



Maryland CONSTRUCTION AND ENERGY WORKFORCE SOLUTIONS FORUM

July 21, 2009 • Governor's Workforce Investment Board • www.gwib.maryland.gov

Background

GWIB's Construction and Energy Industry Initiative Steering Committees extensively researched workforce issues and impediments. Each Steering Committee published their findings, recommendations and strategies for workforce development in separate draft reports (<http://www.mdworkforce.com/news/constenforum/>).

For the breakout sessions conducted during the Forum, GWIB staff selected 41 strategies from the draft reports that they believed had the potential for development and implementation, in the short-term, by a partnership of industry, education and workforce system individuals.

These strategies were organized and assigned to one of four breakout sessions:

- Industry and Education: Making Connections, Creating Alignment
- Our Future Workforce: Creating a Pipeline of Skilled, Professional Employees
- Readyng Today's Workforce for Tomorrow's Work: Training, Retraining, Up-Skilling
- Partnerships and Policy by the Numbers

Process and Outcome

Participants at each breakout session were asked to review and then select, by consensus vote, one or two strategies they believed had the highest impact (most bang for the buck) on workforce development. With the selection of priority strategies, participants were then asked to define potential outcomes for each selected strategy, and recruit volunteers to help develop and implement the strategies.

At the close general session, breakout group facilitators reported on the results of their respective groups. This report is a summary of the group discussions and strategy selection. It is noted that many of the groups recommended combining strategies and asked GWIB staff to do the appropriate editing for the final report to the Steering Committees.

Selected Strategies

1. Expand partnerships that connect industry to career training programs, assuring students entry into the construction industry workforce and career opportunities.
2. Increase summer youth employment opportunities and work experiences by enlisting energy/green business support and participation.
3. Address the challenges and restrictions associated with hiring ex-offenders and at-risk youth through collaboration with the Maryland Department of Public Safety and Correctional Services, Maryland Department of Juvenile Services, and local social services agencies. Specifically:
 - a. Individuals on probation barred from crossing state lines to work on job sites
 - b. Ex-offenders prevented from working on many government-related job sites because of security restrictions.

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

4. Create a speakers bureau, sending the industry's younger workers as representatives to speak to students.
5. Advocate for continued funding of Maryland Business Works, and to expand uses of funds to include equipment purchases.
6. Increase partnerships with business, industry, education, government, and non-profits to increase training capacity, particularly in adapting existing training programs to Maryland needs.
7. Institute statewide data collection and analysis to help the State focus training resources; to track individuals from pre-apprenticeship to apprenticeship training and from two-year to four-year higher education training.; and to assist green business incubators with development and growth of small businesses.
8. Educate businesses about clean technology, how to become greener, and how to train their staff to be greener.
9. Create a statewide construction industry advisory board to advise the GWIB, Governor, state agencies and education institutions on construction-related workforce policy issues. The advisory board should be policy-driven and data-driven.
10. Develop programs that integrate "green" components into existing construction and energy education and training programs, focusing on clearly-defined pathways, career ladders and core competencies.
11. Increase demand and expand access to K-12 Career and Technology Education (CTE) construction-related programs to support more high school students in learning about and preparing for careers in construction.

Maryland Construction and Energy Workforce Solutions Forum

Breakout Sessions

Industry and Education: Making Connections, Creating Alignment

Facilitators: Pat Mikos, MSDE and Sallie Sarelas, GWIB

Selected Strategies to be Developed and Implemented

1. Create a statewide construction industry advisory board to advise the GWIB, Governor, state agencies and education institutions on construction-related workforce policy issues. The advisory board should be policy-driven and data-driven.
2. Develop programs that integrate “green” components into existing construction and energy education and training programs, focusing on clearly-defined pathways, career ladders and core competencies.
3. Increase demand and expand access to K-12 Career and Technology Education (CTE) construction-related programs to support more high school students in learning about and preparing for careers in construction.

Volunteers:

Advisory Board:

Ricky Godbolt, Prince George’s Community College

Program Development:

Bayo Adetuaji, Anne Arundel Community College

Chris Defeo, CCBC

Ricky Godbolt, Prince George’s Community College

Jane Hager, Potomac Region Solar Energy Association

Alicia Siegrist, Anne Arundel Community College

CTE programs

Gary Beek, ABC

Brian Cavey, Heat and Frost Insulators Local #24

Doug Danley, Fear the Skunk

Theodore Hill, Goodwill Industries

Roger Lash, DLLR/Apprenticeship Training

Andrew Marani, ABC/Baltimore

Sara Trenery, Baltimore County Dept. of Economic Development

Discussion of the strategies (see full list at end)

Alignment and Capacity Recommendations Strategies

What does success look like – what does a successful advisory board look like?

- Policy-driven
- Advising governor, GWIB, state agencies
- NOT dealing with actual programs and curriculum – rather, dealing with policy level
- One-stop shopping for all construction information, advice, resources
- Data-driven
- ID barriers (to what??)
- ID inconsistencies (to what??)
- Consider including regional representation

Suggest including the following additional stakeholders on the Advisory Board:

- All industry sectors (including contractors)

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

- Industry: distribution, purchasing and sales divisions of businesses
- MOSH
- MD Energy Administration
- Public Service Commission
- 4 year higher education
- PreK-12: guidance counselors, principals and parents
- Juvenile services

Program Development

What does success look like? What does successful program development look like?

- Clearly-defined pathways – including non-credit
- Look at national programs – don't reinvent the wheel
- Core competencies

Other Discussion

- How can 4 year higher education institutions complement – overall - education programs at PreK-12 and community colleges? Ex. construction management
- Career Paths
- Career options
- Career ladders
- Look at European models
- Determine and access what we already have available or in place
- Often we have the education resources but not the students
- Need off-ramps, as well as on-ramps
- Middle skills
- Access and engage formerly incarcerated individuals
- Expand training in other languages – especially Spanish, especially safety training
- Exams in other languages??
- Relate academics to skilled trades – make the connection for students and parents
- Who will carry out these ideas and strategies – MSDE, CETEC, Community Colleges?

CTE Program and Apprenticeship

Increase demand and expand access to K-12 Career and Technology Education (CTE) construction-related programs to support more high school students in learning about and preparing for careers in construction.

- Increase demand – increase access
- Promote the value of a career in construction
- Marketing opportunities – high school and community college
- Explore expanding labs and training centers to increase access

Action Steps:

- While each Local School System determines Career and Technology Education (CTE) program placement, all Systems should be encouraged to expand construction – related programs to more high schools and technical centers across the State.
- Explore delivery system expansion to include:
 - Regional Centers
 - Magnet Schools / Technology H.S.
 - Lab Center → Rotation of Students

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

- Increase Recruitment and Marketing of CTE programs
 - Increase technology integration in high-tech programs! Excitement for students
 - Expand First Robotics, experiences in Construction and Development, SkillsUSA, so more students get interested in CTE programs
 - Increase parent outreach, PTA Middle School, and Guidance Counselors
 - Use Maryland Workforce Exchange to show students the range of career opportunities in Maryland.

Challenges:

1. High school leadership not promoting construction programs → too much focus / value on college. How can we get Principals and Guidance Counselors to see the value of Construction programs?
Need to communicate the value of Apprenticeship (= Career Pathway)
2. Increase information about construction careers, for **all** students (including Dropouts)
3. Show Students a career pathway, where they can transition from High school → Community College / Apprentice → University / career

Full list of Strategies Reviewed at the Industry and Education: Making Connections, Creating Alignment Breakout session

These are the strategies taken from the Construction and the Energy Reports for this breakout

Alignment and Capacity Recommendations Strategies

Create a statewide construction industry advisory board (including representatives from DLLR/Apprenticeship Division, MSDE, CETEC, the building trades, independent training entities and private career schools) to:

- Facilitate coordination of construction-related education and training programs at all levels of Maryland's PreK-20 education system.
- Align and coordinate the PreK-20 education system's pre-apprenticeship programs and curriculum with that of the building trades, independent apprenticeship and training entities, and private career schools.
- Align construction-related refresher courses, CEU courses, and employment preparation assessment tools.
- Review requirements of major apprenticeship and training programs and recommend standards for adoption for pre-apprenticeship.

Program Development

- Build competency models for targeted occupations that establish common skills sets across all sectors with links to degree options.
- Promote and facilitate development of a green layering strategy for existing construction training programs and curricula.
- Focus on critical pathways and support structures (education, pre-apprenticeship, apprenticeship).

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

Develop partnerships between community colleges and the construction industry to increase the amount of - and access to - instructional lab space, as well as the number of qualified instructors.

Increase the number of industry experienced instructors at community colleges and other education institutions to train workers.

CTE Program and Apprenticeship Recommendations Strategies

- Develop an Energy Cluster or section for the CTE program.
 - Add energy basic courses/information to the CTE clusters and for all students in K to 12.
- Align CTE construction program requirements to advancement in apprenticeship programs and entry in the related career field.
- Expand access to CTE construction-related programs to support more high school students in learning about and preparing for careers in construction. Expand access by increasing capacity of individual CTE construction programs to accommodate more students by partnering to increase lab and classroom space, as well as attracting more industry professionals to teach students.

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

Our Future Workforce: Creating a Pipeline of Skilled, Professional Employees

Facilitators: Scot Brown, Corman Construction, and Lynn Reed, GWIB

Selected Strategies to be Developed and Implemented

1. Expand partnerships that connect industry to career training programs, assuring students entry into the construction industry workforce and career opportunities.
2. Increase summer youth employment opportunities and work experiences by enlisting energy/green business support and participation.
3. Address the challenges and restrictions associated with hiring ex-offenders and at-risk youth through collaboration with the Maryland Department of Public Safety and Correctional Services, Maryland Department of Juvenile Services, and local social services agencies. Specifically:
 - a. Individuals on probation barred from crossing state lines to work on job sites
 - b. Ex-offenders prevented from working on many government-related job sites because of security restrictions.
4. Create a speakers bureau, sending the industry's younger workers as representatives to speak to students.

Champions:

Catharine Fleming, Goodwill Industries of the Chesapeake, Inc.

Sarah Blusiewicz, DLLR

Volunteers:

Patsy Berquist, Chaney Enterprises

Kunal Gangopadhyay, EBA Engineering, Inc.

Deborah Klenk, Cecil Community College

Roy Layne, Prince George's Workforce Investment Board

Discussion of the strategies (see full list at end)

- What strategy is most actionable by a partnership of industry, education and workforce system individuals?
- What strategy has the highest impact?
- What is the ideal outcome?
- Can we quantify the outcome?

Parking Lot

- Vets – tax incentives

Full list of Strategies Reviewed at the Our Future Workforce: Creating a Pipeline of Skilled, Professional Employees Breakout Session

These are the strategies taken from the Construction and the Energy Reports for this breakout

Partnerships

- 1) Develop opportunities for students to obtain required on-the-job training for pre-apprenticeship and apprenticeship programs.

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

- 2) Expand partnerships that connect industry to career training programs, assuring students entry into the construction industry workforce and career opportunities.
- 3) Replicate school-to-career models such as Project Lead the Way, FutureForceNow, and the Maryland Business Roundtable for Education for construction.
- 4) Industry partners with education for increased resources for construction and trades-related education and training in the Pre-K-12/CTE and community college education systems – including career exploration and career development resources and activities.

Internships & Summer Work Programs

- 1) Increase Summer Youth Employment Opportunities and Work Experiences by enlisting energy/green business support and participation.
- 2) Link local youth programs with pre- apprenticeship or apprenticeship training, and whenever possible to healthcare, energy, manufacturing, construction or other high growth industry sectors.
- 3) Create internships that extend from high school to college.

Adults and Non-Traditional

- 1) Address the challenges and restrictions associated with hiring ex-offenders and at-risk youth through collaboration with the Maryland Department of Public Safety and Correctional Services, Maryland Department of Juvenile Services, and local social services agencies. Specifically:
 - a. Individuals on probation barred from crossing state lines to work on job sites.
 - b. Ex-offenders prevented from working on many government-related job sites because of security restrictions.
- 2) Advocate for expanded funding of *Maryland Business Works* training funding assistance program to support critical workforce training needs such as safety training in Spanish, and English language classes for employees.
- 3) Expand pre-apprenticeship programs state-wide for target non-traditional and adult populations

Promotion

- 1) Create an energy ambassador program that brings industry and students together.
- 2) Create a speakers bureau, sending the industry's younger workers as representatives to speak to students.
- 3) Get youth (all ages) interested and excited about energy careers using current "social networking" systems like Facebook, and YouTube.
- 4) Create hands-on mobile lab to demonstrate energy and green technologies.

Financial Incentives:

Provide financial incentives, such as tuition assistance, to students who enter higher education programs leading to jobs in high demand occupations in the construction industry.

**Maryland Construction and Energy Workforce Solutions Forum
Breakout Sessions**

Readying Today's Workforce for Tomorrow's Work: Retraining, Up-Skilling

Facilitators: Carol Hoyle Gilliss, CETECH and Re Cuebas, GWIB

Selected Strategies to be Developed and Implemented

1. Advocate for continued funding of Maryland Business Works, and to expand uses of funds to include equipment purchases.
(this strategy is a combination of these: Advocate for continued funding of training funding assistance programs such as Maryland Business Works; and Promote use of the Maryland Business Works training funding program to support critical workforce training needs such as safety training in Spanish, and English language classes for key employees.)
2. Increase partnerships with business, industry, education, government, and non-profits to increase training capacity, particularly in adapting existing training programs to Maryland needs.
This strategy statement is based on: Develop new and alternative delivery methods for instruction in education and training programs.)

Champions:

Howard Cheng, SmartTank LLC
Jason Roberts, Associated Builders and Contractors, Inc. – Metro Washington Chapter
Edward Fangman, Baltimore County Workforce Development

Discussion of the strategies (see full list at end)

The group discussed the addition of the following items to the existing strategy list:

Entry Level

- Upskilling
- GRE – requisite skill – but can't create barriers
- ESL
- Bridge programs
- Business incentives to do more training
- Grow your own
- Cross-sector integration-include sustainability built into existing program
- Use national programs/certifications
- Partner with labor – journeyman upgrade
- Boot camp – ex. pre-apprenticeship
- Need collaboration, efficiencies standards, consistency, state certification, ce

Incumbent

- Multi-skilling
- Soft skills
- Need to break down silos
- Multiplier effect
- Migration possible – no extinction
- Still need specialization
- Speed

Funding

- Grants
- Equipment pool

Other

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

- WIB Liaison – Business Service Reps.

Full list of Strategies Reviewed at the Readyng Today’s Workforce for Tomorrow’s Work Breakout Session

These are the strategies taken from the Construction and the Energy Reports for this breakout

Entry Level

- Adopt/adapt other successful job training models: Job corps, law enforcement recruitment of women.
- Enhance or create new certificate and apprenticeship programs for targeted energy and clean technology jobs.
- Create and/or adopt existing training programs, like the BG&E Utility 101, to incorporate into the community college curriculum.

Incumbent

- Develop continuing education programs for incumbent workers in the skilled trades (electrician, HVAC, plumbing, and constructions) to provide skill updates in green building methods, materials, and energy efficiency standards.
- Train meter readers and other in-house incumbent workers for in-demand positions.
- Identify cross-sector (energy, manufacturing, construction, etc.) skill sets to assist in the development of a broad professional pathway for technicians.

Funding

- Advocate for continued funding of training funding assistance programs such as Maryland Business Works.
- Promote use of the Maryland Business Works training funding program to support critical workforce training needs such as safety training in Spanish, and English language classes for key employees.

Other

- Develop new and alternative delivery methods for instruction in education and training programs.
- Develop partnerships with businesses, industry, education, government and non-profit agencies to increase training capacity and expand the use of alternative training locations – including financial incentives.
- Create outreach to business including business tours of One-Stops and target marketing campaign aimed at business.
- Create new business services including pre-employment testing, and integrated industry short training programs (boot camps, OJT programs, etc.).

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

Partnerships and Policy by the Numbers

Facilitators: Bernard Reynolds and Tim Bibo, GWIB

Selected Strategies to be Developed and Implemented

1. The consensus of the participants was the following three strategies were linked and should be developed into a single strategy
 - Use data to help the State focus training resources.
 - Institute statewide data collection and analysis to track individuals from pre-apprenticeship to apprenticeship training and from two-year to four-year higher education training.
 - Develop green business incubators to help develop and grow small businesses.
2. Educate businesses about clean technology, how to become greener, and how to train their staff to be greener.

Champions

Lino Cressotti, Insulators, Local 24
Ricky Gratz, Maryland Office of the People's Council
Daraius Irani, DECO of Towson University
Angelique Pefinis-Newport, Baltimore County Office of Workforce Development
Karen Ross, I-Team Resources Inc.
Ken Stadlin, KEnergy Solar
Jeryl Baker, Howard and Anne Arundel County Workforce Development
Brian Wessner, POAC Green

Discussion of the strategies (see full list at end)

The discussion centered on data and policy. Industry, education and government partnerships were acknowledged as essential to implementation of the strategies.

The Numbers

Participants noted that any strategy focused on data (labor, industry or other) needs to address these questions and concerns:

- Where does the data come from and how can it or should it be developed (if done at the State and local level)?
- What partnerships and collaborations are needed to make sure data needed for these strategies is collected?
- How can we get accurate data at the local level?
- How get we get data that is relevant to curriculum development?
- For emerging green occupations – how are the titles, descriptions and skills sets developed and by whom? Where is this information presented? How can local workforce get this information to use for its clients?
- What role can trade groups and apprenticeship programs play in developing this kind of career information?
- Other organizations can use this data – notably business development incubators – how do we make sure data gets incubator programs to help guide the promotion and development of new businesses?

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

Policy

Interest in policy focused on what Maryland is or should do to support business/economic development. There were two sub-texts: One, specific policy recommendations; and Two, where can this kind of information be found and distributed?

- What is Maryland doing with ARRA funds, what is status of initiatives, and what initiatives is the State thinking of launching? (Governor O'Malley did reference the MD website that is tracking these numbers. However, the impression remains that there is no clear and understandable description about ARRA, the funds, intended audience or relevance/context to MD businesses.)
- Is the State supporting the financing of energy savings through ESCOs? Is the State supporting best practices – such as Annapolis' EZ program?
- What incentives is the State promoting to help with home and building retrofits? (this question reflects Braken Hendrick's presentation on this enormous scope of the challenge to retro home for energy efficiency.)
- What is Maryland larger energy policy – how is it being used to create/support businesses in the green economy
- What financial incentives are available to help consumers adopt green products and services?
- Is the State developing a one stop portal or center to help consumers and businesses learn about and connect to all things green?
- What is being done to educate consumers and business on green – to stimulate adoption of green products/services, and stimulate green job growth? How does EmPower Maryland fit here, and what are the utilities doing? Are the utility programs a partnership that should be developed?

Partnerships

At several points in the discussion, partnerships were acknowledged and these points suggested:

- Create skill alliances, and/or use Trade groups to help develop green job descriptions, skills definitions and other career pathway data.
- How can business participate in job creation, data collection
- What partnerships and collaborations are needed to make sure data needed for these strategies is collected?

Full list of Strategies Reviewed at the Partnerships and Policy by the Numbers Breakout Session

These are the strategies taken from the Construction and the Energy Reports for this breakout

- Institute statewide data collection and analysis to track individuals from pre-apprenticeship to apprenticeship training and from two-year to four-year higher education training.
- Develop locally-focused economic analysis on green business, and the impact of government investments in partnership with University of Maryland.
- Develop green business incubators to help develop and grow small businesses.
- Create and support local research universities, technology developers, and business incubators in clean technology research.
- Share information and data on who is looking for work between One-Stops and community colleges.

Maryland Construction and Energy Workforce Solutions Forum Breakout Sessions

- Educate businesses about clean technology, how to become greener, and how to train their staff to be greener.
- Use data to help the State focus training resources.