DISRUPTIVE INNOVATION in Higher Education

Presented by STEMconnector’s Higher Ed Council
About STEM Higher Education Council

The STEM Higher Education Council (SHEC) is a leadership forum of public and private colleges and corporations intently focused on STEM education and careers. SHEC envisions being the national catalyst for meeting the education and training needs of the global STEM workforce and educating the scientists, technologists, and innovators needed for a vibrant economy.

SHEC serves as a forum for leaders in higher education and industry to work collaboratively in order to promote partnerships that lead to employability for students seeking STEM careers. SHEC’s mission is to bring focused energy to Higher Education’s high impact practices, increasing the emphasis on STEM pipeline-to-jobs. SHEC inventories and integrates current efforts, building on the energy of others in support of collaborations between higher education and industry.

About STEMconnector®

STEMconnector® is a consortium of companies, nonprofit associations and professional societies, STEM-related research & policy organizations, government entities, universities and academic institutions concerned with STEM education and the future of human capital in the United States.

STEMconnector® is both a resource and a service, designed to link "all things STEM" through a comprehensive website that connects national, state and local STEM entities. The STEMconnector® team advises and counsels our members and partners to ensure their participation in the best STEM practices and scalable investments.

Special Acknowledgements

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8:00 – Continental Breakfast

8:10 – Welcome
Dr. Talmesha Richards, Chief Academic & Diversity Officer, STEMconnector® and Million Women Mentors

8:14 – The Occasion
Rob Denson, Des Moines Area Community College President and STEM Higher Education Council (SHEC) Chair

8:25 – Keynote: Creating Opportunities through Integrating Sectors
Dr. Peter Stokes, Managing Director, Huron Consulting Group and Author of Higher Education and Employability: New Models for Integrating Study and Work
Introduced by Andrew Wheeler, Practice Leader, Education and Not-for-Profit Practice, Diversified Search

8:45 – Aligning College Majors To In-Demand Jobs
• Delta College – Dr. Reva Curry, Vice President, Instruction and Learning Services
• Gateway Technical College – Greg Herker, Fab Lab Program Coordinator
• Ivy Tech Community College – Tom Snyder, President
• Madison Area Technical College – Dr. Thomas Tubon, Project Director and Principal Investigator, NSF ATE Program
• National Coalition of Certification Centers – Roger Tadajewski, Executive Director
• University of Wisconsin, Stout – Dr. Sylvia Tiala, Associate Professor
Moderated by Dr. V. Celeste Carter, Lead Program Director for Advanced Technological Education (ATE), National Science Foundation (NSF)

9:35 – Retaining Talent in the STEM Ecosystem
• Austin Community College – Dr. Richard M. Rhodes, President and Chief Executive Officer
• University of Colorado, Colorado Springs – Dr. Tom Christensen, Physics Professor and Co-Director, UCCS/Teach Program
• University of Iowa – Dr. Leslie Flynn, Professor of Science Education and Founder of STEM Innovator
• University of Massachusetts, Boston – Dr. Andrew Grosofsky, Dean, College of Science and Mathematics
• Western Governors University – Dr. Maria Andersen, Director of Learning Design and STEM Product Manager, Teachers College
Moderated by Brandon Busteed, Executive Director, Education and Workforce Development, Gallup

10:00 – Keynote: America Needs Talent
Jamie Merisotis, President and CEO, Lumina Foundation and Author of America Needs Talent: Attracting, Educating, and Deploying the 21st-Century Workforce
Introduced by Martin Scaglione, President and CEO, Hope Street Group

10:10 – Industry and Experimental Education
• Accumold – Roger Hargens, President and Chief Executive Officer
• Olin College of Engineering – Michelle Davis, Chief Marketing Officer
• Rose-Hulman Institute of Technology – Dr. Elizabeth Hagerman, Vice President, Rose-Hulman Ventures
• Taft College – Mark Williams, Vice President of Instruction
• University of California, Davis – Dr. Mark Henderson, Associate Dean of Admissions, School of Medicine
Moderated by Al Bushnacht, CEO, DS Government Solutions

12:00 – Broadening STEM Participation of Diverse Populations
• Farm Bureau Financial Services – Dan Gretelman, Chief Information Officer and Chair, IT Industry Partnership Board
• Florida International University – Eric Brewe, Assistant Professor of Science Education, Department of Teaching and Learning, College of Education and Associate Director for Research, STEM Transformation Institute
• Michigan Technological University – Dr. John Lehman, Associate Vice President for Enrollment, Marketing, and Communication
• Morehouse College – John Brown, Interim Vice President
• United Negro College Fund – Chad Womack, National Director, STEM Initiatives and the UNCF-Merck Fellowship Program
Moderated by Ted Wells, Vice President and Chief Strategy Officer, STEMconnector®

1:00 – STEM Talks: Scaling STEM Success
Presenters:
• Apollo Education Group – Jane Oates, Vice President for External Affairs
• Gateway Technical College – Dr. Bryan Albrecht, President
• Higher Education Research and Development Institute (HERDI) South – Dr. Jim Catanzaro, Director
• Lakeview Technology Academy – William Hittman, Principal/Director
• Lakeview Technology Academy – Matt Schultz, Technology and Engineering Instructor
• Monster Government Solutions – Bruce Stephen, Director of Real-Time Labor Intelligence and Market Research
• STEMconnector® and Million Women Mentors – Edie Fraser, Chief Executive Officer
2:20 – Research, the Forgotten STEM Careers
• Arizona State University – Dr. Mahmud Farooque, Associate Director, Consortium for Science, Policy and Outcomes
• Howard University – Dr. Sonya Smith, Professor and Chair, Department of Mechanical Engineering and Principal Investigator, HU ADVANCE-IT
• Oak Ridge Associated Universities – Dr. David Duncan, Senior Vice President and Program Director, Scientific Assessment and Workforce Development
• Tuskegee University – Dr. Walter Hill, Dean - College of Agriculture, Environment & Nutrition Sciences
• University of Phoenix – Dr. Hinrich Eylers, Executive Dean, School of Advanced Studies
• University of Nebraska, Lincoln – Dr. Ronnie Green, Vice Chancellor of the Institute of Agriculture and Natural Resources
Moderated by Dr. Keith Moo-Young, Chancellor, Washington State University-Tri Cities

3:10 – Effective Enrollment Strategies
Ryan Munce, Vice President, My College Options®

3:15 – Using the Missouri Innovation Campus Model to Meet Work Force Demands
• State Senate – Senator David Pearce, State of Missouri
• University of Central Missouri – Karen Dexter, Innovation Coach, Missouri Innovation Campus
• University of Central Missouri – Dr. Charles Ambrose, President
• VML – Abby Ventrillo, Associate Director, Talent Recruiting
Moderated by Stan Elliott, Director, Missouri Innovation Campus

4:05 – STEM – Technology is Central
• Colorado Technical University – Cami Jacobson, Vice President of Industry Strategy
• Hawkeye Community College – Dr. Jane Bradley, Vice President of Academic Affairs
• Marymount University – Dr. Diane Murphy, Chair, IT, Management Science, and Cybersecurity
• MESA – Dr. Jamie Bracey, Founding Director, Pennsylvania MESA and Director of STEM Education Outreach and Research, Temple University
Moderated by Heather Hiles, Founder/CEO, Pathbrite and Senior Education Advisor, Cengage Learning

4:55 – Closing Remarks
Edie Fraser, Chief Executive Officer, STEMconnector®

5:00 – Break

5:30 – 7:30pm – Networking Reception
Hosted by Hispanic Heritage Foundation at 1001 Pennsylvania Avenue NW, Washington, DC 20004, 8th Floor, Suite 1115
Ryan Craig is a founding Managing Director of University Ventures. Prior to University Ventures, Ryan founded and built Wellspring, the largest and leading organization of treatment programs for overweight and obese children, adolescents and young adults, including boarding schools, summer camps and after-school programs. Ryan headed the Education & Training sector at Warburg Pincus from 2001 – 2004 where he was the founding Director of Bridgepoint Education (NYSE: BPI), one of the largest online universities in the U.S. Ryan has advised the U.S. Department of Education and served as VP Strategic Development for Fathom, the Columbia University online education company, from 1999 – 2001. Ryan began his career as a consultant with McKinsey & Company. He previously served as Co-founder and President of the Nonpartisan Education Financing Association, and as executive director of a bipartisan national commission on college affordability. Ryan is an expert on a wide range of issues. He is well versed in domestic and international issues, including talent development, higher education financing, minority-serving colleges and universities, learning outcomes, and the social and economic benefits of higher education. His work includes extensive global expertise, with experience in southern Africa, the former Soviet Union, Europe and other parts of the world. A highly regarded analyst and innovator, Ryan is a member of the Council on Foreign Relations and other parts of the world. A highly regarded analyst and innovator, Ryan is a member of the Council on Foreign Relations and other parts of the world. For nearly two decades, Ryan has embraced an ambitious and specific goal: to ensure that, by 2025, 60 percent of Americans hold high-quality degrees, certificates and other credentials. Ryan is the author of America Needs Talent: Attracting, Educating & Deploying the 21st Century Workforce. In America Needs Talent, Jamie Merisotis, a globally recognized leader in philanthropy, higher education, and public policy, clearly explains why talent is needed to usher in a new era of innovation and success, and why deliberate choices must be made by government, the private sector, education, and individuals to grow a range of talent in America.

Jamie Merisotis is a globally recognized leader in philanthropy, higher education and public policy. Since 2008, he has served as President and CEO of Lumina Foundation, one of the largest private foundations in the U.S. and a driving force for increasing Americans’ success in higher education. Under his leadership, Lumina has embraced an ambitious and specific goal: to ensure that, by 2025, 60 percent of Americans hold high-quality degrees, certificates and other credentials. Merisotis is the author of America Needs Talent, published in September 2015 by RosettaBooks. He previously served as Co-Founder and President of the Nonpartisan Institute for Higher Education Policy, and as executive director of a bipartisan national commission on college affordability. Merisotis is the author of America Needs Talent: Attracting, Educating & Deploying the 21st Century Workforce. In America Needs Talent, Jamie Merisotis, a globally recognized leader in philanthropy, higher education, and public policy, clearly explains why talent is needed to usher in a new era of innovation and success, and why deliberate choices must be made by government, the private sector, education, and individuals to grow a range of talent in America.

Keynote Speaker
Ryan Craig
University Ventures, Managing Director
Author of “College Disrupted: The Great Unbundling of Higher Education”

Keynote Speaker
Jamie Merisotis
Lumina Foundation
President and Chief Executive Officer and
Author of “America Needs Talent: Attracting, Educating & Deploying the 21st Century Workforce”
George Miller serves as Senior Education Advisor to Cengage Learning. In this role, he provides strategic council to CEO Michael Hansen and the Executive Team on a wide range of issues, including public policy and business strategy. Prior to joining Cengage, George served as a Member of Congress for 40 years, representing the 11th Congressional District that encompasses the East Bay of San Francisco and the majority of Contra Costa County. He was one of the longest-serving members of Congress in history and is highly regarded on both sides of the aisle for his passion and commitment to education equity, working families and the environment.

During his time in Congress, George served for many years on the House Committee on Education and the Workforce, including as chairman, and played a key role in many pieces of landmark legislation, including the No Child Left Behind Act, the Individuals with Disabilities Education Act, the Higher Education Opportunity Act, the Workforce Innovation and Opportunity Act and the Affordable Care Act. At the time of his retirement, George was the ranking member of the Committee on Education and the Workforce, as well as co-chair of the Democratic Steering and Policy Committee, a leadership position.

Peter works with college and university leaders to assist them in setting strategy to support institutional differentiation, growth, expansion, and improved performance. He has worked with hundreds of institutions across the U.S. and globally to support their efforts to reach new audiences and achieve compelling student outcomes by focusing on work readiness and employability, competency-based education models, online learning, adaptive learning, geographic expansion, internationalization, and non-traditional student markets. Prior to joining Huron Education, Peter served as the Vice President for Global Strategy and Business Development at Northeastern University, where he also served as the Executive Director for Postsecondary Innovation with the College of Professional Studies. Peter has also held the position of Executive Director within the higher education practice at Russell Reynolds Associates, a global executive search firm, and served as Executive Vice President and Chief Research Officer at Eduvenues, Inc.

Higher Education and Employability makes a crucial contribution to the current reassessment of higher education in the United States by focusing on how colleges and universities can collaborate with businesses in order to serve the educational and professional interests of their students.
Panelists and Moderators

Dr. Charles Ambrose
University of Central Missouri
President

A fervent advocate for servant leadership and engaged learning, Dr. Charles Ambrose became the University of Central Missouri’s 15th president in 2010. His dedication to new approaches in higher education to accelerate the time it takes for students to complete a degree, reduce college debt load, and provide experiential learning led to the establishment of The Missouri Innovation Campus in 2012. Prior to joining UCM, Dr. Ambrose served as president at Pfeiffer University for 12 years. His career in higher education administration also took him to Carson-Newman College, Western Carolina University, Furman University, and the American Association of State Colleges and Universities, where he served as executive assistant to the president. Dr. Ambrose earned a bachelor’s degree from Furman University, master’s degree at the University of Louisville, and doctorate at the University of Georgia. He and his wife, Kris, have two children, Charlie, a graduate student at the University of Northern Colorado, and Kathryn, a junior at Drake University.

Dr. Maria Andersen
Western Governors University
Director of Learning Design, Product Manager for Math and Science Education

As Director of Learning Design and Product Manager for Math and Science Education at WGU, Dr. Andersen leads the university’s instructional design by creating innovative learning strategies to ensure seamless, intuitive, and engaging curriculum. After years of experience as a math and science teacher, Dr. Andersen transitioned into the development of learning software, first working at Instructional Dynamics (Canvas) and then focusing on STEM-oriented design and development of adaptive learning products for Area9 Labs. Dr. Andersen authored a book “Algebra Activities” for Cengage Learning and has designed two games for learning algebra: Algeburst and Algeboats. Dr. Andersen’s Ph.D. is in Higher Education Leadership, and she holds other degrees in math, chemistry, business, and biology.

Dr. Bryan Albrecht
Gateway Technical College
President and Chief Executive Officer

Dr. Bryan Albrecht serves as the President and Chief Executive Officer of Gateway Technical College. Gateway is located in Southeast Wisconsin and serves approximately 25,000 annually. Gateway is known for having strong partnerships with the business community and establishing a culture of innovation. Under his leadership Gateway has expanded programs and services, built a national industry-training network, and enhanced the talent pipeline from high school through postgraduate level studies. President Albrecht serves on Southeast Wisconsin’s Local Workforce Board, as well as the National Manufacturing Institutes Advisory Board, the National Occupational Competency Testing Board, the National STEM Academy Advisory Board, and the National Center for Occupational Research and Development Board. His experience has led him to testify before the US Congress on Career and Technical Education issues, as well as being named a Distinguished Educator by the International Technology and Engineering Association. Dr. Albrecht earned his Bachelors, Masters, and Education Specialist degrees from the University of Wisconsin - Stout and his Doctorate of Education from the University of Minnesota.

Dr. Jane Bradley
Hawkeye Community College
Vice President of Academic Affairs

Dr. Jane Bradley has been serving as the Vice President of Academic Affairs at Hawkeye Community College (HCC) in Waterloo, IA since January of 2013. Prior to joining HCC, she was the Associate Vice President of Instruction at Southwestern Community College in Creston, IA for five years and a professor and biotechnology program chair at Des Moines Area Community College for over 11 years. She has earned an A.S. degree in life sciences from Seminole State College, a B.S. degree in microbiology from Oklahoma State University, an M.S. degree in microbiology from the University of Oklahoma and a Ph.D. in Educational Leadership and Policy Studies from Iowa State University. In addition to her career in education, she has conducted research in animal nutrition, immunology and enzyme kinetic mechanisms at Oklahoma State University, the University of Oklahoma and Texas A&M University. Jane has supported STEM education throughout her community college career through her work with the biotechnology industry in the Des Moines area and by directing the SW STEM Hub for the State of Iowa. She is currently the Co-Chair of the NE Iowa STEM Hub advisory board. She is passionate about STEM education and the opportunities that STEM careers can bring to underrepresented populations. She and her husband, Matt, have three daughters and five grandchildren.

Dr. Eric Brewe
Florida International University
Associate Director for Research, STEM Transformation Institute

Dr. Eric Brewe is an Associate Professor in Science Education and Physics, and the Associate Director of Research for the STEM Transformation Institute at Florida International University. He began his career as a graduate student with David Hestenes at Arizona State University, then moved to Hawaii Pacific University and started in 2007 at FIU. His research into the teaching and learning of physics at the university level includes developing curriculum for the Modeling Instruction course, leading inquiries into the role of Modeling Instruction in promoting student learning, participation, retention & persistence, enhanced attitudes toward science and equity. This research has led to describing the role of participation in learning using primarily quantitative measures including the use of Network Analyses, and recently Functional Magnetic Resonance Imaging. In addition to research on postsecondary physics, Dr. Brewe has been involved in preparing future physics teachers through Modeling Workshops, and as co-editor of the PhysTEC sponsored book, Recruiting and Educating Future Physics Teachers: Case Studies and Effective Practices. Dr. Brewe helped to found the American Physical Society’s Topical Group on Physics Education Research (GPER) and served as the founding Chair of GPER.

Dr. Jamie Bracey
MESA
Founding Director, Pennsylvania MESA and Temple University
Director of STEM Education Outreach and Research

Dr. Jamie Bracey serves a dual role as the Director of STEM Education, Outreach and Research for Temple University’s College of Engineering, and Executive Director of the Pennsylvania Mathemat- ics, Engineering & Science Achievement (MESA) K–12 STEM education program. She is an award winning Educational Psychologist and applied researcher who designs learning environments to ac- celerate student knowledge, identity formation and persistence in STEM domains. An expert in cul- tural competence, her published work includes articles and chapters exploring the impact of expert culture, classroom culture and social culture on minority student efficacy, identity information, and persistence in STEM domains.
John Brown
Morehouse College
Interim Vice President
John P. Brown serves as the interim vice president for institutional advancement at Morehouse College. Previously, he was the deputy director of the White House Initiative on Historically Black Colleges and Universities where he coordinated public-private partnerships with select HBCUs. Earlier in his career, he worked as an adjunct consultant with Ethical Leadership Group, where he helped to develop customized and interactive ethics and compliance training for front-line employees and boards of directors of Fortune 200 companies both domestically and internationally, and led over 100 focus groups and training sessions throughout the world. In addition to his consulting work, John was a senior vice president for strategic planning and secretary to the board of Carson Products Company, a global leader in the manufacture and distribution of hair care products for people of color. Carson was acquired by L’Oréal in 2000 which enabled the company “to form the largest mass ethnic hair care beauty brand in the US.” At Carson, John oversaw the company’s EDI implementation and was part of the management team that took Carson public (NYSE) in 1996. John has also held other positions in non-profit and higher education management, including dean of students of the Kennedy School of Government at Harvard University, assistant dean for admissions at Harvard Business School, acting director of the Council for Opportunity in Graduate Management Education, and secretary to the Council of the District of Columbia. He is also former director of development at A Better Chance, Inc. (ABC), which identifies, recruits, and places promising students of color in college preparatory schools throughout the country. He has also served as associate vice president of development and acting director of corporate and foundation relations at Morehouse College. John received his formal education at Morehouse College (B.A.) and Harvard University (M.B.A. and M.Div.). In his spare time, he enjoys counseling college and graduate students, and young professionals, about career preparation and life-long personal development.

Al Bunshaft
DS Government Solutions
Chief Executive Officer
Al Bunshaft is the President and CEO of DS Government Solutions. From 2010 until 2013 Bunshaft was Managing Director of Dassault Systemes Americas. Prior to this he had a 25-year career at IBM holding various executive roles in R&D, strategic initiatives, and general management. A technology leader in Mr. Bunshaft’s career has been his expertise in visualization, computer graphics and engineering-related software tools. Since doing his post-graduate work at the National Science Foundation’s Center for Interactive Computer Graphics he has led efforts to introduce new processes into fast growing industries. Bunshaft is Dassault Systemes’ leading voice in science, technology, engineering and mathematics (STEM) initiatives and was named one of the 100 top CEO leaders in STEM. Bunshaft is the co-chair of the STEM Innovation Task Force and is a member of multiple university advisory boards and industry organizations. He regularly writes and speaks about STEM topics.

Brandon Busteed
Gallup
Executive Director Education and Workforce Development
Brandon Busteed, Executive Director of Education and Workforce Development, leads Gallup’s education work. His career spans a wide range of important work in education as an educational entrepreneur, speaker, writer and university trustee. Brandon’s work integrates Gallup’s research and science on talent selection, strengths, engagement and well-being to improve student success, teacher effectiveness and educational outcomes. His mission is to create a national movement to measure the educational outcomes that matter most, connect education to jobs and job creation and promote a paradigm shift from knowledge mastery to emotional engagement in education. With Brandon’s leadership, Gallup Education has released several ground-breaking Gallup studies. These include State of America’s Schools: The Path to Winning Again in Education, which explores student and teacher engagement in public schools, and Great Jobs, Great Lives: The 2014 Gallup-Purdue Index Report, a comprehensive, nationally representative study of U.S. college graduates that focuses on their long-term outcomes in work and life. An internationally known speaker and author on education policy, Brandon has written frequently for The Chronicle of Higher Education, Trusteehip Magazine, The Huffington Post, Fast Company and other publications. His work has been featured in The New York Times, The Wall Street Journal, The Washington Post and USA Today and on NPR and the NBA’s “Today’s Best” show, among others. Brandon received his bachelor’s degree in public policy from Duke University and an honorary doctorate from Augustana College. He is a trustee emeritus of Duke and has served on the Board of Visitors of the Sanford School of Public Policy.

Dr. V. Celeste Carter
National Science Foundation (NSF)  
Advanced Technological Education (ATE)  
Lead Program Director
Dr. V. Celeste Carter received her Ph.D. in Microbiology from the Pennsylvania State University School of Medicine in 1982 under the direction of Dr. Sativie S. Teyitsha. She completed postdoctoral studies in the laboratory of Dr. G. Steven Martin at the University of California at Berkeley. She joined the Division of Biological and Health Sciences at Foothill College in 1994 to develop and head a Biotechnology Program. She served as a Program Director twice in the Division of Undergraduate Education and was a Program Director in the Division of Science, Mathematics and Materials Education (DUE) as a rotating director. Dr. Carter accepted a permanent Program Director position in DUE in 2009; she is the Lead Program Director for the Advanced Technological Education (ATE) Program in DUE as well as working on other programs in the Division and across the Foundation.

Dr. Jim Catanzaro
Highered Education Research & Development Institute South  
Director
For thirty-five years Dr. Jim Catanzaro has been known nationally as a leader in the community college movement – for five years as a community college president in California, for six years in Ohio, three in Illinois, and now for over twenty-four years in Tennessee. Previously, Dr. Catanzaro was the Human Resources Director for a 7,000 employee-manufacturing firm in California. Dr. Catanzaro holds the Ph.D. degree from Claremont Graduate University in Philosophy of Religion. He studied leadership at The Wharton School and at the University of Texas at Austin. Dr. Catanzaro is a member of several books including, Spiritual Surfing: Riding Life’s Turbulent Waves to Victory. He has hosted a weekly television interview program aired principally on PBS affiliates since the 1980’s; he represents his higher education on the board of prestigious National Foundation for Advancement in the Arts; he is the director of the Higher Education Research and Development Institute South; and he has served on the boards of over 25 community organizations in Chattanooga. Dr. Catanzaro is a frequent speaker including national conferences. He addressed the Positive Psychology Summit in Washington, D.C. and he was the keynote presenter at the International Higher Education Conference in Melbourne, Australia. Olympic torchbearer, recipient of the Distinguished Graduate Award of the University of Texas, member of the Claremont Graduate University Hall of Fame, and Toastmasters Award Winner for Communication and Leadership are among his many credits. The Gallup Organization assessed his greatest strength to be “Maximizer” – taking ordinary ideas, operations, and initiatives and making them exemplary.

Dr. Tom Christensen
University of Colorado, Colorado Springs  
Co-director of UC Cecil Teach Program
Dr. Tom Christensen joined the faculty of the University of Colorado at Colorado Springs Department of Physics and Energy Science in 1989. He served the campus as a faculty member, department chair, associate dean and dean. He is currently the co-director of the UC Cecil Teach program for preparing future secondary science and math teachers which is part of the national UTeach program. Dr. Christensen received both the College (1993) and campus (1996) Outstanding Teaching Awards, the Chancellor’s Award (2003) for recognizing his service, and the University of Colorado Excellence in Leadership Award (2015). Dr. Christensen is an active researcher in experimental surface physics and physics education. He teaches a wide range of classes at all levels from introductory classes for non-majors to graduate level classes. He serves his primary professional society (AAPS) on national Education and Diversity committees. In his spare time, Dr. Christensen plays string bass with the Pikes Peak Philharmonic orchestra and bass guitar with the Physics Classic Rock and Roll Orchestra.
Dr. Reva Curry  
Delta College  
Vice President of Instruction and Learning Services

Dr. Reva Curry received her Bachelor in Science degree from the Medical College of Georgia, Master in Education from Augusta College and Ph.D. in Educational Leadership from the University of Pennsylvania. Her experience includes 15 years as a full time faculty member in health sciences before transitioning into administration in various positions over the past 17 years. In June, she was appointed Vice-President of Instruction and Learning Services at Delta College. In that role, she serves on the STEM Impact Initiative for the Great Lakes Bay Regional Alliance, a collaboration of higher education, K-12, nonprofit agencies and industry to improve STEM education and careers in Michigan. Dr. Curry believes in the power of team building to address critical issues in higher education, and the importance of community colleges in accelerating students to achieve their career and education goals to help sustain and build stronger communities.

Michelle Davis  
Olin College of Engineering  
Chief Marketing Officer

In 2012, Michelle became the first chief marketing officer at the Franklin W. Olin College of Engineering, a national laboratory for learning in undergraduate engineering education with the country’s highest rate of student retention-to-graduation and of women engineers graduates. She is charged with building the national reputation of Olin as an accelerator and collaborator for change in STEM education. Previously, she served as the vice president of marketing and public affairs at Children’s Hospital Boston, director of public affairs at both Tufts Health Plan and Brigham and Women’s Hospital, and director of marketing and community relations at Faulkner Hospital. She has served as a consultant to higher education, health care and lifestyle not-for-profits, including the Association of Independent Colleges and Universities in Massachusetts (AICUM), Kripalu Yoga Center, Austen Riggs Center, Hospital Corporation of America, The HealthCare Marketing Group and the New England Independent Colleges and Universities in Massachusetts (AICUM). Under her leadership, her teams have been the recipients of more than 100 professional awards in the fields of branding, Life Flight. Under her leadership, public affairs and marketing.

Dr. David Duncan  
Oak Ridge Associated Universities  
Senior Vice President and Program Director  
Scientific Assessment and Workforce Development

Dr. David Duncan serves as ORAU’s Senior Vice President and Program Director for Scientific Assessment and Workforce Development (SAWD). He manages a wide spectrum of internship, fellowship, and research experience programs to help ensure highly qualified scientific talent to strengthen the federal STEM workforce. Dr. Duncan also directs programs that, through rigorous peer review, help the U.S. government and other clients make informed funding decisions for scientific research and development investments. He serves on the ORAU Strategic Leadership Team and chairs the ORAU Data Analytics Roundtable. During his career, Dr. Duncan managed a number of technical organizations at U.S. Department of Energy facilities including the Oak Ridge National Laboratory (ORNL). He co-founded and owned PrSM Corporation providing scientific and technical consulting services to government and private industry clients. During his career Dr. Duncan has performed private consulting focused on developing and implementing management processes; coaching individual managers to improve their effectiveness; and engaging employees in collaborative change.

Rob Denson  
Des Moines Area Community College  
President and STEM Higher Education Council Chair

Rob Denson was appointed the 4th President of Des Moines Area Community College (DMACC) on November 1, 2003. He grew up on a farm near Homestead, Iowa, south of the Amana Colonies and graduated from high school in Marengo, Iowa. He is the first native-born Iowan to be President of DMACC, a comprehensive community college serving 37,000 credit and 32,000 non-credit students annually in 153 program and certificate areas. Rob has a B.S. in Political Science and Economics and a Masters Degree in Higher Education Administration from Iowa State University. He worked for Iowa State as an Assistant Dean for 3 years before moving to Florida where he served as an Assistant Dean of Students. He graduated from Law School at the University of Florida in 1979 and was an Associate University Attorney for 3 years before operating his own law practice for 16 years. He is a board certified civil trial lawyer. In 1996, he became Assistant to the President and Dean for Institutional Advancement at Santa Fe Community College in Gainesville. In 1998, Rob returned to Iowa as President of Northeast Iowa Community College in Calmar, Iowa where the College saw a 58% enrollment increase during his five-year tenure. Rob believes in success, teams and positive thinking. He and his wife, Pat, have 2 children and 5 grandchildren.

Karen Dexter  
University of Central Missouri  
Innovation Coach, Missouri Innovation Campus

After serving as the Internship Coordinator for The Missouri Innovation Campus for a year, Karen now serves as the Innovation Coach for the program. Prior to moving to The Missouri Innovation Campus program, Karen served as the Associate Dean of Instruction for the Metropolitan Community College-Longview campus where her responsibilities included career & technical programs, community involvement and dual credit with school districts. Karen has spent over 35 years in higher education at both two-year and four-year institutions in a variety of capacities. Ms. Dexter has been involved in various educational initiatives including Career Pathways, workforce development and community education. Karen also served on the Board for the National Council on Workforce Education, a council of the American Association of Community Colleges. Karen received her bachelor’s degree in Family & Consumer Science from Kansas State University along with a master’s degree in higher education administration. As Innovation Coach of The Missouri Innovation Campus program, Karen is responsible for advising students and ensuring seamless transition between the partner institutions.

Stan Elliott  
University of Central Missouri  
Director of the Missouri Innovation Campus

Stan is the first Director of The Missouri Innovation Campus, being named to that position in July, 2012. Prior moving into this position, Stan served the Lee’s Summit, MO R-7 School District for 33 years in a variety of leadership roles. He taught high school biology and was science department chair, served as an assistant principal at Lee’s Summit High School and then was named principal to open Lee’s Summit North High School in 1994. In 2005, Stan was appointed Assistant Superintendent of Secondary Instruction, supervising three high schools, three middle schools, Summit Technology Academy and the district’s alternative school. Mr. Elliott was named Missouri High School Principal of the year 2001. He has also presented at the state, national and international level on a variety of educational initiatives including data-based decision-making, school portfolios, at-risk student programs and school improvement plans. Stan also is a consultant for the International Baccalaureate organization. Stan received his bachelor’s degree in biology and science education from Truman State University along with a master’s degree in biology. He received his education specialist’s degree in Secondary Administration from the University of Missouri-Kansas City. As Director of The Missouri Innovation Campus program, Stan is responsible for curriculum and program development, business partner development, student recruitment, and the MIC student internship program.

Dr. Reva Curry

Dr. Reva Curry received her Bachelor in Science degree from the Medical College of Georgia, Master in Education from Augusta College and Ph.D. in Educational Leadership from the University of Pennsylvania. Her experience includes 15 years as a full time faculty member in health sciences before transitioning into administration in various positions over the past 17 years. In June, she was appointed Vice-President of Instruction and Learning Services at Delta College. In that role, she serves on the STEM Impact Initiative for the Great Lakes Bay Regional Alliance, a collaboration of higher education, K-12, nonprofit agencies and industry to improve STEM education and careers in Michigan. Dr. Curry believes in the power of team building to address critical issues in higher education, and the importance of community colleges in accelerating students to achieve their career and education goals to help sustain and build stronger communities.

Michelle Davis

In 2012, Michelle became the first chief marketing officer at the Franklin W. Olin College of Engineering, a national laboratory for learning in undergraduate engineering education with the country’s highest rate of student retention-to-graduation and of women engineers graduates. She is charged with building the national reputation of Olin as an accelerator and collaborator for change in STEM education. Previously, she served as the vice president of marketing and public affairs at Children’s Hospital Boston, director of public affairs at both Tufts Health Plan and Brigham and Women’s Hospital, and director of marketing and community relations at Faulkner Hospital. She has served as a consultant to higher education, health care and lifestyle not-for-profits, including the Association of Independent Colleges and Universities in Massachusetts (AICUM), Kripalu Yoga Center, Austen Riggs Center, Hospital Corporation of America, The HealthCare Marketing Group and the New England Independent Colleges and Universities in Massachusetts (AICUM). Under her leadership, her teams have been the recipients of more than 100 professional awards in the fields of branding, Life Flight. Under her leadership, public affairs and marketing.

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Michelle Davis
Dr. Hinrich Eylers
Executive Dean
University of Phoenix School of Advanced Studies

Dr. Hinrich Eylers is the Executive Dean of the School of Advanced Studies, which offers the University’s doctoral programs across all academic disciplines. His career spans 30 years in business, academia, and the sciences. As Executive Dean, Dr. Eylers’ emphasis is on providing quality professional doctoral programs, expanding the program portfolio, increasing student retention and promoting and enabling innovative research and scholarship on behalf of the entire University. He is also one of the primary executive sponsors for University-wide technology projects related to student learning. At Nationwide, Dr. Eylers held a number of additional leadership roles including Associate Provost and Dean of the College of Natural Sciences. Before joining University, he spent 15 years in leader- ship roles in environmental engineering consulting, sustainability consulting, teaching and business and technology program management. Dr. Eylers earned a University Diploma in applied physics from the Technical University in Munich, Germany, before attending the California Institute of Technology where he received both a Masters and Ph.D. in environmental engineering sciences. He also holds an MBA from the Keller Graduate School of Management and was amongst the first to be licensed as a professional environmental engineer in the State of Arizona.

Dr. Mahmud Faroque
Arizona State University
Associate Director of the Consortium for Science, Policy and Outcomes

Mahmud’s work at the Washington Office of Arizona State University’s Consortium for Science, Policy and Outcomes (CSPPO) focuses on linking science and innovation policy to improved decision-making and better societal outcomes. Mahmud coordinates CSPPO’s Science Policy Breakfast Seminar series and Science Program Managers Network. He co-leads Concepts and Tools for a New American Science Policy (CaNaSP) program for early career professionals and Science, Policy and Citizenship Ignites, a High School school program. Mahmud is a principal coordinator at Expert and Citizen Assessment of Science and Technology (ECAST), where he co-led “A Participatory Technology Assessment of NASA’s Asteroid Initiative.” Mahmud is a Co-PI in the NASAA grant titled “Science Center for Public Affairs and Community Engagement for Environmental Justice, Improved Resilience, and Decision-Making.” Mahmud is a U.S. Coordinator of World Wide Views projects on Climate and Energy (2015) and Biodiversity (2012). He has been working with faculty and senior administration at large American Universities developing, coordinating and facilitating collaborative and trans-disciplinary research in the physical, natural, social sciences, engineering and public policy. Mahmud was the Director of Collaborative Research at the City University of New York, Associate Director for Research Development in the Physical Sciences and Engineering at Northwestern University, and the Managing Director of the USDOT Research Center at Purdue University. Mahmud holds a Ph.D. in science, technology and public policy from George Mason University and an MPA in technology and information policy from the Maxwell School, Syracuse University. Mah- mud’s current research and teaching interests are in environmental and technology policy focusing on innovation systems, research management, trans-disciplinary training and participatory technology assessment.

Dr. Leslie Flynn
University of Iowa
Professor of Science Education and Founder of STEM Innovator

Dr. Leslie Flynn is a professor of science education and administrator of STEM Initiatives at the Uni- versity of Iowa. Her expertise is in creating, delivering, and securing funding for K-12 STEM mod- els and creating professional development opportunities for teachers and administrators. She is a founder and director of STEM Innovator, a teacher professional development program to assist the infusion of innovation and entrepreneurship into K-12 STEM classrooms. Using an entrepreneurship startup framework, teachers facilitate interdisciplinary, problem-based classrooms exploring and solving real-world issues of interest to students and their community. STEM Innovator is a partner- ship with the Iowa Pappajohn Entrepreneurship Center at the University of Iowa, the U.S. Patent and Trademark Office, and over 45 STEM industries to offer professional development across the nation. She is the Iowa Director of JSHE, a national high school STEM research competition through the U.S. Department of Defense. She is the director of a U.S. Department of Education grant, RAES: Reflective Assessment in Elementary Science, and administers in STEM to increase learning for elementary science students. Flynn also provides leadership, recruitment, and facilitation of the Iowa Science Olympiad competition. Before coming to the University of Iowa she was a high school science teacher and college chemistry and education professor in the Minneapolis/St. Paul area.

Edie Fraser
STEMconector® and Million Woman Mentors
Chief Executive Officer

Edie Fraser is President & CEO of STEMconector® and Million Woman Mentors (MWM), and a vice chair of DiversitySearch LLC. Edie has worked with more than 250 Fortune 500 and associated top companies. Edie has won 45 major awards for diversity and women’s leadership, STEM, entrepreneurship and communications. She is the recipient of the Mosaic Woman Award and Lifetime Achievement Award from Diversity Woman Magazine. She has been introduced into the Entering Women Hall of Fame and is the founding member of CW20. Edie was the on cover of Women of Wealth Magazine for her philanthropy and mentoring. She is the first woman to serve as Chairman of the SCORE. Edie has written or served as publisher of many books, papers and articles. Women and Girls have been at the forefront of Edie’s work as she built the Business Women’s Network and ran global confer- ences for women for many years which had participants from 100 countries that worked to help. She has worked with global companies on their advancement of women and spoken from Tokyo to Prague on women and diversity. It is from her extensive past experiences that has allowed her to successfully build STEMconector® with a dedicated team, which broke ground in spring, 2011. Since then, STEMconector® has grown to link with some 6600 organiza- tions that push for the advancement of diversity and education, through strong leadership that Edie provides around the globe.

Dan Greteman
Farm Bureau Financial Services
Chief Information Officer and IT Industry Partnership Board Chair

Dan Greteman is the Chief Information Officer for FBL Financial Group, Inc. Dan has overall account- ability for vision and operations of the Farm Bureau Financial Services technical environment. Dan recognizes his company as one investing in its future with capable and modern solutions. Prior to FBL, Dan Greteman was the CIO for Nationwide’s Allied Group. Dan was responsible for architecting and delivering a multi-year, post-merger integration program. Prior to Nationwide, Dan spent his career at Accenture in their Communications & High Tech division where he became a partner in 2000. Dan has worked in the technology field for more than 28 years. Developing and leading a strong team of technology professionals has been a career-long focus for Dan. Key to any team is the continued influx of new talent. The ability to have a pipeline of new talent has been a corner stone of Dan’s team building strategy. Dan has worked with DAMAC, Iowa State University and the Technology Association of Iowa to enable programs specifically designed to bring more and well-trained technologists. In 2011, Insurance & Technology Magazine recognized Dan as an “Elite 8” executive for leadership in successful use of technology to support business goals and objectives. Dan currently serves as an Executive Board Member of the Technology Association of Iowa and is a Board Member for Living History Farms, an open-air museum with a mission to educate and demonstrate Iowa’s agricultural history. Dan holds a Bachelor of Science degree in Computer Engineering from Iowa State University.

Dr. Ronnie Green
University of Nebraska, Lincoln
Vice Chancellor of the Institute of Agriculture and Natural Resources

Dr. Ronnie D. Green began as interim Senior Vice Chancellor for Academic Affairs at the University of Nebraska—Lincoln on July 1, 2015. He also continues to serve in the role to which he was appointed in July 2010 as the Harlan Vice Chancellor of the Institute of Agriculture and Natural Resources and Vice President for Agriculture and Natural Resources of the University of Nebraska system. Green earned bachelor’s and master’s degrees in animal science from Virginia Tech and Colorado State University, respectively, and a doctorate in animal breeding and genetics jointly from UNL and the USDA-ARS U.S. Meat Animal Research Center. Green was on faculty at Texas Tech University and Colorado State, and was the national program leader for animal production research for the USDA’s Agricultural Research Service and executive secretary of the White House’s interagency working group on animal genomics within the National Science and Technology Council. He served as senior global director of technical services for Pfizer Animal Health’s animal genomics business from 2008 to 2010. Dr. Green has published 130 refereed publications and abstracts, and 56 invited symposium papers; and has delivered invited presentations in 43 U.S. states and 21 countries around the world. He is a past-president of both the American Society of Animal Science (ASAS) and the National Bond and Brindle Club, and has served in a number of leadership positions for the U.S. Beef Improvement Federation, Na- tional Cattlemen’s Beef Association, National Pork Board, Federated Animal Science Societies, and the National Research Council. He was named a fellow of ASAS in 2014.
Dr. Andrew Grosovsky
University of Massachusetts Boston
Dean of College of Science and Mathematics

Dr. Andrew J. Grosovsky was appointed as Dean of the College of Science and Mathematics (CSM) at the University of Massachusetts, Boston in August 2007. Since his arrival at UMass Boston, Dean Grosovsky maintained strong commitment to improving the success of CSM students and faculty members. In 2008 Dean Grosovsky lead the establishment of the CSM Student Success Center (SSC), which serves as an innovation clearinghouse, working closely with partners within CSM and elsewhere in the university and beyond, to deliver student success programs and services to STEM students. Dean Grosovsky was instrumental in advancing the partnership between UMass Boston and Dana-Farber/Harvard Cancer Center, which resulted in the creation of the Center for Personalized Cancer Therapy (CPCT). Dean Grosovsky facilitated the establishment of the School for the Environment and Department of Engineering. Under Dean Grosovsky’s leadership, in addition to tripling its extramural research funding support, CSM was able to secure significant gifts from Davis Educational Foundation, Oracle Education Foundation, Sanofi/Genzyme, and other corporate and private partners. Prior to joining UMass Boston, Dean Grosovsky served as Vice Provost for Undergraduate Education at the University of California, Riverside from 2004 to 2007. Dean Grosovsky’s own research focuses on the mechanisms of environmental carcinogenesis, with an emphasis on studies of mutagenesis, recombination, and genomic instability in human cells. He holds A.B. in biology from Boston University, and M.S. and Sc.D. in physiology (cancer biology) from Harvard University.

Dr. Elizabeth Hagerman
Rose-Hulman Institute of Technology
Vice President, Rose-Hulman Ventures

Elizabeth M. Hagerman, Ph.D., currently serves as Vice President for Corporate Engagement at Rose-Hulman Institute of Technology where she oversees the coordination of corporate engagement opportunities in order to best serve the Institute and its corporate partners. Elizabeth also directs the operations of Rose-Hulman Ventures, a unique model in higher education that brings together outstanding students with technology-based companies to design prototypes, refine the design of existing products, and expand current engineering capabilities. Prior to her return to Rose-Hulman, Hagerman held leadership roles at Baxter Healthcare in Los Angeles, a subsidiary of Illinois-based Baxter International Inc., a worldwide leader in patient care products. She most recently led the global integration of a Baxter Biosurgery product acquisition and licensing. While at Baxter, Hagerman also worked with R&D and marketing teams in the United States and Australia on product development, developed sales training materials, coordinated academic research with Baxter Biosurgery products, as well as managed strategic planning for next generation product launches and brand development. Hagerman earned a bachelor’s degree in chemical engineering from Rose-Hulman in 2000 and a master’s and Ph.D. degree from UCLA in biomedical engineering, with a focus on orthopedic biomaterials. She is an expert on tissue engineering, cell adhesion, bone regeneration and tissue biomineralization, and holds two patents.

Roger Hargens
Accumold
President and Chief Executive Officer

President, Chief Executive Officer and Chairman of the Board of Managers, is an experienced sales executive and business leader. Mr. Hargens was an early investor and Director of Accumold and was promoted to his current position in February 2000. Prior to joining Accumold on a full-time basis, he was President and CEO of Heartland Machinery and Sales Inc., a company he founded in 1995. Prior to founding Heartland, Mr. Hargens served in a variety of positions during a seventeen-year career at Iowa Machinery and Supply Company in Des Moines, Iowa. There he served as Regional Sales Manager, Vice President of Marketing and as a Director, receiving many awards for outstanding performances and teamwork. Roger began his professional career in 1974 at Lit Kurtz Company in Des Moines, Iowa as a Territory Manager. Mr. Hargens currently serves on the Iowa Innovation Council, the Board of Directors for the Iowa Association of Business and Industry (ABI) and the Des Moines Area Community College Foundation Board.

Dr. Mark Henderson
University of California, Davis School of Medicine
Professor of Medicine
Vice Chair for Education in the Department of Internal Medicine
Associate Dean of Admissions

Dr. Mark Henderson is Professor of Medicine, Vice Chair for Education in the Department of Internal Medicine, and Associate Dean for Admissions at the UC Davis School of Medicine. He is co-principal investigator of the UC Davis Accelerated Competency-based Education in Primary Care (ACE-PC) program, a 3-year medical school track for students committed to primary care careers, a pilot fund-ed by the American Medical Association. Dr. Henderson is a highly regarded clinician-educator and leader in general internal medicine education. He has edited several books including The Patient History: an evidence-based approach to differential diagnosis and the Toolkit for Internal Medicine Education. He has advocated use of the multiple mini-interview (MMI) method for medical school interviews and is lead investigator of a consortium study of admissions practices across the University of California system, funded by the National Board of Medical Examiners. Other scholarly interests include medical student career choice, utility of the medical history, and the development of clinical reasoning and medical decision-making. He has done medical work in several Latin American countries including Nicaragua, Costa Rica and Paraguay. His hobbies include downhill skiing and watching major league baseball with his family.

Dr. Walter Hill
Tuskegee University
Vice President of Academic Affairs, Provost

In addition to serving as Provost, Dr. Walter A. Hill is also the Vice President of Academic Affairs; Dean of the College of Agriculture, Environment and Nutrition Sciences; and Director of the 1890 Land-Grant Research and Extension at Tuskegee University. He has been a faculty member and Dean/ Director for 36 and 27 years, respectively. He co–founded the Carver Integrative Sustainability Center, Black Belt Family Farm Market & Innovation Center, Alabama Land Grant Alliance, and Professional Agricultural Workers Journal. He is a Fellow of the American Society of Agronomy and a member of Phi Beta Kappa, Sigma Xi and Gamma Sigma Delta Honorary Societies. Walter is chair–elect of the Agricultural Heads Section of APLU and chair of the 1890 Council of Deans. Walter received his Ph.D in Agronomy from the University of Illinois, Master’s degrees from the University of Arizona and University of Chicago and B.S. in Chemistry from Lake Forest College.

Greg Herker
Gateway Technical College
Fab Lab Program Coordinator

Greg Herker currently serves as the Fab Lab Program Coordinator at Gateway Technical College, in this role, he is the architect of a variety of programs through the Gateway Fab Lab that support students, the community, and local industry. Some of these programs include STEAM camps for middle/ high school students, providing interdisciplinary workspace for Gateway students from the Arts, Engineering, Manufacturing, and Business, and positioning Gateway and the Fab Lab as an important resource for local industry and entrepreneurs in consulting and prototyping. Mr. Herker currently serves on the Board of Directors for the United States Fab Lab Network (USFLN) www.usfln.org and also as a consultant supporting the growth of the Fab Lab movement through the National Science Foundation (NSF). Prior to his role at Gateway, Mr. Herker spent over 15 years serving manufacturing and technology firms both nationally and internationally in securing the best IT and Engineering talent available. Besides a degree in Business & Communication from Valparaiso University, Mr. Herker is a distinguished graduate of the Dale Carnegie – Sales Advantage Program, a Certified Growth Wheel business advisor, and is certified in Incubation Management through the National Business Incubation Association (NBIA) www.nbia.org

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University of California, Davis School of Medicine
Professor of Medicine
Vice Chair for Education in the Department of Internal Medicine
Associate Dean of Admissions

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William Hittman
Lakeview Technology Academy
Principal/Director
William R. Hittman serves as Principal/Director of LakeView Technology Academy. He received his bachelor’s and master’s in industrial education and chemistry from University of Wisconsin Stout. After graduating with his bachelor’s and master’s degree in Wisconsin, he began his career in middle and high school level as a teacher for 8 years in industrial education and chemistry. His experience includes educational specialists in university of Wisconsin and technology education coordinator. His career in school as a teacher and district business manager also took him to Greenfield Wisconsin and Sheboygan Wisconsin School where he served as superintendent from 1985 until 2002. He received U.S. News and World Reports and Newsweek award every year since 2013. He also got a Top 5% ACT test results for Wisconsin award. William currently serves as an Administrative Leadership for the State of Wisconsin.

Heather Hiles
Cengage Learning
Senior Education Advisor and Founder/CEO, Pathbrite

Heather Hiles founded Pathbrite, which she has since sold to Cengage Learning in October 2015. Pathbrite applies an ePortfolio approach to learning, teaching, and assessment. This platform has been proven to optimize learning outcomes like critical thinking and metacognition to increase student graduation and job placement rates. Heather is currently a Senior Education Advisor at Cengage. Before founding Pathbrite, Heather built a career in education, workforce development, and finance spanning more than 20 years. She has been named among the Top 100 coolest people in Silicon Valley by Business Insider. Heather has been featured in CIO Review, FastCompany Magazine, Wall Street Journal, EdWeek, Black Enterprise and more. She was also recently inducted into The Credit Suisse Entrepreneurs Circle of high potential entrepreneurs. Heather received her BA from UC Berkeley in Economic Development and holds an MBA from Yale University, with a concentration in Finance and Strategic Planning.

Cameron Jacobson
Colorado Technical University
Vice President of Industry Strategy

Cameron Jacobson serves as Vice President, Industry Strategy, for Colorado Technical University (CTU), an operating unit of Career Education Corporation. Ms. Jacobson is responsible for driving industry workforce needs into the academic strategy of the university and business-to-business marketing. As an authority on Science, Technology, Engineering and Math (STEM) education, Jacobson also leads STEM strategy throughout all functional areas of CTU. She joined CTU in March of 2014 following five years at Apollo Education Group and University of Phoenix where she built educational partnerships with Fortune 500 employers, including The Boeing Company, Caterpillar, Inc., Best Buy Co., and McDonald’s Corporation and was the architect of enterprise-wide business and academic strategy for the US manufacturing workforce. Jacobson has also enjoyed much success as an adjunct faculty member, teaching marketing and management courses at the University. Prior to her roles in the proprietary education industry, Cameron spent eight years as President and CEO of her own independent marketing consulting firm, J. Group, Inc through which she consulted clients on the ROI of marketing activities and the transformation of the marketing function, years before it became a corporate necessity. Ms. Jacobson has over 20 years of marketing experience on both the agency-side as well as the corporate-side in a variety of industries including automotive, home furnishings, retail, hardware, manufacturing, and travel/leisure. She holds an MBA in Marketing Management from DePaul University and a BA in Marketing from Michigan State University.

Dr. Martha Kanter
Former U.S. Under Secretary of Education and New York University Distinguished Visiting Professor of Higher Education and Senior Fellow and SHEC Senior Advisor

Martha J. Kanter is a Distinguished Visiting Professor of Higher Education and Senior Fellow at New York University. Her academic interests include: The Confluence of Access, Equity and Excellence; The Intersection of Policy and Politics in American Higher Education; and The Contributions of America’s Community Colleges to the Nation’s Social Fabric, Civic Future and Economy. In 2009, President Barack Obama nominated Kanter to serve as the U.S. Under Secretary of Education. With oversight responsibility for all federal postsecondary statutory, regulatory and administrative policies and programs for the U.S. Department of Education, including the $175B annual federal student aid programs, higher education, adult education, career-technical education, international education and 6 White House Initiatives. Through the first term of the Obama Administration, Kanter and her team focused on increasing college access, affordability, quality and completion to implement President Obama’s goal to have the best educated, most competitive workforce in the world by 2020. She oversaw the successful implementation of the Direct Student Loan program that resulted in a 50% reduction in default rates among first-time, full-time, dependent Pell Grant recipients. Previously, Kanter served as President of De Anza College and then Chancellor of the Foothill-De Anza Community College District for sixteen years. She began her career as an alternative high school teacher in Lexington, MA. Kanter serves on the Board of Directors of the American Association of Colleges and Universities, the Corporation for Enterprise Development and the High Tech Graduation School of Education. She holds a B.A. degree in Sociology from Brandeis University, a M.Ed. from Harvard University and an Ed.D. from the University of San Francisco.

Dan Jenkins
Monsanto
U.S. Regulatory Affairs Lead

Mr. Jenkins is Monsanto’s lead regulatory representative - before the United States Department of Agriculture, United States Environmental Protection Agency, and United States Food and Drug Administration - for all biotechnology and chemistry products. He has built substantial and valuable networks and acted as principal strategist and negotiator of favorable registration terms and broader long term policies on behalf of the company for the last four years. Prior to this role, he earned his B.S. in biology from the California Polytechnic State University in San Luis Obispo. Mr. Jenkins then earned his MS in entomology and applied ecology at the University of Delaware where he published his work on biological control of Colorado potato beetle. After graduate school, he worked for Dow AgroSciences in sales as well as research and development and earned his JD at Loyola Law School in Los Angeles. Subsequently, he joined Monsanto and worked as a regulatory affairs manager on several projects in soybean, corn and cotton before assuming his current role in Washington, D.C. He has been an author on several publications and one patent.

Dr. John Lehman
Michigan Technological University
Associate Vice President for Enrollment, Marketing, and Communication

John B. Lehman is the associate vice president for Enrollment, Marketing, and Communications at Michigan Technological University. John serves as the chief enrollment officer as well as the primary point person for all university marketing and communication efforts. He leads a thriving team of seven areas including the departments of Admissions, Career Services, the Center for Precollge Outreach, Enrollment Services Information Systems, the Student Financial Services Center, International Programs and Services, and University Marketing and Communications. He is a Lead Facilitator for the Leadership Institute and a faculty member for various Academic Impressions conferences and webcasts. His research interests include student impressions and perceptions of college costs and financial aid, creating student service minded campus culture, as well as STEM related outreach, education and its impact on social mobility. He holds a PhD in Education from Colorado State University.
Ryan Munce
My College Options
Vice President

In 2003, as a junior in college, Ryan created the framework for the MyCollegeOptions.org College Planning Program. Over the last eleven years, the program has grown significantly and evolved to be the country’s leading resource for students and families trying to plan and prepare for the transition from high school to college. Throughout his career, he has started business, counseled students and families, developed groundbreaking education research, built programs, and impacted the lives of millions. Ryan has served as an Enrollment Services Coordinator at the University of Missouri-Kansas City, and worked with the Center for Enrollment Leadership, where he assisted in the development of the Admissions Counselor Basic Training™ program. Ryan’s primary career focus has been using technology to advance education. Ryan received a Bachelor’s Degree in Corporate Communications from Creighton University and is finalizing his Master’s Degree in Higher Education Administration from the University of Missouri-Kansas City.

Dr. Diane Murphy
Marymount University
Chair, IT, Management Science, and Cybersecurity

Dr. Diane Murphy currently serves as the chair of the Information Technology and Management Science department. She is also an associate professor of Information Management at Marymount University. Dr. Murphy received a Ph.D. in Information Science and a M.Sc. in Library and Information Studies from the University of Sheffield, England. She received her B.S.C. in Chemistry from the University of Wales. At Marymount, she teaches undergraduate and graduate courses in information technology involving computer technology, computer networking, and computer security and information assurance. Dr. Murphy’s research interests include technology in education (grades K – 20), technology as culture, and the business of information security. She serves as the advisor to the ACM student chapter at Marymount and has acted as site director for the regional ACM programming competition held at Marymount University. Dr. Murphy is active in the professional community working with organizations such as Girls in Technology, Arlington Public Schools, Fairfax County Public Schools, and the Northern Virginia Technology Council (NVTC) to ensure that students, particularly girls, can envisage possibilities for themselves in technology to advance education. Ryan received a Bachelor’s Degree in Corporate Communications from Creighton University and is finalizing his Master’s Degree in Higher Education Administration from the University of Missouri-Kansas City.

Jane Oates
Apollo Education Group
Vice President for External Affairs

Jane Oates is currently the Vice President for External Affairs at the Apollo Group. Prior to joining the Apollo Group in June 2013, Ms. Oates served as the Assistant Secretary for Employment and Training at the U.S. Department of Labor. Immediately before joining the Obama Administration, Ms. Oates served as the Executive Director of the New Jersey Commission on Higher Education under Governor Jon Corzine. For the preceding decade Ms. Oates worked as senior advisor to Massachusetts Senator Edward M. Kennedy. Her portfolio for the Senator included higher education, teacher preparation, research, workforce and training issues, national service and special populations. She was the lead staff on reauthorizations of the Higher Education Act, the Office of Educational Research, the National Science Foundation, the Carl Perkins Career and Technical Education Act and the Workforce Investment Act. Earlier in her career Ms. Oates was the Director of Field Services at the TempAssure University Center for Research in Human Development and Education where she was engaged in research on inclusion, community schools, charter schools, and the work of the federally funded Mid-Atlantic Regional Educational Laboratory. Ms. Oates began her career as a special education teacher in the Boston and Philadelphia public schools. She holds a BA in Special Education from Boston College and an M.Ed in Reading from Arcadia University.

Dr. Richard Rhodes
Austin Community College
President and Chief Executive Officer

Dr. Richard Rhodes is the President and CEO of the Austin Community College District. He joined ACC in September 2011 after serving as President of El Paso Community College for 10 years. A native of Alamogordo, New Mexico, Dr. Rhodes received his Bachelor of Business Administration in Accounting and Master of Arts in Educational Management and Development from New Mexico State University. He earned his doctorate through the Community College Leadership Program (CCLP) at the University of Texas at Austin. His professional associations include the American Association of Community Colleges’ 21st Century Commission on the Future of Community Colleges; the Formula Funding Advisory Committee for the Texas Higher Education Coordinating Board; Board Member of the Texas Workforce Investment Council; and Current Chair of the Texas Association of Community Colleges. Dr.Rhodes is also a board member for the Texas Guaranteed Student Loan Corporation, the Carnegie Foundation, and Educational Testing Service National College Community Advisory Council. He also serves as the Chair of the Board for American YouthWorks, on the boards of local Chambers of Commerce and is a member of the board of the Boy Scouts of America, Capitol Area Council; Austin Partners in Education; and the E3 Alliance. He and his wife, Kate, have been married for more than 34 years, and have four children and five grandchildren. Dr. Rhodes enjoys reading, golf, hiking, and spending time with his family.

Teresa. They have two children.

Dr. Talmesha Richards
STEMconnector® and Million Woman Mentors
Chief Academic & Diversity Officer

Dr. Talmesha Richards is a vibrant scientist who graduated from the Johns Hopkins School of Medicine with her Ph.D. in Cellular and Molecular Medicine. Dr. Richards spent her undergraduate career at the University of Maryland Baltimore County (UMBC) as a Meyerhoff Scholar. She double majored in Chemical Engineering and Mathematics while serving as captain of the Dance Team. Her undergraduate honors included Phi Beta Kappa, Magna Cum Laude and Student Athlete President’s Scholar. She utilized her National Football League cheerleading career as a platform to promote Science, Technology, Engineering, and Mathematics (STEM) Education. She had many mentors throughout her life who encouraged her to persist through her STEM coursework and she considers it her personal responsibility to do the same. As a Science Cheerleader, she shares her personal story to challenge stereotypes and encourage youth to pursue STEM careers. Dr. Richards’ work with Science Cheerleader has been featured on local and national television programs including the Today Show. Prior to joining STEMconnector® as Chief Academic and Diversity Officer, Dr. Richards advocated for the National Girls Collaborative Project, engaging stakeholders and representing national leadership. She has also written for Teach for America’s Pass the Chalk Blog. Her professional memberships include the American Association for the Advancement of Science and the Association for Women in Science (AWS). Her continued service to the community has fostered her desire to be an avid STEM advocate within and outside of STEMconnector®. Dr. Richards believes that being an advocate assists in bringing positive change in people’s lives on a local, national, and international level, and is excited about being a catalyst in that process.

Mr. Ryan McGovern
Million Woman Mentors
Chief Executive Officer

Ryan McGovern is the Founder and CEO of Million Woman Mentors. A graduate of Warrensburg High School and a member of the University of Central Missouri, Ryan received a Bachelor of Science degree in agricultural journalism from the University of Missouri-Columbia. Senator Pearce currently resides in rural Warrensburg with his wife, Teresa. They have two children.

Senator David Pearce
Missouri

Senator Pearce serves as chairman of the Senate Education Committee, and serves on both the Appropriations and Agriculture, Food Production and Outdoor Resources committees. In addition to his legislative committees, he is the 2016 Chairman of the Midwestern Higher Education Compact, and a commissioner for the Midwest Interstate Passenger Rail Commission. He previously served as a member of the Missouri Veterans Commission (2009-2014) and the Missouri Military Preparedness and Enhancement Commission (2005-2008). In recognition of his legislative service, Sen. Pearce has received several awards, including the James C. Kirkpatrick Excellence in Governance Award by the University of Central Missouri, Farm Bureau’s Friend of Agriculture Award, and Senator of the Year by the Missouri Association of Veterans Organizations (MAVO), 2012 Henry Geyer Award by the Mizou Alumni Association, Horace Mann Award by the Missouri National Education Association and the Gordon Warren Land-Grant Award from the University of Missouri Extension. Senator Pearce is an alumnus of the University of Missouri-Columbia. Senator Pearce currently resides in rural Warrensburg with his wife, Teresa. They have two children.
Martin Scaglione  
Hope Street Group  
President and Chief Executive Officer

Martin has made it his life’s work to create access to learning for those in need. His recent roles include Co-Founder and CEO of Viridis Learning, a talent technology company, and President and CEO of EVS Innovation Development Division, where he launched the National Career Readiness system, and helped drive President Obama’s Job Council program, “Right Skills Now.” Previously, Martin served as COO at Bosch-Siemens Household, VP of Corporate Strategy at Hon Industries, and Vice President of Marketing at Maytag. A native of Des Moines and a graduate of Drake University, Martin lives with his wife Lisa in New York City.

Matt Schultz  
Lakeview Technology Academy  
Technology and Engineering Instructor  
Skills USA Co-Advisor

Mathew Schultz has been teaching for 6 years, as an Engineering Instructor at Lakeview Technology Academy in Pleasant Prairie, Wisconsin. He believes that this is a very exciting time to be in education because technology in the classroom is busting at the seams, and this generation’s ability to grasp on to these new technologies, is at its highest. Mathew believes that through project-based hands on learning, students are allowed to explore and apply their own creativity to solutions. His method of teaching utilizes the integration of multiple subjects in classes: fabrication, automation, electronics, programming, and robotics. Mathew teaches his students to see how all of these separate disciplines can tie in together, thereby increasing their ability to come up with multiple solutions. On impacting students, Mathew stated that “In this ever changing global economy we need to prepare our students with the skills necessary to not only compete, but to make a difference.”

Dr. Sonya Smith  
Howard University  
Professor and Chair, Department of Mechanical Engineering and Principal Investigator, HU ADVANCE-IT

Dr. Sonya T. Smith joined the Howard University faculty in 1995 and is the first tenured female faculty member in the Department of Mechanical Engineering. Dr. Smith obtained her Ph.D. in Mechanical and Aerospace Engineering from The University of Virginia in 1995 and was also the first African-American woman to do so. In 2010 she became the first woman promoted to the highest academic rank of Professor (full) in this department and the following year 2011 became the first women appointed as Mechanical Engineering Department Chair at Howard University. Dr. Smith has established an interdisciplinary theoretical and computational fluid dynamics research program. She has received support for her research from NSF, NIH, NASA, DOD and industry. In 2010 she was named an ORISE Fellow at the National Institute of Deafness and other Communication Disorders. Dr. Smith obtained her Masters of Science in Mechanical Engineering (MSME) from The Pennsylvania State University. Her memberships in professional societies include the American Institute on Aeronautics and Astronautics, the American Society of Mechanical Engineers (ASME), the American Society of Engineering Education the Society of Women Engineers, and the National Society of Black Engineers. Dr. Smith is the Principal Investigator for the Howard University ADVANCE-IT award. HU ADVANCE-IT is committed to solving the institutional and national problem of Advancement and Leadership of Women in STEM. This award, funded by the National Science Foundation will enable Howard University to develop an innovative and strategic model for institutional transformation that increases the number of female leaders in the STEM disciplines. Her work for women’s leadership in STEM is both a national and international initiative. Dr. Smith worked with the South Africa Institute of Science and Technology (DST) on the Gender Summit 5 that was held in April 2015. She is also a member of the Howard University South Africa Project and will jointly host the HU ADVANCE-IT/HURSAP Women STEM Conference in Johannesburg, Republic of South Africa in October 2015. Her personal goal is to be a mentor and resource to all students but especially those underrepresented in engineering.

Tom Snyder  
Ivy Tech Community College  
President

Thomas J. Snyder serves as president of Ivy Tech Community College, the largest institution of higher education in Indiana and the nation’s largest single-accredited statewide community college system. Appointed in 2007, President Snyder leads the strategic, academic and operational processes of Indiana’s largest and fastest growing college, serving more than 200,000 students annually at 32 campuses and 100+ learning centers that provide a full-spectrum of educational resources, transfer credits, associate degrees, workforce assessments, training and professional certification. Snyder was selected by President Obama to serve on a Roundtable on Affordability and Productivity at the White House in December 2011. Prior to joining Ivy Tech, President Snyder held Chairman and CEO/President positions at Flagship Energy Systems Center and Delco Remy International, Inc., respectively. He began his career at General Motors Corporation, advancing through executive positions in engineering, marketing and sales for automotive batteries, magnets and electric vehicle components. Snyder graduated from Kettering University, formerly General Motors Institute in 1967, with a degree in mechanical engineering. Snyder also holds a master’s degree in business administration from Indiana University. Snyder also completed a six-year tour of duty with the Air Force with research and development assignments at Vandenberg and Andrews Air Force Bases and the Pentagon. He serves on the boards of Conexus, Energy Systems Network, Lightweight Innovations for Tomorrow, Community College Advisory Panel, Auto Communities Network, The Manufacturing Institute, Midwestern Higher Education Compact, Rebuilding America’s Middle Class, Central Indiana Corporate Partnership, Indiana Career Council, Toqueville Society of United Way, Academic Advisory Council, National Workforce Solutions Advisory Board, and the Paramount Theatre.

Bruce Stephen  
Monster Government Solutions  
Director of Real-Time Labor Intelligence and Market Research

Mr. Bruce Stephen is the Director of Real-time Labor Intelligence Market Research for Monster Government Solutions. Bruce brings over 25 years of market research experience that focuses on building products, business partnerships and new capabilities with real-time labor market intelligence, personality assessments and other solutions. He has developed and delivered a variety of projects utilizing real-time labor intelligence to drive decisions in workforce, economic and education development. Since 2014, he has led a partnership between Traitify and Monster Government Solutions to expand opportunities in postsecondary education and workforce development for the workforce and personal assessment market. Bruce brings extensive experience in market intelligence, product development, management, primary research, consulting, business development, as well as research writing and analysis to drive successful Monster initiatives. Before joining Monster, Bruce worked with Management Insight Technologies developing and leading multi-national qualitative and IBM and Red Hat. He has also served as research director with Kensington Group, Inc., a position in which he coordinated primary research and consulting projects related to IT industry influencers. During a 13-year career with leading IT market researcher IDC, Bruce worked in a variety of research and management positions. In 1999, he was voted “analyst of the year” by a group of IDC’s largest customers. Bruce worked closely with major IT firms such as Dell, HP, IBM, NEC and Toshiba. He holds a B.A. in cultural anthropology from Macalester College.

Roger Tadajewski  
National Coalition of Certification Centers  
Executive Director

Roger Tadajewski has dedicated his professional life to the advancement of education and workforce development in the transportation, aerospace, energy and manufacturing industries. Currently Mr. Tadajewski is the Executive Director of NC3-National Coalition of Certification Centers. This organization targets the advancement of standardized certifications developed in partnership with industry and educational leaders in the transportation, aviation, and energy sectors. Mr. Tadajewski received his degree in Business at Pepperdine University, The George L. Graziadio School of Business and Management in 1995. His professional experience includes 14 years in metallurgical engineering research and development in both the energy and aerospace industries, he continued on to develop the most comprehensive automotive educational youth program in America -Automotive Youth Education Systems (AYES). In 2007 he began work on forming the current NC3 model to bring business, industry and education across multiple sectors to collectively work together. To attract, train and retain current and the emerging workforce in the aviation/aerospace, energy, and manufacturing industries. These efforts have led to the founding of NC3 in 2009. Mr. Tadajewski currently resides in Edmond, OK and is currently serving as a board member for the National Occupational Competency Testing Institute, PAMA (Professional Aviation Maintenance Association) Real World Design Challenge, Skills USA, and NC3-National Coalition of Certification Centers.
Abigail Ventrillo
VML Associate Director, Talent Recruiting

Abigail has been in Talent Acquisition for over 10 years and has recruited globally for multiple industries including Finance, Information Technology, Marketing and Human Resources. She obtained her Professional in Human Resources Certification in 2012 and is considered an expert in analyzing recruiting trends and developing programs to support hiring needs. Currently she leads the recruitment of technology talent across all North American offices for VML. VML is a global advertising agency that delivers forward-thinking ideas and solutions to some of the world’s most influential brands including: Colgate-Palmolive, Dell, Gatorade, PepsiCo, Microsoft, and Wendy’s exit. In addition to managing the overall hiring needs, Abigail is also responsible for creating partnerships with education and community institutions to support the development and recruitment of a highly skilled talent pipeline. Prior to joining VML, she led DST’s efforts to design and implement programs focusing on the educational aspect of new talent with a particular focus in STEM skillsets. She also directs the selection committee for the company’s summer internship program and student-faculty research collaborations investigating digital games. Her work teaching aviation and aerospace to high school students allowed Tiala to participate in NASA’s Summer Teacher Enrichment Program. Tiala also worked collaboratively with high school students and university professors to integrate microelectromechanical sensors, space capsule simulators, and teleoperated robotics curriculum into her high school labs. Dr. Tiala holds a B.S. degree in Industrial Education from St. Cloud State, MN and a M.S. and Ph. D. in Industrial Education and Technology from Iowa State University. During free time she can be found sailing on the lakes of central Minnesota and working on her genealogical research.

Dr. Sylvia Tiala
University of Wisconsin, Stout
Associate Professor

Sylvia Tiala is currently an associate professor at the University of Wisconsin-Stout in the School of Education. Previously she spent time teaching Technology Education at the middle and high school levels in South Dakota and Iowa. Her teaching and research interests revolve around the intersection of digital technologies, students as researchers, and teacher preparation in STEM and Technology Education. Tiala bases much of her work on Papert’s constructionist theory and is currently working to integrate fab lab technologies and the Research Skill Development framework into a process-based K-16+ framework. Her graduate work focused on comparing traditional teaching methods, simulations and virtual reality in training and educational environments. This study of immersive virtual reality as a learning tool led to opportunities to teach at UW-Stout’s game design program and to further her research collaborations investigating digital games. Her work teaching aviation and aerospace to high school students allowed Tiala to participate in NASA’s Summer Teacher Enrichment Program. Tiala also worked collaboratively with high school students and university professors to integrate microelectromechanical sensors, space capsule simulators, and teleoperated robotics curriculum into her high school labs. Dr. Tiala holds her B.S. degree in Industrial Education from St. Cloud State, MN and a M.S. and Ph. D. in Industrial Education and Technology from Iowa State University. During free time she can be found sailing on the lakes of central Minnesota and working on her genealogical research.

Dr. Thomas Tubon
Madison Area Technical College
Project Director and Principal Investigator, NSF ATE Program

Dr. Thomas Tubon is an established scientist and professor in the Biotechnology Department at Madison College. He teaches program courses in the Applied Associates Degree in Biotechnology, Post-Baccalaureate Certificates in Biotechnology, Stem Cell Technologies Certificate, and Industry Contract workshops in Human Stem Cell Technologies. He currently serves as the Principal Investigator and Director for the National Science Foundation – Advanced Technological Education program project for developing workforce-centered programming in Emerging Stem Cell Technologies (DUE 1501553). Dr. Tubon oversees development of industry-based curricula, and strategic implementation for local, regional, and national-level program scale-up. In this role, he has facilitated the creation of a broad network of industry, community, and academic stakeholders through outreach and partnerships, and works empowering career pathways in Science, Technology, Education, and Mathematics (STEM). In the last 36 months, Dr. Tubon’s involvement in over 100 educator workshops and conferences, family and youth science events, and Career Technical Education (CTE) courses has directly engaged over 5000 stakeholders in STEM, including aspiring youth in our underserved and underrepresented communities. Prior to joining the Biotechnology Department at Madison College in 1997, Dr. Tubon completed his Ph.D. in Molecular Genetics as an NIH-awarded research fellow. His interests focused on neurodegenerative diseases and aging-related disorders which resulted in several high profile peer-reviewed publications. Dr. Tubon holds a Ph.D. in Molecular Genetics from Stony Brook University and Cold Spring Harbor Laboratory, and a BS in Molecular Biology from San Diego State University.

Andrew Wheeler
Diversified Search
Practice Leader Education and Not-for-Profit Practice

Andrew C. Wheeler is Managing Director and Practice Leader of the Education and Not-for-Profit Practice and is an active member of the Healthcare Practice. He also sits on the firm’s Executive Committee. Previously, he served as the firm’s Chief Lean Officer and drove process improvement initiatives to deliver more value to clients. Andrew’s clients have included research intensive-institutions, medical schools, liberal arts colleges, and museums. Prior to joining the firm in 2003, Andrew spent four years with Heidrick & Struggles. Passionate about finding the right individuals who can make a significant impact for institutions and organizations, Andrew has spent his entire career discovering and recruiting leaders. He listens carefully to and partners closely with his clients in a transparent manner. Andrew began his career in undergraduate admissions at Bowdoin College in Maine. He managed student volunteers, reviewed applications, and recruited prospective students. Andrew subsequently worked in the creative and technical staffing industry for HireKnowledge and effectively managed the Philadelphia, New York, and San Francisco offices.

Mark Williams
Taft College
Vice President of Instruction

Mark Williams is the Vice President of Instruction at Taft College. Located in western Kern County northwest of Taft, California, Taft College prides itself as a small and comprehensive institution with a wide range of educational programs and support services to students. In addition, Taft continuous-ly partners with local elementary, middle school, junior and high schools to increase STEM aware-ness and to improve preparation of K-12 students interested in STEM through targeted outreach. Moreover, Taft college has been working in partnership with California State University, Bakersfield and University of La Verne to create STEM pathways to improve the STEM pipeline. These curriculum gaps and align learning outcomes with degree completion and workforce preparedness. Prior to working at Taft, Mark served as the Dean of Career and Technical Education at Umpqua Community College in Roseburg, Oregon. Mark has been involved in statewide projects to support student suc-cess, retention and persistence.

Ted Wells
STEMconnector®
Vice President and Chief Strategy Officer

Ted Wells is VP/Chief Strategy Officer at STEMconnector® - an organization committed to improving communication between stakeholders in STEM education. In his role at STEMconnector®, Ted manages a portfolio of projects relating to STEM K-12 education and workforce development. His clients include non-profit organizations, government entities and corporations. Key projects include the STEM Food and Ag Council, STEM Higher Education Council and STEMconnector®’s computer science education and maker outreach. He also has led the development of STEMconnector®’s Google+ On-Air Hangouts series that highlight issues in STEM education. As the son of an engineer and an educator, this field is not far from his roots. He began his career as a French and Spanish teacher after attending Washington and Lee University. After 6 years as a teacher, Ted attended graduate school in International Affairs at the Elliott School at The George Washington University focusing on International Economic Affairs and International Development. He lives in the Columbia Heights neighborhood in Washington DC.
Dr. Chad Womack
United Negro College Fund
National Director, STEM Initiatives, UNCF-Merck Fellowship Program

Dr. Chad Womack is a science educator and technology entrepreneur, researcher, and scholar. Dr. Womack currently serves as the National Director of STEM Education Initiatives and the UNCF Merck Fellowship Program at the United Negro College Fund (UNCF). In his current capacity at the UNCF, Dr. Womack leads the organization's strategic direction to address unmet educational needs in science, technology, engineering, and math (STEM) college and career pipeline for African American students. In addition, Dr. Womack is the Project Lead for the HBCU Startup and Innovation Initiative at the UNCF. A White House and Mitchell Kapor Foundation supported effort to galvanize tech entrepreneurship and commercialization across Historically Black Colleges and Universities. Prior to joining the UNCF, Dr. Womack Co-Founded the American 21 Project an innovation-based community and economic development nonprofit organization dedicated to empowering urban centers and underserved communities through science, technology, and innovation. Prior to The America21 Project, Chad founded the Philadelphia Biotechnology and Life Sciences Institute as a nonprofit initiative dedicated to addressing unmet educational and workforce development needs of the City of Philadelphia. Dr. Womack earned his Ph.D. in Biomedical Sciences from the Morehouse School of Medicine, and is a proud graduate of Morehouse College earning his B.S. Degree in Biology with minors in Chemistry and Applied Physics. A father of two, Chad and his family reside in his native Philadelphia area.

Dr. Keith Moo-Young
Washington State University Tri-Cities Chancellor

Dr. H. Keith Moo-Young became chancellor of Washington State University Tri-Cities in June 2013. Chancellor Moo-Young previously served as Dean of the College of Engineering, Computer Science, and Technology at California State University, Los Angeles, and Villanova University in Pennsylvania as the Associate Dean of Research and Graduate Studies. Chancellor Moo-Young earned his Ph.D. and master’s degree in Civil and Environmental Engineering from Rensselaer Polytechnic Institute, New York and executive master’s in technology management from the University of Pennsylvania. Chancellor Moo-Young is a graduate of Morgan State University in Baltimore, with a bachelor’s degree in civil engineering. A licensed Professional Engineer, he has conducted research in solid and hazardous waste management, environmental containment, and remediation technologies. He is known for his innovative ideas, his energy, and his focus on student success. Dr. Moo-Young’s career commitment to STEM education includes outreach to inner-city high schools to encourage student participation in STEM. Dr. Moo-Young established the VESTED Program at Villanova University and at Cal State L.A. which aims to increase STEM literacy through a summer camp learning experience for talented and gifted high school students from underserved communities. He also helped establish the IMPACT LA program, which partners graduate teaching fellows with middle and high school science and math teachers within the East Los Angeles area.
Nicole Rifkin
Olin College of Engineering
Student

Nicole is in her fourth year at Olin College of Engineering studying electrical and computer engineering. She is currently working as a software developer for DS SolidWorks as part of her Senior Capstone Program in Engineering, where she and a team of three other students are working for DS SolidWorks on a design application for elementary and middle school aged-students. The second project is a collaboration of Babson and Olin students for an Affordable Design and Entrepreneurship program. She is the project manager of the team, working with Agastya International Foundation to inspire curiosity and excitement for STEM in rural, under-served children in India through hands-on learning. This past spring, she traveled to Belgium to consult for KU Leuven and Thomas Moore on their engineering design programs. In that semester, she researched the current state of the programs, proposed and presented papers and ran workshops for the instructors to expose them to the design process. This connects to her work as an ambassador of Olin to visiting deans, professors and guests from around the world. Since starting at Olin College, Jamie has interned at Microsoft, Lockheed Martin, athenahealth and Cortica Ltd, has been a course assistant for Computer Architecture, and worked on projects stretching from designing for volunteer physicians to building a robotic player guitar. She is passionate about exploratory teaching models and using technology to enhance learning.

Jamie Gorson
Olin College of Engineering
Student

Jamie is a senior studying Electrical and Computer Engineering with a concentration in Innovative Education at Olin College. After graduation, she plans to pursue a graduate degree researching educational technologies and STEM education. This year she is working on two capstone projects. The first is the Senior Capstone Program in Engineering, where she and a team of three other students are working for DS SolidWorks on a design application for elementary and middle school aged-students. The second project is a collaboration of Babson and Olin students for an Affordable Design and Entrepreneurship program. She is the project manager of the team, working with Agastya International Foundation to inspire curiosity and excitement for STEM in rural, under-served children in India through hands-on learning. This past spring, she traveled to Belgium to consult for KU Leuven and Thomas Moore on their engineering design programs. In that semester, she researched the current state of the programs, proposed and presented papers and ran workshops for the instructors to expose them to the design process. This connects to her work as an ambassador of Olin to visiting deans, professors and guests from around the world. Since starting at Olin College, Jamie has interned at Microsoft, Lockheed Martin, athenahealth and Cortica Ltd, has been a course assistant for Computer Architecture, and worked on projects stretching from designing for volunteer physicians to building a robotic player guitar. She is passionate about exploratory teaching models and using technology to enhance learning.

Student Speakers

Jamie Gorson
Olin College of Engineering
Student

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Nicole Rifkin
Olin College of Engineering
Student

Nicole is in her fourth year at Olin College of Engineering studying electrical and computer engineering. She is currently working as a software developer for DS SolidWorks as part of her Senior Capstone Program in Engineering. Her team’s project is creating an educational app designed to introduce students to the engineering design process from an early age. During her time as an undergraduate student, she has researched motivation, cognition, and self-directed learning in classroom contexts. She has also designed the curriculum and piloted a half-year computer aided design course for girls ages 9-14. Her past professional experiences include industrial ride control design for the Walt Disney Company and image processing research for Dupont Pioneer. She is passionate about travel, software development, and the intersection of technology and education.

STEM Higher Education Council Calendar

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Chair</th>
<th>Contact Information</th>
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</thead>
<tbody>
<tr>
<td>November 9</td>
<td>STEM Higher Education Council: Disruptive Innovation in Higher Education Summit</td>
<td>In Washington, DC at the National Press Club Ballroom</td>
<td>Rob Denson (DMACC)</td>
<td><a href="mailto:Talmesha.Richards@STEMconnector.org">Talmesha.Richards@STEMconnector.org</a>, <a href="mailto:Ted.Wells@STEMconnector.org">Ted.Wells@STEMconnector.org</a>, <a href="mailto:Edie.Fraser@STEMconnector.org">Edie.Fraser@STEMconnector.org</a></td>
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<td>November 10</td>
<td>STEM Councils Meeting – Session Eleven</td>
<td>In Washington, DC</td>
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<td>November 23</td>
<td>Fourth 2015 STEM Higher Education Council Leadership Call</td>
<td>Begins at 2:00 PM ET</td>
<td>Rob Denson (DMACC)</td>
<td><a href="mailto:Talmesha.Richards@STEMconnector.org">Talmesha.Richards@STEMconnector.org</a>, <a href="mailto:Ted.Wells@STEMconnector.org">Ted.Wells@STEMconnector.org</a>, <a href="mailto:Edie.Fraser@STEMconnector.org">Edie.Fraser@STEMconnector.org</a></td>
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<td>December 8</td>
<td>Cyber Security – Town Hall Google Hangout</td>
<td>At 2:00 PM ET</td>
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<tr>
<td>December 9</td>
<td>Computer Science Education Week – Town Hall Google Hangout</td>
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2016

| January | Release of Scaling STEM Success – Nurturing and Retaining STEM Talent | Talmesha.Richards@STEMconnector.org, Edie.Fraser@STEMconnector.org |
| February| CTE Month with Announcements                                         | Talmesha.Richards@STEMconnector.org, Edie.Fraser@STEMconnector.org |
| April 1 | STEM Higher Education Council Meeting                                | At Cengage Learning in Boston, MA | Rob Denson (DMACC) | Talmesha.Richards@STEMconnector.org, Ted.Wells@STEMconnector.org, Edie.Fraser@STEMconnector.org |
| April 28| STEM Global Talent Summit                                           | At Gallup in Washington, DC     |                  | Edie.Fraser@STEMconnector.org, Heidi.Koimbach-Sauter@pepsico.com, Tim.Edwards@STEMconnector.org |
| September | Release of 100 CEO Leaders in STEM & Panel Discussion at STEM Global Talent Summit |                      | Lorena.Fimbres@STEMconnector.org |
| November 9 | STEM Higher Education Council National Leaders Summit                | In Washington, DC               | Rob Denson (DMACC) | Talmesha.Richards@STEMconnector.org, Ted.Wells@STEMconnector.org, Edie.Fraser@STEMconnector.org |
### Social Media Contact Information

<table>
<thead>
<tr>
<th>Participating SHEC Institutions</th>
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<tr>
<td>Apollo Education</td>
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<td>Jane Dates</td>
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<td>Arizona State University</td>
<td>@ASU</td>
<td>Dr. Mahmud Faroque</td>
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<td>Dr. Heather Hiles</td>
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<td>Colorado Technical University</td>
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<td>Cami Jacobson</td>
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<td>Delta College</td>
<td>@DeltaCollege</td>
<td>Dr. Reva Curry</td>
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<td>Des Moines Area Community College</td>
<td>@DMACCNews</td>
<td>Dan Greteman</td>
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<td>Eric Brewe</td>
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<td>Dr. Jane Bradley</td>
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<td>Howard University</td>
<td>@HowardU</td>
<td>Dr. Sonya Smith</td>
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<td>Ivy Tech Community College</td>
<td>@HyTechCC</td>
<td>Tom Snyder</td>
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<td>LeMond Scott Group</td>
<td>@LSGStrategy</td>
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<td>Madison Area Technical College</td>
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<td>Dr. Thomas Tubon</td>
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<td>Marymount University</td>
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<td>Dr. Dane Murphy</td>
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<td>Mathematics, Engineering, and Science Achievement (MESA)</td>
<td>@PennMESA</td>
<td>Dr. Jamie Bracey</td>
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<td>Monster Government Solutions</td>
<td>@MonsterGov</td>
<td>Bruce Stephen</td>
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<td>Dr. Leslie Flynn</td>
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<tr>
<td>University of Maryland, Baltimore County</td>
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### Participating SHEC Institutions

| University of Massachusetts, Boston | @UMassBoston | Dr. Andrew Grosovsky | @Dean_Grosovsky |
| University of Nebraska             | @UNLincoln   | Dr. Ronnie Green | @RonnieDGreen |
| University of Phoenix              | @UOPX        | Dr. Hinrich Eylers | @hreEylers    |
| Washington State University        | @WSUNews     | Dr. Keith Moo-Young | @kmooyung     |
| Western Governors University       | @wgu         | Dr. Maria Andersen | @businesgrrl |

### Participating Institutions

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### SHEC TEAM

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This glossary contains several disruptors currently being discussed in educational institutions.

**Blended Learning**
Blended learning is the implementation of technology to provide certain aspects of a class through an online medium. As defined by the Sloan Consortium, a blended learning course delivers 30-70% of its instruction online. Blended learning has considerable potential to be a very disruptive form of education. When incorporating a blended learning style course into any curriculum, it should first go through a rigorous redesign to ensure that all online aspects are fully functional and provide an intuitive interface that make interaction between students and course materials easy to use and understand.

**Career and Technical Education (CTE)**
Career and technical education provides numerous opportunities for well paying jobs in fields such as technology, healthcare, automotive, and machinery. All of these various fields are in high demand, but will soon be in dire need of a highly skilled workforce. CTE education can also usually be accomplished in half the time of a normal 4-year degree at a drastically lower cost.

**Competency-Based Learning**
Competency-based learning diverges from the traditional “one size fits all” approach to learning. Students are given multiple opportunities and pathways to demonstrate that they have reached competency. They are able to progress through the curriculum at their own pace.

**Concurrent Enrollment**
Concurrent enrollment involves the enrollment of students in two separate, academic related institutions. Generally, it is in reference to high school students taking college courses, but it can include any individual that is participating in two related programs. The type of enrollment disrupts the standard model of four years of high school and college.

**Confidence-Based Learning**
Confidence-Based Learning measures the overall correctness of a student or learner’s knowledge and their confidence with the subject or topic. This form of learning increases retention and decreases the chance of guessing on an assessment. This form of learning lowers the chance for skewed results on traditional single-score assessments, and allows the teacher to distinguish between what the student thinks and what they know.

**Design-Thinking Maker Movement**
“Design-thinking” and the “Maker-Movement” have recently been incorporated into K-12 schools to increase student interest and involvement in Technology and CTE related fields. Design-thinking classes take place in fabrication labs, also referred to as “fab-labs” or “maker-spaces” where students have a safe space to practice basic fabrication skills such as soldering, deconstruction and reconstruction of basic electronics, and the creation and programming of introductory level circuit boards.

**Experiential Learning**
Broadly, experiential learning is any learning that supports students in applying their knowledge and conceptual understanding to real-world problems or situations where the instructor directs and facilitates learning. In practice experiential learning provides students the requisite knowledge of a skills or action, allows them to apply that knowledge in a real-world hands-on capacity, and then creates a space for students to reflect upon the experience or activity to expand and progress their understanding of the material.

**Game-Based Learning (GBL)**
Game based learning is a type of game play that has defined learning outcomes. This disruptor also describes an approach to teaching, where students explore relevant aspect of games in a learning context designed by teachers. Teachers and students collaborate in order to add depth and perspective to the experience of playing the game. Students work toward a goal, choosing actions and experiencing the consequences of those actions along the way. They make mistakes in a risk-free setting. Through experimentation, they also actively learn and practice the right way to do things. This keeps students highly engaged in practicing behaviors and thought processes that we can easily transfer from the simulated environment to real life.

**Innovative Delivery Methods of Instruction**
Innovative delivery methods of instruction are alternative methods to delivering lessons and teaching subject matter to students. In the increasingly digital age of today, the most innovative methods utilize employ the distribution of educational materials via technology platforms. These methods include the replacement of traditional textbooks with Open Educational Resources (OER’s) as well as cloud storage of homework assignments, lectures and notes.

**Industry-Based Training**
Industry-Based Training provides undergraduate students the opportunity for a full-time placement in a particular industry, for 6 to 12 months, in an area relevant to their studies. It is specifically designed to complement various skills by developing the teamwork, communication, social and political skills that are sometimes referred to as soft-skills. These soft-skills provide the framework students will need to apply their knowledge efficiently and effectively in an organizational environment. Industry-Based Training also gives students the chance to learn first-hand what it’s like to work in their field of interest.

**Big Data**
Big Data is a phrase that refers to the vast numbers of data sets that are collected daily. Big data will revolutionize online learning and higher education. Big data in the online learning space will give institutions the predictive tools they need to improve learning outcomes for individual students. By designing a curriculum that collects data at every step of the student learning process, universities can address student needs with customized modules, assignments, feedback and learning trees in the curriculum that will promote better and richer learning.

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Innovative Retention Methods
Innovative retention methods define strategies used to increase student retention by identifying high-risk students and employing techniques to keep them in school. Successful retention programs encompass virtually everything an institution does to improve the quality of student life and learning. Retention should not be an institutional goal but rather a by-product of improved educational programs and services for students. Students persist when they are satisfied with the quality of educational programs, services, and environment.

Interdisciplinary teaching
STEM disciplines are mainly taught in silos, but the nature of the workforce within STEM blurs the lines between multiple disciplines. Therefore, teaching STEM disciplines through interdisciplinary approaches would be more in line with the nature of STEM. One of the biggest educational challenges for K-12 STEM education is that few general guidelines or models exist for teachers to follow regarding how to teach using STEM integration approaches in their classroom.

Massive Open Online Courses
A Massive Online Open Course (MOOC) is a course of study made available over the Internet to a very large number of people at no cost. The MOOC uses the traditional course materials and in addition a cache of online community support forums, and an interactive interface that brings students and professors together. Technology is quickly disrupting education around the world. The deviation from the traditional classroom experience to the convenience of being at home has recently made waves and this trend is projected to continue. MOOCs provide a learning platform for individuals who are not able to afford the in-class experience, as well as extensive connectivity to the surrounding world.

Microlectures
Microlecture are one- to three-minute lectures that highlight key concepts and introduce activities. The intent of these microlectures is to teach students key concepts and stimulating activities which can be used as an educational tool to help students synthesize information through their normal assigned readings, papers and class activities.

Neo-apprenticeships
A neo-apprenticeship is an apprenticeship that provides new training flexibilities, new support service arrangements and opportunities in a wide range of industries. This program assigns students to industries where they can serve as apprentices and trainees. This helps the students to gain real life experience in areas of interest. This apprentice involves the combination of paid work and structured training which provides an incentive for the students to engage actively in the program.

Peer-to-Peer Education
Peer-to-Peer education is simply an educational practice in which students interact with other students to attain educational goals. This education is an effective means for student to gain deeper understanding of new concepts through informal and formal means. The interaction between peers allow students to enter the ‘zone of proximal development’ where a less able peer is able to enter a new area of potential development through problem solving with someone more able.

Performance (Outcomes)-based Funding
Outcomes-based funding is an educational model that funds educational institutions according to their students’ overall academic performance on a standardized test when compared to the national average. This reward based funding is not a one-size-fits-all model. States can choose to implement certain criteria for funding eligibility or consideration. Criteria might be based on a specific threshold, outcome, or determined through metrics such as the number of students from at-risk backgrounds who graduate each year, enrollment percentages for females and minorities, and academic experience from internship or mentorship programs. The intent of this funding is to motivate states to do more in these focus areas to be able to qualify for funding, which will be an incentive for institutions to develop a more inclusive approach to educational issues.