

National Higher Education and Workforce Initiative

Through the collaboration of its business and academic members, the Business-Higher Education Forum (BHEF) has launched the [National Higher Education and Workforce Initiative](#), a six-year effort that includes [regional projects](#) focused on business-higher education partnerships in selected states, as well as a national effort to disseminate the learning from the projects and scale effective practices. The initiative deploys a model of strategic business engagement in higher education to address our members' high-skill, high-priority workforce needs.

BHEF members are implementing a transformational model of strategic business engagement with higher education. The model aligns five levers, or strategies, to move from transactional relationships to strategic partnerships between the two sectors. When fully applied, the model enables business and higher education to (1) effectively build sustainable, high-impact regional projects, increasing student interest and persistence toward degree completion and (2) align undergraduate education with emerging workforce needs, including 21st century competencies. BHEF is the William and Flora Hewlett Foundation's national business partner on 21st century competencies.

BHEF has launched several highly innovative regional partnerships in data science and analytics, financial services, cybersecurity, water and energy sciences, materials sciences, and engineering. Backed by some of the most important business and academic leaders in the nation, these partnerships demonstrate BHEF members' willingness and ability to meet America's higher education and workforce challenges.

BHEF implements a comprehensive, four-phase strategy to scale these efforts at the project, network, university system, and national levels:

- *Project level* by creating replicable regional workforce projects that build upon and support a region's competitive economic advantage.
- *Network level* by linking successive groups of projects working in common academic disciplines and industry sectors. BHEF's [National Cybersecurity Network](#) brings distinguished leaders from business, higher education, and government together to increase collaboration and resources during the first two years of college, which has been shown as the turning point in STEM undergraduate education. Together, network members are introducing innovative new programs in cybersecurity to help students persist and complete degrees that will lead to successful careers as cybersecurity specialists or cybersecurity-enabled professionals.
- *Multi-campus university systems level* by adopting and adapting evidence-based projects throughout the university system and connecting those projects to business partners. For example, through the generosity of Northrop Grumman Corporation and a [\\$400,000 multi-year grant](#) from the Alfred P. Sloan Foundation, BHEF is replicating its undergraduate cybersecurity program throughout the University System of Maryland. Additionally, the University of Wisconsin, Parsons, and The Water Council are planning to expand water sciences programs to multiple campuses.
- *The national partner level* through BHEF's [National Undergraduate STEM Partnership](#) and industry association partners and their member companies. The National STEM Undergraduate Partnership was highlighted in the president's cross-agency priority goals as a primary partner on STEM higher education to achieve the goal of graduating one million new STEM students by 2020. Two national partners—the Aerospace Industries Association and the National Defense Industrial Association—have committed to join BHEF to launch projects in Huntsville and San Diego, regions requiring an aerospace workforce.

Based on our [system dynamics modeling efforts](#), extensive regional experience, and rapid project start-up, BHEF possesses the knowledge, experience, and resources needed to deepen and broaden these efforts with a variety of partners. BHEF is sought after for its expertise to brief national audiences on our work to improve student success and create undergraduate pathways that lead to meaningful careers in emerging fields.

For a full list of convenings and events, please visit www.bhef.com.

Regional Higher Education and Workforce Projects

Cybersecurity and Information Technology

Case Western Reserve University and Eaton Company: Increasing the persistence and transfer of community college students in information technology.

CalPoly San Luis Obispo, Northrop Grumman Corporation, and Raytheon Corporation: Building a new undergraduate cybersecurity curriculum and laboratory (dedication set for January 23, 2014).

Miami Dade College and Next Era Energy: Developing a new bachelor's degree program for students with associate's degrees in information technology and cybersecurity.

San José State University and Bay Area Council: Creating a Silicon Valley Center for Cybersecurity focused on cyber hygiene for computer science students.

University System of Maryland and Northrop Grumman Corporation: Launched the University of Maryland College Park Advanced Cybersecurity Experience for Students (ACES), an undergraduate cybersecurity living/learning honors program, and the University of Maryland Baltimore County Cyber Scholars Program.

Data Science and Analytics

The City University of New York (CUNY) and IBM: Building pathways for CUNY undergraduates and community college students in energy sustainability and large-data analytics.

The Ohio State University and Battelle Memorial Institute: Developing new undergraduate courses in large scale data analytics and data science.

Engineering and Computer Science

Washington University in St. Louis and The Boeing Company: Increasing the transfer of students from St. Louis community colleges and the University of Missouri-St. Louis into bachelor's engineering programs.

Higher Education-Workforce Alignment around High-Demand Clusters

Drake University and Principal Financial Group: Strengthening the education-workforce pipeline in high-demand fields such as bio-sciences, financial services, and health professionals.

Louisville's **Business Leaders for Education (BLE):** Addressing the skills misalignment to strengthen the education-workforce pipeline in high-demand fields such as advanced manufacturing; food and beverage manufacturing and innovation; value-added logistics and distribution; lifelong wellness and aging care.

Life Sciences

The University of Massachusetts and Massachusetts Competitive Partnership: Mobilizing the Massachusetts community college system to increase the success rate of students transferring into four year programs in the life sciences, engineering, and information technology fields.

Water Sciences

The University of Wisconsin System and the Milwaukee Water Council: Expanding opportunities in water science for undergraduates across the system, and recruiting and retaining students from community colleges into four year programs.

National Undergraduate STEM Partnership*

Aerospace Industries Association
American Chemical Society
American Council on Education
American Society for Engineering Education
Association of American Universities

Association of Public and Land-grant Universities
Business-Higher Education Forum
National Defense Industrial Association
Office of Naval Research
TechNet