

# Green Jobs in the Residential Energy Efficiency Industry:

The Home Performance Industry Perspective on Training & Workforce Development

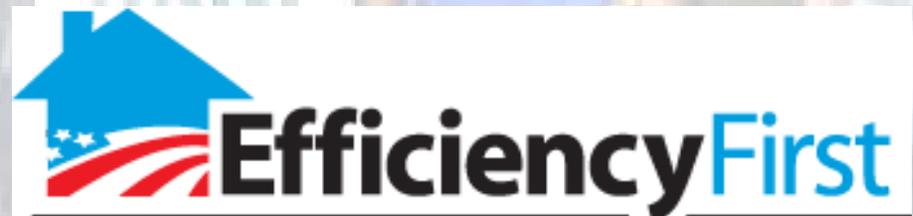
*Presented By: Efficiency First*

Summary presentation for CEC IEPR Workshop  
“Clean Energy Jobs and the Growth of the Clean Energy Economy”

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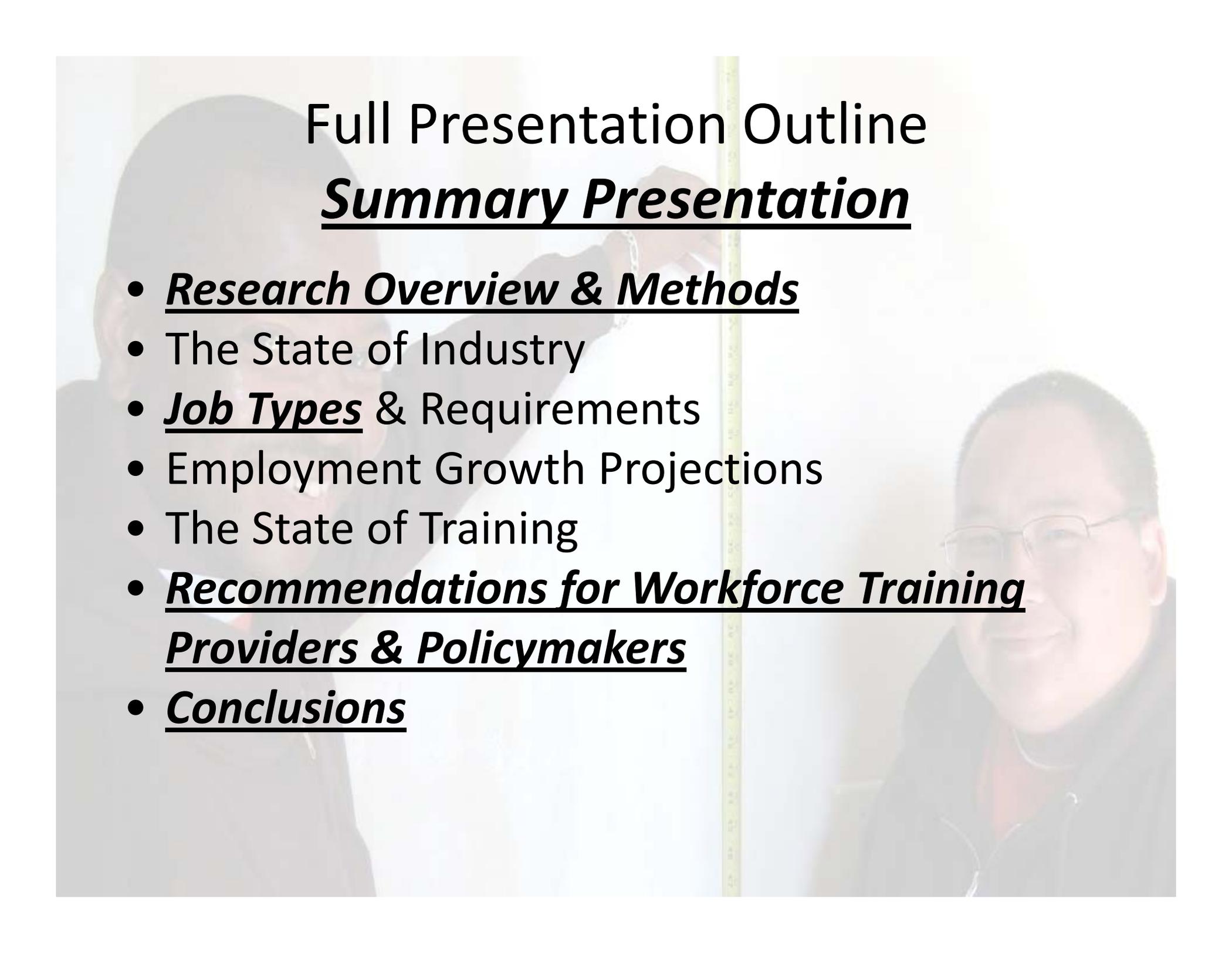


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America's Home Performance Workforce

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# Full Presentation Outline

## **Summary Presentation**

- **Research Overview & Methods**
- The State of Industry
- **Job Types** & Requirements
- Employment Growth Projections
- The State of Training
- **Recommendations for Workforce Training Providers & Policymakers**
- **Conclusions**

# Who is Efficiency First?

- National non-profit trade association
- More than **900** U.S. Home Performance contractors
- Representing the Home Performance industry in public policy discussions at state and national level
- Promoting the benefits of efficiency retrofitting
- Helping grow the Home Performance industry
- Key player in HOME STAR

America's Home Performance Workforce

# Data & Methods

- Interviews with *20+ industry experts*
- Survey polling *161 home performance companies in 36 states*
- Review of existing literature
- Attendance at national & CA home performance conferences
- Peer review
- Full report and presentation @ [hprcenter.org](http://hprcenter.org)

# How do you do a Home Performance Retrofit?

- Find a Customer
- Identify & Explain the Problems
  - Home Performance Evaluation/Assessment “Test in”
  - Present the problems and possible solutions to homeowner
- Fix the Problems
  - Basic: Duct sealing, air sealing, insulation, etc.
  - Skilled Work: HVAC, Mechanical or Electrical Work, Window & Door Replacement, Plumbing
- Quality Assurance & Testing
  - “Test Out”



# Job Types & Requirements

- Home Performance Auditors, Raters and Estimators:
  - evaluate the home energy usage & areas for improvement
- Retrofit Technicians:
  - conduct a basic retrofit or weatherization work
- Skilled Laborers
  - complete electrical work, plumbing, HVAC or mechanical system upgrades, and window and door replacement
- Quality Assurance Providers:
  - certify home performance improvements.
- Office & Support Staff:
  - provide administrative, managerial, promotional, and clerical support for the field workforce and customers.





# Recommendations for Workforce and Training Organizations

# Pre-Screen

- Evaluate individuals' physical, psychological, and intellectual aptitude for a position in the home performance industry *before* training begins.
- Screen based on
  - 1) applicant's desire to work in industry
  - 2) their ability to fulfill industry requirements for specific positions.
    - Attention to detail
    - Customer service, interpersonal and communication skills
    - Reliable Transportation, Drivers License, Clean Driving Record
    - Drug Fee
    - Physically fit: able to lift 75 pounds, fits through crawl space dimensions
    - Construction or trade background
    - Willing to get dirty
    - No criminal background, or at least no theft or violence
    - Able to accurately and legibly write and interpret reports
    - "Green" or sustainable life philosophy

# Follow Industry-Approved Standards

- Teach to BPI, RESNET, Home Performance w/ Energy Star, or other industry-accepted standards
- Following professional certification program standards offers consistency & quality assurance
- Prepare workers for written and field tests
- Department of Energy to provide a single international standard for training provider accreditation and instructor certification

# Conduct Training in the Field

- Classroom learning is not sufficient
- No house is the same – no substitute for experience
- Important skills include:
  - equipment use and maintenance, air sealing, insulation materials and techniques, code compliance, moisture and mold abatement, asbestos removal, lead paint protocols, etc.
- Most successful programs include fast-transition field work, internships, apprenticeships, or other “on-the-job” (OJT) training

# Teach Other Relevant Skills

- Include instruction on other relevant skills and provide information that will help trainees be more effective on the job.
  - Health & Safety
  - General politeness and punctuality
  - Sales & customer service
  - Problem solving
  - Software & Energy Modeling Programs
  - Local incentive or utility program rules and requirements
  - Basics of energy conservation
  - Complementary skill sets, such as installation of PV or solar hot water.

# Develop Employer Relationships

- Recruit an industry advisory group
- Industry groups can help reach multiple employers
- Offer employers benefits, such as:
  - Marketing and community recognition
  - Assistance with other business issues
  - Candidate screening
  - Financial compensation for providing on-the job-training, internships, and apprenticeships
  - Other incentives for superior mentoring or participation.

# Track Participants After Training

- Trainers should develop a systems of communications with trainees
- Follow up with program participants to:
  - Know who has found work
  - Who is still looking for work
  - Those companies looking for additional staff
  - Starting wages, benefits, etc.
- Identify effective mentors at companies, subsidize companies at higher rates if training effectively



# **Recommendations for Policymakers**

# Match Supply with Demand

- Creating jobs is 1<sup>st</sup> step toward workforce development
- Most companies are more concerned about customer demand than worker supply
- 71% can find qualified entry-level retrofit workers in less than 1 month
- Develop demand-generating policies and programs at the same time as programs to increase worker readiness and training.
  - Pass proposed legislation like HOME STAR & REEP
  - Roll out PACE financing, utility incentives and home audit and retrofit rebate programs

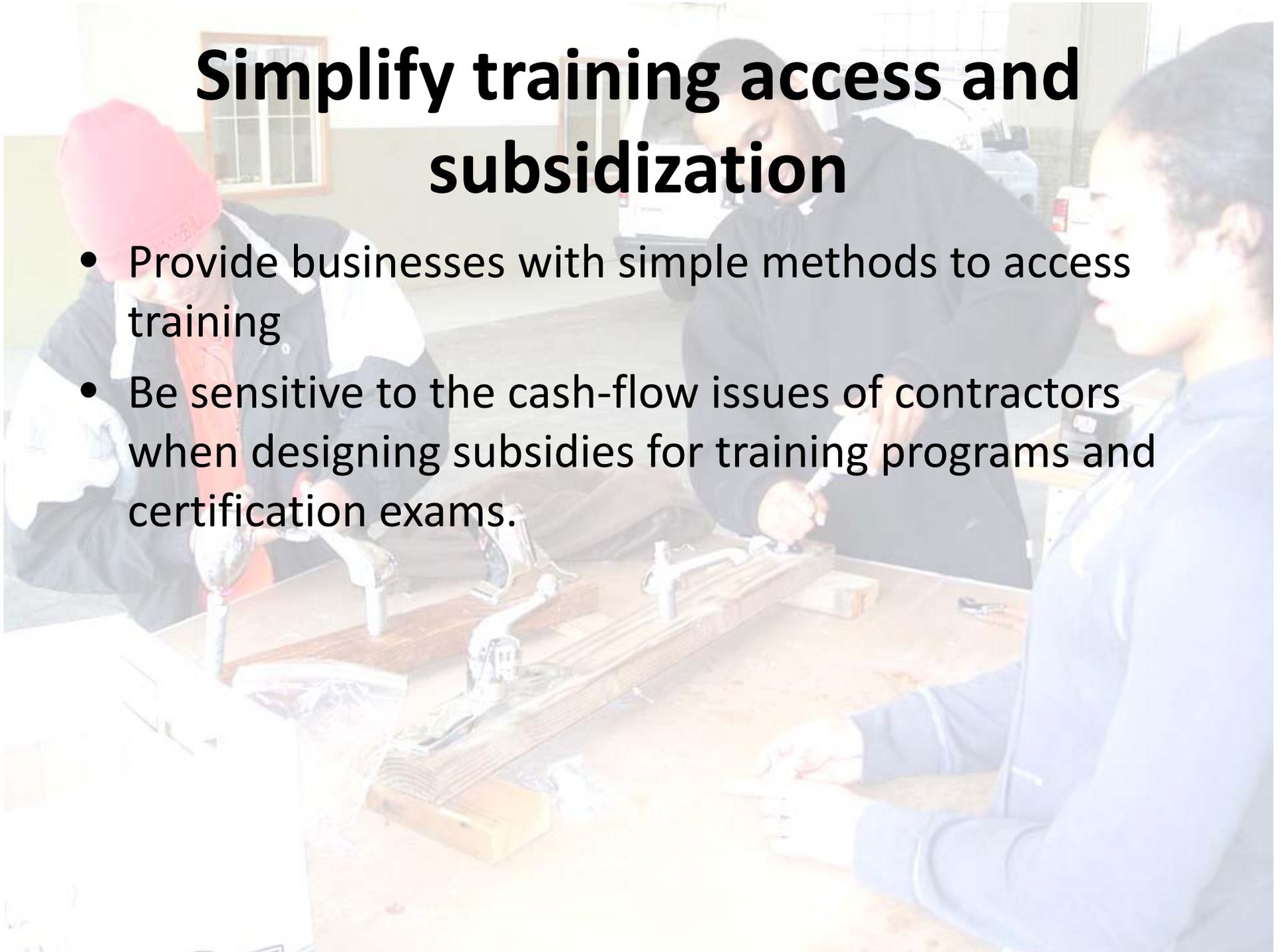
# Provide clear and reliable information

- Provide businesses with a solid understanding about:
  - Standards, certifications, or licenses required
  - Program timelines & “grace periods” before requirements begin



# Simplify training access and subsidization

- Provide businesses with simple methods to access training
- Be sensitive to the cash-flow issues of contractors when designing subsidies for training programs and certification exams.

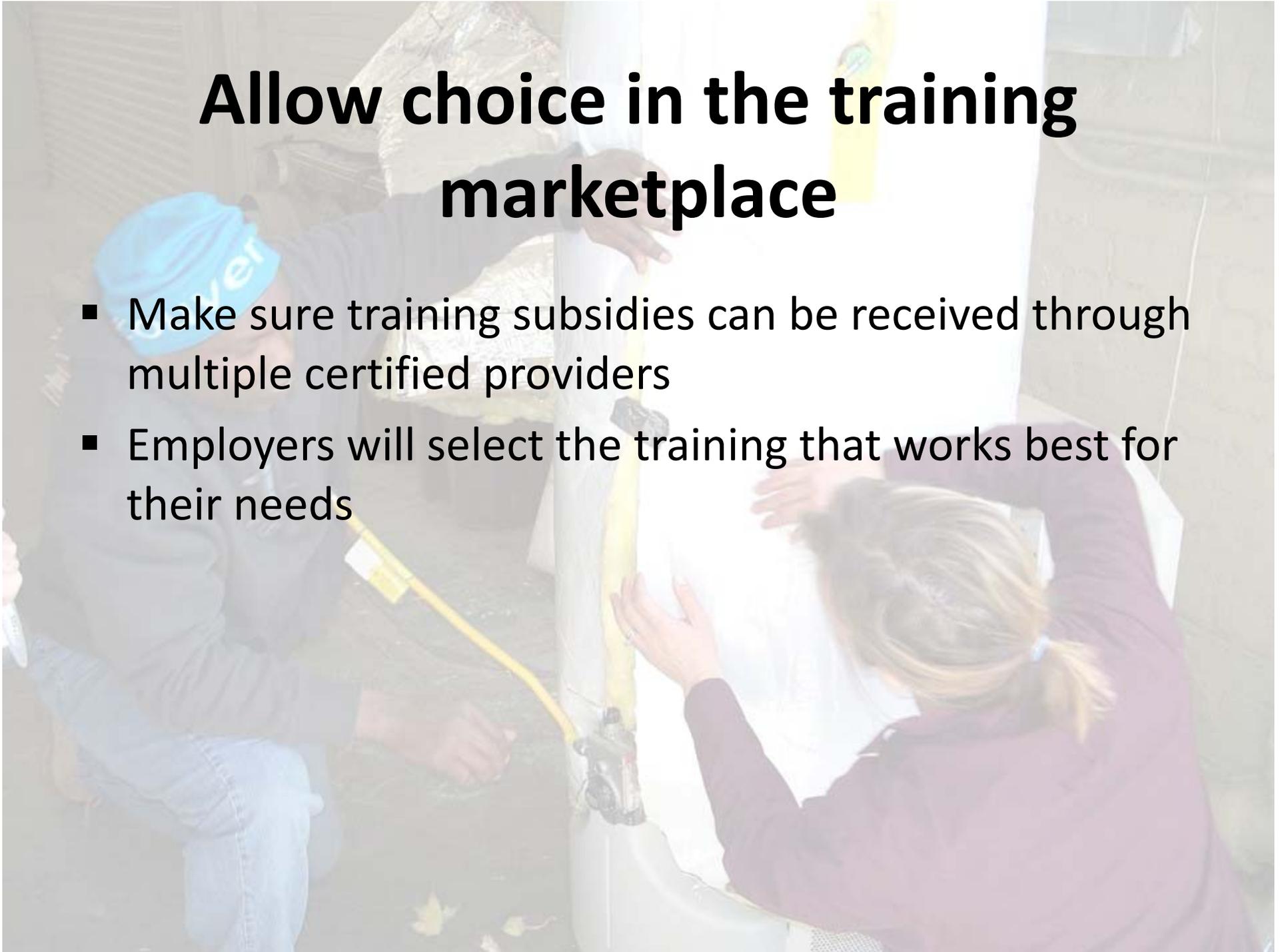


# Support Training- Within-Industry

- Provide funding to offset the cost of on-the-job training, apprenticeships, and mentoring.
- Using a TWI model could:
  - 1) Jump-start the residential energy efficiency industry
  - 2) Spend training funds only on workers with real potential for a defined career path within the industry
  - 3) Offer the fastest way for trainees to gain portable industry skills since they would gain field experience on a daily basis.

# Allow choice in the training marketplace

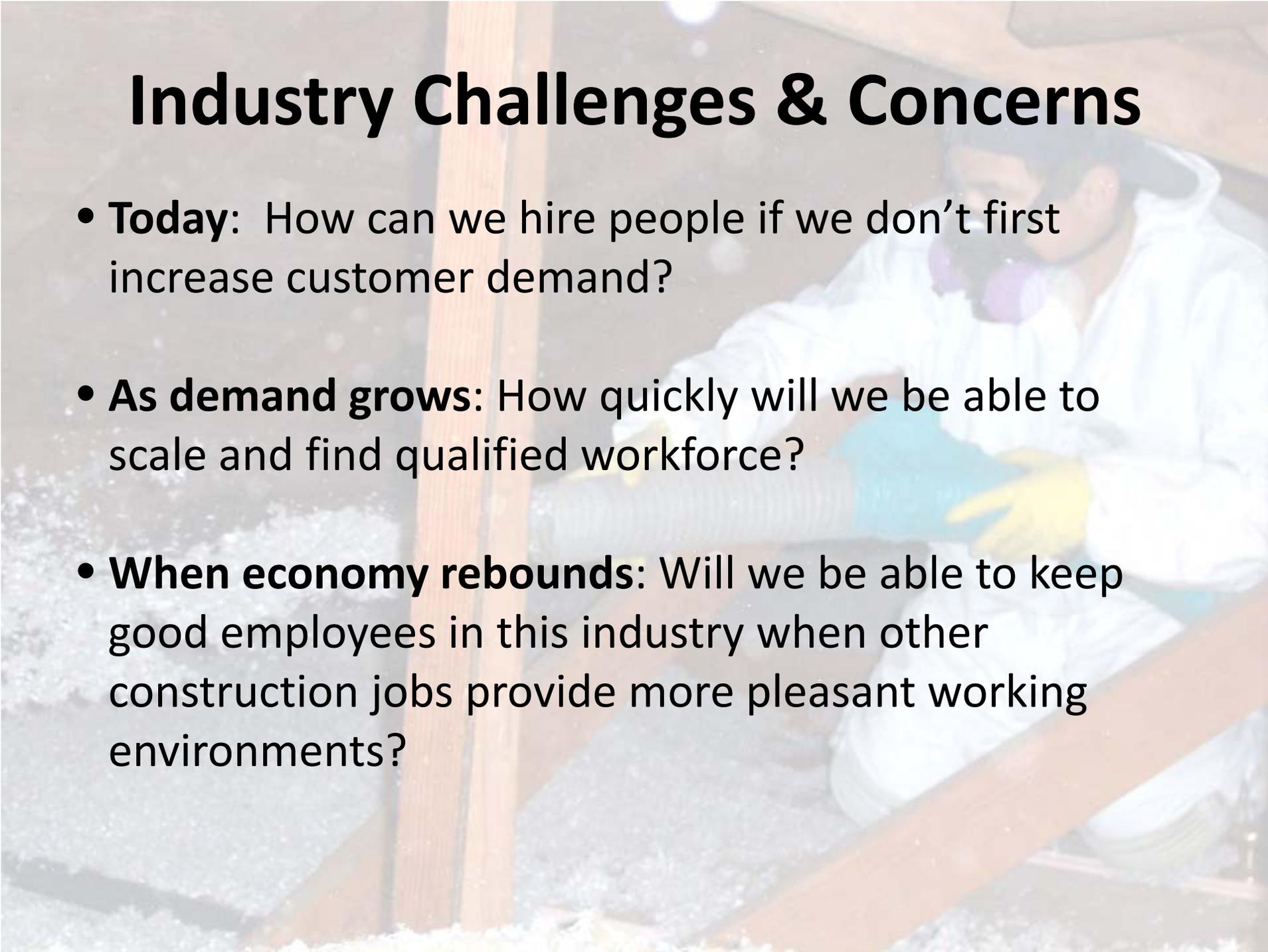
- Make sure training subsidies can be received through multiple certified providers
- Employers will select the training that works best for their needs



# Offer Funding Consistency

- ARRA funds offer a large infusion of cash for 2 years
- Training funds should be consistent over several years or escalated in response to increases in program scale or customer demand

# Industry Challenges & Concerns

A construction worker wearing a white protective suit, a respirator mask, and gloves is working on a wooden frame structure. The worker is focused on their task, and the background shows the interior of a building under construction with wooden studs and insulation.

- **Today:** How can we hire people if we don't first increase customer demand?
- **As demand grows:** How quickly will we be able to scale and find qualified workforce?
- **When economy rebounds:** Will we be able to keep good employees in this industry when other construction jobs provide more pleasant working environments?

# Conclusions

- Increasing demand is first step toward workforce development
- Once demand increases, companies will grow
  - Re-hire/Retrain incumbent workforce
  - Increase use of subs
  - Train & hire new entrants
- Important to lay the groundwork now and get the training infrastructure right
- Established standards, OJT, and partnerships between training providers & employers will support quick industry scaling

# **Green Jobs in the Residential Energy Efficiency Industry: The Home Performance Industry Perspective on Training & Workforce Development**

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*Full report will be available*

*On Home Performance Resource Center website:*

[www.hprcenter.org](http://www.hprcenter.org)

