



**Apprenticeship Training at the University of South Carolina -
A Continuing Commitment in Difficult Budgetary Times**

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ABSTRACT

In 2006, the University of South Carolina began a five year project to improve the quality of maintenance services on the campus and address long standing salary issues for service personnel. The plan included implementing apprenticeship based training for all service trades in both the Facilities and Housing areas. The voluntary program would allow employees to receive additional training, obtain certification in their trade, and receive periodic salary adjustments by registering the program with the U.S. Department of Labor's Apprenticeship Office and using the federal guidelines to develop training standards and salary steps. As the program enters its fourth year, the positive results are measurable on both technical skill enhancement and customer satisfaction. The Housing and Facility Services Departments are providing better quality services despite continuing budget constraints. Despite overall budget cuts at the university in the last two years, the commitment to this program has grown as an effective means to increase value when other options to provide additional service have been eliminated by budget constraints.

The Organization

The University of South Carolina, located in the heart of downtown Columbia, South Carolina, is home to more than 200 years of history and tradition, rising from a single building in 1805 on what would become the heart of the main campus, 11 buildings that frame the landscape centerpiece known as the Horseshoe. The campus now covers approximately 450 acres of land and includes 12,000,000 sq. ft. of building space and 189 miles of sidewalks with over 60 buildings on the historical register. With a population of over 30,000 students, professors, and staff, the University of South Carolina's population is comparable to that of Myrtle Beach, our state's popular resort and beach city. The Facilities and Housing Departments have the primary responsibility of maintaining the quality of life on the campus, both inside and out. The service needs of the university include landscaping, water, heat and air conditioning, utility production, custodial, recycling/waste management services, plumbing, electrical, energy plant operations, as well as general maintenance of the 185 existing buildings. When you add the additional service requirements for new construction and

remodeling, the ongoing needs for outstanding service and support are diverse and challenging.

The Challenge

As with most university service organizations, the primary challenge at the University of South Carolina (USC) is to provide better services for the maintenance of existing buildings with a mixture of historic and modern construction, while also supporting expansion and upgrades of infrastructure, acreage, and new buildings. Despite the growing number of service requests each year, today's economy does not allow the university to simply go out and hire the additional workers needed. Additionally, there was a history of paying employees below local market wages which resulted in continuing losses for some of the critical and knowledgeable personnel to the private sector. In seeking additional funds to strengthen the service organizations, a portion of the funds were identified to improve skills for existing personnel and to address salary equity issues. These targeted funds led to the original vision of utilizing the principles of apprenticeship training with an experienced work force so skills could be verified and salary increases earned. Since continuing budget cuts were eliminating the possibility of expanding the service organizations to required levels, the remaining options were to curtail services or improve the effectiveness of the existing staff. The Apprenticeship Training Program arose from the need to increase service effectiveness within the organization.

The goals of the Apprenticeship program are:

1. Improve the technical skill sets of existing and new service personnel
2. Reduce rework and improve customer satisfaction
3. Resolve salary issues with a "learn and earn" approach
4. Reduce turnover numbers by building a more professional organization

5. Recognize excellent performance

Design

The Apprenticeship Program at the University of South Carolina is budgeted at \$150K per year for five years. Those funds cover direct costs including the cost of training, the part time manager's salary, and the interim raises given to the employees within a budget year. The long term ramifications of this program are that the final salary levels for the journeymen employees are higher on a permanent basis and represent a permanent increase in the base salary levels that are included in baseline budgeting. The investment based decision was made at the beginning of the project based on the belief that the increased project costs and long term salary increases would be a strong Return on Investment (ROI) justification for the productivity and quality gains received.

Once the commitment was made to move forward with the program, the first step of the project was identifying the number of unique service jobs and identifying the *actual* tasks performed in each job. This step was required to build an appropriate curriculum and cannot be accomplished by merely copying job descriptions and/or interviewing a few managers. A detailed job analysis was completed for each of the 25 unique service jobs using the ACT WorkKeys[®] job profiling system. The two deliverables of the job profiles are (1) a detailed task list developed by the employees performing the job and (2) establishment of entry and effective skill levels for the eight basic skills identified in the WorkKeys[®] profile. The basic skills include Reading for Information, Applied Mathematics, Locating Information, Applied Technology, Teamwork, Observation, Writing or Business Writing, and Listening. The task lists and job skill levels are

used as an integral part of the entrance requirements and the field training for the Apprenticeship program at the University of South Carolina.

The next step was developing suitable curriculums in each trade for the classroom portion of training. The WorkKeys[®] task lists would also serve as a means to ensure that the curriculums being offered addressed the actual job tasks required for each position. While there are several ways to identify and select appropriate training plans and materials, the last choice would be to develop a full classroom curriculum in house from scratch. This is an evolving process that includes acquisition of training guides, selection of actual books to be used, and the development of pre and post testing mechanisms to verify competencies. Because of the scope of the Apprenticeship program, not all curriculums were built up front. The phased implementation is based on trade priorities and the actual registration process with the U.S. Department of Labor easily allows for adding trades to an existing registered program.

Part of the curriculum development process included a re-examination of the existing titles used for the various trade personnel. For example, The Custodians include Facilities Custodians, Housing Custodians, and the Custodial Project Team (the employees that completed the night work of cleaning stripping, and buffing floors). The Apprenticeship Training Program developed one combined curriculum with cross training as a required component to achieve the Journeyman status. There are several other trade titles that benefited in using combined curriculums with the benefits of cross training and the ability to direct resources better based on changing needs.

Once the original job trades were identified and their respective curriculums developed, the next step was working with the Department of Labor to get the overall program certified and each of the trade curriculums approved. While the idea of working with the federal government conjures many negative and/or intimidating visions, our experience working with the Employment and Training Administration within the Department of Labor, which oversees apprenticeship programs, and in particular, working with our State Director of Apprenticeship, was a pleasant surprise. They are an enabling agency and worked with us each step of the way to get our program registered.

At the same time technical plans were unfolding, the critical steps of developing the overall program guidelines were underway. This included establishing times and locations for the classroom portion of the training, resolving overtime issues and disciplinary standards, developing the application and acceptance process, and establishing the concept of mentoring as a required element of supervisory responsibilities for field training and verification. One of the critical components internally was working with the University and State of South Carolina Human Resources personnel to ensure that the twice a year salary increments could be processed within existing state guidelines and restrictions.

Once the program was registered with the Department of Labor, had authorization to process salary increases, and defined the guidelines for employees and supervisors, it was time to sell the program to the employees. A series of meetings, with handouts and brochures describing the program's guidelines and salary ramifications were planned for all service personnel.

Implementation

The University of South Carolina Apprenticeship Training Program operates on a two semester system with fall and spring classes and no classes during the summer. The program operates as a “virtual” trade college within the university. There are no buildings, additional classrooms or other costs for physical space. Most of the classroom hours are conducted after the normal working hours. Every employee that applies for and is accepted into the program is registered with the Department of Labor as a participant in their respective program and attends a CORE semester as part of their training regardless of their trade. The topics for the CORE semester include Introduction to Apprenticeship, Image and Ethics, Safety Training, CPR/First Aid, University Policies and Procedures, Customer Service, Dealing with Angry People, Teamwork, and Time Management.

After completion of the CORE semester, each trade group of employees begins their technical training semesters, which last from one to four years. In addition to the classroom requirements, each employee must have their individual competency checklist as part of their continuing field training. Having supervisors and managers sign off on the competency checklists ensures validation of skills and assigns accountability to the supervisor for the quality of work provided by the employee. Before receiving the journeyman card for their respective trade, each employee must also pass the final practical and written exam, known among the apprentices as the “driving tests.” Just as a student that completes driver’s education must take a driving test to get their license, our graduating apprentices must pass their trade specific “driving test” in order to receive their Journeyman card.

Benefits

The Apprenticeship Training Program has delivered benefits to the staff and students in two key areas, quality of work and improvement in service attitudes. While the size of the work force has remained constant, the number of work requests has increased, new buildings have been built, and the enrollment numbers have grown. Despite a fixed capability to address a growing set of demands, the amount of rework and call backs have decreased in the last two years. The follow up surveys with staff and students have also shown a rise in the overall satisfaction of the services they are receiving at the university.

The internal benefits include a higher level of commitment by the employees to the organization, greater pride in workmanship, and reduced turnover.

The benefit to other organizations comes from the University of South Carolina's efforts to document the entire planning and implementation of this program in a free document entitled, "Service Transformation using Apprenticeship Training". This document, available online at the University of South Carolina's web site, covers the inspiration, the need, the planning, and the implementation steps that led to the eventual success of this large scale program.

Retrospective

The program has made great progress in the last 3 years with a transformation in attitudes from “Let’s wait and see” to “How do I get into the program?” While the current successes are paying dividends in all areas of the service culture, we certainly could have done some things differently and better. The entire journey is documented in the how to guide, “Service Transformation using Apprenticeship Training” previously referenced. One of the main items that we could have improved on is managing the continuing requests for information. Keeping employees, supervisors, and management, informed with the required information on a recurring basis regarding rules, activities, class schedules, and salary schedules is critical to keep the program properly visible within the organization. While there have been quarterly articles in the department newsletters, bringing up the web site earlier with basic information, class schedules, and other related information would have been a great benefit in promoting the program, explaining the rules, keeping everyone current on the program’s goals, and clarifying what participation means to each individual employee, including personal commitments to time beyond the normal work week.

Summary

The University of South Carolina went against the traditional thinking of cutting training during critical budgeting times and, instead, made a commitment to strengthen its work force as a means to receive better value for the service dollars being spent. This investment, with apprenticeship training as the primary mechanism for change, has proven to be a transformational decision that has allowed the university to maintain nearly constant service delivery levels and increase staff and student satisfaction while living within the budgetary constraints.