



***Colorado Springs Utilities: Matching Our Workforce
Development Investments to Our Workforce
Development Goals***

Jeff Crockett
Water Treatment Manager
Colorado Springs Utilities



Colorado Springs Utilities

- ❖ Four service, municipally-owned Utility
 - Electric, Gas, Water, and Wastewater
 - 425,000 customer/owners
 - 1,800 employees (533 water & w/w) (698 electric & gas)





Goal 1

- ❖ Give staff the training and information they need to do quality work, in a cost-effective manner



Problems CSU needed to solve

- ❖ Duplication and inconsistency in training provided (e.g., forklift training)
- ❖ Training materials developed, then not used again
- ❖ Training issues vs. employee performance and accountability issues
- ❖ Lacked a business-like process for defining training needs and modes of training (e.g., in-house or vendor-provided). Example – First Aid/CPR
- ❖ Non-strategic training budgets
- ❖ Travel needed to be consolidated

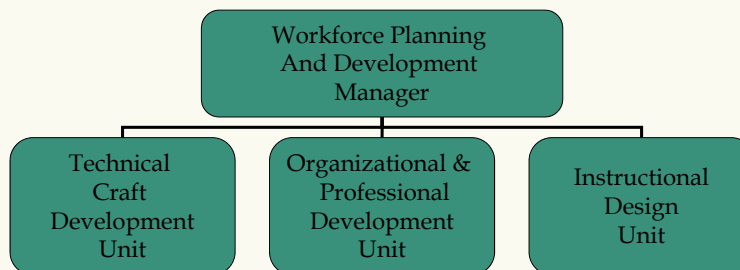


How we solved the problem

- ❖ University of Springs Utilities
 - Centralized training approach
 - “One-Stop Shop”
 - Consolidated and true training budget
 - Centralized instructional design
 - Cross-functional trainers
 - USU philosophy: **“Tell us what you need and we’ll find it or develop it”** as opposed to **“Here’s your training”**



USU Organization Structure





Technical Craft Training Unit

- This Unit facilitates:
 - 12 apprenticeship programs,
 - All Safety and Environmental training
 - On-going, journey-level training such as Commercial Driver's License, Industrial Equipment Qualifications, etc.
- Oversees:
 - School of Technical Field Operations
 - School of Technical Plant Operations
 - School of Safety and Environmental



Technical Craft Training Unit (cont.)

Journey Level Training Programs

- 53 safety courses such as SCBA, etc...
- 36 environmental courses such as Chlorine Emergency Response, etc...
- 20+ industrial equipment courses such as Backhoe, etc...
- Craft-specific courses such as Power Pole Climbing Certification, etc...
- General Course mandates such as National Incident Response System (NIMS) and National Energy Regulatory Commission Security Training (NERC Security)



Technical Craft Training Unit (cont.)

- ❖ 1 Supervisor
- ❖ 4 HR Specialists who are responsible for these areas; Power Plants, ECOM, Water, Field Customer Care
- ❖ 4 HR Specialist Seniors, responsible for Safety (2), Heavy Equipment, Regulatory (DOL, VA, DOT)
- ❖ 2 Admin
- ❖ 2011 O&M Budget: \$307,000
- ❖ 2011 Labor Budget: \$718,000



Organizational & Professional Unit

- ❖ Facilitates, procures and instructs learning in:
 - Leadership Development
 - Employee Relations
 - Computer System Technology
 - General Software
 - Customer Service
 - Professional Development
- ❖ Oversees:
 - School of Organizational and Professional Development
 - School of Customer Relations



Organizational & Professional Unit (cont.)

- ❖ 1 Supervisor
- ❖ 4 HR Specialists
- ❖ 2 HR Specialist Seniors
- ❖ 2011 O&M Budget - \$79,000
- ❖ 2011 Labor Budget - \$547,000



Instructional Design Unit

- ❖ Analyzes, designs, develops, implements, and evaluates training
- ❖ Capable of producing virtually any form of training via multiple media platforms.
- ❖ Responsible for managing the corporate Learning Management and Content Systems (LMS), including vendor supplied on-line content.



Instructional Design Unit (cont.)

- ❖ 1 Supervisor
- ❖ 5 HR Specialists
- ❖ 1 Project Coordinator, responsible for the Learning Management System administration (ULS)
- ❖ 2011 O&M Budget - \$162,000
- ❖ 2011 Labor Budget - \$567,000



Utility Places a High Priority on Maintaining Prepared Workforce

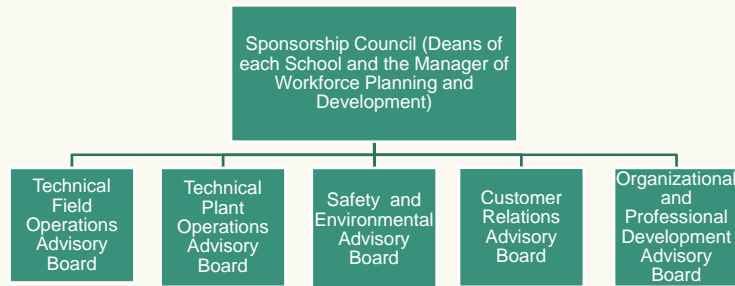
| | |
|---|---------------------------------|
| Manager of Workforce Planning and Development (and admin) | 2 |
| Technical Craft Development | 11 |
| Organizational & Professional Development | 7 |
| Instructional Design | 7 |
| Total Work Unit | 27 |
| | <i>(32 total staff in 2009)</i> |
| Total 2011 O&M and Labor Budget | \$2,611,000 |



- ❖ This 2.6M budget does not include costs for advisory board member labor.



University of Springs Utilities (USU) Model





Advisory Board Make Up

- Dean (ex. - Field Operations School Dean is the General Manager of Water Services Division)
- Dean selects 8 to 10 advisory board committee members representing supervisory and employee levels
- 1-2 University/Training Representatives



Example of Advisory Board Leveraging Efficiency

- ❖ 14 Different forklift trainings
 - 1 hour to 2 days
 - Same credit given
- ❖ Board “right-sized” course
 - 4 hours
 - Hands on proficiency training
 - Certified instructors



Example of Advisory Board Collaboration

- ❖ **Technical Field Operations Advisory Board**
 - McElroy Water Pipe Fusion training requested
 - Natural Gas already had the equipment and training
 - Saved money, time, and gained real-world experience



Training Request Model

1. Customer requests training via email, phone, verbally
2. USU schedules face-to-face meeting with customer and documents request with training request form (handout)
3. USU develops/brainstorms possible solutions
4. USU offers solutions to requestor and determines subject matter expert (SME).
5. USU and requesting customer present request to Advisory Board
6. USU designs and develops training solution
7. Progress is reported to Advisory Board for accountability
8. USU measures success (was goal achieved?)



If training is needed, a determination is made of the most cost-effective way to deliver

- ❖ Vendor instructor-led solution
- ❖ Content designed by vendor for internal instruction
- ❖ Instructor-led content designed internally
- ❖ Computer Based Training (CBT) purchased off-the-shelf
- ❖ Computer Based Training designed internally
- ❖ Performance Support Tool designed (checklist) with picture examples of step by step process
- ❖ Video of subject matter expert performing task is offered.



Video Capture of Knowledge of Subject Matter Experts



Colorado Springs Utilities
It's how we're all connected



Avatars

In 2009, USU successfully piloted use of animated avatars. This technique minimizes video costs by reducing re-shoots, edits, and the need for expensive video equipment. Avatars of real employees may be created and employees actual voices may be used. Employees enjoy the change of pace and are entertained by actual employee animation.



Colorado Springs Utilities
It's how we're all connected





Scenario-based training



NEW ideas to be explored in 2010-11

- Use of WIKI technology
- PDA training, e.g. Blackberry, and I-phone
- Further exploration of avatars (virtual or animated depiction of real employees)
- Virtual classrooms (remote trainers with students at computer stations)
- Virtual Reality Simulators
- I-pads and I-phones



Colorado Springs Utilities
It's how we're all connected

University of Springs Utilities Awards

**2005 ASTD
BEST
AWARD
WINNER**

**CUBIC**
CUBIC
CUBIC

*Best New Corporate University
2004 - 2nd Place*

*Best-in-Class Instructional Design &
Curriculum Development
2004 & 2005 – Honorable Mention*

**DICE**
DICE
DICE

*Instructional Design & Curriculum
Development Leader of the Year
2004 – Honorable Mention*



Colorado Springs Utilities
It's how we're all connected

Goal 2

- ❖ Candidate Development - Get enough of the right people in mission-critical categories



Problems CSU needed to solve

- ❖ High percentage of employees retiring
- ❖ Significant knowledge drain
- ❖ Lack of qualified applicants
- ❖ Inadequate understanding of utility industry opportunities



Technical Craft Training Unit

Department of Labor Certified Apprenticeship Programs

| | |
|---|----|
| - Line Technician (Power Linemen) | 13 |
| - Gas Pipefitter | 9 |
| - Water Pipefitter | 10 |
| - Power Plant Electrician | 1 |
| - Substation Electrician | 4 |
| - Instrumentation & Control Technician | 1 |
| - Water Collection Specialist (Wastewater Mechanic) | 9 |
| - Apparatus Electrician (Transformer Repairman) | 1 |
| - Power Plant System Operator | 13 |
| - Power Plant Mechanic | 6 |
| - Electric Secondary Serviceman | 0 |
| - Meter Specialist (Meter Mechanic) | 1 |

68 Apprentices



Collaboration with neighboring utilities and local Community College

- ❖ CSU and neighboring water providers developed AAS degree program in Water Quality Management with Pikes Peak Community College
- ❖ Instructors
 - From CSU and other Districts
- ❖ Advisory Board
 - CSU Staff
 - City of Fountain, City of Security, Stratmoor Hills Water



❖ YEARLY COSTS to CSU

- Advisory Board = \$1,500
- Internship Coordinator = \$600 (20 hours)
- Industry Coordinator (me) = \$750 (15 hours)
- 3 Internships:
 - \$80,000/year budgeted, starting 2011-2012 school year
 - Students work 30 hrs/week for CSU
 - Required to take 12 credit hours each semester
 - No guarantee of employment



- ❖ Benefits to CSU:
 - Instructors are Water Professionals
 - Students are on a “two-year interview”
 - Students are paying for their own education and training
 - We are looking for the “best and brightest”
 - Students are State-certified when we hire them
- ❖ What makes it work?
 - Commitment from Industry Professionals



Benefits to PPCC Students

- ❖ Get to meet and work with water industry professionals and hiring authorities
- ❖ PPCC students have obtained employment with:
 - Colorado Springs Utilities
 - Cherokee Water District
 - Woodmen Water and Sanitation District



Overall Lessons Learned

- ❖ Upper management must be fully supportive
- ❖ Fully utilize your Learning Management System
- ❖ Tailor trainings to the type of learners you have
- ❖ Remember who the customer is
- ❖ Be actively involved with your local community colleges





Questions?

- ❖ Kathleen Solano
 - Human Resources
 - ksolano@csu.org
 - (719) 668-7310
- ❖ Jeff Crockett
 - Water System Operations
 - jcrockett@csu.org
 - (719) 668-9501