precedents exist. Refers others appropriately.</td>
<td>Applies theories and principles and uses reasoning and logic to analyze problems, explore alternatives</td>
<td>Understands problems from a broad, interactive perspective. Is able to develop and</td>
</tr>
</tbody>
</table>
In many ways these skill factors are similar to traditional job evaluation factors used to measure job content. The skill level guidelines, however, focus on the underlying skills required to perform the work rather than on the nature of the work itself, the rationale being that focusing on underlying skills provides a more enduring system than one focusing on tasks.

Skill level determination within the CSU structure is based on where the majority of the skills required by the position and applied by the incumbent fall compared to the three skill level definitions. The position requirements, as defined by management, are always primary. The “person in level” concept is used to determine the incumbent's eligibility for growth within and between skill levels. Movement to a higher skill level is based first on the need for a position at a higher level and second on an incumbent's abilities. In public sector, this is seen as a critical control mechanism and differentiates this approach from a true skill-based pay plan.

**Compensation Structure**

CSU's compensation structure was comprised of five percent step ranges with a spread from minimum to maximum of about 20%. Movement through the steps was essentially automatic provided satisfactory performance was maintained. There was very limited opportunity for differential rewards. Any changes to this structure had to be negotiated with the union.

Broader classification and skill levels did not fit with the existing structure of narrow ranges with defined steps. Based on the broader classification structure, the goal was to introduce career bands for each broad classification and eliminate steps to create open ranges allowing for more variability in pay rates based on skill and performance. Concurrently, CSU executive management introduced an initiative for a true pay-for-performance plan for all employees. The support for this initiative was viewed as essential for the successful administration of career bands.

The career bands were developed based on a market study. The midpoints for each career band, which is comprised of all three skill levels, are targeted to the fully qualified job level within each
classification. Sub-ranges are defined for each skill level and were developed by matching skill level criteria to jobs with comparable knowledge and skill requirements in the market. Each of the sub-ranges overlaps. This is primarily to account for varying entry qualifications and to allow for continuing recognition of performance and development without inappropriate skill level advancements.

The following diagram illustrates the compensation structure. Range spreads are noted in parentheses and vary based on market rates.

Foundation Range (25-40%)
|-----------------------------|
service and performance

Career Range (40-75%)

|-----------------------------|
(midpoint)

service and performance performance only

Expert Range (25-35%)
|-----------------------------|
performance only

Movement through the bands currently occurs as the result of three types of salary increases. The management and accountability of budgeted salary increase funds is a central control mechanism in the structure.

1) Service-based salary increases. These are salary increases which recognize service and are of a specific percentage negotiated with the union. They are granted to eligible employees with satisfactory performance on their anniversary date. As the diagram shows, employees are eligible for service-based salary increases only up to the midpoint, or fully qualified rate, within the overall classification range. The rationale behind this is that employees at the midpoint and above are being paid at a fully qualified level and future salary increases should be based solely on demonstrable performance and development.

2) Performance-based salary increases. These are individual salary increases from a pool negotiated with the union. They are granted based on performance and each campus has the discretion in the distribution of this pool. Performance factors include skill development and acquisition and taking on new assignments, as well as traditional performance factors. Campuses must use their allocated performance pool, but may also supplement this pool at any time in any amount to recognize an individual. This flexibility to recognize performance is viewed as critical to the success of the program.
3) In-classification progressions. When an employee advances to a higher skill level this is referred to as an in-classification progression. At this time, the employee must receive an increase to the minimum of the sub-range or of at least five percent. The criteria for advancement to a higher skill level are discussed above.

In addition, general salary increases are used to maintain market competitive salary ranges and pay. Uniform percentages are applied to the salary ranges and individual salaries.

Negotiations with Union
Gaining union acceptance of a new approach to classification and compensation is challenging at best. The process was long and required considerable education with union representatives, much as it did with managers. The initial attempt to negotiate with the union was not successful. After prolonged negotiations and mediation, the CSU was forced to unilaterally implement the information technology compensation structure along with other compensation changes, such as performance-based salary increases. Subsequently, through another round of negotiations, the union agreed to the compensation structure and salary increases were successfully negotiated.

Chief among the union's concerns with the approach were management discretion and potential favoritism, exactly what traditional structures tried to minimize, and adverse impact on employees. Working through negotiations to address these concerns and maintain some safeguards in the contract, such as service-based salary increases and seniority rights, were key to the ultimate success of reaching an agreement.

THE VCU SOLUTION
Virginia Commonwealth University comprises an academic campus, a medical campus and a teaching hospital. The university is the third largest in Virginia, with 22,000 students and 13,000 faculty and staff, and has one of the largest evening programs in the country. The hospital operates in a highly competitive health care market. Information technology organizations in the university and the hospital are separately managed.

Project Initiation and Partnerships
The development of an alternative compensation plan for information technology positions at VCU was motivated by several factors. Like many public universities, VCU uses a state system for classifying positions and compensating employees which relies on narrow hierarchical classification structures and rigid compensation practices. The limitations of the state compensation system were most acutely felt in compensating information technology employees: the system was unresponsive to rapid changes in information technology job content and to the market value of those skill sets. Secondly, the university's 1993 strategic plan and a 1994 state-mandated restructuring directive for public colleges and universities propelled VCU to
fundamentally change the way it uses technology to support teaching, learning, research and administrative systems. Finally, the state human resource authority began to encourage agencies and universities to experiment with customized human resource programs to meet agency-unique needs.

Concurrently, to meet the requirements of the university strategic plan and the state restructuring plan, management of the university's information technology function was consolidated. Historically, management of the numerous computer centers and information technology departments was decentralized, resulting in inefficiencies, lack of university-wide technical standards, and most importantly the inability to define and achieve a university-wide technology vision. The new organization needed the flexibility to fairly rapidly integrate departments, reassign employees, modify work assignments and allocate other resources without the constraints of rigid, task-based job design and compensation systems. To help meet these strategic needs, the information technology organization formed a partnership with university human resources to develop a flexible, market-based compensation program for its employees which would reward performance and encourage career development. The hospital's information technology organization, which is managed independently, soon joined the partnership. Because the program requires state approval, it is being conducted as a pilot; approval will soon be sought to operate it as a decentralized compensation plan.

**Study Process**

The VCU program was implemented in winter 1995. The developmental framework included the following phases: (1) assessment of strengths and weaknesses of the current compensation program for information technology positions, and the development of goals and objectives to address the compensation problems identified, (2) data evaluation of the information collected in a job analysis study of 300 information technology positions, (3) program design, (4) development of program guidelines, and (5) implementation. The initial assessment phase included holding extensive discussions with information technology senior management about its strategic needs and the human resource systems needed to support these plans. Additional issues identified included difficulty recruiting, retaining and rewarding information technology employees; low morale due to perceptions of internal and external pay inequity; and the lack of career advancement opportunity within the existing compensation system. An extensive review of the literature and other compensation models and discussions with outside compensation consultants to explore alternatives were also included. During this phase, the CSU effort to adopt its own information technology compensation structure became known.

Pilot development was guided by a steering committee comprised of representatives of university and hospital information technology management and senior technical staff and the human resource division. The inclusion of technical representatives was pivotal in customizing a compensation program to meet stakeholder needs.
**Competencies**

VCU's broadbanded compensation plan is competency-based. Competency is defined as the demonstrable behaviors, traits and accomplishments that are required for and that predict successful job performance. In the VCU program, competency refers to both the position and the person, that is, to the competencies required by the position and applied by the incumbent. This approach is superior to traditional task-based pay plans because it is particularly appropriate for knowledge workers. In addition, competency based pay plans are consistent with the philosophical shift in human resource philosophy toward paying the person rather than the job.

Based on internal data-gathering, VCU adopted three competency levels, designated competency levels 1, 2 and 3, that are very similar to the CSU's foundation, career and expert skill levels. Competency levels are used to differentiate the entry level positions and employee attributes from the more advanced professional practice levels; illustrative competencies differentiating these levels are given in the competency performance guidelines, which are very similar to CSU’s skill level guidelines. Competency is the thread that runs through the program: competency has a role in developing position descriptions, determining position minimum qualifications, performance management, determining employee pay, and employee career progression.

Competency level determinations for a vacant decision are made on the basis of the illustrative competencies in the competency performance guidelines, as well as the general competency level definitions which are provided in the program guidelines. The leveling decision is based on the competencies required by the position to perform the majority function. Once an employee is in the position, the competency determination is made by assessing the competencies required by the position and possessed by the incumbent.

There is an expectation that employees will progress over time through competency levels. In general, employees progress through competencies by assuming more complex, more diverse or more highly integrated work assignments is how. Movement to higher competency levels replaces the reclassification process to higher-graded discreet classes in traditional pay plans.

**Compensation Structure**

Like the CSU’s structure, VCU’s compensation structure was comprised of numerous multi-step pay ranges with range widths of 52%. This structure was inconsistent with a broader view of work, and because employees would receive annual salary increases regardless of individual performance the structure did not encourage superior individual performance or employee development. Nor did the structure accommodate the needs of the information technology organizations for a flexible, market competitive compensation program that would motivate employees on the basis of competencies and performance. The broadbanded compensation structure developed by the CSU and customized to VCU’s specific circumstances met these needs.
Like those of the CSU, VCU’s pay bands are market based through salary surveys and are quite wide to accommodate significant career growth and to avoid “capping out.” The structure similar to the CSU’s: the pay bands associated with each broad classification have internal pay ranges that correspond to the three competency levels. The internal pay ranges serve as a guide for determining pay rather than a guaranteed minimum or a specific salary. The widest internal range corresponds to competency level 2 to accommodate most employees, who can be expected to spend the majority of their careers in this pay range.

Movement through the pay bands occurs through four types of pay increases. These salary increases, like all labor costs, are controlled through the university’s and the hospital’s centralized budget process.

1) Annual performance process. Through this process, management is able to give purely performance-related increases and also can adjust salaries to address other compensation needs, such as internal and external equity. Managers have considerable flexibility in giving variable increases.

2) Advancement to a higher competency level. Employees are eligible for a variable increase for competency advancement.

3) Acquisition of relevant licensure or certification. Managers collectively determine which licensure and vendor certifications are relevant. The salary increase is variable.

4) Movement into a new position through competitive recruitment. Management may give a salary increase after evaluating the applicant’s qualifications against position requirements.

The pay ranges may be adjusted from time to time to remain market competitive; in this case, individual salaries within the ranges would change by a corresponding percentage.

Unlike the CSU model, the VCU program has no mechanism or intent to reward seniority or longevity. Rather, the emphasis at VCU was on maximizing competitive advantage by rewarding competency and skill currency, thus ensuring retention of highly skilled employees.

Performance Management
A unique feature of the VCU model is its performance management program. Because the pilot is performance based as well as competency based, the creation of a related performance management system was integral to the compensation plan. There are several reasons for linking compensation so closely with performance management. First, “because competencies must be demonstrable to serve as the basis for pay”9, they are closely linked to performance management in order to be measurable. The application of competencies to job functions is documented in the
performance evaluation process. Secondly, competency based pay plans must have a performance element in order to motivate employees to demonstrate and develop competencies. Third, the design adds flexibility to employee pay and increases the opportunities for other types of employee recognition and rewards.

Performance expectations are communicated to employees and evaluated in terms of the critical competencies identified in the competency performance guidelines. Performance evaluations are customized according to the specific competencies each employee must apply in order to perform work assignments. For example, expectations regarding “depth of knowledge” for a network employee would be stated in terms of specific knowledge needed in the employee’s technical area, such as specific network hardware, software, operating systems, media and devices.

Linking competencies to performance also supports a change in senior management philosophy in the information technology organizations: to retain and reward high performers and to discourage the retention of marginal performers. This is done by rewarding employees who have demonstrated competency and by withholding or limiting salary increases for employees who have not demonstrated required competency levels.

SIMILARITIES
It is useful to examine why two dissimilar organizations—a diverse multi-campus university system and a large urban university undergoing information technology reorganization—chose similar broadbanding models as the optimal compensation method for information technology positions. Specifically, both organizations chose models with six broadly defined information technology classes, three competency or skill levels, and very wide market-based career bands to support the broad classifications.

1. Such structures are most appropriate for knowledge workers, the employee population for which these plans were designed. Knowledge workers do not perform discreet jobs, so a few broadly defined classes are better able to describe the work they perform and are likely to perform as technology evolves. In addition, the use of competencies and skills supports the so-called soft skills that information technology workers must have. And because pay ranges are wide, employees can continue to be rewarded for applying their increasing skills and competencies without the likelihood of quickly reaching a control point.

2. These structures address the compensation problems which prompted the search for an alternative plan. The compensation structures foster flexibility and employee development, the two primary goals of both the CSU and VCU. Broadly defined classes permit management to make work assignments more easily and to accommodate the evolving nature of information technology jobs. Employee development is encouraged by linking increasing skills and competencies to pay.
And these flexible plans support flatter organizations as well as cultural changes, such as those caused by reorganization or a move toward increasing the skill currency of the employee population.

3. Finally, the programs are similar in what they are not. Neither model is a true skill based or competency based compensation plan, which ignores job content for pay determinations, instead paying for acquired and applied skills and competencies. The CSU and VCU plans, on the other hand, continue to define positions based on an analysis of job content, like traditional job design, but additionally include the skills and competencies required by the positions and applied by the incumbent. These design characteristics meet the unique needs of the CSU and VCU and are seen as critical to cost control.

**DIFFERENCES**
The differences in the plans are derived from organizational differences between the CSU and VCU.

Because collective bargaining at the CSU is centralized while the human resource function is decentralized, the compensation design had to be specific enough to be subject to bargaining and yet flexible enough to meet individual campus needs. Operationally, therefore, the 22 campus and Chancellor’s Office human resource departments have been delegated authority for developing and implementing their own administrative practices and procedures.

VCU, on the other hand, has a unified organizational structure with a single human resource department permitting more program specificity, including integrating competencies into a performance management system to support development of critical competencies; the VCU performance system also has an opportunity for multisource performance assessment, team pay and rewards for attainment of relevant licensure or certification. And while VCU did not have to collectively bargain to implement the pay plan, it did have to obtain approval from the state human resource authority to operate the plan as a pilot program.

**LESSONS LEARNED**
Some experiences were common to the CSU and VCU during the design and implementation of the broadbanded compensation plans. They will be useful to any organization considering such a compensation approach.

1. **Change takes time.** A longitudinal study of three federal broadbanding compensation plans--the longest program in place for 14 years--shows that satisfaction with broadbands grows over time for both managers and employees.¹¹ The programs at the CSU and VCU were resisted even by those who wanted them, i.e., managers sometimes resist flexibility once they have it. Human resources needs to communicate the greater opportunity inherent in an innovative compensation plan that rewards performance and puts employees in charge of their career development; human resources
needs to communicate this continually during times of cultural change. Expect employees to resist giving up the perceived “status” associated with their hierarchical class titles, i.e., a Senior Programmer Analyst may not want to forego a senior designation to become a “generic” Analyst/Programmer in a broad class along with less skilled co-workers.

2. **Management training and communication is essential.** As Abosch and Hand point out, "In the simplest terms, broadbanding puts the job of managing back in the hands of managers." Managers in both organizations are used to working with rigid human resource systems which do much of the managing for them. The increased discretion and flexibility afforded by broadbanding to recognize individual contributions also mean greater accountability to a budget and to employees. Human resources needs to help managers understand the opportunities, risks, and responsibilities associated with managing their own compensation plan. The integrity of the program depends on the willingness and ability of managers to make tough compensation decisions. Managers need constant support from human resources and their senior management.

3. **Senior management support is essential.** When dealing with resistance to change, continued senior management support is essential to success. At CSU this was even more critical as the organization worked through difficult negotiations. At VCU employees were subject to significant cultural change as the information technology departments reorganized; it would not have been possible to implement a new compensation plan during this stressful time without senior management support.

4. **Testing and piloting.** It is important and worth the time and effort to work out program imperfections and to refine the program. CSU found that the skill level guidelines needed to be given broader definitions to cross different technology environments through a testing process.

5. **Stay away from quantitative approaches, unless there is a compelling reason to use them.** The goal of the program was to provide flexibility and discretion. Most managers and employees were used to more precise systems. CSU found that quantitative or quasi-precise methods were creeping into the development process to provide some level of comfort. They proved to be inaccurate and time consuming. Quantitative systems are difficult to justify when the program goal is flexibility.

   At VCU the performance appraisal system is highly quantitative. The steering committee designed it that way to provide desirable features—such as weighting individual performance elements—which were lacking in the previous performance appraisal system. In addition, a quantitative system was deemed necessary to diminish the likelihood of subjective appraisals during a time of cultural change caused by reorganization; this was regarded as an important element in ameliorating employee apprehension about the new compensation plan.

   Above all, program design emphasis should be on simplification and flexibility. Replacing a job-based pay plan with one that has too many competencies or controls (for example, tight skill definitions) may only replicate the underlying problems of existing pay plans. If organizations replace task-based systems because they are complex and administratively burdensome in an era of
change, then implementing equally complex plans emphasizing competencies and skills is not a solution.\textsuperscript{13}

6. **Compensation opportunity needs to be real.** Part of the difficulty faced by the CSU and VCU programs is the lack of control over salary increase funding. The CSU receives an allocation from the state each year for operations. The University Trustees determine what portion of the allocation will be set aside for compensation negotiations with the union. Negotiations determine the dollars available for performance, service and general salary increases.

   VCU relies on state dollars to fund a portion of the salary increase pool; these amounts are determined by the state legislature and the governor and can vary widely from year to year depending on state revenues and legislative priorities. The VCU information technology organizations are responsible for funding the rest of the pool through internal sources. Pilot employees have been skeptical of the ability of VCU to fully fund salary increases in the pilot program. If funding does not occur at anticipated levels, the confidence of pilot employees in the program will be jeopardized, as they observe their peers outside the pilot receiving a “guaranteed” annual increase without regard to individual performance. Organizations considering any broadbanding plan need to build in mechanisms for compensation recognition within the broadbands.

7. **Development needs to be a shared responsibility.** The emphasis needs to be on a learning environment in which employees take responsibility for their own development and managers take on the role of coach. When an organization offers recognition for skills or competencies, career growth becomes a shared responsibility of both employee and manager. The employee must take ownership for his or her development by setting and following through with career development goals and should seek out opportunities to demonstrate increased competencies and skills. Concurrently, management must find out what employees need in order to attain competency levels or acquire needed skills and must communicate with employees continually about career advancement opportunities.

**IS BROADBANDING RIGHT FOR YOU?**

Broadbanding offers significant benefits to address the employee recognition and reward problems faced by information technology managers. Without budget controls and accountability, however, it can become costly and untenable. A recent study performed by a human resource consulting firm, Hewitt Associates, on broadbanding points out that the success of broad bands is not so much determined by their design as by the management support and culture of the organization.\textsuperscript{14} If management is supportive and organizational culture can accept change, broadbanding can provide a better link between compensation and organizational goals, can provide employees with more opportunities to learn and grow, resulting in a higher-skilled, more versatile work force, and a more effective organization.\textsuperscript{15}
Endnotes


2 Ibid., p. 37.


7 Ledford, p. 55.


9 Ledford, p. 56.

10 Ibid.


12 Abosch, p. 16.

13 Ledford, p. 59.

14 Abosch, p. 10.

15 Abosch, p. 17

For Additional Reading


