Welcome Message

Greetings NETL RWFI stakeholders,

This month’s funding spotlight highlights the Centers of Research Excellence in Science and Technology and Historically Black Colleges and Universities Research Infrastructure for Science and Engineering with a deadline of December 6, 2019. Also in this edition of the RWFI E-note, you will find a first-of-its-kind report from the National Association of State Workforce Agencies that takes an in depth data compilation from the Nation’s workforce agencies, the 2019 State of the Workforce Report.

As always, 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

**Centers of Research Excellence in Science and Technology (CREST) and Historically Black Colleges and Universities (HBCU) Research Infrastructure for Science and Engineering (HBCU-RISE)**

National Science Foundation, Deadline, December 6, 2019

The Centers of Research Excellence in Science and Technology (CREST) program provides support to enhance the research capabilities of minority-serving institutions (MSI) through the establishment of centers that effectively integrate education and research. MSIs of higher education denote institutions that have undergraduate enrollments with 50% or more (based on total student enrollment) of members from minority groups underrepresented among those holding advanced degrees in science and engineering fields: African Americans, Alaska Natives, American Indians, Hispanic Americans, Native Hawaiians, and Native Pacific Islanders. CREST promotes the development of new knowledge, enhancements of the research productivity of individual faculty, and an expanded presence of students historically underrepresented in STEM disciplines. CREST Postdoctoral Research Fellowship awards provide research experience and training for early career scientists at active CREST Centers. HBCU-RISE awards specifically target HBCUs to support the expansion of institutional research capacity as well as the production of doctoral students, especially those from groups underrepresented in STEM studies, at those institutions.

**Alliances for Graduate Education and the Professoriate**

National Science Foundation, Deadline, December 13, 2019

The Alliances for Graduate Education and the Professoriate (AGEP) program seeks to advance knowledge about models to improve pathways to the professoriate and success for historically underrepresented minority doctoral students, postdoctoral fellows, and faculty — particularly African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders — in specific STEM disciplines and/or STEM education research fields. New and innovative models are encouraged, as are models that reproduce and/or replicate existing evidence-based alliances in significantly different disciplines, institutions, and participant cohorts. The AGEP program goal is to increase the number of historically underrepresented minority faculty in specific STEM disciplines and STEM education research fields by advancing knowledge about pathways to career success. The program objectives include: To support the development, implementation, and study of innovative models of doctoral education, postdoctoral training, and faculty advancement for historically underrepresented minorities in specific STEM disciplines and/or STEM education research fields and to advance knowledge about the underlying issues, policies, and practices that have an impact on the participation, transitions, and advancement of historically underrepresented minorities in the STEM academy.

**Research on the Science and Technology Enterprise**

National Science Foundation, Deadline, January 15, 2020

The Center would like to enhance its efforts to support analytic and methodological research in support of its surveys, and to engage in the education and training of researchers in the use of large-scale nationally representative datasets. The National Center for Science and Engineering Statistics (NCSES) welcomes efforts by the research community to use NCSES data for research on the science and technology enterprise.
technology enterprise, to develop improved survey methodologies for NCSES surveys, to create and improve indicators of S&T activities and resources, and to strengthen methodologies to analyze and disseminate S&T statistical data. To that end, NCSES invites proposals for individual or multi-investigator research projects, doctoral dissertation improvement awards, workshops, experimental research, survey research, and data collection and dissemination projects under its program for Research on the S&T Enterprise: Statistics and Surveys.

**Training-based Workforce Development for Advanced Cyberinfrastructure (CI)**

National Science Foundation, **Deadline, January 15, 2020**

This solicitation calls for innovative, scalable training, education, and curriculum/instructional materials — targeting one or both of the solicitation goals — to address the emerging needs and unresolved bottlenecks in scientific and engineering research workforce development, from the postsecondary level to active researchers. The funded activities — spanning targeted, multidisciplinary communities — will lead to transformative changes in the state of research workforce preparedness for advanced CI-enabled research in the short- and long-terms. As part of this investment, this solicitation also seeks to broaden CI access and adoption by 1) increasing or deepening accessibility of methods and resources of advanced CI and of computational and data-driven science and engineering by a wide range of scientific disciplines and institutions with lower levels of CI adoption to date and 2) harnessing the capabilities of larger segments of diverse underrepresented groups.

**Hispanic-Serving Institutions (HSI) — Education Grants Program**

U.S. Department of Agriculture, **Deadline, January 30, 2020**

The purpose of the HSI Education Grants Program is to encourage innovative teaching or education proposals with potential to impact and become models for other institutions that serve underrepresented students at the regional or national level. Projects supported by this program:

- Attract and support undergraduate and graduate students from underrepresented groups in order to prepare them for careers related to the food, agriculture, natural resources and human (FANH) sciences in the United States.
- Enhance the quality of postsecondary instruction within the above disciplines.
- Provide opportunities and access to FANH careers in the public and private sector.
- Align the efforts of HSIs and other non-profit organizations to support academic development and career attainment of underrepresented groups.

**NETL News**

**NETL Analysis Presents Independent Assessment of Nation’s Future Energy Systems**

A new NETL report provides cost and performance analyses that are important inputs toward meeting the projected demands of future power markets. The report, “Cost and Performance Baseline for Fossil Energy Plants, Volume 1: Bituminous Coal and Natural Gas to Electricity,” presents an independent assessment of the cost and performance of select fossil energy power systems — integrated gasification combined cycle (IGCC), pulverized coal (PC), and natural gas combined cycle (NGCC) plants, both with and without 90% carbon capture. Thirteen power plant configurations are analyzed, including seven IGCC configurations, four PC power plant configurations, and two state-of-the-art turbine-based NGCC power plant configurations. Robert James, of NETL’s Energy Process Analysis Team, said the report’s analyses provide important information for technology development and decision-making.

**NETL Hosts DOE Competition to Promote Workforce Development and Energy Cybersecurity**

NETL welcomed approximately 100 students, mentors, and volunteers to the Lab’s Morgantown, West Virginia, site November 16, 2019, for the 2019 DOE CyberForce Competition. Sponsored by DOE’s Office of Cybersecurity, Energy Security and Emergency Response and coordinated by Argonne National Laboratory, the competition leverages the people, research, and capabilities of DOE’s national laboratory complex to inspire and develop the next generation of energy sector cybersecurity professionals who will help defend and bolster the Nation’s critical energy infrastructure and ensure our energy security. NETL was among 10 DOE laboratories hosting regional CyberForce events. The University of Maryland, Baltimore County was the national winner, while Baldwin Wallace University from Berea, Ohio, won first place among the teams competing regionally at NETL.
NETL Powers Up to Improve Grid Security

NETL will develop four projects to protect the Nation’s power grid and ensure reliable access to electricity. Funding for the NETL work and other projects was allocated as part of the Grid Modernization Initiative, a DOE program to improve access to secure sources of energy now and in the future. Project proposals were submitted as part of the 2019 Grid Modernization Lab Call. Nearly 90 projects were submitted for evaluation. Project winners, which were announced Thursday, November 7, 2019, will share approximately $80 million to be used over three years.

Opportunity Appalachia Summit

Bridgeport Conference Center, Bridgeport, WV, January 13, 2020

Please save the date for the Opportunity Appalachia Summit next January 13 at the Bridgeport Conference Center in Bridgeport, West Virginia. Opportunity Appalachia is a three-state program (WV, OH, and VA) that will provide technical assistance resources of up to $50,000 (each) to up to five West Virginia-based communities, projects, and/or developers located in Opportunity Zones. This Summit will share detailed information on Opportunity Appalachia, provide project-relevant training on strategies to move Opportunity Zone projects to investment readiness, and launch the application process for the program funding.

American Association of Community Colleges’ (AACC) Workforce Development Institute

Omni Amelia Island Plantation Resort, Amelia Island, FL, January 22–25, 2020

Registration is open for AACC’s Workforce Development Institute January 22–25, 2020, on Amelia Island, Florida. The theme is “Economic Innovators.” The annual institute brings together community college workforce development leaders, industry, federal agencies, and foundations.

Reports and Resources

LinkedIn October Report

The LinkedIn Workforce Report is a monthly report on employment trends in the U.S. workforce. It is divided into two sections: a national section that provides insights into hiring, skills gaps, and migration trends across the country and a City section that provides insights into localized employment trends in 20 of the largest U.S. metro areas.

Key September findings:

- **Hiring** — Seasonally-adjusted national hiring was 1.1% higher in September from August 2019. Gross hiring in the U.S. year-over-year was 12.2% higher in September 2019 than in September 2018.
- **Migration** — The U.S. cities gaining the most professionals this month are Austin, TX; Denver, CO; and Nashville, TN.
- **Skills Gaps** — The U.S. cities with the largest skills gaps overall this month are New York City, NY; San Francisco Bay Area, CA; and Los Angeles, CA.
- **#AmericaAtWork** — LinkedIn Editor George Anders took a closer look at migration and housing cost data in his #AmericaAtWork series this month, revealing the tipping point for when a city becomes too unaffordable to attract and keep talent.
2019 State of the Workforce Report

National Association of State Workforce Agencies

The National Association of State Workforce Agencies’ 2019 State of the Workforce Report is the first-of-its-kind data compilation from the Nation’s state workforce agencies into one cohesive report to showcase key innovations from across the country that are enhancing our nation’s workforce. This comprehensive annual report provides insights into national labor market information as well as profiles highlighting the work of our states and the District of Columbia.

DOE STEM Rising

Neutrino Physicist Kirsty Duffy Receives Leona Woods Lectureship Award

Kirsty Duffy, a Lederman Fellow at Fermi National Accelerator Laboratory, says neutrinos are the most interesting particles in the universe. As a recipient of the Leona Woods Distinguished Postdoctoral Lectureship Award, she’ll have a chance to make her case in two talks she’ll deliver at the DOE’s Brookhaven National Laboratory this November.

Encouraging STEM … Advancing Leadership … Changing the World

“When you don’t know what you can’t do, it’s amazing what you can do.” These words from famous oceanographer and scuba diver Dr. Sylvia Earle rang through the Perot Museum Theatre in Dallas, Texas, on October 21, 2019, as she spoke to over 125 women at the launch of the training program for American Association for the Advancement of Science IF/THEN Ambassadors. The program seeks to empower women working in STEM careers and inspire the next generation of pioneers.