



FAIRMONT STATE  
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Office of Sponsored Programs

February 27, 2025



## SPECIAL FEATURE

### Fairmont State University Continues Work to Improve STEM Workforce Pipeline in Appalachia

#### ARC POWER Initiative Project Updates

For February's Special Feature, the Office of Sponsored Programs (OSP) wants to draw attention to a large grant-funded program on campus called *Building Connections to Grow Capacity: Breaking Down Regional Barriers in the STEM Workforce Pipeline*. This project is funded by the Appalachian Regional Commission's Partnerships for Opportunity and Workforce and Economic Revitalization Initiative, or the ARC POWER Initiative.

ARC, the funding agency of this grant, is an economic development partnership entity of the federal government and 13 state governments focusing on 423 counties across the Appalachian Region. ARC's mission is to innovate, partner, and invest to build community capacity and strengthen economic growth in Appalachia.

Fairmont State's ARC POWER grant funds the development of a Regional Career Services and Workforce Development Collaborative in North Central West Virginia to improve the science, technology, engineering, and mathematics (STEM) workforce pipeline. Fairmont State partnered with various organizations to ensure the success of this project, including educational and economic institutions.

The Principal Investigator (PI) of this grant is Robert Niichel, Ph.D., and he oversees the development of this regional workforce collaborative. Other Fairmont State faculty involved in the ARC POWER grant include Erica Harvey, Ph.D., Abelina Suarez Professor of Chemistry Emerita and Campus Sustainability Consultant; Cliff Jackson, Associate Professor of Information Systems Management; and Abby Chapman, Associate Professor of Occupational Safety.

Niichel, who was awarded a POWER Planning Grant for his project in 2023 before receiving the POWER Implementation Grant in 2024, has dedicated extensive time, effort, and resources to this project beyond his duties as an Associate Professor of Mathematics.

"It has been really powerful to see how lots of different people came together in the planning grant to build an implementation project that met the needs of the different economic actors in the region," said Niichel.

Fairmont State's partner organizations for this grant include Glenville State University, Preston County Economic Development Authority, Barbour County Development Authority, Little Kanawha Development Corporation, Mtn Craft, High Rocks Educational Corporation, and public schools in Braxton, Upshur, and Calhoun counties. Additional project support is provided by Allegheny Science and Technology, the Region VI Workforce Development Board, SeeMore Impact Labs, and the Upshur County Development Authority. With the number of partners and supporters investing in this project, the joint effort to develop this regional workforce collaborative is synergistic in a truly complex and multi-faceted way.

Niichel shared, "Working with a variety of economic actors has built a lot of awareness about not only the economic opportunities, but also how many of us have lost sight of the broader regional picture."

During the initial POWER Planning Grant in 2023, Fairmont State conducted an assessment of the economic landscape of North Central West Virginia, collaborating with regional partners to determine how the STEM departments of Fairmont State University and Glenville State University could collaborate with county Economic Development Authorities and STEM industries to address the workforce needs present in Appalachia. This current POWER

Implementation Grant launches that collaboration into action as Fairmont State and its partner organizations listed above begin building an industry-education network.

"So far, we have been able to hire three of our four full-time positions. That group is now picking up the baton and carrying the collaborative work forward. Grant personnel help out and pitch in where needed, but we also provide the necessary oversight and accountability," stated Niichel.

By facilitating multiple projects related to the STEM workforce pipeline, Fairmont State aims to increase job awareness and preparedness among students and jobseekers. Additionally, the project will result in refined curricula that are in tune with workforce needs in economically distressed, coal-impacted regions of Appalachia.

"There are many local jobs for STEM students, but students and teachers often don't know what they are. By aligning our coursework with local industry, not only will we make our students more attractive for those positions, but, as K-16 educators, we will also have the opportunity to engage with those employers and learn about the local economy ourselves," said Niichel.

Ultimately, this ARC POWER project is ongoing. As Fairmont State continues to engage with various regional partners and learn more about STEM industry expectations and workforce demands, the University will adapt to improve functionality and applicability of STEM courses on campus. For anyone who is interested in learning more about Fairmont State's ARC POWER project, please contact the ARC team at [ARCgrant@fairmontstate.edu](mailto:ARCgrant@fairmontstate.edu).

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#### **SPECIAL NOTE:**

Any grant application, proposal, or request for external funding must be reviewed and approved **prior to submission** through an internal process managed by the Office of Sponsored Programs. Please *visit our website* for more information and to access the required forms which facilitate the internal review and approval process.



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