Regional Approaches to STEM Workforce Development: A Guide for Employers

Author: Jacqueline A. Miller
Erin S. White
This report discusses regional STEM workforce development initiatives utilized to improve educational outcomes, workforce readiness, and employer brand in communities. Regional workforce development efforts require collaboration from employers, school districts, postsecondary institutions, philanthropic organizations, and other major community actors.

In this report, we will discuss three popular regional STEM workforce development initiatives specifically through the lens of employers, including benefits and challenges of each type, as well as examples.

We also believe this report will benefit other community actors involved in regional workforce development efforts – including school districts, postsecondary institutions, nonprofits, and others – by providing them with an employer perspective and discussing some of the best practices for bolstering employer engagement in community efforts.
While the STEM talent crisis makes national news, it manifests differently in each community. An employer may struggle to find engineers with advanced postsecondary degrees in one region, and yet that same employer may have plenty of engineering candidates but struggle to achieve diversity goals in another location.

Communities also feel the pressure to develop their local workforce. While our economy is increasingly global, the majority of economic growth happens locally. It is crucial that individual communities serve as drivers of economic growth and mobility. Community actors – including K-12 schools, employers, local government, postsecondary institutions, and other institutions – have essential roles to play in the development and growth of their local economies.

Regional workforce development initiatives can address an employer’s STEM talent needs and community economic goals through a cross-sector, place-based approach. These initiatives foster collaboration between industries, school districts, local government, and other key players of the community to make systemic change across all stages and ages of STEM talent pathways.

Participating in or launching regional STEM workforce development efforts enables businesses to engage with their communities in a much deeper and more meaningful way than they are able to when they only interact with a small part of the talent pipeline (e.g., when they hire recent high school or college graduates). Through regional workforce development efforts, employers can collaborate with school districts and community leaders to improve K-12 educational outcomes – thus bolstering their eventual talent pipelines. Employers can also work with postsecondary institutions to provide work-based learning experiences and better prepare postsecondary students for the workforce. Lastly, employers can work with community leaders to provide more educational and workforce pathways to local students and adults to strengthen their local economy.
Employers become engaged in regional workforce development initiatives for several reasons, including:

- They are interested in investing in a long-term talent strategy.\(^4\)
- They recognize engaging the entire community is the only way to create a transformative career pathway for students.\(^5\)
- They want to be recognized as a good community partner in the communities where they have a physical location.\(^6\)
- They are incentivized by government funding.\(^7\)

Regional workforce development efforts offer a strong approach to addressing large, complex, and systematic problems because they involve collaboration among multiple sectors and focus on the root of problems within individual communities.

The STEM talent crisis is influenced by an entire ecosystem, not just a single organization. It is a multi-sector and multi-age complex problem that requires collaboration across industries, communities, and sectors to begin to address.\(^8\)

Regional workforce development initiatives involve multiple constituents in the community whose collaboration is crucial to enact change.
Regional STEM workforce development initiatives have been gaining momentum among industry and across communities in the United States in recent decades. This type of solution can take many different forms. Employers can choose one of several different approaches to engage in regional workforce development initiatives – either by joining existing efforts or by launching their own initiatives. Some of these include partnering with local chambers of commerce to build more robust workforce pipelines, investing in a specific age group of students (e.g., developing a high school internship program), or participating in cradle-to-career efforts.

Though they may differ in approach and in who is involved, all regional STEM workforce development efforts aim to bolster the local economy and overall well-being of a community through improving STEM educational outcomes, workforce readiness, and/or employee training and retention. Additionally, the different types of initiatives are not mutually exclusive, and it is common for employers to invest and/or engage in multiple efforts.

In this report, we will provide three examples of approaches employers can take along with the benefits and challenges of each. We will also offer an example of each approach.

The three approaches employers can adopt include:

1. Joining or launching a STEM cradle-to-career effort
2. Creating a portfolio of investments that includes every stage of the STEM talent pipeline
3. Investing in a specific cross-sector intersection point in the STEM talent pipeline
1. JOINING OR LAUNCHING A STEM CRADLE-TO-CAREER EFFORT

Cradle-to-career efforts are one popular and comprehensive type of regional workforce development initiative. These are efforts where community leaders work together to address challenges along educational pathways from early childhood through postsecondary education. These efforts are often forms of collective impact, an increasingly popular approach to solving specific community problems at scale. In collective impact, a group of important actors from different sectors commit to a common agenda. The five conditions necessary for collective impact efforts to succeed are:

1. Common agenda: collectively defining the problem and creating a shared vision to address it
2. Shared measurement: agreeing to track progress the same way to allow for continuous improvement
3. Mutually reinforcing activities: coordinating collective efforts to maximize the end result
4. Continuous communication: building trust and relationships among all participants
5. Backbone support: having a team dedicated to orchestrating the work of the group

6. Regional Approaches to STEM Workforce Development

The Role of the Backbone Organization

In cradle-to-career efforts, a backbone support is an independent, dedicated staff that provides support and key functions for the sustained operation of the initiative.

The six essential functions of backbone support are:
1. Guiding vision and strategy
2. Supporting aligned activities
3. Establishing shared measurement practices
4. Cultivating community engagement and ownership
5. Advancing policy
6. Mobilizing resources

For more information about serving as a backbone organization, reference FSG’s Backbone Starter Guide.
Employers can engage by serving as an active participant in a cradle-to-career effort, by acting as a backbone organization, or by being the catalyst and launching a cradle-to-career initiative.

Examples of cradle-to-career efforts in communities nationwide include StriveTogether, Say Yes to Education, and Ready by 21.

**Benefits for employers**

Cradle-to-career efforts are by definition designed to change systems, and can yield deep, sustainable transformation in the workforce ecosystem of a community. This approach helps address workforce development needs of the future, avoiding the continuous scramble for talent so many employers find today. However, this benefit takes time to unfold. Cradle-to-career approaches require all participants to adopt a unique mindset balancing urgency for change and patience to realize it.

**Potential challenges employers face in cradle-to-career efforts:**

- Industry and school districts often operate in silos and can come to the table with varying opinions and a lack of trust in the other
- Difficulty measuring success and collecting data given the variety of information-gathering systems used by different organizations
- Previously unsuccessful collaborative efforts or too many competing community initiatives can lead to burnout
- Significant and sustained time commitment required over multiple years in order to allow time to build working relationships and trust

**Advice for communities to effectively involve employers in cradle-to-career efforts:**

- Recognize and respect the strengths of the employers, such as their knowledge of in-demand skills and competencies
- Host annual meetings to provide and listen to feedback and sunset programs when necessary
- Leverage a neutral convener – an independent organization that can bring different parties together – when possible
- Build in early and short-term wins to build and maintain morale
An example of a company that is deeply engaged in cradle-to-career efforts is Ford Motor Company Fund (Ford Fund), the philanthropic arm of Ford Motor Company. One of Ford Fund’s initiatives is Ford Next Generation Learning (Ford NGL). Ford NGL offers a variety of education-workforce solutions including guiding communities to build career and interest-driven academies for students in communities across the United States and in the UK that focus on improving high school graduation rates, student preparedness for the workforce and life, employer-community relations, and boosting local economies.

Ford NGL utilizes a community-driven approach to achieve the following:

1. Increased community prosperity shared by all
2. A strengthened talent pipeline
3. More young people prepared for college, careers, lifelong learning, and leadership
4. Increased educational equity and justice
5. The capacity to continue and go further

Ford NGL supports more than 40 communities across the country that utilize Ford NGL’s approach to developing and sustaining the career academy model to transform the high school experience of local students. To improve students’ preparedness for future jobs, Ford NGL academies focus on embedding academic, 21st century, and technical knowledge and skills in students’ high school curriculum, both in the classroom and out of the classroom through work-based learning experiences. The academies require the collaboration of various stakeholders in the community, often including school district, civic, industry, and nonprofit leaders.

While the career and interest-driven academies vary across the communities, all of them share the following three characteristics:

- The career or thematic program of study selected by the student leverages an area of personal interest and integrates it with core academic knowledge. This integrated program of study is offered within a small learning community.
- The academies are not stand-alone programs but are a part of a district strategy to offer a portfolio of approaches ("multiple pathways") so that every student has the opportunity to choose a program that fits a personal interest.
Case Study Snapshot: Ford Next Generation Learning

- The programs offer extensive real-world contact with adults currently working in the field or area of interest, and they enable students to earn dual enrollment, industry-recognized certifications, and/or articulated college-level credits while still in high school, while developing the attitudes and mindsets necessary to be successful in their future education and careers.

Why Ford NGL developed this approach

Henry Ford started more than 70 technical schools in his lifetime and was a strong believer in “learning by doing.” As part of the company’s vested interest in their local communities, Ford has invested in teaching and learning in the classroom for more than 30 years. After years of learning and investing millions of dollars on curriculum and teacher professional development, Ford Fund realized their efforts lost momentum with the departure of a teacher or a principal. This led them to create a scalable and sustainable approach leveraging the career academy model. Eventually, Ford Fund established their approach to developing career academies (community-connected learning), a model that gets the entire community engaged in a way that can actually transform the educational system and outcomes of a community. The Ford NGL approach includes the Ford NGL Framework and Roadmap and a team of coaches that guide the community through the 5 phases of the Roadmap, which include applying the Ford NGL principles, setting the right structures and processes in place to ensure transformational, sustainable change, community development of the plan, and the implementation of the framework and on-going continuous improvement.

In creating community buy-in and support, the model is not reliant on one system actor (e.g., a teacher or principal), but becomes proudly co-owned by the district and community. This model provides the opportunity for employers and civic leaders to engage with students and teachers in a very meaningful way and to align their resources to support the needs of the students, district and their own workforce needs.

**PRINCIPLES**

FORD NGL uses the following principles to guide their work with communities:

- **EQUITY**
  All students, including those furthest from opportunity, must have access to, and support in, pursuing learning and work opportunities.

- **STUDENT VOICE**
  All students must have choice, ownership, and agency in pursuing their learning and career aspirations.

- **COMMUNITY CONNECTED APPROACH**
  All stakeholders in the community—schools, families, business, postsecondary, and community organizations share responsibility and accountability for designing, implementing, and sustaining the transformation, including the way they communicate, collaborate, and coordinate around their work.

- **PASSION**
  All stakeholders will demonstrate a relentless quest for excellence—a blend of mind and heart—in pursuing our goals.

- **INNOVATION**
  All stakeholders will continually innovate with new forms and ways of preparing young people for success and fulfillment.
2. INVESTING IN A SPECIFIC CROSS-SECTOR INTERSECTION POINT IN THE STEM TALENT PIPELINE

A cradle-to-career initiative requires significant time commitment and deep community partnerships, which means it is not always a viable option for employers. Employers can still embrace a cross-sector approach to regional STEM workforce development by creating, funding, and/or participating in programs that touch a single intersection point in the STEM talent pipeline.

Figure 2 below illustrates various points of intersection between the three major sectors in the STEM talent ecosystem: employers, K-12, and postsecondary. For example, employers can partner with local community colleges or technical schools to create apprenticeship programs. In the K-12 years, an employer can invest in strong partnerships with local school districts to offer internships, job shadowing, or career talks to high school students.

**FIGURE 2:**

- High school internships and other work-based learning
- Career academies
- Linked learning
- CTE
- Employability skills
- Apprenticeships
- Internships
- Industry certifications
- Early college high school
- Dual enrollment programs
- College prep & access programs
- Reconnection programs

**Benefits for employers**

Investing in programs at a single point of intersection enables employers to equip future talent with skills they need, to expose students to future career paths at their companies, and to access diverse talent and engage them in STEM careers at an earlier age. These programs often become signature initiatives of the employer, leading to positive brand perception among community members. This approach allows employers to build capacity, relationships, and expertise that can be leveraged for other future programs across the cradle-to-career continuum.
Potential challenges employers face in investing in a single area of intersection:

- These initiatives require strong partnerships and close working relationships between employers and the community actor(s) with which they choose to work.
- Each sector operates with different expectations and norms, leading to miscommunication and disappointments.
- These initiatives necessarily create outcomes only for a certain age or stage of STEM talent development, and employers may be frustrated with that limitation.

Advice for K-12 or postsecondary sectors to effectively involve employers in a program that sits at a point of intersection:

- Establish a single point of contact at the employer and at the school district/postsecondary institution who is responsible for overseeing the relationship between the two entities.
- Establish expectations from the beginning about necessary employer involvement in the day-to-day programming.
- Meet regularly to provide, receive, and discuss feedback about the success and/or failures of the program and make adjustments accordingly.
Case Study Snapshot: Lockheed Martin High School Intern Program

An example of an initiative focused on investing in one part of the STEM talent pipeline is the partnership between Lockheed Martin and five high school districts in the Dallas-Fort Worth area, including Arlington Independent School District (AISD). Lockheed Martin hosts an internship program for high school students at AISD to provide students with workplace experiences and to serve as a pipeline for potential future Lockheed employees. This "Practicum" program provides enrichment opportunities such as mentoring, employer-led training, opportunity to earn industry-related certifications, and more.

This high school STEM internship program benefits both the employer and the students, which in turn benefits the school district.

Lockheed Martin’s benefits:
- Opportunity to recruit future employees
- Allows business to give back to the community
- Building reputation as an employer of choice with students in the community
- Provides full-time employees with more time to pursue creative projects as students are able to take on more routine work

AISD Student benefits:
- Gain exposure to real-world problems and issues
- Increase marketability to employers through resume building
- Able to evaluate potential career pathways
- Increase self-confidence in the workplace
- Cultivate adaptability and creativity alongside technical skills

To create and maintain a successful high school internship program, Lockheed Martin and AISD have put in a lot of time and resources into fostering a strong partnership. They have learned that it is critical to communicate effectively with different departments within a company, with different parts of a school district, with parents, and with students, but that requires patience and dedicated staff support. To support this, AISD has established a single main point of contact for Lockheed Martin and other employers who can translate industry need to program activity. Their partnership requires weekly or biweekly meetings between the employer and the school district throughout the entire year (not just the school year) to maintain open communication.
Case Study Snapshot: Lockheed Martin High School Intern Program

Why Lockheed Martin chose this approach

Lockheed Martin has investments across many ages and stages of the STEM talent ecosystem in order to grow and diversify its STEM talent pipeline. Lockheed Martin invests in high school internships as part of this strategy because they know students who become engaged in real-world STEM learning and working experiences as early as high school are significantly more likely to pursue STEM long-term. While not every student will become a Lockheed Martin employee in the future, they are quite likely to become part of the STEM talent ecosystem for the Dallas-Fort Worth region and grow the strength of the overall talent market. Of the more than 150 high school interns since 2014, more than 80 percent continue to interact with the company through college internships and post-college employment. In addition to generating talent benefits, this program demonstrates Lockheed Martin’s commitment to the well-being of their community and offers opportunities for employee engagement.
3. CREATING A PORTFOLIO OF INVESTMENTS THAT INCLUDES EVERY STAGE OF STEM TALENT PIPELINE

Employers often face immediate pressures in short-term hiring but recognize the need to build a longer-term talent pipeline in key growth markets. A holistic STEM talent strategy can be applied to a given geography to address this pressure, allowing an employer to assess their entire portfolio of investments and to consider how each investment touches, or can touch, each stage of the STEM talent ecosystem. Funding holistic STEM talent strategy focuses on the investments a company makes and the local partnerships it creates and maintains. This approach can work alongside and complement other initiatives, like cradle-to-career efforts, that align under the holistic STEM talent strategy.

Funding a holistic STEM talent strategy requires an employer to make investments – financial and/or resource and time investments – across the STEM talent ecosystem. This can include partnering with local school districts to fund or help run in-school or out-of-school programming in K-12 schools, hiring postsecondary students for an internship program or other type of work-based learning opportunity, funding a local non-profit that provides STEM education and opportunities after school for students, and a myriad of other investments in the local community. An employer should consider how each investment reaches a different demographic of student or worker and how each investment plays a role in their overall holistic STEM strategy so they can reach as many populations and ages as possible without duplicating efforts.

Figure 1 below is from STEMconnector’s 2019 Input to Impact: A Framework for Measuring Success Across the STEM Talent Ecosystem report and suggests an approach that corporations can use when making decisions about where to invest in the STEM talent ecosystem. Ideally, an employer can chart investment and activity across the entire pipeline, including philanthropic, employee volunteering, and traditional talent lifecycle activity. Each activity has a different type of return on investment, and the desired return should be defined first before investing in a group of students and/or program.
Benefits for employers:

Funding a holistic STEM talent approach allows the employer to make meaningful impact on its short-term talent acquisition needs while investing in the long term STEM potential of its key markets. It gives each specific investment greater leverage towards reaching the overall STEM talent goals, with each investment or activity complementing the other. Such an approach often yields brand benefits for an employer who can point to multiple commitments and investments in the community. This approach often includes employee volunteer opportunities to support K-12 programming. Employees often find volunteering and community engagement attractive aspects of a job, enabling employers to use these efforts as part of their talent retention efforts.\(^{21}\)

Potential challenges employers face in a portfolio of investments that includes every stage of STEM talent pipeline:

- Large companies are often siloed and it is difficult to communicate all STEM investments internally – especially if different departments oversee different investments – to make a comprehensive holistic STEM talent strategy.

- It is challenging to balance short- and long-term talent goals across a portfolio of investments.

- Funder groups within communities are often siloed and are not aware of what the others are doing, which can lead to overlapping efforts.\(^{22}\)

Advice for communities to partner effectively with employers in implementing their portfolio approach:

- Discuss aligned interests that can complement each other over time rather than just connecting over “one-off” programmatic opportunities.

- Identify how an employer can contribute to your work with human capital, industry knowledge, or other resources beyond financial investments.

- Share your own knowledge of the landscape to help the employer build a full picture of the regional STEM talent ecosystem.
One company that is funding with a cradle-to-career lens is 3M. Since 1953, 3M has contributed more than $1.45 billion in cash and in-kind gifts to community partners. The global science company has three focus areas for its investments, one of which is advancing equity in STEM education and skilled trades. 3M thoughtfully considers how to invest in different demographics of the STEM talent ecosystem and does so by partnering with school districts, universities, and other community organizations.

3M’s goals for STEM education investments are to:
- Increase STEM exposure in K-12 classrooms and in afterschool activities
- Support experiential learning opportunities for high school students
- Enhance the quality of STEM teaching by investing in teacher professional development
- Provide scholarships and support professional development opportunities for diverse students

3M’s STEM investments around their headquarters in St. Paul, Minnesota span the talent pipeline and include financial investments in K-12, higher education, and educator and professional development, as well as active participation in a community-led cradle-to-career effort. 3M also hosts programs at their own offices including STEM Day for local students to learn about STEM careers and a “Robots Invade the Plaza” event to celebrate students’ achievements in STEM.

We recognize the importance of investing in K-12 STEM initiatives to help close the STEM skills gap for underserved students. We are excited to invest in initiatives that inspire students to pursue STEM careers. This long-term investment strategy is key to supporting and developing the next generation of diverse scientists and engineers.

- Jacqueline Berry, Global Communications Manager, 3Mgives

From their successful investments and community partnerships, 3M has learned a few important lessons, including to identify partners in the community who are aligned with their mission and interests and are available to create a long-term partnership. 3M also learned to value the advice of experts from the community, as they are better positioned to understand community needs and opportunities.

Why 3Mgives chose this approach

3M invests in STEM education across different ages and stages of the STEM talent pipeline to have a real impact in communities and provide students of all backgrounds with access to high-quality educational opportunities. 3M hopes to encourage all students, especially those traditionally underrepresented in STEM, to pursue careers in STEM. Understanding that students need to be engaged and supported in STEM from an early age to successfully pursue STEM degrees and careers, 3M views its investments in K-12 education as a long-term talent strategy and a way to increase diversity and inclusion in STEM fields.
THREE KEY TAKEAWAYS

1. Regional STEM workforce development initiatives address the unique local aspects of an employer’s STEM talent challenge.

2. Three popular ways employers engage in regional workforce development initiatives include:
   - Joining or starting a STEM cradle-to-career effort in their community
   - Creating a portfolio of investments that includes every stage of the STEM talent pipeline
   - Investing in a specific cross-sector intersection point in the STEM talent pipeline

3. All three of these initiatives require some level of partnership between an employer and one or other sectors, including K-12 and postsecondary education.
Methodology

We consulted nearly 80 leading researchers, employers, higher education leaders, nonprofit service providers, and others to inform this report. They are listed alphabetically by organization. We also consulted a range of literature from postsecondary institutions, government entities, employer collaboratives, and others to supplement the knowledge gained in interviews and workshops.

K-12 Innovation Lab perspective

Participants in the K-12 STEMconnector Innovation Lab (September 2019) gave valuable input reflected in this final product through a day-long interactive workshop.

Cathy Ammirati, STEM Diversity Outreach Manager, Micron Foundation
Cynthia Angulo, Director, Talent Acquisition, National Grid
Janet Auer, Advisor, Global Social Investment, Chevron Corporation
Allie Bateman, Director, Community Relations, Ford Next Generation Learning
Shelley Birdsong-Maddex, Senior Director of Corporate and Foundation Relations, West Virginia University
Roy Bond, Executive Director of Operations, Dallas County Community College District
Ignace Conic, Vice President, Process Management, Prudential Financial
Sarah Davis, Senior Manager, STEM Strategy, Walmart, Inc.
Mike DuVarney, Executive Director, BMX Foundation
Diana Elrod, Director of the Center for Student Research and STEM Initiatives, Texas Woman’s University
Jaye Espy, Partnership Development Lead, K12
Leslie Flynn, Professor of STEM Innovation and Entrepreneurship, The University of Iowa
Serene Gallegos, Program Manager, Tata Consultancy Services
Rick Gilmore, Evaluation Manager, National Aeronautics and Space Administration (NASA)
Lynn Gilmore, Corporate Citizenship Budget Manager, Northrop Grumman Corporation
Brent Gray, Corporate Program Manager, Robotics Education & Competition Foundation
Nick Hansen, Business Development Leader, DLR Group
Megan Harrell, Project and Program Supervisor, Lockheed Martin Corporation
Erica Harvey, Professor of Chemistry, Fairmont State University
David Heafitz, Vice President, Infrastructure Systems Development, Prudential Financial
Doug Henderson, Director of STEAM, Val Verde Unified School District
Janine Koeneke, Vice President of Donor Partnerships, TGR Foundation
Brad Lauer, Director of Global Development & Technology, Robotics Education & Competition Foundation
Elizabeth Lipscomb, Vice President, Strategic Alliances, Discovery Education
Pam Loeffelman, Principal, SW K12 Sector Lead, DLR Group
Ben Martin, Vice President, Partnerships, Tallo
Kevin Mirus, Director, Madison College STEM Center, Madison Area Technical College
Brian Molitor, Vice President of Strategic Partnerships, MIND Research Institute
Drexell Owusu, Senior Vice President, Education & Workforce, Dallas Regional Chamber of Commerce
Kristina Palmer, Chief Advancement Officer, Education Works
Susan Patterson, Coordinator, Arlington Independent School District
Dana Pawinski, Director of Strategic Development, Imagine Learning
Louis Piconi, Executive Vice President, National Programs, Imagine Learning
Jen Porter, National Partnership Specialist, Tallo
Carol Pribulka, Nonprofit Management and Philanthropy Consultant, Sigma Xi
Linda Richardson, Strategic Special Project Coordinator – STEM, Dallas County Community College District
Jen Robertson-Honecker, WVU Extension Specialist, West Virginia University
Jazmine Samujh, Program Manager HR, Walmart, Inc.
Tony Schneider, Senior Manager, School Partnerships and Cultivation, National Math and Science Initiative
Russ Seals, Business Development Manager, Genuent
Becca Shaddox, Director of STEM, Walmart, Inc.
Caroline Solazzo, Executive Portfolio Lead – Women, American Heart Association
Elisha Stevenson, Project Manager, Education Works
Sean Thurman, Director, Global Public Policy, Walmart, Inc.
Dale Townsend, Director, Sam’s Club Technology, Sam’s Club
Jason Treadway, Director, STEM Institute, Dallas County Community College District
Patrice Washington, STEAM and Students Director, Ford Next Generation Learning
Jennifer Weber, Executive Portfolio Lead, Children, American Heart Association
Casey Welch, CEO & Co-Founder, Tallo
Renee White, Director, Development, Corporate Partnerships, National Math and Science Initiative
Carolyn Wiberg, Senior Director Partnerships, Discovery Education
Darryl Williams, Senior Vice President, Science and Education, Franklin Institute
Kari Winter, Practicum Specialist, Arlington Independent School District
Karin Wu, EVP and Executive Director of Social Impact, MIND Research Institute
Steven Wurtz, Chief Academic Officer, Arlington Independent School District
Cindy Ziker, Principal Researcher, SRI International
Industry, postsecondary, and nonprofit leaders shared their insight via interviews.

Janet Auer, Advisor, *Global Social Investment*, Chevron Corporation

Bryan Albrecht, *President and CEO*, Gateway Technical College

Jacqueline Berry, *3Mgives Global Communications Manager*, 3Mgives

Winnie Black, *Special Projects Coordinator – Project Accelerate and ELECT*, Center for Schools and Communities

Cheryl Carrier, *Executive Director*, Ford Next Generation Learning

Heather Chalos, *Vice President*, Alignment Nashville

Terri Fishback, *Senior Director, Strategy and Execution*, Boys & Girls Clubs of America

Jamie Francis, *Senior Director, Programs and Policy*, U.S. Chamber of Commerce Foundation

Megan Harrell, *Project and Program Supervisor*, Lockheed Martin

Melissa Jaggers, *President and CEO*, Alignment Nashville

Elizabeth Lipscomb, *Vice President, Strategic Alliances*, Discovery Education

Matt Montemurro, *President and CEO*, Racine Area Manufacturers and Commerce

Melissa Moritz, *Vice President*, The National Math and Science Initiative

Jeff Neubauer, *Executive Director*, Higher Expectations for Racine County

Regina Phillips, *Director, Special Projects*, Kentuckiana Works

Daniel Thielen, *Chief of Schools*, Racine Unified School District

Jason Treadway, *Director, STEM Institute*, Dallas County Community College District

Kristin Wingfield, *Coordinator for School Business Partnerships*, Jefferson County Public Schools
ENDNOTES


4Berry, J. (2019, September). Phone interview.


14Berry, J. (2019, September). Phone interview.


22Berry, J. (2019, September). Phone interview.

