

BHEF's Workforce Initiative

INSIGHTS FROM A DECADE OF
INNOVATION AND IMPACT

2012-2022



Build better skills for better performance.®

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“The BHEF model stands out...for several reasons. It involves major universities partnering with iconic business; these are big hitters stepping up to the plate. It has been tested, refined and replicated. And most important, it sends the message that **American business believes in the value of a college education** and college degrees.” — MICHAEL T. NIETZEL, SENIOR CONTRIBUTOR, FORBES

INTRODUCTION

THROUGH THE COLLABORATION of its business and higher education members, BHEF launched the **National Higher Education and Workforce Initiative** (HEWI), a set of long-term regional projects focused on business-higher education partnerships, as well as a national effort to disseminate the learning from the projects and scale effective practices. Launched in 2012, the initiative deployed a model of strategic business engagement in higher education to address the highest priority workforce development needs. In celebration of HEWI's 10th anniversary, we highlight the success of BHEF's members who have been innovators in data science and analytics, cybersecurity, and other key fields.

THE RESULTS

50+

business-higher education
partnerships

100+

new academic credentials in as
few as 6 months

200K+

learners with over 70% from
underrepresented populations

\$100M

in scholarships to support student success

100+

products to disseminate learning

SELECTED PROJECTS

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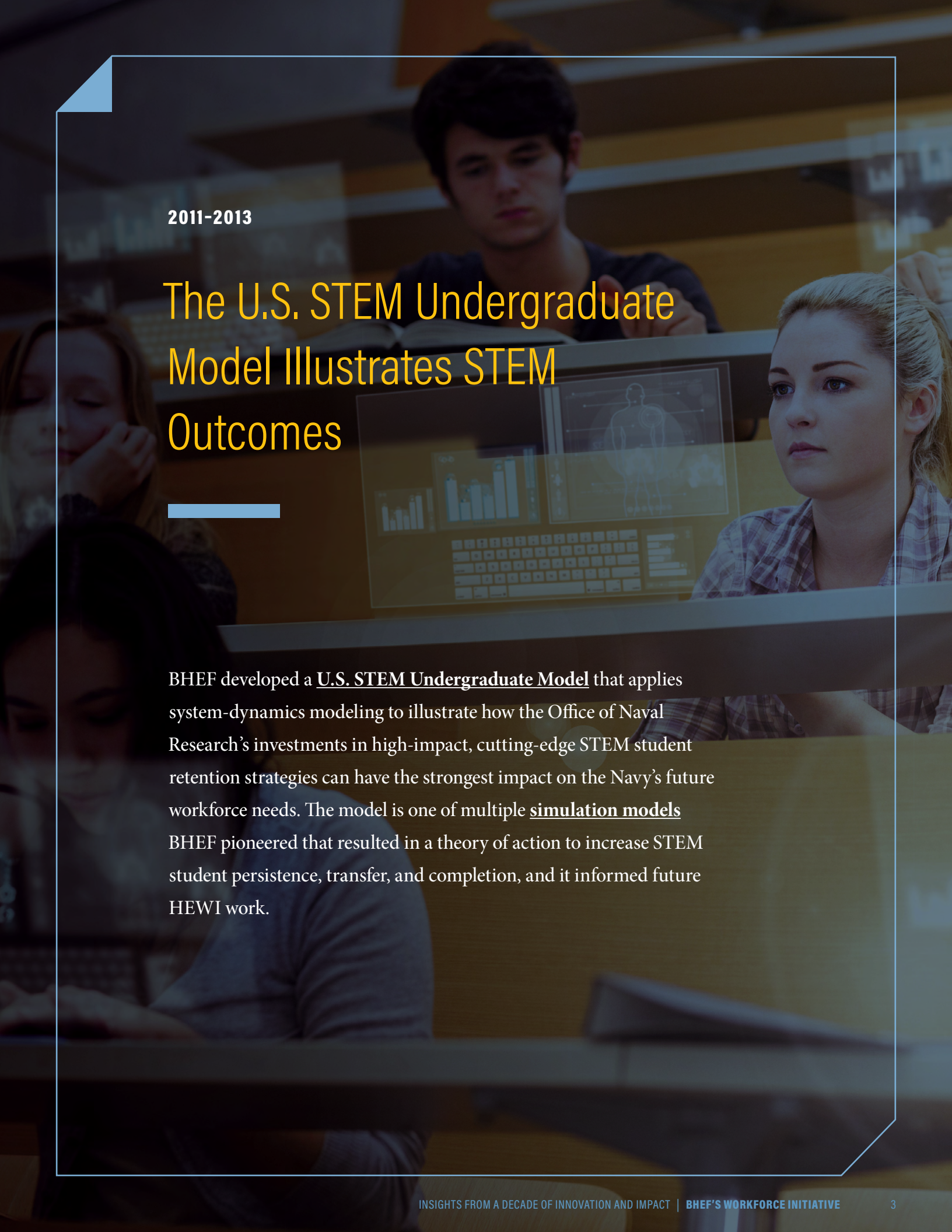
“BHEF’s mission is the challenge of our time. **We have to close the gap**—the economic gap, the skill gap, and the opportunity gap—but we can only do it together. BHEF sits at the crossroads of the challenge.”

— BRIAN NAPACK, PRESIDENT & CEO, WILEY

NEWS ARTICLE / WALL STREET JOURNAL

“Corporate Cash Alters University Curricula”

More companies are entering partnerships with colleges to help design curricula, as state universities seek new revenue and industry tries to close a yawning skills gap. | article link: [tinyurl.com/2959hct9](https://www.wsj.com/articles/corporate-cash-alters-university-curricula-11604848000)



2011-2013

The U.S. STEM Undergraduate Model Illustrates STEM Outcomes

BHEF developed a U.S. STEM Undergraduate Model that applies system-dynamics modeling to illustrate how the Office of Naval Research's investments in high-impact, cutting-edge STEM student retention strategies can have the strongest impact on the Navy's future workforce needs. The model is one of multiple simulation models BHEF pioneered that resulted in a theory of action to increase STEM student persistence, transfer, and completion, and it informed future HEWI work.

2012-2018

The University System of Maryland Teams with Regional Employers to Create Innovative Pathways to Jobs

With support from the Alfred P. Sloan Foundation, BHEF facilitated a partnership between members, the University System of Maryland (USM) and Northrop Grumman Corporation, to develop undergraduate pathways in cybersecurity. The partnership resulted in a coordinated, system-level effort with a variety of partners to create new cybersecurity pathways that have attracted diverse students and engaged them in cutting-edge learning experiences.

NEARLY 1,000 STUDENTS ENROLLED in the University of Maryland Honors College Advanced Cybersecurity Experience for Students program

\$2.785M SCHOLARSHIPS AWARDED through the University of Maryland, Baltimore County's Cyber Scholars Program

INNOVATIVE CYBER PROGRAMS WERE DEVELOPED at other USM campuses

2014-2019

Regional Business-Higher Education Partnerships Grow and Diversify the STEM Workforce

With support from the National Science Foundation, BHEF launched a five-year project that demonstrated the efficacy of regional ecosystems of community colleges, four-year higher education institutions, and STEM-driven business in facilitating the retention and persistence of students in STEM fields.

Five key partnerships formed the program:

The City University of New York and IBM

Miami Dade College and NextEra Energy

Northeastern University, Raytheon, IBM and Others

University of Wisconsin-Milwaukee and The Water Council

Washington University in St. Louis and Boeing

The project demonstrated that BHEF's Partnership Implementation Process is replicable and scalable, with resulting STEM programs impacting 2,600+ students, of which more than 28 percent were female and more than 50 percent were historically underrepresented.

2018-PRESENT

The Workforce Partnership Initiative Increases Skills and Diversity

BHEF and Business Roundtable launched the Workforce Partnership Initiative to tackle skills challenges and drive economic growth in regions around the U.S. with a focus on increasing workforce diversity. With support from the JPMorgan Chase Foundation, CEOs of leading businesses partner with local colleges and universities to accelerate and scale best-in-class workforce readiness programs and develop a steady talent pipeline that meets regional needs.

Sites include:

Chicago

Milwaukee

Texas

Columbus

North Carolina

Utah

Connecticut

New York City

D.C.-Maryland-Virginia

The Southeast Region

2020-PRESENT

AI Matches Talent Needs with SkillSync

BHEF is partnering with Eduworks, Georgia Tech, the University System of Georgia, Credential Engine, NLx, and UPCEA to use AI and natural language processing to dramatically improve how business and higher education respond to talent needs. SkillSync replaces manual and ad hoc communications and curriculum alignment processes with AI-enabled tools and skills frameworks, helping employers identify the right kind of training opportunities for their workforce, and higher education respond more efficiently to employer skill needs by signaling current and emerging skill trends to allow institutions to better align curriculum and training materials. BHEF members, including Wiley, PwC, and Ellucian, are involved in customer discovery and pilot testing, with upcoming opportunities for other members to engage.

A full timeline of 100+ projects and products, including press releases, publications, and journal articles, is available at tinyurl.com/5fwrk9x.

MIAMI DADE COLLEGE + NEXTERA ENERGY + BHEF

225

students pursuing one of the three stackable
credentials annually

93.8%

of students identifying as students of color

\$75K

graduates' annual average salary



M IAMI DADE COLLEGE (MDC) partnered with BHEF, NextEra Energy, and other local and national companies to establish three academic programs that stack together to provide students with the skills and competencies necessary for careers in data analytics: the College Credit Certificate (CCC) in Business Intelligence Professional, the Associate in Science in Business Intelligence, and the Bachelor of Science in Data Analytics.

With year-over-year growth, 225 students are now annually pursuing one of the three stackable credentials, with 93.8 percent identifying as students of color and 39.8 percent female. In spring 2022, MDC graduated more than 300 students with bachelor's degrees, associate degrees, and certificates in these areas.

"We are so proud of the strides MDC is making to develop a talented workforce equipped with the necessary skills to succeed in the burgeoning technology sector," said Miami Dade College President Madeline Pumariega. "These unique programs and courses wouldn't be possible without the support of extraordinary partners, such as BHEF and NextEra."

The first cohort of graduates have become business intelligence analysts, data warehousing specialists, and data analysts—positions with annual salaries averaging over \$75,000.

"The program has scaled by offering the courses online and in-person in more than one campus, and the stackable credentials model was replicated in cybersecurity with very similar results in enrollment and industry engagement," said Antonio Delgado, MDC's vice president of innovation and technology partnerships. "MDC won't stop there. We're also

transitioning into an applied AI bachelor's degree, which is exactly what we did seven years ago with applied data analytics. It will be a first of its kind."

Ultimately, with help from BHEF and NextEra Energy, MDC cracked the code for meeting students where they are with tangible, stackable credentials in fields that will be lucrative for them and the region for years to come. As the MDC and BHEF relationship grows, MDC is connecting with more BHEF members to create more opportunities, including a relationship with IBM to develop digital badges and securing a \$10-million investment in emerging technologies.

MDC recently received the prestigious American Association of Community Colleges' 2022 Award of Excellence in the category of Outstanding College/Corporate Partnership for its partnership with Amazon Web Services (AWS), which collaborated with MDC to build the first cloud computing degree in Florida and to train and certify faculty. Today, more than 300 MDC students have earned AWS certifications.

"One of our strongest national partnerships came through a connection with BHEF, and it is with Amazon Web Services. Thank you, BHEF," Delgado said.

"We are so proud of the strides MDC is making to **develop a talented workforce equipped with the necessary skills to succeed** in the burgeoning technology sector. These unique programs and courses wouldn't be possible without the support of extraordinary partners, such as BHEF and NextEra." — **MADLINE PUMARIEGA**, PRESIDENT, MIAMI DADE COLLEGE



[U.S. STEM Education Model®](#), a system dynamics simulation tool for modeling of P-16 STEM education policies, programs, and practices

“[Learn and Earn](#)” system dynamics simulation tool for modeling the dynamics of a partnership among UPS, the University of Louisville, and Jefferson Community and Technical College to deliver education benefits to UPS employees, producing a 600 percent ROI to UPS

Undergraduate honors program in cybersecurity at the [University of Maryland, College Park](#) developed in partnership with Northrop Grumman

Cyber Labs, a state-of-the-art undergraduate and graduate cybersecurity teaching facility, sponsored by Northrop Grumman at [California Polytechnic State University](#), [San Luis Obispo](#) and [University of Maryland, College Park](#)

Data science majors at [Case Western Reserve University](#) and The Ohio State University

Data science minor at [Case Western Reserve University](#)

[U.S. STEM Undergraduate Model®](#), a system dynamics simulation tool for modeling the impact of evidence-based practices on STEM student persistence and completion

[Master of science in analytics](#) at North Carolina State University

[Digital media engineering minor](#) at the Stevens Institute of Technology developed in partnership with NBCUniversal

[Competency map](#) for the data science and analytics-enabled graduate through the New York City Data Science Task Force

[Baccalaureate in data analytics](#) in Florida at Miami Dade College developed in partnership with NextEra Energy

[Professional apprenticeships at Accenture](#) and [Chicago Apprentice Network](#) in partnership with Aon and others

[21st-century apprenticeship program at IBM](#) for academic credit

[Credit-bearing digital credentials](#) at Google, IBM, and Amazon Web Services

“What I think is so powerful about BHEF is that we bring the power of higher education and business together for a common goal: to **shape the future workforce** for all of us.”

— LAURA IPSEN, PRESIDENT & CEO, ELLUCIAN, INC.

CHAIRS OF BHEF

2011-2012

William E. "Brit" Kirwan
Chancellor, University System of
Maryland

2012-2013

Wes Bush
Chairman and CEO,
Northrop Grumman Corporation

2013-2014

Barbara R. Snyder
President, Case Western Reserve
University

2014-2015

Roger Ferguson
President and CEO, TIAA-CREF

2015-2016

Eduardo J. Padrón
President, Miami Dade College

2016-2017

Peter A. Weinberg
Founding Partner, Perella Weinberg
Partners

2017-2018

Teresa A. Sullivan
President, University of Virginia

2018-2019

Ryan Oakes
Managing Director, Accenture

2019-2020

Randy Woodson
Chancellor, North Carolina State
University

2020-2021

Michael D. King
Vice President, IBM Global Education
Industry

2021-2022

Mary A. Papazian
President, San José State University



Thanks to the leadership and support of BHEF's members, partners, and funders, HEWI has experienced tremendous success since its inception in 2012. Over the next decade, BHEF is excited to continue its work:



Identifying high-value emerging skills through yearly signature reports, ad hoc research, and timely quick takes.



Developing pathways that quickly source high-value talent.



Leading action-oriented forums and partnerships that promote innovative approaches between business and higher education.



Please join us in improving competitiveness, increasing productivity, and driving high-value university credentials. **To learn more or become a member, please visit www.bhef.com or email info@bhef.com.**

NEWS ARTICLE / FORBES

"Developing Talent For The Digital Economy: The Business-Higher Education Forum Shows The Way"

The Business-Higher Education Forum (BHEF) is setting the standard for how to craft partnerships between universities and private employers that address the talent needs of the nation's workforce, particularly those enterprises requiring digital and technological skills. | article link: tinyurl.com/yppk2zm7

FUNDERS

BHEF's efforts have attracted the attention of national funders whose support has a tremendous impact on maximizing our work, including:

Alfred P. Sloan Foundation

Bill & Melinda Gates Foundation

ECMC Foundation

JPMorgan Chase Foundation

National Science Foundation

Strada

and numerous others.



Build better skills for better performance.®

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