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Employer Ecosystem Panel Discussion

Southern California HVACR Collaborative - April 21, 2017

Background

A panel of employers provided valuable insights into methods faculty can use to better prepare students for careers in Heating, Ventilation, Air Conditioning and Refrigeration (HVACR). The panel was moderated by Ellen Steiner, Vice President of Opinion Dynamics.

The panel interacted with HVACR faculty from eight community colleges, along with representatives from industry, the Los Angeles Regional Consortium, Southern California Edison and other training and accreditation organizations.

Bruce Noble, DSN – Los Angeles, hosted the meeting to continue progress in building a Southern California "employer ecosystem" that advises the colleges on HVACR programs and provides career opportunities for students.

The Panel

Panelists were seasoned executives of well-established firms that cumulatively employ several hundred HVACR workers:

Kip Bagley, Emcor Group
Kecia Davidson, ABM
David Geith, Emcor Group
Roman Gunther, LBA Realty
Don Langston, Aire Rite
Marc Pickett, AMS

Participating Schools

Faculty from 8 regional colleges attended the workshop:

Mt. San Antonio College
Cypress College
Palomar College
Compton College
Antelope Valley College
College of the Desert
Chaffey College
Orange Coast College

Key Discussion Points

Soft Skills

Soft skills dominated the discussion, as was common in prior meetings with employers. While soft skills are taught in college classes, this type of training specific to the industry needs to be integrated into HVACR programs. Major ideas included:

- Communications skills are key. Relating well to customers and team members is a minimum requirement for technicians.

- Customer-facing personnel need to understand the business and economic aspects of dealing with specific transactions. A key principle is that retaining a current customer is ten times more valuable to the company than an equivalent amount of time spent looking for a new customer.

- Adaptability is critical. Customer-facing personnel must find ways to complete the job and satisfy the customer despite any unknowns that are encountered or problems that arise.

- Good troubleshooting is based on the ability to ask good questions.

- A good understanding of the customer's key performance indicators (KPIs) is required. Commercial customers are becoming more sophisticated in tracking KPIs, reflected from the time the technician is logged into the building through how well the completed job is documented in the work order system.

- Practical experience in meeting customer expectations could be as simple as having students complete a work order on what they've learned in each day of class. Instructor feedback can help students become proficient over time.

- Training is needed on what you can and can't say to a customer. For example, if the technician tells a large commercial customer that the insulation needs to be replaced in part of the building, the customer may unnecessarily incur the expense of a HAZMAT team to mitigate asbestos problems. Industry is willing to share their FAQs and role-playing techniques to help faculty teach students these skills.

- Students need to learn the language of the job, especially communicating in ways that resonate with customers, team members, and supervisors.

Skills and Abilities

Employers realize they aren't going to get fully-developed personnel directly out of community colleges, but do expect that rookies will rapidly progress into productive employees. Major ideas included:

- Minimum requirements are a valid California driver's license, passing a drug test, and a clear background check.

- Quality is key for installation and maintenance. The technician must have strong analytical skills to be effective in these areas, particularly as related to troubleshooting.

- Basic understanding of thermodynamics and electrical systems is required. Ability to understand how the system operates as a whole is essential, along with ability to read schematics.

- Employers need to see a demonstration of skills and abilities as part of the hiring process. One idea is for the student to complete one or more projects over the course of the program that the employer can evaluate as part of the hiring process.

- A suggestion for classroom work, labs and practicals could include the use of time clocks and "mock service order" at the end of each session.

Participation by Employers

Employers want to play a role in student success, engaging in the classroom and related activities over the course of the program to recruit the cream of the crop. Major ideas included:

- A significant contribution can be made by employers throughout the student's experience:
  - Promote early awareness of career pathways – starting in high school
  - Participate in recruiting – working with faculty to vet students for entry into the program
  - Set reasonable expectations for students – compensation, career advancement, options for growth along different pathways, the importance in investing in yourself for lifelong learning – introduce students to recent graduates with one year or less on the job as well as senior staff from employers
  - Engage with students throughout the program – emphasize what it takes to be successful; participate in job shadowing opportunities at key points in the program
  - Conduct mock interviews – prepare student to succeed in the job interview process by coaching on elevator pitch, emphasizing the value of research into companies, asking good questions, etc.
  - Use speed dating techniques – students interact with multiple employers in short demonstration/presentations

- Industry and education should change the image of the career to "Green Collar". No longer shop class but professionals engaged in physics, analytics, chemistry, and energy efficiency and environmental conservation.

- By the end of the first year, students should understand what employers want. Engagement with employers throughout the process prepares them for successful communications. At the end of the program, they will know a lot about how to market themselves.

- Promote the entire job cluster – HVACR technicians, logistics and warehouse workers, sales, customer service, dispatch, etc.

- Facilitate events that showcase the HVACR cluster of jobs and range of employers.

Developing the Employer Ecosystem

A core of motivated employers – starting with the panelists from this session - can help build an ecosystem that creates a new paradigm for student success. Major ideas included:

- Engage wholesaler participation in the ecosystem – they need good HVACR people too.

- Branding – communicate the transformational change that HVACR workers help facilitate, show possibilities.

- Focus on the opportunities in individual market segments:
  - Commercial buildings' indoor comfort
  - Food safety
  - Computer centers
  - Hospitals
  - Restaurants

- Employ part-time students or students attending classes in the evening
  - Most of them need to work somewhere
  - Emphasize the need to complete the program and related certifications
  - Instill value of continuing education and career advancement

- Employers must adapt to the millennial mindset to minimize gambling on new workers
  - Upward mobility
  - Relevance of the work
  - Provide mentoring
  - Leverage natural disposition toward analytical thinking

Next Steps

- Spring Semester 2017, All participating collaborative community college programs will include the HVAC Excellence-Employment Ready exam for students petitioning for HVAC Certificates of Achievement or AS Degrees. https://www.escogroup.org/certifications/employmentready.aspx: https://www.escogroup.org/documents/hvac/compsaccredcuric.pdf

- Explore: joint industry/educator development a template for an employer valued student Portfolio
  - Examples of lab work and practicals
  - Record of classroom performance; attendance, attitude, preparation
  - Examples of micro-certificates or badges
    - EPA certifications
    - OSHA certifications
    - Customer service certification
  - Internships and prior work experience
  - Awards & Commendations
  - Letters of recommendation
  - ???

- Engage industry partners and faculty/administrators to develop an outreach strategy for encouraging technical/trades careers exploration in middle and high schools

- Complete So Cal Edison sponsored Economizer train-the-trainer project. Currently participating college programs include: Mt. San Antonio, San Bernardino Valley, College of the Desert, Cypress, LA Trade Tech & El Camino. Other So Cal Edison service territory community college training programs are invited to participate. Target completion second quarter 2017.

- Establish a collaborative specific regional internship program- Goal: includes gaining of experience and skills for future career, or the internship itself to lead to employment at the same or similar employer. Explore guest speakers, mentoring, job shadowing, field trips

- Faculty Externships?

- Regional Sector Specific; Job Fair? Student Showcase? Competition???

Next Meeting

HVACR Collaborative Industry Advisory:

October 2017 – Date, time, and location to be announced

Resources

Energy Construction & Utilities Sector Website
http://www.ecusectordwm.com/

EC&U Sector HVAC Technician website
http://www.ecusectordwm.com/initiatives/hvacr-technicians/

EC&U Sector Study-HVACR Curriculum Alignment
http://www.ecusectordwm.com/wp-content/uploads/2013/12/HVACR-Curriculum-Review-Findings-v2-1.pdf

WHPA Workforce and Education website
http://www.performancealliance.org/Committees+/StrategicPlanCrossCuttingGoals14+/WETCommittee/tabid/422/Default.aspx

EC&U Sector Study-HVAC Barriers and Opportunities, from UC Davis and RP Group
http://www.ecusectordwm.com/wp-content/uploads/2013/12/HVACR-Barriers-and-Opportunities-Final-Report-8-1-2016.pdf

WHPA Report: Recruiting HVAC Technicians for the Next Decade
http://www.ecusectordwm.com/wp-content/uploads/2013/12/WHPA_Recruiting_Feature_Nov.-2016.pdf

Fill the HVAC Workforce Supply Gap
http://www.careersinhvacr.org/site/306/Labor-Analysis-Reports