# RWFI E-NOTEMONTHLY REGIONAL WORKFORCE INITIATIVE • FEBRUARY 2018

#### **Welcome Message**

Greetings NETL RWFI stakeholders.

In this month's E-note you will find new funding opportunities from the Department of Energy's Office of Fossil Energy Office and the National Nuclear Safety Administration for minority serving institutes and other minority institutes supporting broad STEM topics and coal research at the university level. Information on the latest round of the ARC POWER grants is also provided, as well as an opportunity for participation in a pre-college scholars program from the Jack Kent Cook Foundation open to high-performing 7th grade students with a financial need.

Info is also provided on registering for the Developmental District Association of Appalachia's Annual Summit occurring March 18th–24th in Arlington, Virginia, where NETL staff will be participating in an energy workforce panel. Finally, registration for Carnegie Mellon's Energy Week is now open. Registration information can be found in the regional events section of the E-note. This event fills quickly so early registration is encouraged.

Feel free to reach out to us at *NETL.RWFI@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**



Small Business Innovation Research Program (SBIR) Phase II

USDA Small Business Innovation Research (SBIR), Deadline March 8, 2018

The USDA SBIR program is soliciting projects addressing agriculturally-related manufacturing, and alternative and renewable energy technologies. All Phase II projects must have previously completed a successful USDA Phase I project before applying for a Phase II grant. Success rates for applicants have been 50-60% for Phase II.

# Minority Serving Institutions Partnership Program (MSIPP)

Department of Energy, National Nuclear Safety Administration, Deadline March 19, 2018

The MSIPP is designed to enrich the STEM capabilities of HB-CUs in a sustainable manner that aligns with the broad interests of DOE sites and emphasizes the entire career pipeline. The partnership also provides STEM students with the cutting-edge resources and technology housed at DOE facilities, ultimately increasing STEM student retention. Grant applicants must be from Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), or Tribal Colleges and Universities (TCUs).

The topic areas of interest in the MSIPP are STEM disciplines such as:

- Biological sciences (except medicine and other clinical fields);
- Physical sciences (including physics, chemistry, astronomy, and materials science);
- · Mathematical sciences;
- · Computer and information sciences;
- Nuclear sciences and engineering;
- · Engineering; and
- Technology areas associated with the preceding disciplines (for example, biotechnology, chemical technology, engineering technology, information technology, etc.).

#### Cooke Young Scholars Program

#### Jack Kent Cooke Foundation, Deadline March 21, 2018 Noon EST

The Cooke Foundation Young Scholars Program is a selective 5-year pre-college scholarship for high-performing 7th grade students with a financial need. It provides comprehensive academic and college advising, as well as financial support for school, Cooke-sponsored summer programs, internships, and other learning enrichment opportunities. Each Young Scholar is assigned an on-staff educational adviser who works closely with the student and his or her family, individually and as part of a scholar community. Educational advisers support Young Scholars to maximize high school experiences, leading them to thrive at the nation's top-performing colleges.



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#### Women and Minorities in STEM Fields

Department of Agriculture, National Institute of Food and Agriculture, **Deadline March 28, 2018** 

This program supports research and extension projects to increase the participation of women and underrepresented minorities from rural areas in science, technology, engineering, and mathematics fields. These projects have robust collaborations and are relevant to USDA priorities identified by the Secretary. They are:

- Promotion of a safe, sufficient, and nutritious food supply for all Americans and for people around the world;
- Sustainable agricultural policies that foster economic viability for small and mid-sized farms and rural businesses, protect natural resources, and promote value-added agriculture;
- National leadership in climate change mitigation and adaptation;
- · Building a modern workplace with a modern workforce; and
- Support for 21 st century rural communities.

#### National Science Foundation (NSF) Scholarships in Science, Technology, Engineering, and Mathematics Program

#### National Science Foundation, Deadline March 28, 2018

Open to institutes of higher education (including two-year institutions), the NSF is actively seeking program award proposals for its NSF Scholarships in the STEM program. These awards vary from \$650,000 to \$5 million, and support three types of projects for higher education institutes; Institutional Capacity Building \$650,000 Design and Development for a single institution not exceeding \$1 million, and design and development for multi-institutional consortia not exceeding \$5 million. The program seeks: 1) to increase the number of low-income academically-talented students with demonstrated financial need obtaining degrees in STEM and entering the workforce or graduate programs in STEM; 2) to improve the education of future scientists, engineers, and technicians, with a focus on academically talented low-income students; and 3) to generate knowledge to advance understanding of how factors or evidence-based curricular and co-curricular activities affect the success, retention, transfer, academic/career pathways, and graduation in STEM of low-income students. The S-STEM program particularly encourages proposals from 2-year institutions, Minority Serving Institutions (MSIs), Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), tribal colleges, and urban public and rural institutions.

#### Conservation Innovation Grants (CIG) FY 2018 Oregon

Department of Agriculture, Natural Resources Conservation Service (NRCS), **Deadline April 6, 2018** 

NRCS Oregon is announcing the availability of this CIG to stimulate the development and adoption of innovative conservation approaches and technologies. Applications will be accepted from eligible entities for projects carried out in the state of Oregon. A total of up to \$225,000 is available for CIG in FY 2018. All non-Federal entities (NFE) and individuals are invited to apply, with the exception of Federal agencies. Projects may be between one and three years in duration. The maximum award amount for a single award in FY 2018 is \$75,000.

Support of Fossil Energy Research at U.S. Colleges and Universities Including University Coal Research (UCR) and Research by Historically Black Colleges and Universities and Other Minority Institutions (HBCU/OMI)

Department of Energy, Fossil Energy, National Energy Technology Laboratory, **Deadline April 9, 2018** 

The DOE's Office of Fossil Energy has announced up to \$1.6 million in federal funding for research and development projects under this funding opportunity announcement open to historically black colleges and universities and other minority institutions.

#### ARC Power Grants RFP Round 1

Appalachian Regional Commission (ARC), Round 1 Deadline May 1, 2018

The Appalachian Regional Commission (ARC) released a request for proposals (RFP) for the 2018 Partnerships for Opportunity and Workforce (POWER) Initiative. The first cycle of the POW-ER 2018 RFP has a deadline of May 1, 2018. ARC is making \$20 million of POWER funding available, with average individual grants ranging between \$400,000 to \$1.5 million. Up to 70% of POWER funding may be awarded during cycle one. Applicants for an ARC grant must demonstrate a matching share from non-ARC sources that is identified and forthcoming to the project. Matching sources may be federal or non-federal or a combination of sources. The maximum share of ARC assistance is determined by the ARC classification of the county or counties served by the proposed activity. Applicants may request up to 80% of the total project cost when the county served has been designated "economically distressed." The full RFP can be downloaded by *clicking on this link* or by visiting the ARC POWER website at: https://www.arc.gov/funding/POWER.asp.

#### US-EU Internet Core & Edge Technologies

National Science Foundation, Deadline May 7, 2018

The Division of Computer and Network Systems (CNS) within the National Science Foundation's (NSF) Directorate for Computer and Information Science and Engineering (CISE) supports research and education activities that seek to develop a better understanding of the fundamental properties of computer and network systems. The Networking Technology and Systems (NeTS) program in the CNS division supports transformative research on fundamental scientific and technological advances leading to the development of Next Generation Internet (NGI) and Advanced Wireless Networking (AWN) systems and technologies.

#### **NETL Meetings and Events**



Registration Now Open for ARC Workshops on POWER Funding Opportunities for Coal-Impacted Communities

#### March 2018

The ARC will hold five free workshops across the Region in February and March to help coal-impacted communities learn about the objectives of the 2018 *POWER Initiative*, eligibility, and tips on how to develop a competitive proposal. *Register now.* The location and dates of the remaining workshops are:

- Hazard, Kentucky: Thursday, March 8, 2018 Hazard Community and Technical College
- Tuscaloosa, Alabama: Wednesday, March 14, 2018 Bryant Conference Center—University of Alabama

#### Forum: Expanding Apprenticeships through Apprenticeship Works

March 6, 2018; 9:00 a.m.–3:00 p.m. EST; Youngstown State University, Youngstown, Ohio

America Makes is collaborating with the Robert C. Byrd Institute to host a one-day event to Expand Apprenticeships through the Apprenticeship Works program. This event is ideal for employers, operations managers, plant managers, HR managers, and anyone else interested in finding out what an apprenticeship program is, what it offers an organization, and what it takes to launch an apprenticeship program. Apprenticeship programs help employers upskill incumbent workers, allow employers to hire unskilled workers, and lead them on a journey to become highly-skilled workers. This event is supported by the U.S. Department of Labor's American Apprenticeship Initiative. *You can register here.* 

#### Carnegie Mellon University 2018 Energy Week

April 4-6, 2018, Carnegie Mellon University, Pittsburgh, Penn-sylvania

Join energy thought leaders from industry, government, academia, and the nonprofit sector to engage and collaborate on energy research, trends, innovative technologies, and opportunities. Space is limited so early registration is encouraged.

#### **NETL News**



Raising Enthusiasm and Skills for Tomorrow's Technology Careers

The DOE is raising enthusiasm and skills for tomorrows technology careers through the DOE STEM Rising program. As our nation expands its technological horizons and stretches the boundaries of what is currently feasible, we open doors to a future that is bright with promise. Science, technology, engineering, and math are the tools required to empower that future. Efforts like the DOE's STEM Rising Initiative aim to promote and support STEM activities.



*Energy Department Invests \$44M in Advanced Carbon Capture Technologies Projects* 

The U.S. DOE's Office of Fossil Energy selected seven projects to receive approximately \$44 million in federal funding for cost-shared research and development through the funding opportunity announcement, Design and Testing of Advanced Carbon Capture Technologies.



Schools Claim Victory at NETL's West Virginia Regional Science Bowl Competition

Morgantown High School Team 2 and Suncrest Middle School Team 2, both of Morgantown, claimed victory at the 27th annual *West Virginia Regional Science Bowl* held Feb. 9-10, 2018, at the West Virginia University (WVU) Mountainlair. Twenty-three

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teams from high schools and twenty-one teams from middle schools throughout the Mountain State participated in the competition, co-sponsored by the U.S. DOE's NETL and WVU. The West Virginia Science Bowl tested students' knowledge of math and science with round-robin and double-elimination competition rounds.

#### Workforce Conferences, Meetings, and Summits



*Development District Association of Appalachia Annual Conference* 

March 18-21, 2018, Crystal Gateway Marriott, Arlington, VA

The Development District Association of Appalachia (DDAA) is a membership organization of the 73 Local Development Districts (LDD's) serving the 420 counties of the Appalachia Region. The DDAA works to strengthen LDDs and their member governments and to provide leadership to support the Appalachian Regional Commission (ARC) federal-state-local partnership. The DDAA Annual Conference will be held in conjunction with the NADO (National Association of Development Organizations) Washington Conference. Whereas in previous years there were two separate registrations for two conferences, this year there is only a single registration process for a combined conference. In other words, if in past years you registered separately for each conference, this year you only need to complete a single registration process and pay a single registration fee. The conference is set to begin with the Opening Reception at 5:30 p.m. on Sun., March 18 and end with the Closing Plenary at 11:00 a.m. on Wed., March 21. For more information and to register *click here*.

#### National Association of Workforce Boards 2018 Annual Summit- Fueling Talent, Forging Change

March 24-27, 2018, Washington Hilton, Washington, DC

The Forum convenes leaders, advocates, and changemakers in business, government, labor, and education to 1) network and share insights; 2) address key issues affecting U.S. workforce development; 3) consider the goals and policy framework affecting the future of human capital and economic growth.

#### Skills, Jobs and the New-Collar Economy

April 4-6, 2018, Walter E. Washington Convention Center Washington, DC

U.S. News & World Report STEM Solutions Presents: Workforce of Tomorrow, is the preeminent conference for leaders across multiple industries, from corporate CEOs to university presidents, and influential board chairs to top policymakers. Committed to examining the complexities of developing a workforce skilled in science, technology, engineering and math, these leaders bring their key insights, innovative strategies, and industry best practices to develop solutions for advancing this effort. An executive-level event with significant impact, Workforce of Tomorrow aims to ensure a strong future for STEM education and employment.

#### **Reports and Resources**



National Science Foundation's Science and Engineering (S&E) Indicators 2018 Report

The global landscape of S&E research, education, and business activities has undergone dramatic shifts since the turn of the twenty-first century, as regions, countries, and economies around the globe continue to invest in science and technology (S&T). S&E capabilities, until recently located mainly in the United States, Western Europe, and Japan, have spread to the developing world, notably to China and other Southeast Asian economies that are heavily investing to build their S&T capabilities. This overview examines how these changing S&E patterns affect the position of the United States relative to the other major global players. Science and Engineering Indicators describes international and domestic S&E dynamics in light of the worldwide trend toward more knowledge-intensive economies and both increasing global collaboration and competition in Science and Engineering.

# *Our Nation's Future Competitiveness relies on building a STEM Capable U.S. Workforce- A policy companion to the NSF 2018 STEM Indicators*

The number of jobs in the United States (U.S.) requiring substantial STEM expertise has grown nearly 34% over the past decade. As of 2015, nearly one in seven workers with at least a four-year degree say that their job requires a "bachelor's level" of STEM expertise. Another 16 million skilled technical jobs—more than one in nine—do not require a bachelor's degree yet require significant expertise in at least one technical field.

#### *Explaining the Decline in the U.S. Employment-to-Population Ratio: A Review of the Evidence*

This paper first documents trends in employment rates and then reviews what is known about the various factors that have been proposed to explain the decline in the overall employment-to-population ratio between 1999 and 2016. Population aging has had a notable effect on the overall employment rate over this period, but within-age-group declines in employment among young and prime age adults have been at least as important. The review of the evidence leads the authors to conclude that labor demand factors, in particular trade and the penetration of robots into the labor market, are the most important drivers of observed within-group declines in employment. Labor supply factors, most notably increased participation in disability insurance programs, have played a less important but not inconsequential role. Increases in the real value of the minimum wage and in the share of individuals with prison records also have contributed modestly to the decline in the aggregate employment rate.

## 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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