The Value of Partnerships in Training and Workforce Development

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Presenter:
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BPI’s Role in Workforce Development

• 2018 marks the Building Performance Institute’s (BPI’s) 25th year
• Providing foundation of technical standards and certifications, and the Building Science Principles Certificate of Knowledge
• Work through a network of BPI Test Centers
The Next Workforce Generation

DO THE BEST YOU CAN UNTIL YOU KNOW BETTER.

THEN WHEN YOU KNOW BETTER, DO BETTER.

_Maya Angelou_
Industry Crisis: Aging Workforce

• Trade industries seeing a shortage of individuals entering the workforce
• Connecticut stepped up to the plate to address the issue
Addressing the Gap in the Workforce

- Educators
  - Trained in Building Science Principles (BSP) and provided externships
- School counselors, parents, and students
  - Informed of the opportunities
- Student Preparedness
  - Need entry level training and credentials to be work ready
- Potential Employers
  - Linked to vocational technical schools
Define Message for High School Career Counselors, Students and Parents

Market Messaging “School to Work”

Embrace Strategic Alliances:
- US EPA
- US DOL
- US DOE
- Small Business Adm
- Manufacturers
- Post-Secondary Institutions

Develop Materials and Media

Outreach & Career Day Events

Recruiting Events
- Local HP Companies
- Field Technicians
- Parents of past students

Ease of access to companies and industry

Build Infrastructure and funding to support through DOL, Dept. of Ed, NYSERDA, HP Contracting Companies and other sources

DOL – Create job classifications for occupations, apprenticeships

Dept. of Ed – Prepare Counselors, teachers, integrate curricula

Contractors – Prepare infrastructure to support apprenticeships, OTJ training

Educate parents on employment opportunities, wage stats and prospective benefits.

Instructional Support
- BPI Building Science Principles
- Requisite Training developed
- Teacher Credentialing and Educator Externships

Create Feedback Strategy
- Develop Feedback Strategy
- Continuous Monitoring
- Collect Metrics
- Track Student Performance
- Placement Rate, Wages
- Contractor Expectations

Feedback Information to support greater acceptance and expansion

Create Interest and Demand

Ensure Success

Build parent confidence

Build teacher confidence

Build parent confidence

Create the Infrastructure to Support

Create a Career Path for Home Performance
Building a Career Ladder

- Pathways of the future starting at the high school level and even younger; can still continue on to technical, community colleges, and universities
- Bring back the sense of having built something and made life better for others
- Some people prefer to work with their hands
- Apprenticeships are needed
- How to pay for it? Partnerships allow for the pooling of resources
Nearly half of the people providing information stated they had been in the home performance industry for 5-10 years.

Nearly 2/3 indicated that the quality of home performance work improves as a result of technicians holding BPI certifications.

75% indicated they’d hire someone who is BPI certified over someone who is not certified.

Nearly 70% indicated they experience challenges in finding qualified people to hire.

Companies are looking for: technical, communication, time management and computer skills, attention-to-detail, quality workmanship, air sealing, the ability to follow instructions, self-driven, and the willingness to learn.
Being Solution-Oriented

Working together to create opportunities for students to graduate work-ready.

<table>
<thead>
<tr>
<th>Connecticut</th>
<th>BPI</th>
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<tbody>
<tr>
<td>• Utilities</td>
<td>• Community Colleges</td>
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<td>• Department of Labor</td>
<td>• Vocational Schools</td>
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<td>• School Districts</td>
<td>• Professional Development</td>
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<td>• Manufacturers</td>
<td>o Platforms</td>
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Workforce Development Presentation:

Diana McCarthy-Bercury
Principal, Earth Forward Group, LLC
EarthForwardGroup.com
Current Status Industry:
- Labor gap in the market
- Hard to find skilled labor
- Time & money to train
- Aging Workforce
- Industry work is seasonal and varies by region
- Certifications are costly
- Lacking a national standard of certifications, accreditation or requirements for the energy & weatherization workforce
- Funding is unpredictable
Workforce Training Groups

• Development: Future Workforce (Technical & Vocation High Schools, Community Colleges & Universities)

• Transitioning: Skilled Labor (Transferrable Skills and Knowledge, Current Workforce, Tradesmen and Unions)

• Continuous: Current Workforce (Recertifications and Advanced Training-adding new credentials for emerging markets)
GreenSTEP Workforce Development Program (CT)

**Education**
- Develop a foundation for sustainable building construction, weatherization and retrofitting

**Exposure**
- Knowledge of career paths in the green building industry

**Experience**
- Secure employment or higher education
- Gain industry certifications (BPI, DOE, NABCEP)
## Four-Year High School Model

<table>
<thead>
<tr>
<th>Year</th>
<th>Theme</th>
<th>Topics</th>
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<tbody>
<tr>
<td>9th</td>
<td>Introduction</td>
<td>Introduce topics: Sustainability, energy efficiency, resource conservation, weatherization, relationship to energy</td>
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<tr>
<td>10th</td>
<td>Experimentation</td>
<td>Acquaint students with Zero Energy Buildings, CT Science and Engineering Fair problem solving, Weatherization investigation</td>
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<tr>
<td>11th</td>
<td>Implementation</td>
<td>Net zero home production days, home energy auditing, Science and Engineering Fair Junior—project update</td>
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<tr>
<td>12th</td>
<td>Certification</td>
<td>Job search training, resume and interview training, industry certifications (NABCEP, BPI, DOE, ASHRAE) employer panels &amp; career fair</td>
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Ready for the Real World

• Building Performance Institute (BPI):
  • Building Science Principles
  • BA, Weatherization Envelope & Duct Infiltration Leakage, Lead Tech

• North American Board of Certified Energy Practitioners (NABCEP):
  • NABCEP Solar Photovoltaic Entry
  • NABCEP Solar Thermal Entry

• DOE Home Energy Score Rater

• US Green Building Council – Green Professional (GPRO & LEED)

• New Construction - RESNET

• Healthy & Safety (OSHA, Lead, etc.)
Key Partners for Workforce Development

- Technical High Schools
- Community College
- Local Training Facilities
  • Local Experts
  • Utilities

- Department of Education
- Department of Labor
- Department of Energy & Environmental Protection

- Educational Institutions
- State & Local Officials

- Energy Program Management
- Business Community

- Program Administrators
- Program Managers
- Regulators
- Utilities

- Home Performance Contractors
- Action Agencies
Steps for Successful Programs

• Understanding Program Requirements & Certifications
• Identifying Key Allies & Partners
• Identifying Available Resources in the Region
• Networking with Industry Partners to Identify Needs
• Engage the Stakeholder Community
• Funding Opportunities
Working with the Trades (HVAC)

- Wichita Technical Institute – training technicians since 1954
- Offers multiple programs
- HVAC Training – Heating, Ventilation, Air Conditioning and Refrigeration Technician (HVACR)
- Includes the BPI Building Science Principles Reference Guide and certificate exam as part of the training to ensure an understanding of how all the systems in a house affect how well the heating and air conditioning will work
Working with the Trades (Construction)

• Hudson Valley Community College – Construction Technology
• Offers an AAS in Construction Technology
• Uses BPI’s Building Science Principles Reference Guide as a text book and BSP exam as the final exam for its Building Service Systems credit course
• Information is quoted from the instructor with his permission:

“I used the BSP test as the final exam in my Building Service Systems credit course at HVCC. It was a great success – 23 out of 24 of my students passed with several in the 90s (one 99) and now have this certificate to add to their resume when job seeking or transferring to a 4-year program.

The Building Systems Services (CNST 231) is a diverse course that introduces Building Science, HVAC, Electric and Plumbing to our construction management and construction certificate students. I explain to the students how important it is that they enter the field with building science knowledge in this day of high performance buildings and enhanced energy codes. It was great teaming up with BPI to make this happen for the students.

My goal is to take this a step further and also get them certified for IDL next year.”
The 275-page Reference Guide
Sample BSP Certificate
Questions?

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EarthForwardGroup.com
Replicating the Process Across the Country

Available to discuss the process and offer support in your location.

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