Building a Better Workforce:
A Collaboration between Education and Business

June 18-19, 2015 – Pittsburgh, PA

POLICY
SUMMIT

Industry Sector Partnerships

- Strategic Advantage
- Wholesale vs. Retail Strategy
- A Driver of Economic Development
  - Labor Market Information and more current sources of information (GIS and Web Spider models)
  - Marriage of Economic and Workforce Development
- Industry Needs
  - 1st – Infrastructure
  - Close 2nd- Qualified Workforce

- Brokering relationships and supporting a partnership between the various stakeholders:
  - Business and Industry
  - Industry Sector Associations
  - Educational institutions (K-12, Colleges, Universities)
  - Public workforce system (local workforce boards, one-stop career centers, state workforce agencies)
  - Policymakers (local elected officials, local and state economic development agencies)
  - The community as a whole

Partnership?

- Embraces diverse stakeholders and goals
- Appropriate cross-section of membership
- A process, not an event
- A relationship between organizations (and people within those organizations)
- Mutual trust and respect
- Open and frequent communication (formal and informal)
- Partners see collaboration (both process and outcome) as in their self-interest
- The goals and form of a partnership change and evolve
- Benefits are considered in terms of gains for all stakeholders
- Stages of involvement - engagement, collaboration, and investment

Critical Elements

- Top level leadership
- Grounding in community needs
- Clear roles and responsibilities
- Strategic thinking around shared vision
- Identification of concrete and attainable goals and objectives
- Effective management and staffing structure
- Shared decision-making/ownership
- Shared credit/recognition
- Appropriate, well-timed resources
- Action and frequent success
- Patience, vigilance, and sustained involvement
- Local ownership

The "Convener"

"Someone who works among equal partners to create conditions conducive to successful collaboration." (Agranoff and McGuire (2001)

FOUR TASKS OF THE CONVENER

- **Activation**
  - Identification of participants and stakeholders
  - Identifying the specific resources or skills each player brings to the group
  - Develop conditions that facilitate collaboration
  - Provide opportunities for participants to pledge resources to the collective effort
  - Setting the conditions to make collaborative efforts worthwhile and productive for all participants

- **Framing**
  - Establishing operating rules
  - Influencing prevailing norms and values (encourage, not impose)
  - Molding the perceptions of participants to promote collaborative spirit
  - Scanning the environment
  - Determining when collaborative action is appropriate and useful (timing)
  - Often takes place at the time of group formation, but it can also be employed if collaborative performance diminishes

- **Mobilizing**
  - Arriving at a shared agreement on goals, scope, and common objectives
  - Inspiration and motivation of the group's membership in order to secure participation and support
  - Legitimizes the convener, the participants, and the broader vision and goals of the collaborative effort
  - The convener must be recognized as having a legitimate role in facilitating trust with and between participants

- **Synthesizing**
  - Creating an environment conducive to cooperation and positive interactions
  - Minimizing or removing barriers to cooperation
  - Reducing complexity and uncertainty
  - Manipulating incentives to cooperation
  - The process through which the participants are blended together in a common purpose

A neutral and trusted third party, who works effectively on all four roles simultaneously.

Regional Industry-Sector Examples

- AMTEK
- FAME
- Appalachian Basin Training Center / WV Petroleum Technology Program
- ShaleNET

Why This Program?

Jobs and Economic Impact:

The Fastest Growing Industry Sector in the Region

3,200 Jobs Added

$1.5 Billion in Paid Wages

Yet Not Enough Skilled Technicians in WV

Petroleum Technology

Program offers:

- A one-year Certificate of Applied Science
- A two-year Associate of Applied Science in Petroleum Technology
- Built-In Internship Opportunities
- Average starting salaries up to $60,000
- Most initial graduates have jobs in the industry

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Petroleum Program Growth

- Fall 2014 - 61 New Students Enrolled
  - -Pierpont - 43 Students
  - -WVNCC - 18 Students
- Total Current Program Enrollment: 83
  - -Pierpont - 59 Students
  - -WVNCC - 24 Students

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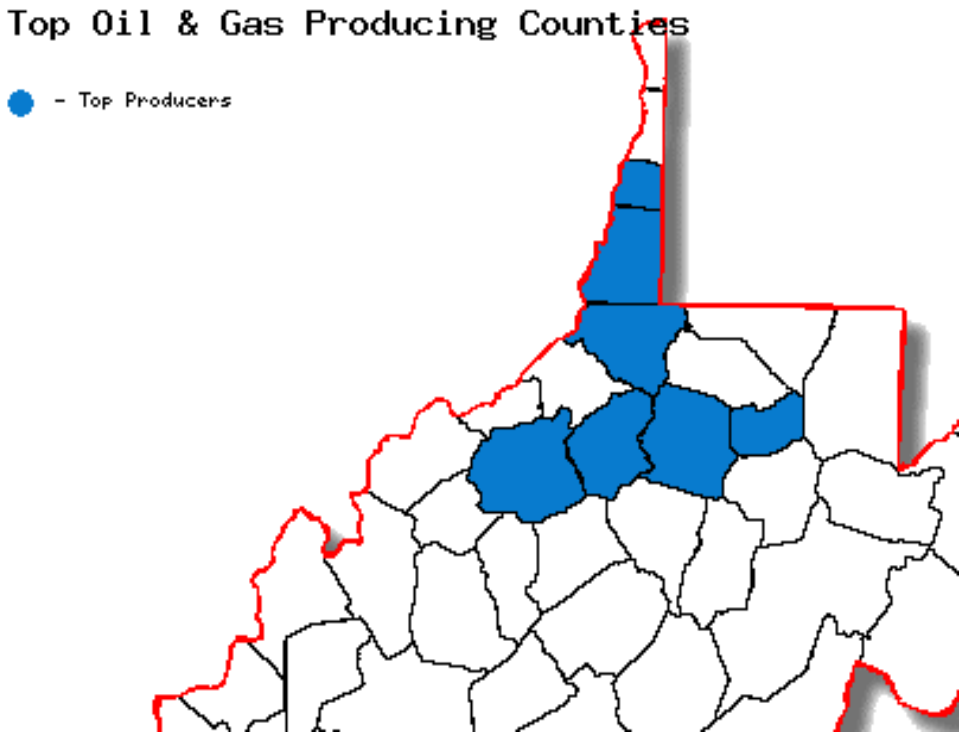
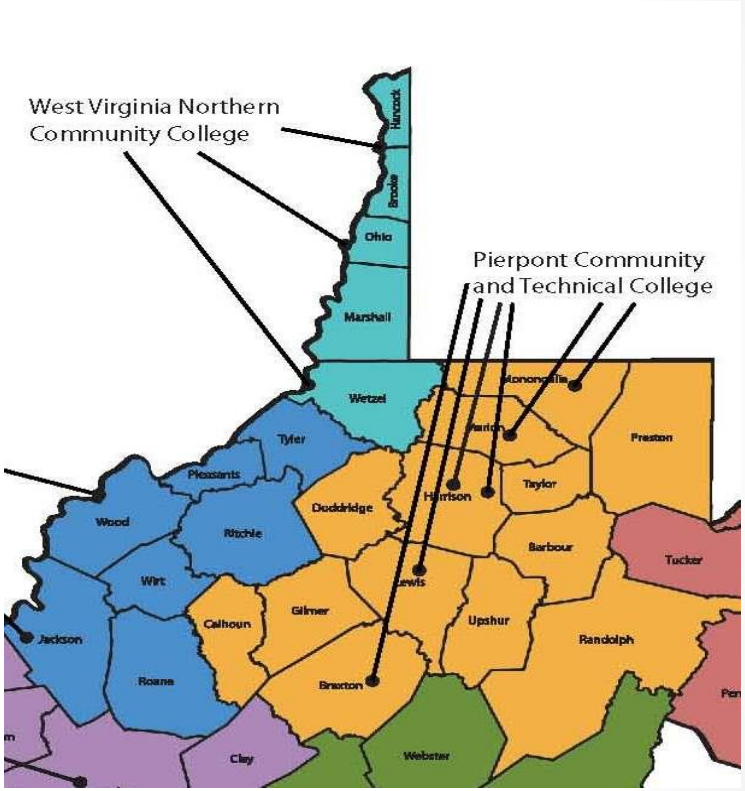
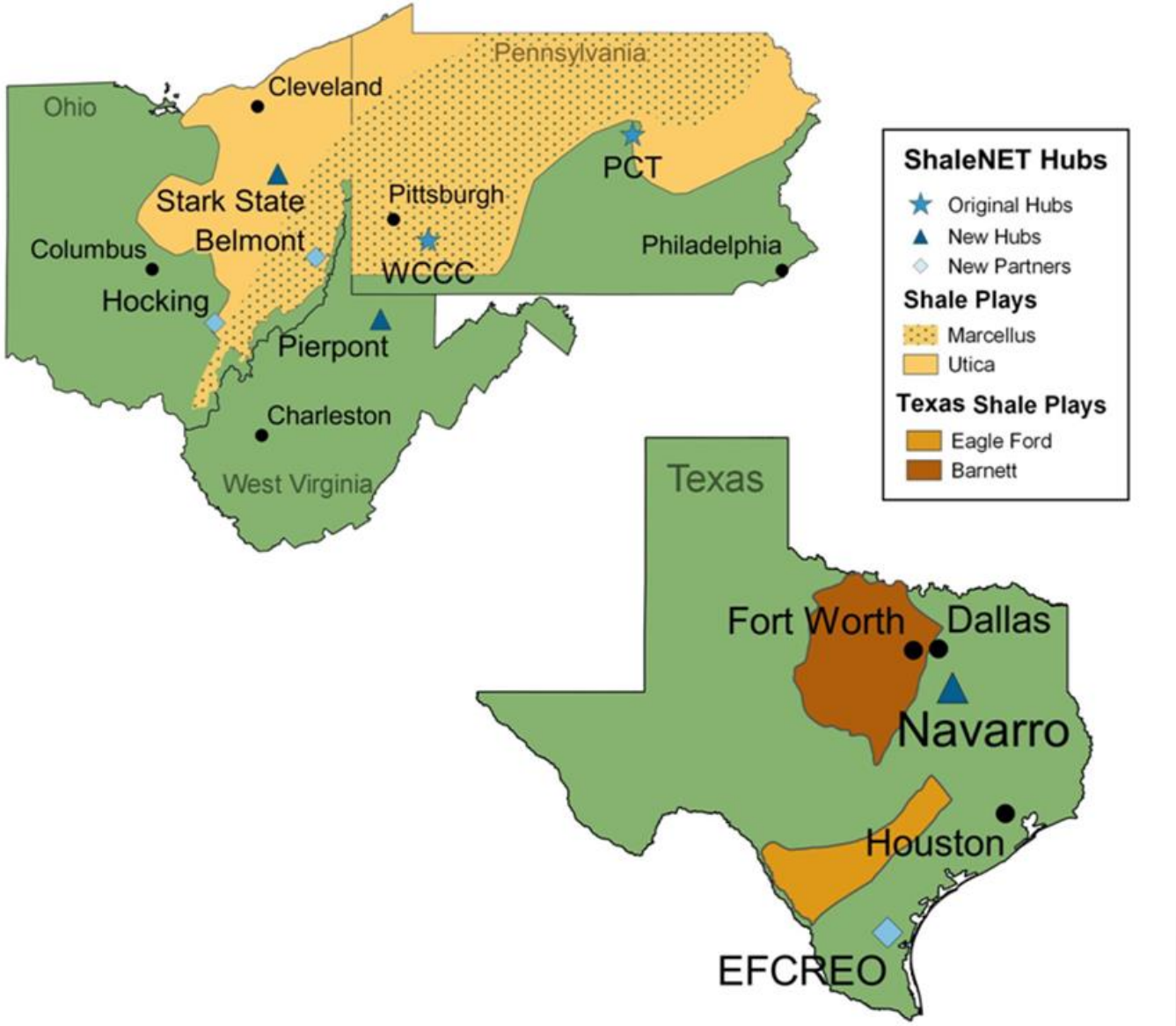
Production Footprint / Campus Locations





ShaleNET "Hub" Colleges



WorkforceWV Statistics:

- Statewide employment within the gas industry grew by 20 percent from 2011-2012.
- Employment within midstream infrastructure development grew by 105 percent from 2011-2012.

WVU Bureau of Business & Economic Research Projections

- From 2002-2012, an estimated 3,200 jobs were created in the oil and gas sector in West Virginia.
- Employment in West Virginia's natural gas sector is forecasted to rise by about 1,100 jobs between 2013 and 2018.

Energy Information Administration

Natural gas production from Pennsylvania and West Virginia totaled about 15 billion cubic feet per day in July 2014. That's more than seven times the 2010 production.

Energy Information Administration

- West Virginia ranks third for the number of producing natural gas wells in the U.S., and ranks 10th for overall natural gas production in 2012.
- Natural gas production increased by 71 percent between 2007-2012

Foster Home-Grown Talent - Theory

<u>And</u>

Hands-On Training

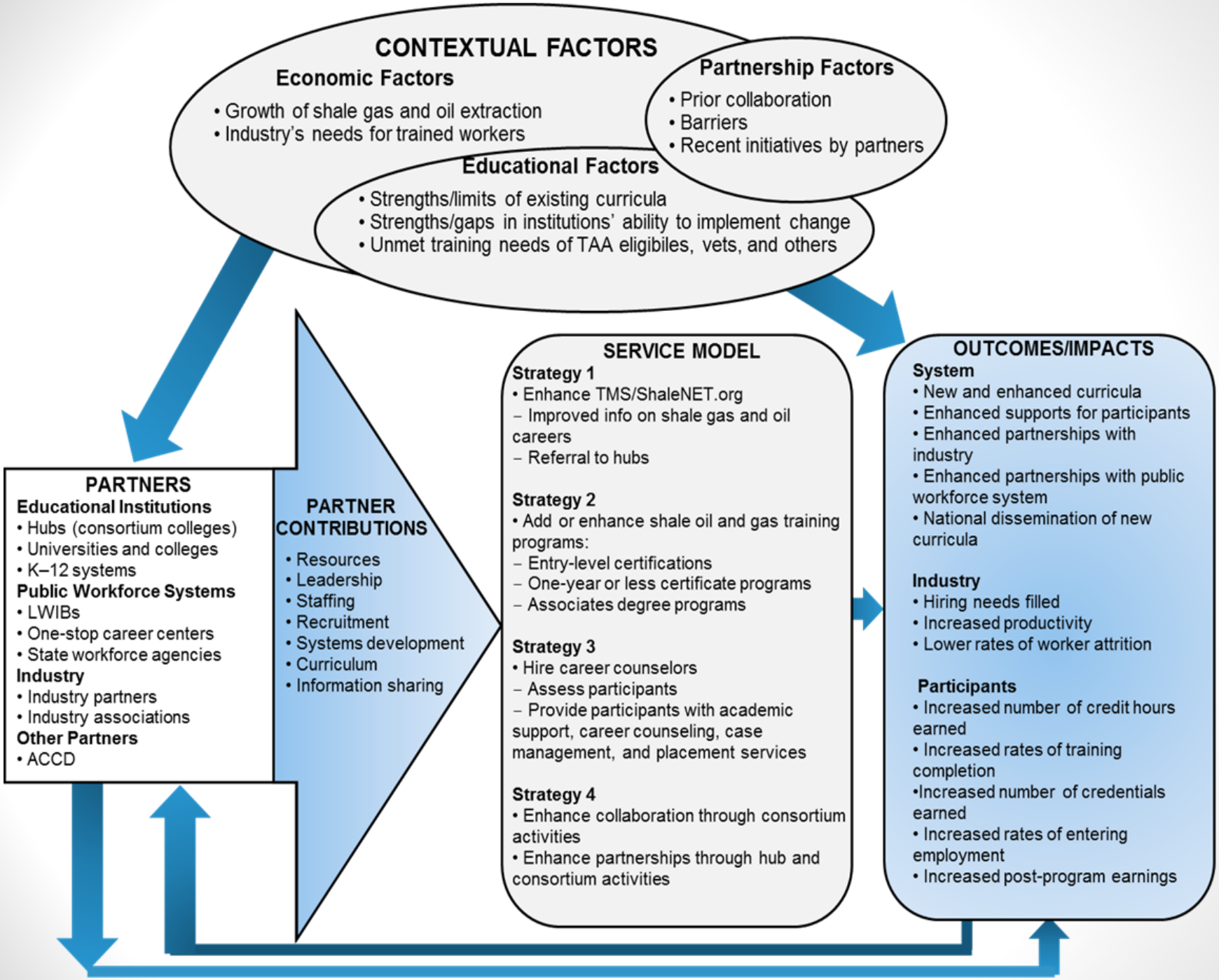
Students get hands-on training from industry guest-lecturers like Sonny Busch, Production Manager for Noble Energy.

Student interns get first-hand experience of production and automation technologies.

Pierpont students at summer internship in Marshall County with Noble Energy.

About Our Partners

- The creation of this program would not be possible without the support of our industry partners.
- To date, the industry, along with private foundations, has contributed $1,354,420 to the program.
- State and federal matching grants awarded amount to $1,470,716.
- This support serves as a endorsement of the program, and provides needed funds for faculty and costly training equipment.
- Our advisory board is a true **public-private partnership** that works to advance this program.


CONTEXTUAL FACTORS
Economic Factors
• Growth of shale gas and oil extraction
• Industry's needs for trained workers
Partnership Factors
• Prior collaboration
• Barriers
• Recent initiatives by partners
Educational Factors
• Strengths/limits of existing curricula
• Strengths/gaps in institutions' ability to implement change
• Unmet training needs of TAA eligibiles, vets, and others
PARTNERS
Educational Institutions
• Hubs (consortium colleges)
• Universities and colleges
• K–12 systems
Public Workforce Systems
• LWIBs
• One-stop career centers
• State workforce agencies
Industry
• Industry partners
• Industry associations
Other Partners
• ACCD
PARTNER CONTRIBUTIONS
• Resources
• Leadership
• Staffing
• Recruitment
• Systems development
• Curriculum
• Information sharing
SERVICE MODEL
Strategy 1
• Enhance TMS/ShaleNET.org
– Improved info on shale gas and oil careers
– Referral to hubs
Strategy 2
• Add or enhance shale oil and gas training programs:
– Entry-level certifications
– One-year or less certificate programs
– Associates degree programs
Strategy 3
• Hire career counselors
– Assess participants
– Provide participants with academic support, career counseling, case management, and placement services
Strategy 4
• Enhance collaboration through consortium activities
• Enhance partnerships through hub and consortium activities
OUTCOMES/IMPACTS
System
• New and enhanced curricula
• Enhanced supports for participants
• Enhanced partnerships with industry
• Enhanced partnerships with public workforce system
• National dissemination of new curricula
Industry
• Hiring needs filled
• Increased productivity
• Lower rates of worker attrition
Participants
• Increased number of credit hours earned
• Increased rates of training completion
•Increased number of credentials earned
• Increased rates of entering employment
• Increased post-program earnings

ShaleNET
Linking talent to opportunity
ShaleNET.org

Industry Bachelor's Degree

Four-year degrees such as Technology Management

Tier 5

Industry Associate's Degrees

Two-year degrees in areas such as Petroleum Technology, Applied Industrial Technology, and Instrumentation Electronics/Mechatronics

Tier 4

Industry Certificate Programs

One-year or less (for-credit) certificates in areas such as Production, Pipeline, Industrial Process Operation Technology, and Instrumentation Electronics/Mechatronics

Tier 3

Industry Entry Level Certifications

Short-term (noncredit) training in areas such as Roustabout, Floorhand, Service Unit Operator, and Welder's Helper

Tier 1/ Tier 2

SHALENET STUDENTS AT-A-GLANCE

Who are ShaleNET students?

68% (647) **White**

19% (181) **Black or African American**

3% (26) More than One Race

1% (6) American Indian/Alaskan Native

0% (2) Asian/Pacific Islander

8% (79) Hispanic/Latino

91% Male

8% Female

Average Age: **31 years**

60% Full Time Students

33% (315) Pell-Grant Recipients

9% (84) Eligible Veterans

5% (45) Incumbent Workers

1% (9) Persons with a Disability

1% (5) TAA Eligible

ShaleNET®
Linking talent to opportunity
ShaleNET.org

ShaleNET Results:

- Overall Completion Rates above 96%
  - 649 in credit-based programs one year or less
  - 430 in credit-based AAS programs
  - 219 in noncredit programs
- ShaleNET Program Participant Employment at 72%
  - Includes short-term noncredit and longer-term credit programs
- First cohort of Pierpont Petroleum Technology AAS:
  - Retention rate at 50% (7 of 14 in initial cohort)
  - Of those completing, employment rate at 86%

www.facebook.com/petroleumtechwv

Thank You

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CTCS COMMUNITY AND TECHNICAL COLLEGE SYSTEM OF WV

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