RWFI E-NOTE MONTHLY REGIONAL WORKFORCE INITIATIVE • JUNE 2018

Welcome Message

Greetings NETL RWFI stakeholders,

In this month's E-Note you will find new funding announcements from the National Science Foundation and the U.S. Department of Commerce's Economic Development Agency — the latter of which focuses on regional approaches to supporting an innovation ecosystem. You will also find information on NETL's recently launched STEM Careers video series.

The Department of Energy has also launched a new *STEM focused website* and newsletter, *STEM Rising*, to showcase the Department's programs and activities that support STEM training and research. For example, STEM Rising recently featured the Mickey Leland Energy Fellows program and its role in creating *opportunities for careers in oil and natural gas.* To add yourself to the DOE STEM Rising newsletter, *sign up here.*

Feel free to reach out to us at *NETL.RWFl@netl.doe.gov* if you have any suggestions for information to present in future E-notes.

- Sincerely, The NETL Regional Workforce Initiative Team

Workforce Funding Announcements



Innovative Technology Experiences for Students and Teachers (ITEST)

National Science Foundation, Deadline, August 8, 2018

The ITEST program supports research on the design, development, implementation, and selective spread of innovative strategies for engaging students in technology-rich experiences that (1) increase student awareness of STEM occupations; (2) motivate students to pursue appropriate education pathways to STEM occupations; or (3) develop disciplinary-based knowledge and practices, or promote critical thinking, reasoning skills, or communication skills needed for entering STEM workforce sectors. ITEST projects may adopt an interdisciplinary focus that includes multiple STEM disciplines, focus on a single discipline, or focus on one or more sub-disciplines. Projects that actively engage business and industry partners to better ensure that

PreK-12 experiences foster the knowledge and skill-sets needed for emerging STEM occupations are strongly encouraged. Depending on the availability of funds, ITEST anticipates making approximately 2-4 Exploratory awards with durations up to two years and total budgets up to \$400,000 each, 6-12 Strategies awards with durations up to three years and total budgets up to \$1,200,000 each, and 1-2 Successful Project Expansion and Dissemination awards with durations of three to five years and total budgets up to \$2,000,000 each.

FY 2018 Regional Innovation Strategies Program

Department of Commerce, Economic Development Agency, **Deadline, August 29, 2018**

EDA's Office of Innovation and Entrepreneurship (OIE) leads the Regional Innovation Strategies (RIS) Program. EDA currently awards grants that build regional capacity to translate innovations into jobs through (1) proof-of-concept and commercialization assistance to innovators and entrepreneurs and (2) operational support for organizations that provide essential early-stage risk capital to innovators and entrepreneurs. Two OIE RIS funding opportunities are currently open:

- *FY18 i6 Challenge* is a leading national initiative designed to support the creation of centers for innovation and entrepreneurship that increase the rate at which innovations, ideas, intellectual property, and research are translated into products, services, viable companies, and jobs.
- *FY18 Seed Fund Support Program* provides funding for technical assistance to support the creation, launch, or expansion of equity-based, cluster-focused seed funds that invest regionally-managed risk capital in regionally-based startups with a potential for high growth.

Recap of Recent NETL Meetings and Regional Events



NETL Highlights Innovative Clean Energy Technology

NETL shared its innovative work to tackle America's energy challenges through responsible stewardship of the environment at the 5th Annual Cleantech Innovation Showcase, held June 25





in Seattle. The event featured innovations from more than 75 companies and attracted 400-plus participants – including other national labs, prestigious universities, and major organizations from the Pacific Northwest and beyond. Staff from NETL's Albany site highlighted work to extract valuable rare earth elements from coal by-products with a presentation and shared other efforts to advance clean energy technologies — including carbon capture and storage, geothermal research and development, and advanced materials — with an exhibit. The showcase also offered an opportunity to build relationships with industry partners and key stakeholders.



NETL Joins Small Business Innovation Research (SBIR) Road Tour in Huntington

NETL joined the SBIR Road Tour at its June 21 stop in Huntington, West Virginia. Program managers from at least 11 federal agencies — including the Department of Energy — were on hand to talk to small businesses about partnership opportunities through the U.S. Small Business Administration's SBIR and Small Business Technology Transfer programs, which provide more than \$2.5 billion annually to small businesses developing innovative technologies. NETL SBIR Coordinator Maria Reidpath met with potential partners one-on-one to discuss collaborative projects aimed at developing groundbreaking energy technologies.

NETL Shares Work at Penn State Energy Days

Representatives from NETL joined energy leaders in industry, academia, and government May 30-31 at Penn State Energy Days. The annual conference engages a variety of energy stakeholders to discuss regional, national, and global challenges. Assistant Secretary for Fossil Energy Steven Winberg served as the keynote speaker. Attendees also participated in a poster session, networking breaks, and breakout sessions on important topics, such as managing methane emissions, critical materials for power industries, and sensing in harsh energy environments.

NETL News



NETL Launches STEM Careers Video Series

NETL's STEM Career video series explores the various education backgrounds the talented energy researchers and engineers at NETL completed to begin their journey in STEM careers. The STEM Careers videos can be found on the NETL YouTube page and are intended to be shared through social media platforms.



NETL Welcomes 2018 Mickey Leland Energy Fellowship (MLEF) Interns

NETL opened its doors — and its labs — June 4 to student researchers who are participating in the Mickey Leland Energy Fellowship and the Consortium for Integrating Energy Systems in Engineering and Science Education (CIESESE) programs. Participants include more than 40 STEM majors who will get hands-on experience in NETL's cutting-edge research facilities and work one-on-one with the Lab's scientists and engineers.

Upcoming Workforce Conferences, Meetings, and Summits



Building a STEM Leadership Alliance Summit

National Science Teachers Association (NSTA), Loews Portofino Bay Hotel, Orlando, Florida, July 8–11, 2018

The NSTA is creating an alliance of business, education and community leaders. The Alliance will be launched at this threeday summit July 8–11, 2018, where participants will engage in critical conversation to address questions about STEM education and integration, and create an agenda for change. For the first time in history, the four leading STEM organizations — NSTA, NCTM, ISTE, and ITEEA — will convene with a select group of participants in leadership roles in STEM education, including chief state school officers, superintendents, principals, teachers, and business and nonprofit leaders.

2018 Appalachian Regional Commission (ARC) Annual Conference

Bancorp South Arena and Conference Center, Tupelo, Mississippi, September 12-14, 2018

This year's summit, *Appalachia Works: Expanding Opportunities* for Our Region's Future, is hosted by the state of Mississippi. The program will highlight best practices, emerging ideas, and lasting strategies for economic development across Appalachia. It will also be covering hot topics in the Region such as capital access, the opioid crisis, and land reclamation. Plus, new to this year's agenda are focused technical assistance offerings — like skill building workshops and strategy labs with ARC experts.

National Council for Workforce Education (NCWE) 2018 Annual Conference

Clearwater Hilton Hotel - Clearwater Beach, Florida, September 26-27, 2018

As an affiliate council of the American Association of Community Colleges, NCWE provides a national forum for administrators and faculty in workforce education and basic skills — as well as representatives of business, labor, military, and government to affect and direct the future role of two-year and other postsecondary institutions in workforce education and economic development. NCWE provides the link between policy and workforce education and economic development practice by providing support, research, and critical information to members on current and future trends and policies.

Reports and Resources

The Appalachian Region: A Data Overview from the 2012-2016 American Community Survey

Appalachian Regional Commission Report

This study examines state- and county-level data for the 13 Appalachian states from the 2012-2016 American Community Survey and from U.S. Census Bureau population estimates on topics including population, age, race and ethnicity, housing occupancy and tenure, education, labor force, employment and unemployment, income and poverty, health insurance coverage, disability status, migration patterns, and veteran status. Additionally, data is provided on types of housing units, homeownership, types of living arrangements, travel time to work and location of work, and income-to-poverty ratio. Information is summarized for five Appalachian subregions and five metro designations. The report also compares data from two recent non-overlapping time periods, allowing the study of trends.

An Economic Analysis of the Appalachian Coal Industry Ecosystem

Appalachian Regional Commission Report

This series of five ARC-commissioned reports explores some of the current and potential impacts of Appalachia's declining coal production on elements of the coal ecosystem, including production and employment, supply chain industries, transportation, electric power generation, and human capital. The first report in the series examines major trends in Appalachia's coal economy over the last decade, while the second report offers county-level insights on the past and future supply chain implications of long-term coal industry decline in Appalachia. The third report examines how change in coal production is impacting freight rail access in the Region and how communities might preserve it. The fourth report provides an overview of the electric power industry in Appalachia, estimates the effects of a power plant retirement on county economic outcomes, and assesses risk factors for determining future plant retirements. The fifth report in the series discusses the human capital implications of employment losses in the coal industry ecosystem, focusing on future employment prospects for coal workers, and assesses potential changes in state and local K–12 education funding.

DOE STEM Rising



STEM Employment Opportunities on the Rise with Increased U.S. Dominance in Oil and Gas

Each summer, STEM students from across the country leave their books behind and journey to national labs to participate in hands-on research experiences in world-class facilities as *Mickey Leland Energy Fellows*. Created in 1995, DOE's Mickey Leland Energy Fellowship Program is an example of how DOE's Office of Fossil Energy is preparing and supporting a future diverse pipeline for the U.S STEM-energy workforce, including meeting the needs of projected increases in job opportunities in oil and natural gas.



Girls Blazing a Way for a Future in Computer Programming- Idaho National Laboratory

When you have a problem with your computer or phone, who do you go to first? These young folks seem to know everything, but strangely, there is a wide gap when it comes to their demographic pursuing careers in science, technology, engineering, and math. Do you know where that gap lies? Unfortunately, there are significantly fewer women pursuing careers in these STEM fields.

ABOUT NETL



NETL, owned and operated by DOE, is one of the Department's 17 National Laboratories. NETL supports DOE's mission to advance the national, economic, and energy security of the United States.

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