



Energy Industry Workforce Action Plan



BOOMERS ARE RETIRING

- National Mining Association: the U.S. will need 50,000 new coal miners over the next 10 years
- U.S. Dept. of Energy: over the next decade there will be a 10,000 lineworker shortage (nearly 20%)
- Interstate Oil and Gas Compact Commission: in the next 7 to 10 years more than half of the employee base will leave the work force



BOOMERS ARE RETIRING (cont.)

- American Wind Energy Association: by 2030, nearly a half-million new jobs could be created in the wind industry.
- Nuclear Energy Institute: nearly 30 percent of the people who currently work in the industry will be eligible to retire in five years. Another 13 percent could leave their jobs through attrition.



OUR OPPORTUNITY IS NOW

- We have an unusual opportunity to create jobs in a region that has been concerned about slow job growth across the board.
- How terrible it would be to create jobs and be unable to fill them.
- We also have the opportunity to create jobs no matter which direction the energy future goes, since we have business opportunities in renewables, nuclear, and coal.
- So that means it's in the region's interests to help energy companies succeed. What is needed to do that? Each needs slightly different things, but the one thing they all need is a workforce.



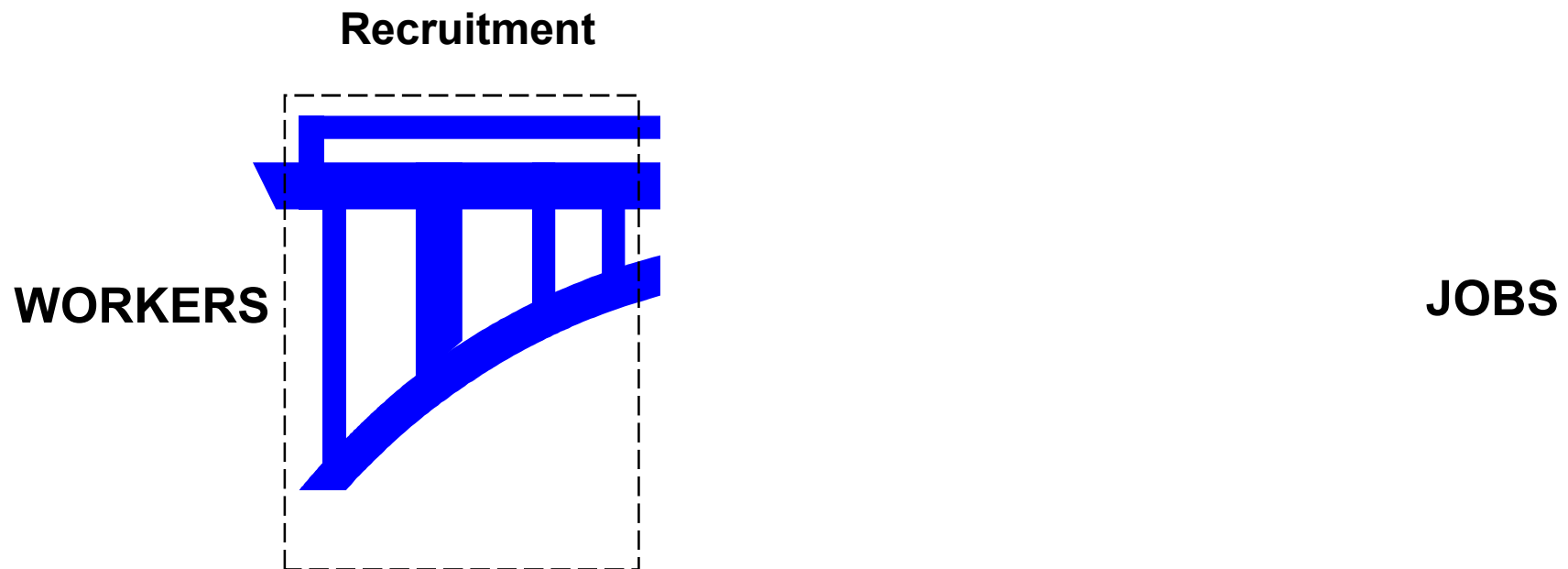
SO WHAT DO WE DO? KEY IS BRIDGING WORKERS TO JOBS

WORKERS

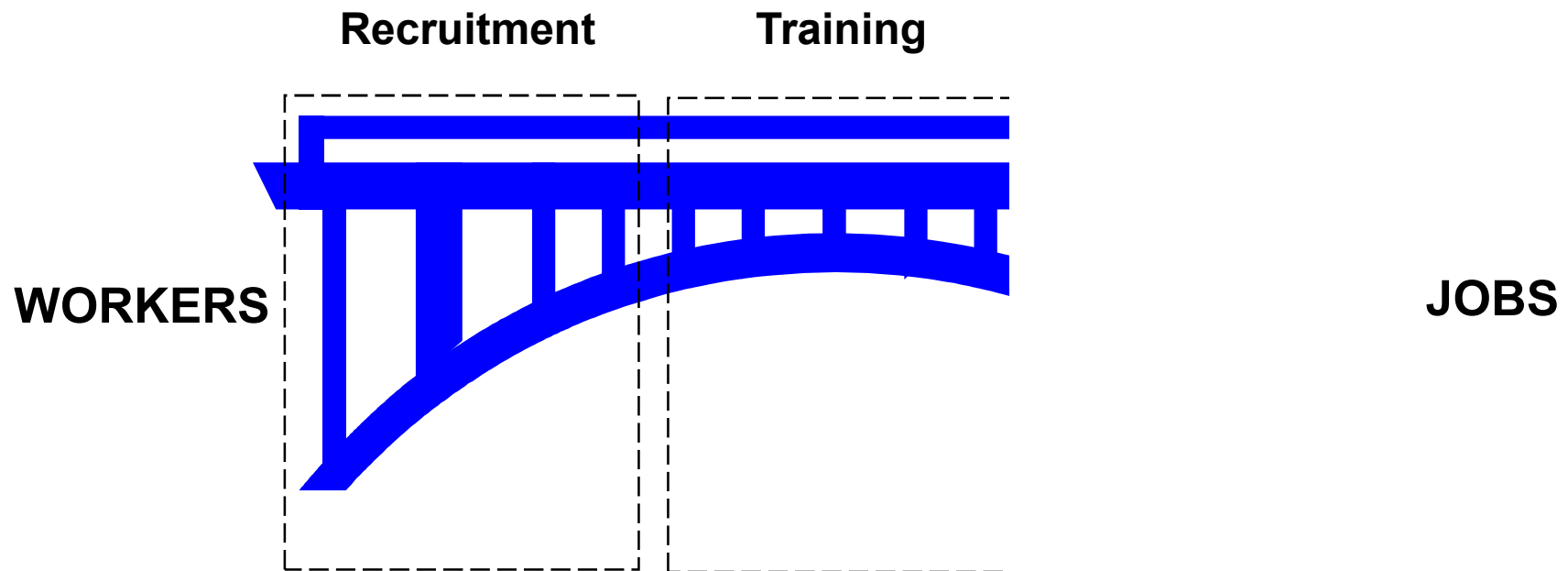


JOBS

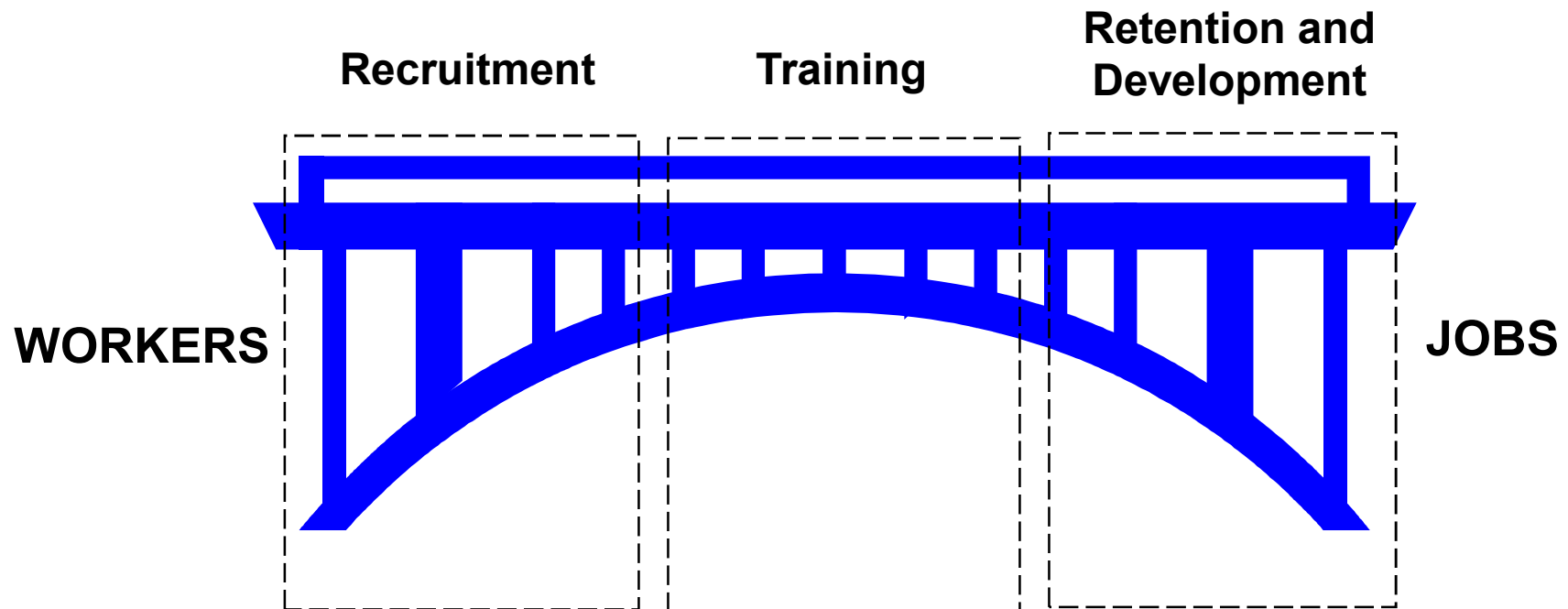
BRIDGING WORKERS TO JOBS: RECRUITMENT



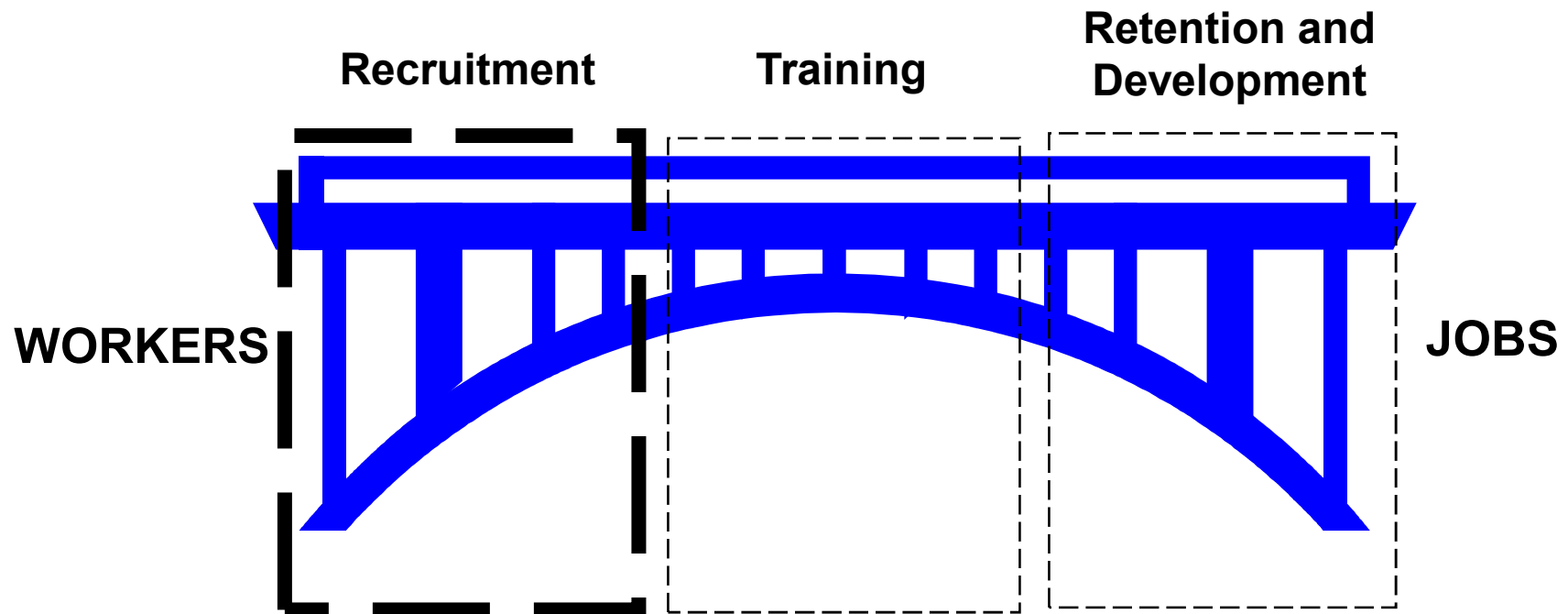
BRIDGING WORKERS TO JOBS: TRAINING



BRIDGING WORKERS TO JOBS: RETENTION AND RECRUITMENT



BRIDGING WORKERS TO JOBS: RECRUITMENT





RECRUITMENT: CHALLENGES

- Negative public image that is challenging the industry's recruitment efforts
- Lack of accurate job vacancy data
- Lack of understanding of energy industry and a corresponding shortage of future workers entering the industry pipeline
- Lack of qualified workers coupled with inefficient recruiting and screening practices



RECRUITMENT: SOLUTIONS

- Build image and awareness:
 - Educate the public about the nature and importance of the industry and raise awareness about the career opportunities it offers
 - Develop mechanisms for educators, workforce development professionals, etc. to better understand local companies – what they do and what they need
- Target key jobs that also cross over multiple sectors:
 - Develop mechanisms to assess real workforce needs



RECRUITMENT: SOLUTIONS (cont.)

- Facilitate worker/job matching:
 - Connect CareerLinks with industry (company tours, joint development of marketing materials, etc.)
 - Use existing workforce to attract new workers
- Increase the volume of candidates:
 - Explore untapped labor pools – military, women, underemployed, minorities
 - Establish industry-wide and cross-industry mechanisms for recruitment
 - Utilize all forms of outreach – web-based, social networks, etc.



RECRUITMENT: PRIORITY ACTION PLAN (draft)

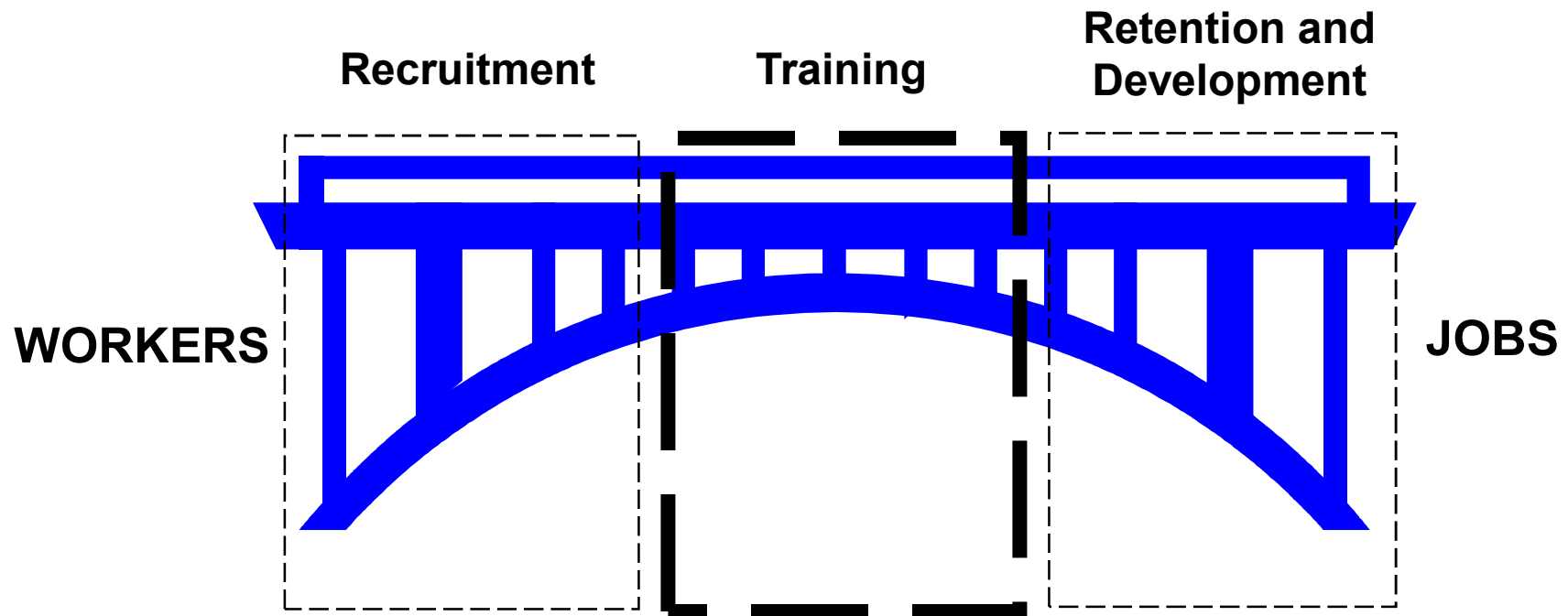
- Improve image and awareness:
 - *Provide access to materials related to energy jobs developed for CareerLinks through the Westmoreland-Fayette WIB DOL/ETA Regional Innovation Grant*
 - *Expand/build middle school career awareness programs that emphasize energy-related jobs*
- Target key jobs that also cross over multiple sectors:
 - *Build on job vacancy data developed by Penn State through additional industry surveys to create more realistic picture of need*



RECRUITMENT: PRIORITY ACTION PLAN (draft) (cont.)

- Facilitate worker/job matching:
 - *Work with trade unions to recruit new workers from outside the region and from the ranks of displaced workers*
- Increase the volume of candidates:
 - *Explore untapped labor pools – military, women, underemployed, minorities*

BRIDGING WORKERS TO JOBS: TRAINING/EDUCATION





TRAINING/EDUCATION: CHALLENGES

- Need for better alignment of education with industry demand
- Need for both conventional and new approaches to education and training (new technologies, new learning tools, etc.)
- Need for coordination/sharing of resources and information



TRAINING/EDUCATION: SOLUTIONS

- Remedy structural and funding issues
 - Remove CTCs (secondary level) from governance of superintendents
 - Strengthen financial aid to part-time adult students
 - Institute a high school exit exam that incorporates basic computation, mathematics, and communications skills



TRAINING/EDUCATION: SOLUTIONS (cont.)

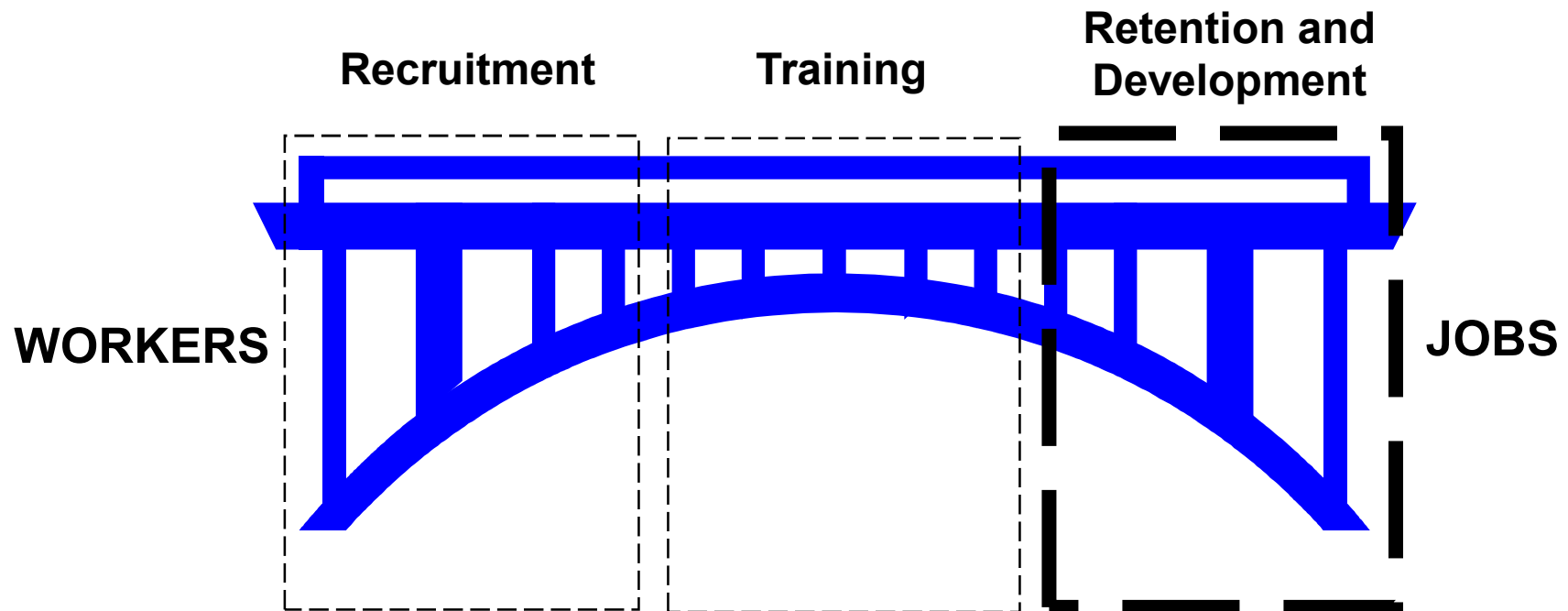
- Improve alignment of education and training programs with each other and with industry
 - Ensure that high school CTC curricula and occupational certifications are aligned with post-secondary (particularly community college) curricula and certifications, both of which are aligned with industry certifications (creating a 10-14 continuum of career education)
 - Create an energy industry certificate



TRAINING/EDUCATION: PRIORITY ACTION PLAN (draft)

- Remedy structural and funding issues
 - *Combine career and technical schools under a single statewide governance entity (legislation)*
 - *Promote institution of a high school exit exam that incorporates basic computation, mathematics, and communications skills (legislation)*
- Improve alignment of education and training programs with each other and with industry
 - *Create an energy industry certificate*

BRIDGING WORKERS TO JOBS: RETENTION AND RECRUITMENT





RETENTION/DEVELOPMENT: CHALLENGES

- Lack of understanding/awareness of career pathways within industries
- Need for improved transfer of skills and knowledge from retiring workers



RETENTION/DEVELOPMENT: SOLUTIONS

- Expand the successful career pathways models into industry
 - Institute internal recruitment strategies
 - Institute career pathways programs
- Improve transfer of knowledge from existing workers to other workers
 - Engage retirees from established sectors to assist in the development of training materials, transfer of knowledge and expertise, participate in mentorship programs
 - Institute train the trainer programs utilizing retired and senior workers



RETENTION AND DEVELOPMENT: PRIORITY ACTION PLAN (draft)

- Expand the successful career pathways models into industry
 - *Market model career pathways program to industry and facilitate implementation*
- Improve transfer of knowledge from existing workers to other workers
 - *Engage retirees from established sectors to assist in the development of training materials, the transfer of knowledge and expertise, and mentorship programs*
 - *Facilitate train the trainer programs utilizing retired and senior workers*



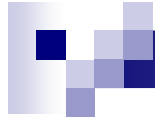
ENABLING STRATEGIES

- Establish a regional energy industry clearinghouse that provides for:
 - Integration and coordination of resources and communication – CareerLinks, VA Center, WIBs, etc.
 - Sharing information on a wide spectrum of areas – best practices, statistics, training and education programs, curricula
 - Event coordination and marketing – career fairs, etc.)



ENABLING STRATEGIES (cont.)

- Create a statewide consortium that focuses on policy, programming, and recruitment challenges
- Establish ways to measure success of initiatives



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