COALFIELD DEVELOPMENT

REBUILDING THE APPALACHIAN ECONOMY FROM THE GROUND UP.

RURAL IS RESILIENT: REBUILDING THE APPALACHIAN WORKFORCE AND ECONOMY FROM THE GROUND UP

Cassidy Riley, Chief Program Officer

A little bit about me:

- I am a first-generation High School graduate, earned my bachelor's from West Virginia University, and now hold a Master of Public Administration from Marshall University.
- Before joining Coalfield Development, I worked in economic development for local governments and rural communities in West Virginia, shaping strategies for community growth and resilience.
- My family has been in West Virginia for 5 generations, and I am committed to laying the framework WV needs to thrive!

Brief History of Coal in West Virginia

Early Development (1800s - Early 1900s)

- By 1900, the state was producing over **10 million tons of coal annually**.
- The industry rapidly expanded, leading to the establishment of coal towns and the company store system, where miners often lived in employer-owned housing and were paid in company-issued scrip.

Peak Production & Labor Struggles (1910s - 1950s)

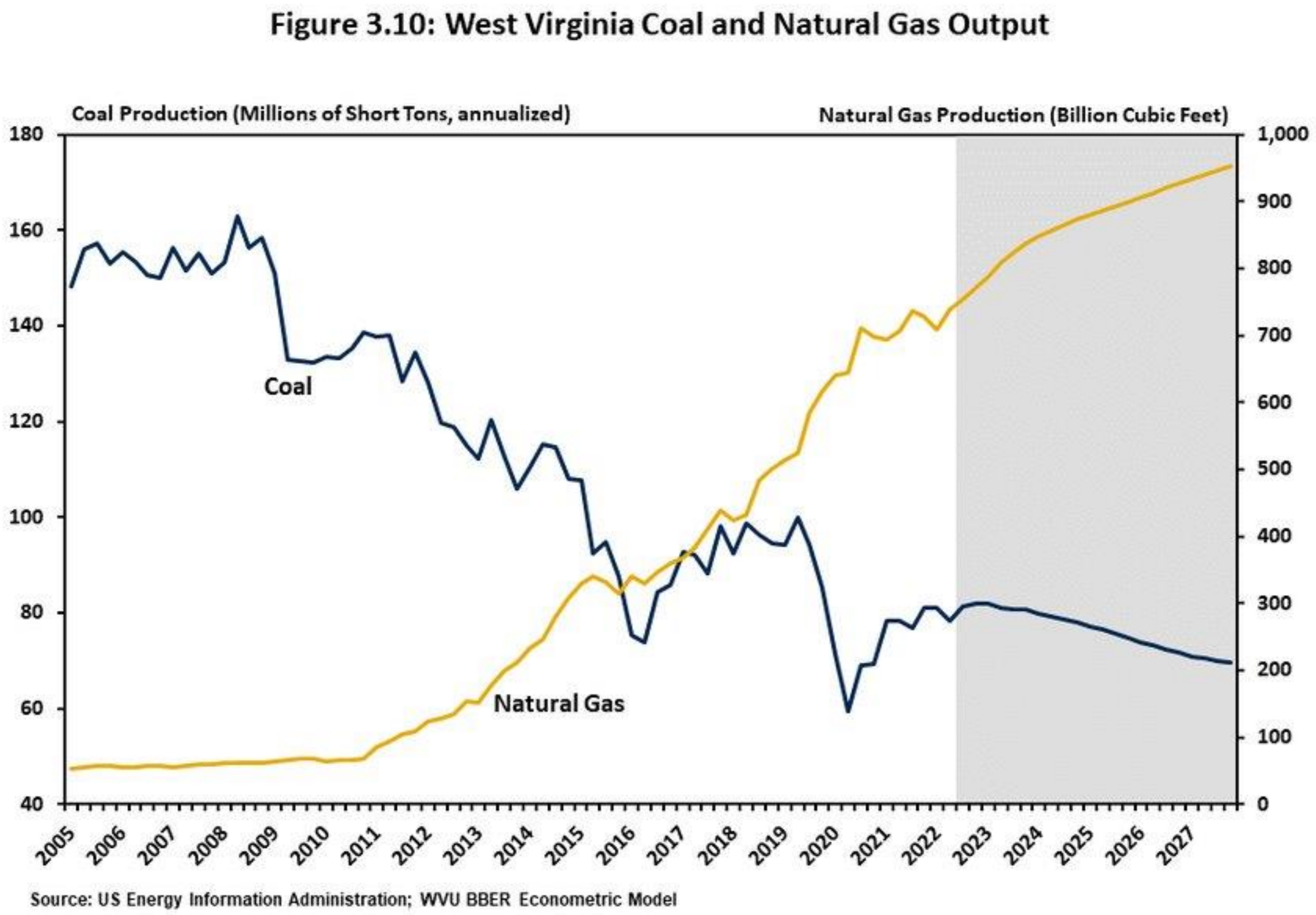
- West Virginia coal production peaked in the mid-20th century, particularly during World War I and World War II, when demand for coal surged.
- By the 1920s, West Virginia was producing over **100 million tons of coal per year**, and coal employment exceeded **100,000 workers**.
- Labor unrest was a defining feature of this era, with violent conflicts such as the **Matewan Massacre (1920)** and the **Battle of Blair Mountain (1921)**, where miners clashed with coal operators over unionization and labor rights.

Mechanization & Decline (1960s - 1990s)

- The introduction of mechanized mining equipment reduced the need for manual labor, leading to declining employment in the industry.
- By 1980, coal mining employment had dropped to **about 40,000 workers**, despite high production levels.
- In the 1970s and 1980s, surface mining, including mountaintop removal, became more widespread, leading to environmental controversies and economic shifts in mining communities.

Modern Trends & the Energy Transition (2000s - Present)

- Coal production in West Virginia peaked at **nearly 180 million tons in 1997.**
- By 2022, production had dropped to **around 90 million tons**, and coal mining employment had declined to **about 11,000 workers**.
- The shift away from coal has led to economic distress in many former mining communities, fueling discussions on **just transition initiatives** and economic diversification.

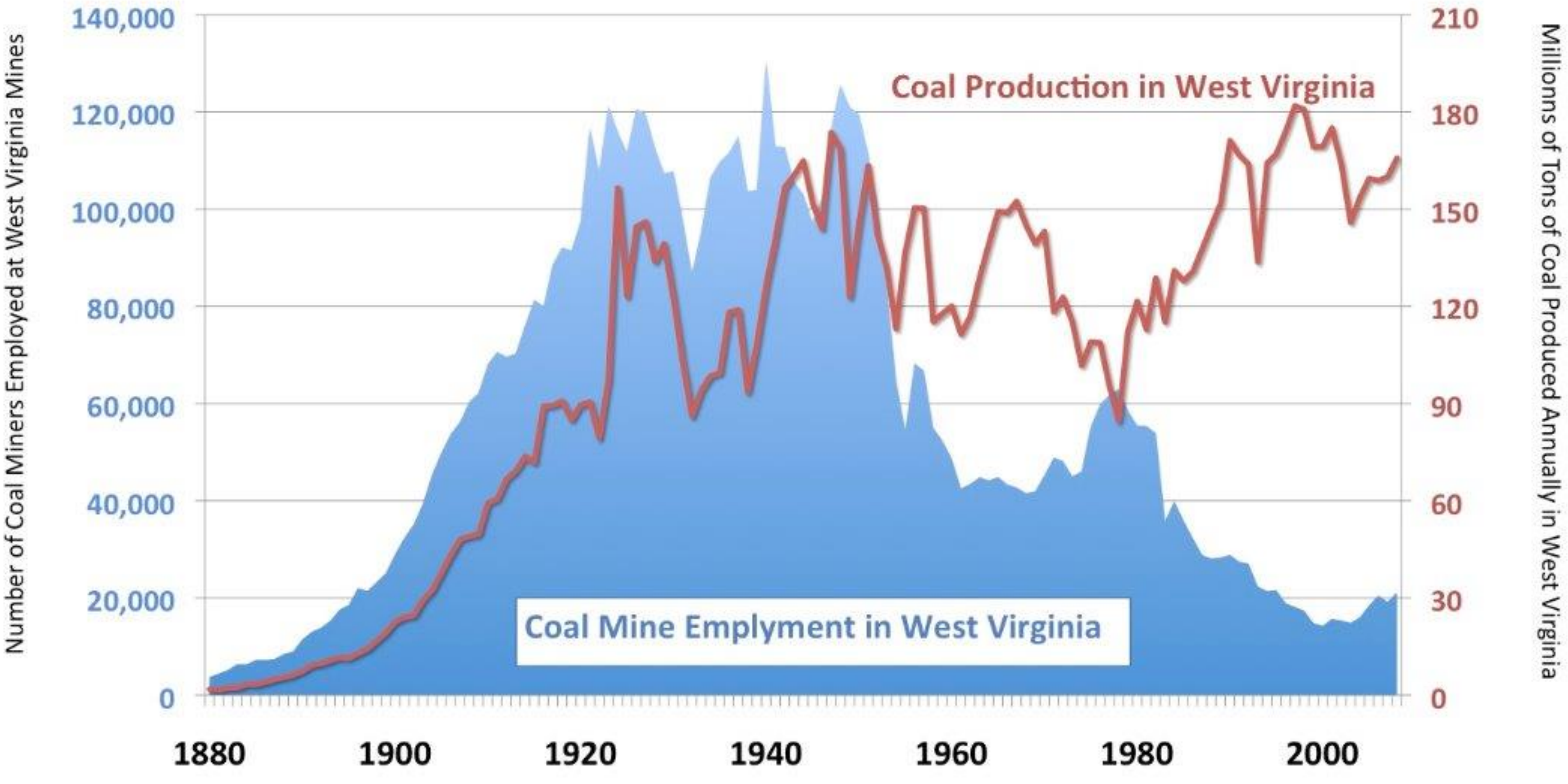


Key Statistics (as of 2023)

- **Coal production**: ~90 million tons
- **Coal mining employment**: ~11,000 workers
- **Peak production year**: 1997 (~180 million tons)
- **Peak employment**: ~100,000 workers (1920s)
- **Largest coal-producing counties**: Boone, Logan, Mingo, and Marshall

[West Virginia Economic Outlook 2023-2027 | John Chambers College of Business and Economics | West Virginia University (wvu.edu)]

The Number of Miners in West Virginia has decreased by Almost 85% since 1950, Even as Coal Production has Increased



Source: Data from West Virginia Office of Miners' Health, Safety and Training. Chart produced by Appalachian Voices, September, 2011

Defining the Rural Ecosystem:

The decline of the coal industry has led to the displacement of various types of employment, impacting individuals and communities in multiple ways:

- **Direct Employment** – Individuals who worked directly in coal mining operations, including miners and support staff in areas such as administration, safety, legal, and engineering.
- **Indirect Employment** – Workers involved in the transportation and logistics of mined materials, including trucking, rail, and water transport.
- **Community-Based Employers** – Small business owners and local entrepreneurs whose businesses were dependent on the economic activity generated by coal jobs and were unable to sustain operations as demand declined.
- **Trade Jobs** – Construction workers, general laborers, and other skilled tradespeople who lost opportunities as new housing, commercial development, and infrastructure projects slowed or ceased in coal-impacted communities.
- **Public Service Positions** – As populations shrink, demand for government administration, healthcare, and education services declines, leading to job losses in these sectors.

The widespread economic downturn driven by the coal industry's decline has contributed to generational unemployment. This has created significant barriers to workforce participation, as individuals in coal-dependent communities have fewer opportunities to establish career pathways locally.

Coalfield Development Corporation:

Empowers the **PEOPLE**

Transforms the **PLACES**

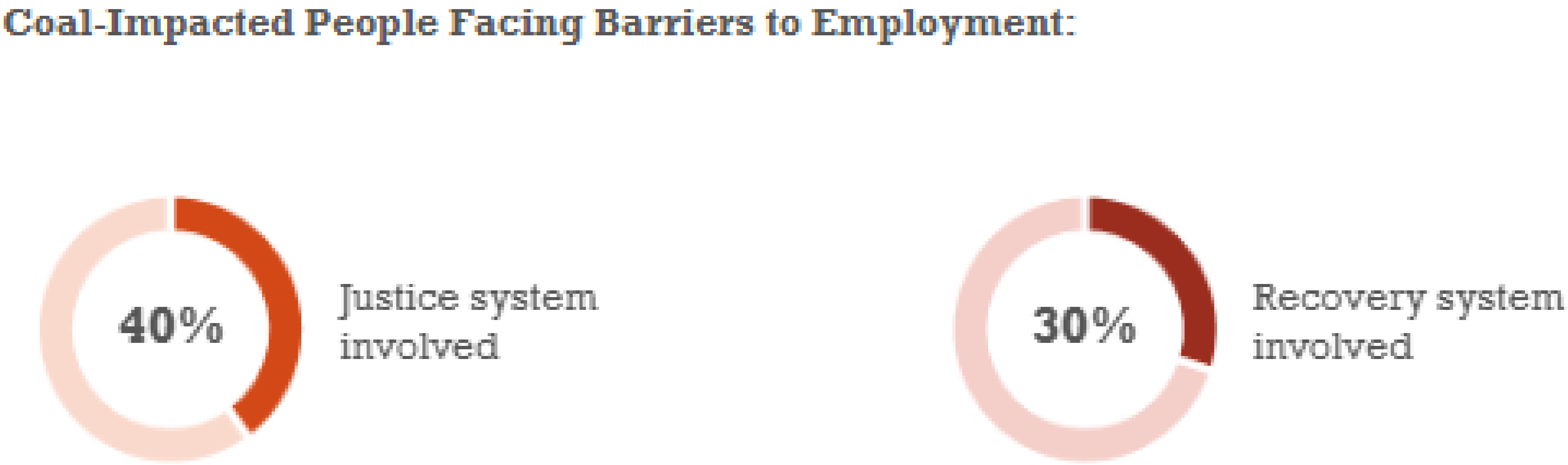
Generates the **PROSPERITY**

About Coalfield Development

- **Coalfield Development Corporation**, founded in 2009 with the belief that social enterprise development could diversify and energize West Virginia's stagnant economy. A decade later, Coalfield's mission is to inspire the courage to grow, activating the creativity to innovate, and cultivating communities of opportunity in central Appalachia through three core capabilities: incubating and investing in employment-based social enterprises; facilitating professional, personal, and academic development for people facing barriers to employment; and leading and collaborating on community-based revitalization projects. Coalfield's vision is Appalachian places and people unlocking their full potential, power, and purpose. Since Coalfield was founded in 2009 it has trained more than 3800+ individuals in various economic sectors, supported 91 new businesses, created 1000+ plus jobs, and attracted $175M in new investment to the Central Appalachian Region.

ORGANIZATIONAL THEORY OF CHANGE FOR TRANSFORMATION

TEAM PRINCIPLES TO ADVANCE THE STRATEGIES



Coal-Impacted People Facing Barriers to Employment:

- West Virginia now has had over time:

- The nation's lowest labor participation rate
- The nation's 2nd lowest higher education rate
- The nation's highest opiate overdose rate
- The nation's fastest depopulation rate
- High need for economic diversification
- Sensitive natural areas

Training at the Center of our Philosophy

- Worker retraining is essential for adapting to economic shifts and ensuring that individuals can secure stable, well-paying jobs in emerging industries. Retraining programs equip displaced workers with new skills that align with current and future labor market demands, helping them transition into industries such as renewable energy, construction, technology, and agriculture.
- It also helps prevent generational joblessness by creating clear career pathways for younger workers. **In coal-impacted communities, where entire economies have historically relied on a single industry, retraining is particularly critical to fostering long-term economic resilience and sustainability.** By investing in workforce development, communities can attract new industries, retain talent, and build a more adaptable and prosperous future.

Workforce Readiness and Professional Success

Our personal and academic development programming helps prepare the workforce for new economic opportunities and is comprised of two parts: Workforce Readiness and Professional Success (WRAPS) and 33-6-3. We also hold a one-month training called PATH (Professional Accelerated Training and Hiring) that can act as an onramp for trainee or crew membership.

WRAPS (TRAINEE)

- Six-month program
- 33 hours paid work and training/week
- 3 hours of personal development.
- 4 hours barrier removal

33-6-3 (CREW MEMBERSHIP)

- Three-year program
- 33 hours paid work and training/week
- 6 hours higher education
- 3 hours personal development

1-month commitment, 33 hours per week

6-month commitment, 3 hours per week

36-month commitment, 6 hours per week

Paid On-the-Job Training In Sustainable Sectors

Personal Development & Barrier Removal

In the Classroom pursuing an Associate's Degree

Wrap Around Support:

- Driver's License
- Affordable housing
- Medical bill payments
- Education materials and tutoring
- Resume building and interviewing
- Accounting and savings
- Health resources
- Transportation resources
- Employer connections

Curriculum:

- Construction
- Salvage/Deconstruction
- Woodworking
- Sustainable Agriculture
- Soil Restoration
- Lead, Mold, and Asbestos Mitigation
- HAZWOPR
- OSHA 10 & 30
- First Aid/CPR
- Renewable Energy
- Light Manufacturing
- Equipment Operation
- Financial Literacy

Incubating and Investing in Employment Based Social Enterprises

- We wholly or partially own employment-based social enterprises designed to diversify the regional economy to be less dependent on coal. **Construction through *Revitalize Appalachia*** and **Light Manufacturing through *Mountain Mindful*** are our two largest industries. By "employment-based" we mean that we directly hire people with barriers to employment.

- **Triple Bottom Line:**
- Economic viability and diversification
- Environmentally sustainable
- Employee well-being

Focusing on Places by Leading or Collaborating on Community Based Real-estate/Revitalization Projects

- As a licensed general contractor, we advances bold, creative projects in deep collaboration with the communities we serve. Our projects are designed and ultimately owned by the community. We keep a project pipeline full beginning with predevelopment and financing, entering construction, and then into operation as community assets. Our projects are mixed-use, and mixed-income blending residential and commercial purposes and building economic diversification. Rejuvenating empty buildings or former mine-lands is a major strategy:
- breathes new life into our communities
- preserves cultural treasures
- attracts fresh investment
- provides opportunities for entrepreneurship
- creates quality, affordable housing


WEST
EDGE



DEWALT


HOLLER

Designing and Scaling New Programs in Emerging Sustainable Sectors

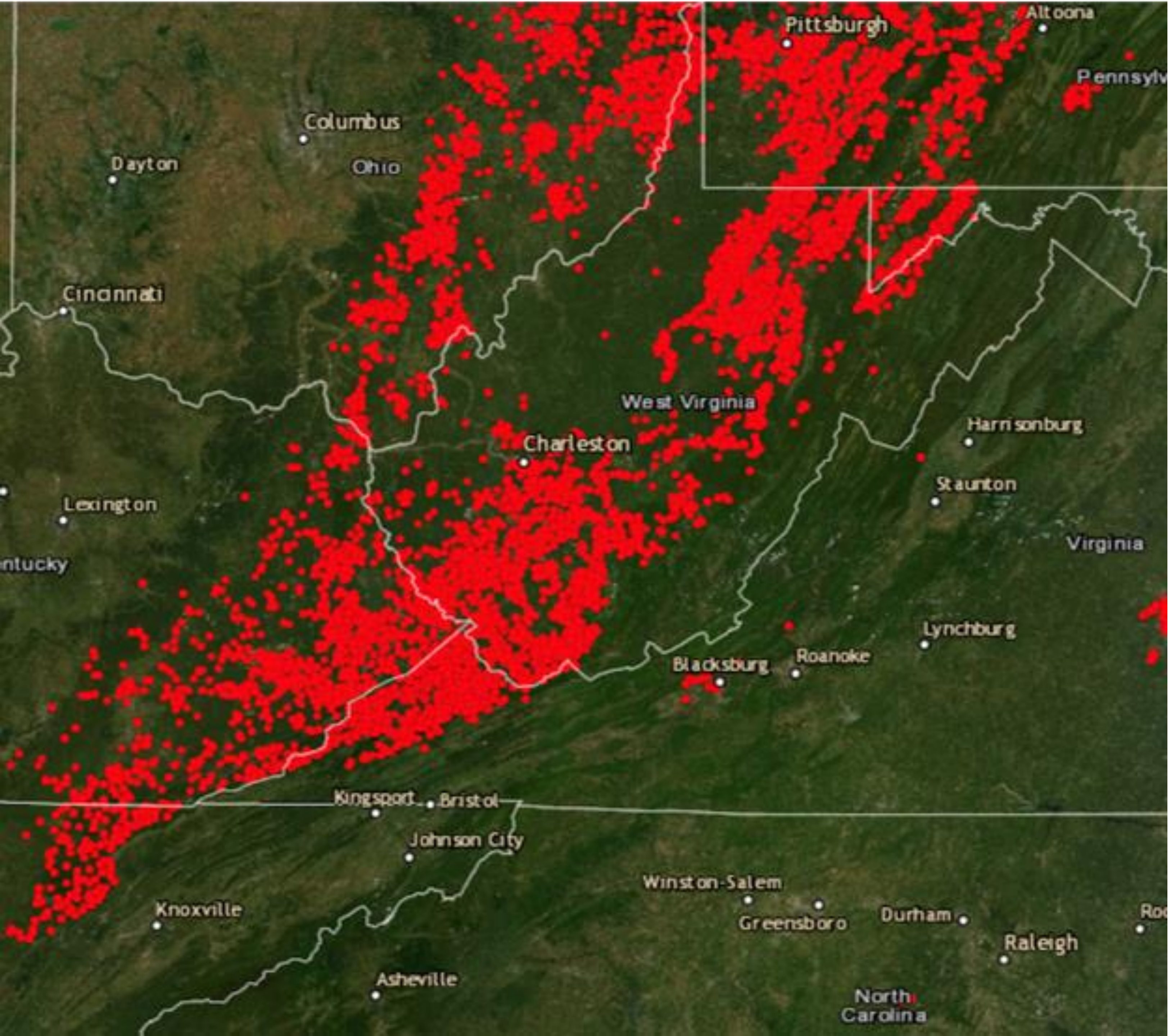
- Reclamation and Remediation – Minelands remediation projects to do ecological restoration and agriculture on formerly mined sites.
- Refresh Appalachia – a program of Coalfield Development focused on developing, shaping and supporting the regenerative and sustainable agriculture sector in central Appalachia.
- Repower Appalachia – Program focused on advanced energy development in the region through workforce development and technical assistance.
- Creative Placemaking – program using arts, culture, and reuse to celebrate the legacy, spirit and future of our communities.

Meet Steven:

- Former Coal Miner
- Coalfield "Champion"
- Overcame barriers with the justice system, recovery, and unemployment
- Proud dad of 4
- Now a "Crew Chief" supervisor leading coal land reclamation work.

Abandoned Minelands to Solar Energy Generators:

- $129 million grant from the Department Of Energy to **install 250 Megawatts of solar** on top of a coal strip mine
- **Create 400 jobs** and a workforce center with New River Community College
- **Diversify 85% coal-reliant energy grid**



For Scale:

- There are estimated to be 800,000-1,000,000 acres of abandoned minelands in Appalachia alone.
- Imagine how many jobs can be created in agriculture, energy, and beyond with a little ingenuity and a lot of elbow-grease.

Prosperity:

COALFIELD DEVELOPMENT HAS ASSISTED OR INCUBATED 92 DIFFERENT NONPROFITS, FOR PROFITS, SOLE PROPRIETORS, LLCS, B-CORPS, ETC.

THE SIZE OF OUR INTERVENTION

If, because of our work, rural communities are seeing a shift to new economic sectors and support systems with a triple bottom line, then how can other rural communities take the "R and D" we've done and apply it to their own community? How can other communities learn from our models and then tangibly create new social enterprises, human development, and real-estate renewal in their own local context? How can we creatively, collaboratively, and effectively provide resources (financial, time, energy, knowledge, research, etc.) that empower local communities in developing their unique owned solutions? WRAPS and SEEDS are two answers. Another answer is more broadly disseminating our model through knowledge sharing and investment.

If we're tangibly demonstrating what a new economy is here in West Virginia, how do we know when we've reached an inflection point, to know we've achieved our piece of building that new economy? We'll know when we've directly implemented our capabilities in each of the southern West Virginia counties included in the Alliance for the Economic Development of Southern West Virginia (coordinated by Marshall University). There are 21 counties in this service area, and we want to be directly active in each of them over the next five years (we're currently active in eight).

If we're sharing the models directly implemented in southern West Virginia with other Appalachian communities to replicate in their own places and in their own unique ways, then how do we know we'll have hit an inflection point regionwide? We'll know when at least one element of our model has been replicated in at least 50% of the 60 "distressed counties" in the central Appalachian region as defined by U.S. Appalachian Regional Commission (ARC). We project this happening over the next 2-10 years.

Direct Service/R and D: Every southern WV county: 1-5 years

Replication: 50% of all ARC "distressed" central Appalachian counties: 2-10 years

Dissemination/Commercial Adoption: Other extraction communities in the U.S. and around the world: 2-20 years

ACT NOW COALITION

APPALACHIAN CLIMATE TECHNOLOGY

This is NOT just nonprofit work:

Federal + Philanthropic + Businesses + Universities + Municipalities

Working together to bring down MAJOR funding for development!

Our Vision:

Resilient rural communities with socially, environmentally, and financially thriving economies which create the community conditions for all kinds of people to unlock their full **potential, power, and purpose.**

For more information, contact criley@coalfield-development.org, or find us online at www.coalfield-development.org.