

# Investing in America's Workforce

Improving Outcomes for  
Workers and Employers

**Volume 1: Investing in Workers**



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# Contents

|  |     |
|--|-----|
| Acknowledgments  | ix  |
| <b>Foreword: The Evolving U.S. Labor Market</b><br><i>Patrick T. Harker</i>  | xi  |
| <b>Introduction: Investing in America’s Workforce</b><br><i>Stuart Andreason, Todd Greene, Heath Prince, and Carl E. Van Horn</i>                        | 1   |
| <b>Part 1: Building Employer Investment in Workforce Development</b>   |     |
| <b>1 Leveraging Evidence-Based and Practical Strategies to Reduce Skills Gaps</b><br><i>Anand Marri and Jennifer Schramm</i>                             | 11  |
| <b>2 Turning the Skills Gap into an Opportunity for Collaboration: Case Studies from New York and Puerto Rico</b><br><i>Anand Marri and Edison Reyes</i> | 17  |
| <b>3 Bridging the Talent Gap through Data Insights and Community Action</b><br><i>Bridgett Strickler, Dan Ash, Hadass Sheffer, and Zachary Zimmerman</i> | 33  |
| <b>4 Apprenticeship Benefits and Costs: A Roadmap to Measurement</b><br><i>Jessica Nicholson, Ryan Noonan, Susan Helper, and David Langdon</i>           | 51  |
| <b>5 Engaging Manufacturers to Promote Skills Development</b><br><i>Katherine McClelland</i>   | 67  |
| <b>6 Power Skills for Jobs of the Future</b><br><i>Jeanne C. Meister</i>   | 81  |
| <b>7 Leadership Development for a Twenty-First Century Workplace</b><br><i>Henry G. “Hank” Jackson</i>   | 93  |
| <b>Part 2: Investing in Undervalued Human Capital</b>  |     |
| <b>8 Programs to Increase the Supply of Skilled Workers</b><br><i>Alexander Ruder</i>  | 103 |

|  |   |     |
|--|---|-----|
| <b>9</b>   | <b>Adult Learners: Activating Prior Knowledge and Acquiring New Skills</b><br><i>E. Wilson Finch</i>  | 107 |
| <b>10</b>  | <b>The Challenges Facing Veteran Workers</b><br><i>R. Jason Faberman and Thomas Haasl</i>   | 125 |
| <b>11</b>  | <b>Narrowing Gaps through Educational Investments for American Indians and Alaska Natives</b><br><i>Patrice H. Kunesh and Richard M. Todd</i> | 139 |
| <b>12</b>  | <b>The Middle-Skills Gap: Community-Based Solutions to Meet Employer Demands</b><br><i>Maurice A. Jones</i>                                   | 157 |
| <b>13</b>  | <b>Manufacturing Connect: Teaching Advanced Manufacturing Skills to Inner-City Students</b><br><i>Rick Mattoon and Susan Longworth</i>        | 171 |
| <b>Part 3: Investing in Historically Black Colleges and Universities</b> |   |     |
| <b>14</b>  | <b>The Critical Role of Historically Black Colleges and Universities in Workforce Development</b><br><i>Todd Greene and Ashley Bozarth</i>    | 189 |
| <b>15</b>  | <b>HBCUs as Pipelines for Diversified Intellect, Creativity, and Innovation</b><br><i>Ronald A. Johnson</i>                                   | 195 |
| <b>16</b>  | <b>Assessing Infrastructural Health: Optimizing Return on Investment in HBCUs</b><br><i>John Silvanus Wilson, Jr.</i>                         | 205 |
| <b>17</b>  | <b>Promoting the Health of Communities for Long-Term Benefits</b><br><i>Valerie Montgomery Rice and David Hefner</i>                          | 219 |
| <b>Part 4: Investing in Workers with Different Abilities</b>             |   |     |
| <b>18</b>  | <b>Creating Economic Opportunity through Work and Support</b><br><i>Kathy Krepcio</i>   | 233 |

|   |  |     |
|---|--|-----|
| <b>19</b>   | <b>Empowering Workers with Disabilities: A Philadelphia Story</b>                              | 239 |
|   | <i>John Colborn, Stephanie Koch, and Laura Welder</i>  |     |
| <b>20</b>   | <b>Philanthropy: Building Best Practices in Disability Inclusion</b>                           | 253 |
|   | <i>James Emmett, Meg O'Connell, and Judith M. Smith</i>  |     |
| <b>21</b>   | <b>Reducing Job Loss among Workers with New Health Problems</b>                                | 267 |
|   | <i>Yonatan Ben-Shalom, Jennifer Christian, and David Stapleton</i>                             |     |
| <b>Part 5: Investing in Workers of the Future</b> |  |     |
| <b>22</b>   | <b>The Workforce Development Pipeline from Cradle to Career</b>                                | 291 |
|   | <i>Rob Grunewald</i>   |     |
| <b>23</b>   | <b>Early Childhood Investments: Paving the Way for the Future Workforce</b>                    | 297 |
|   | <i>Rob Grunewald</i>   |     |
| <b>24</b>   | <b>Workforce Policies and Programs to End Child Poverty in Puerto Rico</b>                     | 315 |
|   | <i>Barbara Rivera-Batista, Amanda Rivera-Flores, Eduardo Carrera Morales, and Javier Silva</i> |     |
| <b>25</b>   | <b>Reintegrating the Formerly Incarcerated into the Workplace</b>                              | 329 |
|   | <i>Emily Engel</i>   |     |
|   | Authors  | 343 |





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The publication of the three volumes of *Investing in America's Workforce: Improving Outcomes for Workers and Employers* is one of the capstones of a multiyear initiative that started in 2017. The Investing in America's Workforce (IAW) initiative included planning, listening, brainstorming, researching, and engaging with partners. It involved communicating with stakeholders on workforce development and how it can be understood as an investment in economic growth, business competitive advantage, and worker economic opportunity. The book and the entire initiative could not have happened without the support of dozens of people across many institutions.

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were core institutional partners. Without the various resources, capacities, and expertise of all these organizations, the initiative would not have been possible.

Within each of these institutions, people provided guidance, pulled upon relationships and made connections to other partners, and ultimately rolled up their sleeves and put in countless hours of work, often above and beyond their typical day jobs. This team conceived of, created, and implemented what we believe to be a landmark contribution to the workforce development community. For readers who are not familiar with the initiative in its entirety, it includes a number of components: new training and guidance for bank examiners on workforce-development best practices; listening sessions across the country on how businesses and workforce-development organizations evaluate, engage, and invest in worker skill development; a national report (included as an appendix in the book) based on the listening sessions; a national conference at the University of Texas at Austin; forthcoming special-topic briefs; and finally, this three-volume book.

The sum of the components that made up the initiative were critical to the book's content and messages. With an effort as complex and comprehensive as *Investing in America's Workforce: Improving Outcomes for Workers and Employers*, countless people deserve special thanks for opening doors, making connections, and providing support throughout the IAW initiative and editing of the book. The members of the Federal Reserve System's Workforce Development working group were critical in developing the concept and providing ideas, support, and significant thought leadership in executing the initiative. The community affairs officers from across the Federal Reserve System committed resources, time, and staff. Dean Angela Evans from the LBJ School of Public Affairs and president Gregory Fenves from the University of Texas at Austin were champions of this initiative and gracious hosts of the conference associated with this book. Randy Eberts at the Upjohn Institute was a persistent partner and thought leader. Leadership from the Heldrich Center at Rutgers brought institutional knowledge from previous national efforts on workforce development and support to this effort.

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# Foreword

## The Evolving U.S. Labor Market

Patrick T. Harker

The U.S. economy runs on the legs, shoulders, and minds of millions of workers. Whether the job is mining shale, writing computer code, or selling the latest consumer product, America's workforce powers our economic growth. For too long, however, labor has been considered a cost, a resource to be used until laborers enter retirement. America as a society has not, by and large, viewed the workforce as an asset in the economy that needs to be upgraded, refocused, and tinkered with.

This book aims to highlight the need for change to this outdated attitude. Workforce development is an investment, not a cost. The return on this investment is greater productivity, faster national income growth, and a more vibrant and satisfied pool of working Americans.

### THE RISING SKILLS GAP IN THE UNITED STATES

This book, which champions the notion of investing in America's workforce, could not come at a better time. The United States faces a great imbalance in its labor markets. The supply of workers relative to the overall population is shrinking, while the demand for certain skilled employees is rising. At the end of 2017, the U.S. labor market was extremely tight. The unemployment rate stood at a 17-year low of 4.1 percent, and Labor Department data showed that businesses reported 5.81 million job openings, close to a record high.

That falling supply is the result of myriad issues. First and foremost is the downward pull of demographics. Baby boomers, the members of the exceptionally large generation born between 1946 and 1964, are now retiring, taking with them decades of experience and institutional knowledge. In the United States, as of 2016 only 40.0 percent of people

aged 55 years or older were in the labor force—defined as either having a job or looking for one—far below the national average labor force participation rate of 62.7 percent from October 2017 to January 2018 (BLS 2017, 2018).

But the shrinking labor force participation rate is also evident among younger adults. Researchers have sought to explain this trend. Clearly, many workers do not possess the skills demanded by employers, in part because of low educational attainment or poor quality of education. In addition, a change in employer needs and demands because of increasing automation and technical advancement contributes to a skills shortage that leaves many workers out of the labor market. This is a topic I will return to in a bit. But research also highlights the barriers that aren't related to skills, like addiction, incarceration, and child-care costs. Some job seekers, especially those from lower-income households, face logistical impediments, such as an unstable housing situation or poor access to transportation to get to a job. All of these trends help explain why the nation's labor force participation rate has fallen about four percentage points over the past two decades.

Markets have two sides, however, and for labor markets, a growing economy is pushing up the demand for workers. Employers are not looking for just any person to put on the sales floor or at a computer screen; employers are demanding workers with specific skills or experience. With a tight labor market, however, companies are struggling to bridge this skills gap.

The Federal Reserve Bank of Philadelphia quantified this skills shortage in a November 2017 unpublished survey of regional businesses titled “Business Outlook Survey: Special Questions.”<sup>1</sup> The Philadelphia Fed researchers found that more than 51.5 percent of respondents said they could not find workers with required skills, compared with only 26.9 percent who had said that in May 2011.

What can be done to change this imbalance in the U.S. economy? One solution is a holistic approach to workforce development. A broader view of training and education will allow the United States to tap into sources of labor that are currently underutilized. As this book argues by citing examples of in-depth research and successful programs, the United States needs to reenvision workforce solutions as investments in our national economy, not as social services.

After all, a college-level education is not always the solution to the skills gap. I spent a large part of my life in academia, including as president of the University of Delaware. I know the value of education. Going to a four-year college is not for everyone, however, and a college education does not always provide a student with the expertise needed to land a job in his or her preferred industry or to get hired in the city or town where he or she wants to live. We must look at different pathways to fulfilling careers that pay livable wages for workers from all communities.

In addition, one way to address the falling labor force participation rate is to invest in programs that draw in workers who feel left out of today's labor markets. Chapters in this volume explore investing in undervalued human capital, such as is often the case with veterans and inner-city youth. Others discuss comprehensive supportive services targeting those transitioning from jail or prison and workers with different abilities.

## **THE FEDERAL RESERVE'S WORK ON WORKFORCE DEVELOPMENT**

The Federal Reserve System has a dual mandate: to achieve price stability and to foster maximum employment. The Fed tries to create the conditions for economic growth. Those conditions won't be as fertile, though, if we can't fill the jobs that are out there now, not to mention the ones coming in the future. The United States can only reach its potential when the needs of both business and the labor force are addressed in stronger alignment.

The regional banks that make up the Federal Reserve System began to explore new approaches to workforce development in 2017. Led by their community development departments, the banks began the "Investing in America's Workforce: Improving Outcomes for Workers and Employers" initiative as a deep dive into the current state of the labor markets and an exploration of what we need to do now to plan for the future. The initiative was conducted in collaboration with the John J. Heldrich Center for Workforce Development at Rutgers University,

the Ray Marshall Center for the Study of Human Resources at the University of Texas at Austin, and the W.E. Upjohn Institute for Employment Research.

The Investing in America's Workforce initiative ultimately seeks to create a foundation from which a new era of investment in America's workforce can grow. To support this mission, research was conducted in 2017 to explore regional aspects of improving workforce outcomes and investments. The impetus for this research was *Interagency Questions and Answers Regarding Community Reinvestment*, a publication jointly produced by the staffs of the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency (U.S. Treasury Department 2016). Under the clarifications provided in this publication, banks now are allowed to include workforce development as an investment opportunity in meeting their Community Reinvestment Act (CRA) obligations to lend and invest in all the places from which they take deposits. The initiative also led to the creation and implementation of a training curriculum for CRA bank examiners regarding how they qualify these workforce investments.

As a first step to understanding the current state of U.S. labor markets, community development teams across the Federal Reserve System gathered information through more than 50 listening sessions. These were carried out across 32 states and Puerto Rico by almost 1,000 workforce development leaders who work at the intersection of training, recruitment, and finance.<sup>2</sup>

At these listening sessions, participants first identified the current challenges facing both employers and potential job seekers. As expected, those discussions revealed a gap between the skills possessed by the local labor force and those demanded by employers. This skills gap was attributed to a variety of factors, including low levels of educational attainment and a stigma associated with alternative training and career paths. Participants also expressed concerns about technological advancement and automation contributing to both job losses and rapid changes in employer demands, thus placing additional strain on the limited capacity of training providers. Finally, participants noted that in many communities, the poor quality of the available jobs, both in terms of pay and other factors, was impeding opportunities for economic mobility.

Although the challenges discussed are vast, several promising strategies were identified for expanding and diversifying the pipeline of skilled workers and connecting these workers with employers. For example, sector strategies focus regional workforce development resources on the needs of a defined industry deemed important to the local economy. Local and regional employers, academic institutions, and training providers collaborate to analyze an industry's current and future skill requirements. These types of economic development strategies take a systemic rather than a transactional view and have the potential to yield a trained workforce that not only supports business attraction and retention but also creates local opportunities for unemployed and underemployed residents.

## **LABOR IS AN INVESTMENT, NOT A COST**

A key central issue that came up in the discussions was the need for rethinking labor: workers are assets, not expenses. This issue requires a sea change in attitudes about how our economy works, but it is imperative if the United States is to create and maintain an equitable economy and to compete when up against the changing global forces shaping businesses today. Reclassifying employees as assets to be invested in, as opposed to line-item costs to be reduced, offers a shift in perspective that may encourage employers to improve job quality and make direct investments in skills training and professional development.

How could this new mindset be achieved? How would it work? Again, the listening sessions offered up ideas. Participants were asked to explore specific opportunities for investing in America's workforce. The following investment themes were identified as areas in which additional financial capital could improve outcomes. The ideas focused on what employers can do, and also on what society can do.



## WORKFORCE INVESTMENT BY SECTOR

Indeed, changes in attitudes about workforce development require shifts in thinking across all sectors of society and the economy. This book details ideas and existing programs that have moved the needle on workforce development. First and foremost, businesses, public agencies, philanthropic and nonprofit organizations, and the financial sector must buy into trying this new approach. Will all new ideas work? Of course not, but the findings compiled by the Investing in America's Workforce initiative offer some suggestions for all sectors.

For businesses, the new mindset covers the two goals of 1) finding new workers and 2) retaining existing workers.

First, companies should align their want-ad requirements to the actual job. Research done at the Philadelphia and Atlanta Feds found that after the Great Recession, companies began to “up-credential” the requirements in job postings (Wardrip, Andreason, and de Zeeuw 2017). For instance, a position that once required only a high school diploma now demanded a college degree. If companies adopted a program of skills-based hiring as an alternative to hiring based on educational attainment, this could remove what, in some cases, may be an artificial barrier to livable wage employment. Additionally, in order to increase workers' chances for economic mobility, employers should be encouraged to improve job quality, especially for entry-level positions.

Second, businesses should also invest in their existing staff. Employer-financed training of existing employees will allow workers to gain the skills needed by their employers in order to move up the career ladder. This strategy, known as “upskilling and backfilling,” not only fulfills employers' skill needs, it also opens slots at the entry level that become the first career step for local job seekers.

The public sector is capable of taking a leadership role in workforce investing, but we should accept that much of the return on investment will occur mostly under a long-run horizon. Take early childhood education. High-quality early childhood education lays the foundation for a productive workforce, but these workers won't be applying for jobs until 15–20 years in the future. Even so, early childhood education does offer an immediate payoff, because it also can allow the current work-

force (i.e., the parents) to maintain employment, knowing that their children are adequately cared for.

The public sector can also focus on channeling funds to workforce training providers, including community colleges and educational institutions offering career and technical education, to allow more workers to receive in-demand skills training. Research has found that when faced with reduced public funding, workforce training providers have been forced to “reduce the number of workers served, change the mix of services participants received, or alter the methods of providing services” to ones that may not be as effective (Wandner 2015, p. 132). This funding approach is penny wise but pound foolish. Those cuts might help short-term budget shortfalls; in the long run, though, they shortchange a community of new workers who will pay taxes and buy local goods and services for years to come. Additionally, funding for improved transportation systems will allow everyone to travel across a region more efficiently. More affordable housing can stabilize lower-income communities and allow longtime residents to stay in place and employers to retain a stable workforce.

Workforce solutions are a fairly untapped opportunity for investment. Therefore, the workforce investment approach would likely need funding from philanthropy for capacity building in order to reach scale.

As part of job training programs, workforce intermediaries connect employers with a supply of skilled labor. Further investment in these entities is essential, because they are able to develop business relationships in a way that may be difficult for training providers, who focus mainly on meeting the needs of job seekers. Workforce intermediaries can also serve to educate training providers about the skills demanded by local employers.

Philanthropic foundations can also provide innovation grants and seed funding to support promising strategies and lend credibility to new programs or interventions. These moneys will further promote the idea of workforce investment.

Of course, achieving these goals requires resources. That’s where the financial sector comes into play. Thanks to the changes to the CRA regulation, financial institutions earn CRA credit for working within the workforce development area.

These funds must be used efficiently. Participants in the listening sessions identified innovative programs to maximize the return of public funding sources, including using private-sector leverage strategies to make public taxpayer dollars go further. These approaches are examined in the section of this book titled “Financial Innovations in Workforce Development.”

Working together to successfully move job seekers into stable employment has its challenges because of resource constraints, a competitive funding environment, and differences in organizational cultures and operating models. Nevertheless, the need for coordination and collaboration, both among service providers and with funders, is essential to successfully achieving shared goals.

None of these approaches will succeed in isolation. Instead, many of these ideas build on each other and bring benefits that extend beyond the jobs in focus. For instance, fostering entrepreneurship and small business development in low- and moderate-income areas can expand access to work for those seeking employment in those areas, but these businesses also can help stabilize a community and support other local businesses.

My colleague Neel Kashkari, president of the Federal Reserve Bank of Minneapolis, has noted that a person’s largest financial asset is not a 401(k) or a house; it is a job. Yet, while we think about socking money away in retirement funds and spending money to improve our homes as an investment, we don’t often think about investing in a job.

Workforce investment is not all about workers, however—it can pay ancillary benefits, too. For instance, companies can increase quality and output through investing in their workforce. When employees are well trained and feel valued, businesses reap the benefits of higher productivity, quality assurance, lower turnover, and better customer or client service.

Society at large also benefits from the economic progress created by a skilled and productive workforce. This book presents potential solutions to the challenges of current and future labor markets, and it explores how workforce development can be a successful investment for all of us.

## Notes

1. The survey results, based on unpublished data compiled from a series of questions, are available upon request as a pdf document from the Federal Reserve Bank of Philadelphia. The document is called “Business Outlook Survey—Special Questions.”
2. The information they collected was compiled in *Investing in America’s Workforce: Report on Workforce Development Needs and Opportunities* (St.Clair 2017).

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# Introduction

## Investing in America's Workforce

Stuart Andreason, Todd Greene, Heath Prince, and Carl E. Van Horn

Skills are critical to an individual worker's labor market success, and, at a broader level, they are critical to the competitiveness of a business or enterprise. Importantly, they are often associated with the growth prospects of a region or metro area. In recent years, the U.S. economy has shifted toward one that demands additional skills and consequently rewards workers who have higher skill levels. Wage premiums for workers with high levels of education have increased, partially driving inequality between higher- and lower-skilled workers (Goldin and Katz 2008). The Great Recession seems to have shifted hiring and job creation toward occupations that require additional education and are fundamentally knowledge-based, further increasing the importance of workers acquiring skills in order to be competitive in the modern labor market (Hershbein and Kahn 2018).

Yet while skills remain incredibly important, there is quite a bit of nuance in the current economy. Many middle-skill jobs—typically requiring education and training beyond high school but less than a four-year college degree—continue to provide significant opportunities to sustain a family. However, the jobs that provide these opportunities are not the same as those in the industrial- and manufacturing-based economy of the mid-twentieth century (Holzer et al. 2011). The new grouping of middle-skill jobs demands more training and education than before, and most of these jobs require some postsecondary education, which varies widely—from a short training and certification course to a much longer program like an associate's degree.

Educational institutions may not always effectively provide these types of training programs. They also may not be marketed or considered as potential career pathways for students considering their educational options or experienced job seekers looking for new opportunities. When positions requiring middle-skills training remain unfilled,

firms miss out on business opportunities. Similarly, when workers do not attain the requisite skills for these positions, they are not prepared to advance their careers, sustain their standard of living, and build wealth. Developing technical skills and knowledge in this evolving economy is an investment opportunity for workers and firms alike.

## **THE RECENT STATE OF WORKFORCE DEVELOPMENT INVESTMENT**

Despite the increasing importance of skill and knowledge advancement for employee opportunity and for firm productivity, federal government spending on workforce development has declined for several decades, with the exception of a surge in the immediate aftermath of the Great Recession. This trend has been driven by a number of factors. Since the early 1980s, policymakers' focus on vocational and technical training has been secondary to four-year college preparation (Symonds, Schwartz, and Ferguson 2011). We are not suggesting college completion is not of significant importance. In fact, a section in Volume 1 of this book explores strategies to help level some of the disparities between white and African American college graduates, particularly those graduating from historically black colleges and universities. However, many of the chapters do explore the benefits of expanding training and education options for students and job seekers, particularly by broadening technical training programs and apprenticeships.

Policymakers often regard the workforce development system as a "second chance" system that is more aligned with the social safety net than with policies that promote local and national economic development (Wolf-Powers and Andreason 2012). Similarly, broad national evaluations of workforce development programs have shown only modest results (Bloom et al. 1996; McConnell et al. 2016). These evaluations have disadvantaged workforce development programs in federal appropriations discussions and led to significant federal declines in budgets for the Workforce Innovation and Opportunity Act and its predecessors (Holzer 2008). In contrast, federal spending has expanded in programs that enable students to attend postsecondary institutions on a full-time basis, including through Pell Grants and federal student loan programs (McCarthy 2014).

Fragmentation of services also has been a challenge for the workforce system. The multiplicity of organizations and funders makes coordination among workforce development providers more difficult, and it likely affects the level of business engagement with the workforce development community. Business engagement is an important part of effective workforce development programs—employers use talent in the workforce development pipeline and provide critical voices in technical training curricula. Fragmentation has limited the amount of coordination in the workforce development system, making it difficult not only for organizations to find synergies and identify priorities, but also for the end users—both job seekers and employers—to assess the quality of training offered by programs. As such, workforce development programs have not often been aligned enough with economic development organizations, business development entities, or employer networks like chambers of commerce, all of which play critical roles in connecting workers to employment opportunities (Andreason and Carpenter 2015).

## **INNOVATIONS IN PROGRAMMING AND ORIENTATION OF WORKFORCE DEVELOPMENT**

The conditions listed above combine to make the workforce development system difficult to understand and navigate. But in recent years, there have been notable improvements in the range of programs offered through workforce development organizations as well as policy changes that encourage better alignment between the workforce development system and economic development organizations.

Program evaluations have shown that taking a dual customer approach and focusing on both job seeker and employer needs increases the efficacy of workforce development programs (King and Heinrich 2010; Maguire et al. 2010). Reorienting programs is difficult work, especially for staff who may be concerned about the impact of program changes on their original mission of building opportunities for workers. However, once these transitions are completed, organizations have better connections and are more effective at serving job seekers (Schrock 2013).



Although fostering relationships with employers and supporting and screening job seekers for employability and stability may seem straightforward for workforce development programs, it is not always the case. Employers have customs and cultures that must be accommodated, and they often have specialized needs even within the same industry sector. For example, manufacturing programs may be different enough from one another so that training programs must be customized to meet each employer's human resource challenges. Workforce development organizations can also help employers integrate new workers into the existing workforce and improve their recruitment practices in order to promote stability for workers by reducing turnover. Several chapters in Volume 2 of this book discuss how workforce development organizations can invest not only in worker skills, but also in the quality of work that employers offer to help resolve many of the challenges in turnover and recruitment.

Similarly, working with job seekers differs widely depending on the type of work, the community, and the workers' educational background and personal experiences. Effective workforce development agencies help workers refine their job search strategies, obtain industry-valued credentials, and manage personal challenges such as securing child care and affordable transportation to and from work, if needed. Some programs specialize in preparing workers to overcome unique challenges in being ready for work and finding strong matches and placements with employers. Much of this work happens at a local level because the needs of labor markets and of workers are met on a very small scale.

High-quality workforce development programs in communities and regions have acted as intermediaries between employers and workers through so-called sector partnerships. The Workforce Innovation and Opportunity Act of 2014 recognized the value of these changes by urging stronger regional planning and business engagement. These practices and policies offer reason for optimism, but more investments and effective implementation will be needed to create opportunities at the scale and speed necessary to address the quickly changing labor market.

## BUILDING AN INVESTING FRAMEWORK

The term *investment* is used in this book in a number of different ways. In one sense, it means actual financial investment in workforce development programs—the act of expanding programs requires additional monetary resources—but this is far from the only type of investment. Workforce development programs need partners that are invested in the success of the program, which includes businesses and economic development organizations as well as community development and social support organizations. Community organizations also can help address existing labor market disparities and challenges that are not completely skill based. It is also critical that future evaluations of workforce programs include cost-benefit analyses that show benefits to workers, businesses, and society.

*Investing in America's Workforce: Improving Outcomes for Workers and Employers* offers research, best practices, and resources for workforce development practitioners from more than 100 contributing authors. The book aims to reframe workforce development efforts as investments that can result in better economic outcomes for individuals, businesses, and regions. In the three volumes, we focus discussions of investments on three areas: 1) investing in workers, 2) investing in work, and 3) investing in systems for employment opportunity. Within each volume are discrete sections made up of chapters that identify specific workforce development programs and policies that provide positive returns to society, to employers, and to job seekers.

*Investing in Workers*, the first volume, discusses all job seekers—and particularly disadvantaged workers—as opportunities and assets rather than deficits. Workers left out of the recovery, such as the long-term unemployed or chronically unemployed youth, are important sources of new talent in a tight labor market. These workers also bring new and different perspectives at any point of the business cycle and can help drive innovation. Seeing these workers as opportunities to build new ideas and competitive advantage is important; it is also important for workers who are mired in poverty. It is vital to invest in core literacy and technical skills so these workers can create wealth and

build assets. Several chapters in Volume 1 explore both skill development and supporting workers who have particular barriers to work and economic opportunity.

*Investing in Work*, the second volume, explores the extent to which firms are able to address human resource challenges and difficulties for their workers by investing in the jobs, fringe benefits, and structure of employment that workers encounter with employers. Many firms have found that offering enhanced quality of work and benefits helps attract more productive workers, boosts the productivity of current workers, and produces other tangible benefits, such as reduced turnover. Investments in work structure also include considering how changes to the employee-employer relationship help build wealth, such as through different models of employee ownership of firms and planned succession of ownership. Finally, investing in work includes place-based and job creation efforts. Volume 2 explores these issues broadly and specifically in rural areas in an effort to better align workforce development and economic development efforts. Considering both the supply of and demand for labor likely will improve the effectiveness of both efforts.

*Investing in Systems for Employment Opportunity*, the third volume, explores the different ways organizations and policymakers deliver training and support worker and business productivity. The stakeholders involved in these efforts are multiple and varied, including governmental entities, businesses, philanthropies, and nonprofits. Finding ways to coordinate across these different sectors for collective impact is critical. In addition, several important factors and trends could influence the strategies of these programs, individually or collectively. Innovations in technology may change the type of work people do and the products firms create, while also providing a new and different delivery system for training. Access to these technologies is also vital, since many communities are not well connected. New finance models may help attract new players and investors in workforce development and help drive investments toward the most effective interventions. Aligning efforts and aiding them with new innovations and business models could significantly increase the scale and scope of workforce development programs.

As you read this book, we hope you find information that helps you advance initiatives, policies, and worker and employer opportunities in your community or state. Please reach out to the authors and editors if you wish to learn more. We hope that you will see the need to understand workforce development as an investment, and that you discover strategies that will help you make progress in your own organization or in your efforts on workforce policy. We believe this mind-set and further engagement and investment in the workforce development system are necessary to expand opportunity for workers and employers and to promote economic growth in the country.

### Note

1. See the section on Government Investment in Workforce Development in Volume 3 for a further investigation of federal and state government involvement in workforce development and some promising new practices.

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# **Part 1**

## **Building Employer Investment in Workforce Development**



# 1

## **Leveraging Evidence-Based and Practical Strategies to Reduce Skills Gaps**

Anand Marri  
Jennifer Schramm

Developing a workforce with the necessary skills for employment in today’s marketplace and the capability to adapt and learn the skills needed for the jobs of the future requires active engagement and participation of employers.

Employers can provide unique insight into needed skills and competencies to perform job tasks as roles evolve. Employers also hold a ready interest in promoting a highly skilled workforce as they stand to face negative consequences if skills shortages occur. The future of their businesses depends on their ability to find employees that can generate the products and services that power their organizations. As Jeanne Meister states in a chapter in this section, “Standing still is not an option” for employers faced with skills shortages in their talent pool and skills gaps in their workforce. Therefore, employers will need to act to address any potential shortages.

Many employers consider learning interventions, employee development, and education as investments rather than merely costs. However, they want the best return on their investment and must decide how to act, what strategies to use, which partners to work with, and how to measure success.

Expanding the quality and breadth of data on the performance of learning, skills, and educational programs will support employers as they invest in closing skills gaps.

With that in mind, we asked a range of experts to share areas of potential focus for employers as they build a twenty-first-century workforce, as well as skill-building strategies that—through their successes



and lessons learned—can actively engage employers in finding solutions to skills deficits. While the following essays cover various issues, a number of common themes emerged.

## **THE NEED FOR ACTION IS URGENT**

Representatives from employers, training organizations, and educational institutions note the need for urgent action on skill development and workforce readiness. Organizations across the country report difficulty in finding candidates with the needed skills for key jobs, which has a direct impact on the bottom line. While the ratio of unemployed persons per job opening peaked at 6.6 in July 2009, it has since trended downward. It declined to a historic low of 1.1 in June 2017 and was still 1.1 in January 2018 (Bureau of Labor Statistics 2018). Fewer unemployed job seekers may result in fewer applicants overall. In addition, many available applicants do not have the necessary skills to perform required job tasks successfully. With rapid skills turnover a new constant, industries, communities, and employers must improve their ability to respond to skills gaps quickly and efficiently.

## **EMPLOYERS ARE ESSENTIAL PARTNERS FOR SUCCESSFUL EFFORTS TO BRIDGE SKILLS GAPS**

Any successful effort to reduce skills shortages requires employer engagement. Employers recognize that skills gaps in their existing workforce act as barriers to productivity and business growth. They know which job vacancies are hardest to fill and the skills most needed to succeed in particular jobs. This real-time insight about needs and gaps provides invaluable information for education providers, trainers, policymakers, and even job seekers themselves. Anand Marri and Edison Reyes highlight several examples of employers partnering with postsecondary institutions to develop workforce strategies to meet their labor needs. Workforce readiness data from employers in specific

industries can shape education and training programs to ensure students learn the necessary skills to fill high-demand jobs.

## **EMPLOYERS FACE MANY COMMON CHALLENGES AND BARRIERS**

Data on the effectiveness of programs are not always readily accessible. In the absence of data on its benefits and return on investment, employers may be more reluctant to spend on training. It is also difficult for employers to choose specific training for the broad range of skills needed, especially given the rapid turnover of skills as new technologies develop. In her essay on engaging manufacturers in the promotion of skills development, Katherine McClelland outlines challenges that manufacturers have reported in relation to skills development, including costs or perceived costs of training programs. She also highlights the need to engage the talent pipeline early, as well as the importance of persuading job seekers and potential employees that investing in manufacturing skills is worthwhile.

## **EMPLOYERS BENEFIT FROM COLLABORATION AND SHARING BEST PRACTICES**

Employers, policymakers, educational institutions, students, and workers must collaborate effectively for workforce readiness initiatives to succeed. Bridgett Strickler, Dan Ash, Hadass Sheffer, and Zach Zimmerman argue that many employers do not take full advantage of the resources available to them through local higher education institutions. Small and medium-sized organizations sometimes are not aware of available resources or believe that they do not have a large enough contingent of trainees to invest in building training curriculum. These authors show that most employers remain open to working more closely with local postsecondary schools. McClelland's chapter also indicates that some manufacturers view collaboration with other firms in their industry as beneficial.

## **NEW SKILL NEEDS ARE EMERGING, THOUGH SOME REMAIN CONSTANT**

Hank Jackson discusses the importance of new types of leadership skills and the need to develop the next generation of leaders. Jeanne Meister outlines “new power skills” such as complex problem solving, critical thinking, creativity, people management, and coordination, as well as design thinking and coding. The Bridging the Talent Gap initiative outlined by Bridgett Strickler et al. identifies new skills needed by employers so that local educational providers adapt courses to teach those skills.

## **MEASUREMENT MUST BE A PART OF EMPLOYERS’ SKILLS STRATEGIES**

Up-to-date data are necessary to create an efficient informational loop that includes current and future skills needed by employers, and the training, education, and other learning interventions being developed by schools and training professionals. These data are not always accessible. For instance, Susan Helper, Ryan Noonan, Jessica R. Nicholson, and David Langdon discuss the challenge of evaluating a particular apprenticeship program since different parts of the organization house the data. These authors also note the challenge of tracking success metrics that do not directly relate to production, such as reduced employee turnover and reduced recruiting costs. While challenges exist, metrics—on an organizational, industry, community, even national level—are necessary to show the positive impacts of skills development and make the business case for investment in training programs.

## **EMPLOYERS AND OTHER STAKEHOLDERS SHOULD FOCUS ON WHAT WORKS**

Identifying and replicating successful workforce investments can mean challenging existing wisdom. Strickler et al. argue that while local governments, businesses, and other organizations invest heavily in two core talent strategies—*grow our own* through K–12 education and *import more* through attracting and retaining talent to the community—they might benefit from focusing more attention on helping adults with some college complete their postsecondary degrees and meet their full workforce potential. Meister and Jackson each emphasize the importance of training human capital managers to more accurately identify, measure, and predict the needed skills for their workforce. Anand Marri and Edison Reyes call attention to employers’ ability to work with two-year colleges and four-year universities in various capacities, such as recruiting for corporate training programs and accessing training space. McClelland outlines impactful manufacturing skills programs and gives suggestions for how they can be replicated. Helper et al. demonstrate how carefully managing just one type of skills initiative, apprenticeship programs, can have a measurable impact on business performance.

The following chapters reaffirm the clear need for employer participation in developing a skilled workforce for the future. The evidence-based strategies outlined show how employers can engage in practical and scalable workforce solutions that reduce skills gaps across industries *and* produce strong returns on their investments.

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## 2

# Turning the Skills Gap into an Opportunity for Collaboration

## Case Studies from New York and Puerto Rico

Anand Marri  
Edison Reyes

According to Nobel laureate Gary S. Becker, investing in human capital is comparable to companies investing in equipment to generate higher returns. Researchers define human capital as the measure of productivity and economic value individuals possess as determined by the collective knowledge, skills, and experiences obtained throughout one's life. Societies have relied on traditional educational and vocational systems to increase human capital by providing individuals with the necessary skills to succeed in the workplace.

Private sector employers have also assumed some responsibility in increasing the skills and capabilities of current and potential employees. Employers often cite the skills gap, or talent shortage, when explaining their barriers to filling positions. They report that job seekers lack the skills needed to perform available work, as well as valuable interpersonal skills important in the workplace. While the dearth of qualified potential employees continues to concern employers, labor market experts see ongoing trainings as a response to advancing technologies and the challenge of creating timely training programs in response to labor market needs as contributing factors to this issue (Cappelli 2014). Companies continuously require workers to have the right skills to perform well and help the firm grow. Because of these demands, researchers believe that engaging employers in the development of job training programs or curriculum advisement is an essential strategy for aligning industry needs and increasing job seekers' chances of securing work after completing training. Rather than dismissing employers' frus-

tration with the current workforce supply-and-demand model, tackling the skills gap presents an opportunity for both sides to develop a mutually beneficial partnership. Undoubtedly, employers' efforts to improve the skills of their employees would require greater time and investment in workforce practices. However, the benefits to both employers and employees of such an effort seem to outweigh the costs involved. For example, according to a Lumina Foundation study (2016), Cigna's Education Reimbursement Program shows that investing in employees' learning opportunities helps companies' performance, while also retaining and growing talent from within the company. The program resulted in a 129 percent return on investment as a result of avoided talent management costs and 43 percent higher incremental wage gains over three years for participating employees. When companies invest in programs and partnerships that aim to grow workers' skills, knowledge, and abilities, the programs can have a significant impact on the company, the worker, and communities.

## **UNDERSTANDING EMPLOYERS' NEEDS**

The IBM Institute for Business Value (2015) surveyed over 900 experts from the industry and academic sectors to better understand the effectiveness of the higher education system. Researchers found that about 49 percent of industry and academic leaders believe higher education meets student needs, and 41 percent believe higher education meets industry needs. While most companies and the business sector have transformed quickly in the past few decades due to technological advances and greater global connectivity, educational institutions and the education sector have changed at a slower pace. According to the survey, about 57 percent of industry and academic experts believe that collaboration between the two sectors is necessary to effectively deliver postsecondary and vocational education to students.

Employers should also consider how partnerships with external entities can retain existing talent and attract new workers to the company. According to a report by Kronos and Future Workplace (2016), 87 percent of surveyed employers said that improving retention remains a critical priority for their organization. Not surprisingly, the investment

placed into attracting and onboarding new employees prioritizes worker retention for most employers. Employers need to consider the various incentives employees want to continue working at the company, such as a wage increase, new personal or professional benefits, and educational or training opportunities to learn new skills for socioeconomic mobility. The latter investment can benefit both the worker and the company and would require a committed partnership to work together on planning and designing such a program. Acting together in a greater ecosystem of connectivity will provide greater value to both sectors than acting alone. The benefits would multiply with several partnerships across industries.

Several examples of partnerships between employers and training providers exist in numerous industries and with varying levels of educational systems. In 2011, IBM partnered with the New York City Department of Education and City University of New York to develop a career and technical education model that emphasizes science, technology, engineering, and math (STEM) disciplines. These subjects are found in some of the country's fastest-growing industries and do not require a four-year degree. The innovative model, known as Pathways in Technology Early College High Schools (P-TECH), spans grades 9–14 and began in Brooklyn to help prepare underserved students to acquire the academic, technical, and workplace skills that employers need.<sup>1</sup> During the six years of study and work-based learning, students receive mentoring, job shadowing, and internships with partner employers, and upon completion they graduate with an associate's degree in a STEM discipline. P-TECH graduates are also considered first in line for a job with employers participating in the collaborative program. The model redesigns the high school experience and helps students with individualized support services so they see themselves as college students on a career path. Since 2011, the P-TECH model has expanded to more than 60 schools serving thousands of students in partnership with small and large employers around the world. As of 2016, over 30 of these programs exist in New York State, in addition to recently opened programs in Illinois, Maryland, Colorado, Connecticut, Rhode Island, and Australia.

IBM and its partners created an online toolkit showing how this model can be widely replicated as part of its national effort to reform career and technical education.<sup>2</sup> In June 2017, IBM announced that approximately 100 students in P-TECH Schools in Brooklyn and Chi-



cago were expected to complete the program by the end of summer 2017, with the Brooklyn school's first cohort achieving an on-time completion rate four times greater than the national average for all community college students (IBM 2017). MDRC, a nonprofit, nonpartisan education and social policy research organization dedicated to learning what works to improve program and policies that affect the poor, has undertaken an impact study between students in NYC DOE-operated P-TECH schools and those that did not gain admission to the P-TECH program.<sup>3</sup>

Employers working closely with higher education partners may minimize the economic pitfalls of potential brain drain in communities and the labor force. According to the U.S. Department of Labor, the workforce is aging, and by 2024, nearly 25 percent of workers are projected to be age 55 or over (Morisi 2016). By contrast, this same group made up only 12 percent of the workforce in 1994. Employers have justified concerns about the projected effect this group of retirement-eligible workers will have on business due to the loss of knowledge, skills, and experience. Northeastern University and the World Class Cities Partnership (WCCP) initiative, now known as Leading Cities, seek to understand cooperative partnerships that address common challenges and opportunities around different cities, such as attraction and retention of locally grown talent. A research report by WCCP (2014) finds that cities' retention of graduates is about 50 percent on average, and these cities face emigration of their college-educated workforce due to a variety of reasons, such as skills mismatch, job availability, and integration into the community. Because businesses are already combatting a skills shortage, this potential issue of brain drain may negatively affect businesses' productivity and job growth in communities. Developing a talent pipeline for new workers would help balance the pipeline of exiting workers from the local labor force.

Businesses also face roadblocks to hiring skilled workers without their involvement in the development or training of workers. A relevant workforce model to fill open positions requires greater collaboration between employers and those seeking to support the development and placement of job seekers. Three private sector employers located in New York State and Puerto Rico shared their current workforce efforts to develop and hire local talent for their businesses. We interviewed executive and middle-level management staff from these private sector employers located in New York State and the Commonwealth of Puerto

Rico. Through these interviews, along with reviews of program-related reports, we learned about their current workforce efforts to develop and hire local talent for their businesses. By understanding some of the factors that contributed to these employers joining forces with higher education partners to develop a talent pipeline toward employment, we aim to provide insight for employers seeking to engage with higher education partners and understand some of the lessons learned through these existing collaborations.

## **ECONOMIC CONDITIONS IN PUERTO RICO AND UPSTATE NEW YORK**

In 2016 the Commonwealth of Puerto Rico had an estimated population of 3.5 million people. In 2006, the island's estimated population was 3.8 million. Ongoing economic conditions on the island have led to the significant decline in total population.<sup>4</sup> Since 2006, Puerto Rico has experienced a deep recession and the economy has not yet recovered, nor followed the usual track of the U.S. economy. In 2016, the Congressional Task Force on Economic Growth in Puerto Rico reported, using 2015 Census data, that 46.1 percent of Puerto Rico residents live at or below the federal poverty level, compared to the U.S. national average of 14.7 percent. Additionally, median household income in Puerto Rico is \$18,626, while the national median household income average is \$56,515 (U.S. Congress 2016). In March 2015, the Government Development Bank for Puerto Rico (2015) reported Puerto Rico's gross public debt at \$72.2 billion. The island's debt and compounding population decline have impacted business development and workforce opportunities for residents, and have limited other areas of economic growth. While the island's public sector continues to seek alternative solutions to ongoing economic challenges, the private and education sectors also aim to reverse the direction of the economy and turn things around.

New York State's job growth has varied between and within the upstate and downstate regions between 2009 and 2016. According to a 2016 report from the New York State Comptroller (DiNapoli 2016), job growth in upstate New York between 2009 and 2016 was largest in the

Capital Region (2.2 percent), followed by the Finger Lakes (1.7 percent) and the western New York (1.4 percent) regions. The Mohawk Valley, Southern Tier, North Country, upper Hudson Valley, and central New York regions reported job loss during this time. Overall, upstate New York's job growth rose 0.3 percent during this time period but lagged behind downstate New York and the nation as a whole (DiNapoli 2016). Between western New York, Capital Region, and central New York, there are over 45 public and private universities, colleges, and community colleges in the regions.<sup>5</sup> While economic conditions in upstate New York are not as strong as downstate, employers are partnering with several educational institutions to develop and attract a skilled workforce for the region.

## **CASE STUDY 1—BDO PUERTO RICO**

BDO Puerto Rico/U.S. Virgin Islands (BDO PR/USVI), a full-service accounting and consulting firm that provides assurance, tax advisory and compliance, business advisory, and outsourcing services, is a member of BDO International Limited, the world's fifth-largest accounting and consulting network. Fernando Scherrer and Gabriel Hernández founded Scherrer Hernández & Co. in 2000 before changing the name to BDO PR/USVI and joining the BDO International network in 2012. As of September 2016, BDO International employs over 67,000 workers in 1,401 offices and operates in over 158 countries and territories with total revenues over \$7.6 billion. BDO PR/USVI has offices in San Juan, Puerto Rico, and St. Thomas, U.S. Virgin Islands, and employs over 240 professional staff and 12 partners in the firm.

Recognizing the importance of the business and staff, BDO PR/USVI aims to inspire and foster success for its people and their clients, while maintaining the right environment for its staff and the right people for their clients. By focusing the mission and vision of the firm on its staff and clients, the company places importance on both groups to keep the firm moving forward. The company is highly regarded in the local market in terms of customer satisfaction and offers diverse services in multiple industries, such as energy and natural resources, financial services and assurance, government and public sector, hospitality,

manufacturing, and real estate, while serving a large client population. While diversifying its portfolio has served the company well during uneasy economic times, a challenge for the company has been developing local talent that specializes in multiple industries. Understanding the impact that the local economy has on the workforce and the specific skill sets needed for the company to provide value-added to its clients, BDO PR/USVI developed a partnership with the University of Puerto Rico and other postsecondary educational institutions to create the BDO University (BDO U) internship program.

Participants in the program are usually junior- or senior-year college students with a strong background in accounting, finance, law, or a STEM discipline, who have advanced computer skills, who are fluent in written and spoken English and Spanish, and who commit a minimum of 20 hours per week to the program. While students may not have all the sought-after skill sets, BDO PR/USVI will work with students who demonstrate leadership and teamwork to hone their skills and develop into professionals who will represent the company.

BDO PR/USVI first assesses students by attending campus career fairs or speaking to classes and seeing how students communicate and articulate interest in the industry and company. After résumés are received, the company establishes a review committee of different partners and business area leaders to look for different elements, such as extracurricular activities and educational interests. After identifying several promising applicants, the company can meet up to 100 students in several roundtable interviews. Depending on how many people the company expects to hire that year, it will try to interview three times as many people. After meeting business leads, students are ranked by service area and offered an internship position in that order. Participants in the program complete 100 hours of training and about a minimum of 400 additional hours in on-site fieldwork.

In any given year, 30–40 students participate in the program, which runs eight months out of the year. Approximately 30 percent of the firm's new workforce each year is sourced directly from this program. The program provides working experience for students and supports the development of the firm through active engagement across the different departments of the firm. At the University of Puerto Rico, the dean of accounting supports the recruitment of potential interns. BDO PR/USVI dedicates time, financial resources, space, and technology to

the program. Through the internship program, students gain excellent learning opportunities in various industries, build professional qualifications and responsibilities, receive mentorship and support from staff, get exposure to senior management leaders and BDO clients, and earn a competitive salary while fulfilling the work experience needed for certain certification requirements.

For BDO PR/USVI, migration of people and skills out of the country remains a challenge. Puerto Ricans are U.S. citizens at birth, so they can work anywhere in the United States. Because of the current economic climate, new graduates continue to move to the United States. Additionally, to combat the stereotype that working at an accounting firm entails a work-life imbalance, BDO PR/USVI works to assure its staff that they can have a rewarding life outside work. Since Puerto Ricans are leaving the island to study in the United States, the company investigates how they can attract and bring back students to the island through its internship program.

In September 2017, Hurricanes Irma and Maria hit Puerto Rico and several surrounding Caribbean nations. These hurricanes caused extensive and lasting damage to Puerto Rico's infrastructure and business environment. While it is too soon to know for sure the economic impact caused by the hurricanes, recent labor market data from the U.S. Department of Labor showed that employers on the island reduced payrolls by 3.6 percent—the greatest drop in 21 years (Philip 2017). As of one year after the hurricanes, almost 200,000 residents have left the island (Center for Puerto Rican Studies 2018). For now, the primary focus for all stakeholders is managing relief efforts on the island.

## **CASE STUDY 2—NATIONAL GRID**

National Grid is an electricity and natural gas delivery company that employs about 4,000 workers and connects 1.6 million electricity customers and 600,000 natural gas customers in vital energy sources through its networks in upstate New York. National Grid also operates the systems that deliver gas and electricity across Great Britain, Massachusetts, Rhode Island, Long Island, and New York City. National Grid continues to transform its electricity and natural gas networks to

support the twenty-first-century digital economy with smarter, cleaner, and more resilient energy solutions. National Grid invests in workforce programs to employ energetic, positive workers that maintain and grow skill sets in several areas critical to the company's success, including a labor force in the professional/managerial track, journey fieldworkers, and call centers.

National Grid's journey fieldworkers actively work on field infrastructure and remain highly visible to customers, therefore needing both technical and mechanical skills as well as excellent public relations and communications skills. The job categories that these employees work in include line and gas mechanics, service and meter technicians, and designers and planners. National Grid's Collections and Customer Service and Meter employees interact directly with customers to address specific customer inquiries. These representatives need to understand the entire customer experience and must have great listening and problem-solving skills. In the professional track, National Grid depends on professional skills at the graduate or higher level, critical to operating the transmission and distribution networks in the natural gas and electric industry. These skills rely heavily on the analytical and managerial areas. National Grid's Talent Acquisition teams, part of the Human Resources Department, work with local colleges to recruit these graduates directly into these fields. Once the firm hires graduates, many participate in a graduate development program (GDP). This program provides an aggressive planned experience in which new employees work for six months in a training experience to learn about other areas of the business and are assigned a capstone project that reinforces both the classroom and field experience. Graduates present the results of their findings to managers who sponsor the program, and successful employees work in areas such as the stakeholder and community/customer account executives, electrical and mechanical engineering, project management, commercial credit analysis, finance, human resources, and supply chain management departments.

In addition to encouraging existing employees to be life-long learners, National Grid works strategically with education partners to build a future workforce for the company and industry. Based on the company's strategic business plans, teams discuss its ability to deliver on the capability and capacity and work to proactively identify gaps that, if not addressed, would impact its ability to achieve business goals. In

one of its first community college partnerships, the company's senior operational vice-presidents, directors, and managers, together with the human resources, recruitment, and legal teams, worked together to develop a 12-month certificate program that focused on a hands-on, practical electrical line mechanic program. National Grid worked with Erie Community College to develop a course syllabus, course outline, and materials, and build an internal lab at an existing facility in the region. A memorandum of understanding was written with the assistance of the director of human resources, in-house attorney, and with the support and guidance from senior operations executives.

Soon after, National Grid's vice president of electric operations for upstate New York heard about the program and asked an internal team to develop a similar program for Hudson Valley Community College (HVCC) to help support the workforce in the Capital Region. National Grid approached HVCC, which expressed interest in the joint partnership, and created a similar program that resulted in an Associates of Occupational Science (AOS) degree. Most recently, National Grid's Western Division is working with Onondaga Community College to create workforce training programs that will focus on trade programs in order to develop electricians, welders, machinists, line mechanics, and meter workers for the company.

Prior to working strategically with education partners, National Grid used traditional forms of outreach to hire workers, such as employee referrals, classified ads, radio announcements, and college fairs. National Grid assessed the changing business environment and needed to reassess its approach to hiring workers and filling positions, such as line workers, where the aging workforce may soon impact these jobs. National Grid developed the National Grid Academy to support training for existing workers, but relied on partnering with colleges and universities in the upstate New York region to create a resource pool for hiring new workers. National Grid currently has eight active employer-education partnerships, which leverage the expertise and knowledge of its academy instructors, and is developing seven new programs with public community colleges and public and private four-year colleges across electric, gas, and general utility specializations. The State University of New York system has multiple campuses across the upstate New York region, and its colleges have been extremely collaborative

with National Grid, in addition to its campuses being strategically located across the company's business areas.

For National Grid in the upstate New York region, the company anticipates a growing number of workers retiring over the next 10 years. The pace of retirements presents a challenge in developing journey-level fieldworkers to meet the existing and changing demands of the business. This aging workforce also presents challenges, since the upstate New York area is not replacing the aging population with a net migration of younger people.

### **CASE STUDY 3—ARNOFF MOVING & STORAGE**

Arnoff Moving & Storage (AMS), founded in 1924, is a fast-growing moving, storage, and logistics provider in New York State's Hudson Valley and Capital Region. AMS, a family-owned and -operated full-service moving and storage company, currently employs about 200 workers and began operating with one truck and an office and warehouse facility in Lakeville, Connecticut. Throughout its 93-year history, the company expanded to other markets across the country, such as Connecticut, Massachusetts, and Florida. In 2017, the company's flagship business location moved from Albany to Malta, New York, to a new 100,000-square-foot warehouse and state-of-the-art distribution facility in a 40-acre site. The company has five offices with management teams and support staff at each location. AMS not only operates a truck fleet with drivers and helpers performing moving tasks, but also provides warehousing services coordinated with its transportation division. AMS attributes the supportive business environment and manufacturing economy along the capital district and neighboring regions as partially responsible for its recent business expansion.

AMS previously partnered with two community colleges in the Capital and Hudson Valley regions to offer several incumbent worker training programs. AMS originally partnered with higher education in college career fairs, but the partnerships were limited beyond that. A substantial strategic partnership began when a community college representative approached AMS and provided a brief overview of the services and trainings they provide to employers. Initial conversa-



tions started between AMS's vice president of human resources and the community college representative about the types of trainings the company needed for the upcoming year. The college then proposed several training options, which could have been done either solely for the company's employees or with a group of other employees in similar industries. Training topics varied among staff. For example, managers learned how to perform proper appraisals and took basic computer skill courses, drivers took defensive driving classes, and all employees took courses on working in a safe and healthy environment. Through these initial experiences with the community colleges, and seeing how valuable and useful the training materials were in terms of improving the quality of the company and its staff, AMS continued to find opportunities for greater collaboration with the colleges.

Another benefit for AMS was that the colleges have many amenities, such as classroom space, computer labs, parking, and a cafeteria, making it easy for the company's staff to spend their day learning about different topics in a convenient and all-encompassing location. AMS contributes a financial component to the trainings, but it is manageable with support from grants received by the community college and a grant provided by Workforce Development Institute, a statewide nonprofit that supports keeping good jobs in New York state. While community colleges have been supportive partners, AMS understands that not all of the trainings can be uniquely tailored for AMS's needs, and colleges communicate that trainings may sometimes require greater employer participation. When appropriate, AMS works with other employers to partner with community colleges to develop a training program that would benefit their industry collectively.

According to the American Trucking Association, the trucking industry was short 38,000 drivers in 2014 and could have shortages of almost 175,000 drivers by 2024 (Costello and Suarez 2015). Rising interest in the automation of vehicles, particularly trucking, is being carefully studied by industry experts, but the infrastructure and legislation approving self-driving cars is not expected for some time (Rushe 2017). As an industry that prioritizes safety due to the nature of the work, the quality of drivers is valued much more than the quantity of drivers. Trucking companies are vigilant about the hiring criteria for eligible candidates because of the potential negative impact on their bottom line by hiring poorly qualified drivers who get into accidents and increase

insurance premiums. Similar to the utilities industry, the trucking industry is facing the prospect of replacing a significant percentage of its drivers due to retirement, while still needing to meet increasing demand for services across the industry. Additionally, females comprise about 6 percent of drivers in this industry, while making up about 47 percent of all U.S. workers (Rushe 2017). Another challenge is changing the perception of drivers' lifestyle and being on the road for extended durations of time. AMS is a regional and local company with drivers and staff who live in the areas they serve, so this is not a significant issue compared to other companies in this industry. Workers in both moving and storage areas are expected to have professional and customer-facing skill sets, since they may be performing tasks involving client engagement. AMS seeks the development of these types of skill sets through training as a result of its importance in the business.

## **LESSONS LEARNED/NEXT STEPS**

BDO PR/USVI has dedicated much of its workforce efforts and resources in Puerto Rico. The company plans to extend the BDO U model to the U.S. Virgin Islands (USVI) and anticipates restructuring it because the work and personal life environment is different in each place. BDO PR/USVI plans on conducting an extensive assessment to determine the feasibility of working with educational institutions in USVI and the size of such a workforce program there. The company will continue to refine its workforce program year after year as its business areas grow and its needs evolve according to clientele and business environment.

National Grid has an extensive service area. The company has learned from all different regions to help support its networks. In downstate New York, potential candidates in National Grid's Customer Experience Management program learn how to interact with customers on service questions, billing, payments, and account processing with the goal of developing professional communication and problem-solving skills. Kingsborough Community College, located in Brooklyn, currently works with multilingual candidates to develop awareness of the root cause of customer questions and assists students with personal

finance and résumé-writing skills. National Grid is assessing a partnership with a community college in the upstate region to determine the viability and replicability of the downstate New York model. National Grid will continue to invest in these workforce programs in order to hire successful candidates and serve a critical need: providing a solid foundation of common language, knowledge, and practical skills in the utilities industry. Responding to an increasing interest from military graduates with technical experience in electrical or plumbing looking for opportunities in the utilities industry, National Grid is partnering with a consortium of other utilities and aims to expand a Troops to Energy program with an upstate New York community college partner. A strong partnership with local colleges, universities, and community partners will allow National Grid to meet the changing needs of a digital economy and reinforce its commitment to the communities they serve.

AMS continues to focus on developing a grassroots recruitment effort by connecting with local veterans organizations in the communities it serves. The company has numerous positions, such as management, supervisory, and staff and driving, where veterans have skill sets that work well for the company culture. In several instances, AMS has reached out to local American Legion chapters and Veterans Administration organizations to introduce the company to this unique population group and make known the opportunities that exist at the company.

In these three cases, employers' strategic investment in workforce development efforts originated from a combination of industry- and economic-related concerns, as well as difficulty with finding skilled workers. In addition to being a learning hub for the future workforce, education institutions can be a valuable workforce partner for employers seeking to develop critical and in-demand skills. The latter opportunity requires active engagement and involvement from employers and industry experts to transform existing teaching and instructional classroom-based models into relevant work-based learning models. When companies' senior management is aware of the workforce issue and attuned to possible partnership efforts, the potential of taking an active role in the development of training programs or projects can lead to a successful long-term impact for the company.

Employers compete in a much larger and globally connected world than ever before, so the current system and resources dedicated to build-

ing the future workforce requires greater and strategic partnerships between employers and the education sector. However, companies' contributions to workforce development and engagement strategies should not be limited to the education sector; collaborations should be extended to the local chamber of commerce, community-based organizations, nontraditional workforce training providers, local and state workforce development boards, and financial institutions.

## Notes

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2. See <http://www.ptech.org/> (accessed February 20, 2018).
3. See <http://www.mdc.org/project/pathways-technology-early-college-high-school-p-tech#overview> (accessed February 20, 2018).
4. See [https://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml) (accessed February 20, 2018).
5. See [https://www.wnycollegeconnection.com/application-college-list.100004.content;https://en.wikipedia.org/wiki/List\\_of\\_colleges\\_and\\_universities\\_in\\_New\\_York\\_percent27s\\_Capital\\_District](https://www.wnycollegeconnection.com/application-college-list.100004.content;https://en.wikipedia.org/wiki/List_of_colleges_and_universities_in_New_York_percent27s_Capital_District) (accessed February 20, 2018).

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# 3

## **Bridging the Talent Gap through Data Insights and Community Action**

Bridgett Strickler  
Dan Ash  
Hadass Sheffer  
Zachary Zimmerman

### **THE RELATIONSHIP BETWEEN WORK AND EDUCATION**

One of the most profoundly meaningful—and frustratingly difficult—issues emerging in the workplace is how to establish a constructive relationship between work and education. For years, employers have extolled the virtues of a workforce with postsecondary credentials while decrying their lack of access to workers with the right skills at the right time. Education providers, on the other hand, are struggling to keep up with the needs of employers as technology and industries change rapidly. In the middle are the workers, often alone in determining the new skills they might need to stay productive and competitive in their current or future employment. The Graduate! Network and its Bridging the Talent Gap initiative operate in the crux of this tension, providing insight and expertise for responsive, data-driven solutions.

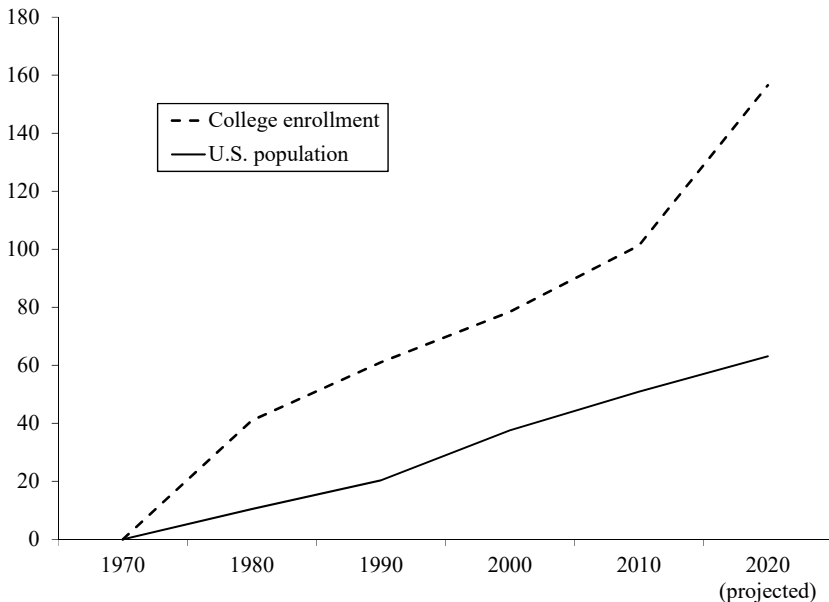
The ability to acquire, grow, and repurpose talent has become, arguably, the key driver of economic success for cities, regions, and states today. “Statistically, educational attainment—summarized by the fraction of the adult population with a four-year college degree—explains roughly 60 percent of the variation in per capita incomes among large U.S. metropolitan areas.”<sup>1</sup> The sizable impact of higher education prompted the national educational attainment goal of 60 percent of

adults with a postsecondary credential laid out by the Lumina Foundation.<sup>2</sup> Yet, at current degree production rates, the United States will fall 16.4 million degrees short of the 40.6 million degrees that are conservatively predicted necessary to meet the needs of the economy by 2025 (Lumina Foundation 2016). Many states, regions, and cities have now articulated similar educational attainment goals for meeting their economic development aspirations. Employers also increasingly and explicitly tie postsecondary credentials to recruiting and internal promotions. According to a Center on Education and the Workforce report (Carnevale, Jayasundera, and Gulish 2016), more than 99 percent of jobs gained in the post-2008 recovery went to workers with more than a high school education. And for the first time in our nation's history, workers with a bachelor's degree or higher make up a larger segment of the workforce than those with a high school diploma or less. Reflecting public perception of the importance of postsecondary education, data from the National Center for Education Statistics (2016) show an increase in college enrollments among all age groups. As seen in Figure 3.1, college enrollment since 1970 has grown at a substantially faster rate compared to the U.S. population. Postsecondary achievement is now a fundamental factor in the economic development aspirations of any region, for business success and for employability and personal advancement.

## **RESPONSES TO TALENT DEVELOPMENT NEEDS**

This hunger for talent requires a tectonic shift in the way cities and regions must think about cultivating the talent they need. Once viewed as less critical compared to talent attraction and retention, incumbent worker training and workforce development are suddenly in the spotlight of economic development priorities. Typically, local governments, businesses, and other organizations invest heavily in two core talent strategies: 1) a “grow our own” strategy through the K–12 education system, and 2) an “import more” strategy through talent attraction and retention efforts. But there is a third strategy that has too often been neglected: “transform our own.” This strategy requires expanding the talent agenda to include an asset that is not fully harnessed in most

**Figure 3.1 Percentage Change by Decade, College Enrollment versus U.S. Population (compared to 1970)**



SOURCE: Higher Education General Information Survey, 1970 and 1980; Integrated Postsecondary Education Data (various years); Current Population Survey, selected years, 1970–2014.

NOTE: Data through 1995 are for institutions of higher education, while later data are for degree-granting institutions. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. The degree-granting classification is very similar to the earlier higher education classification, but it includes more two-year colleges and excludes a few higher education institutions that did not grant degrees. Some data have been revised from previously published figures.

locations: adults with some college but no degree. Around 36 million Americans fit this definition, most with extensive, valuable, and documentable work experience (Census Bureau 2016). Already part of the way to a degree, these are individuals whose workforce potential can be boosted fairly quickly with a postsecondary credential. This group is the most viable path to meeting talent goals: they are already partway there. Adults tend to bring their new skills to work immediately, and with the right supports, their educational completion rates equal or top those of the average younger learner. Finally, investing in this popula-



tion is transformative for the current and future well-being of their children as well as for higher education in the United States. The centrality of the “transform your own” strategy in successful talent development was identified early on by Dan Ash in his work with Metropolitan College (Riggert et al. 2004) and by the Philadelphia Workforce Investment Board (2005, 2007).

The Graduate! Network is a growing national network that—through raising awareness, articulating value, demonstrating ways to accelerate attainment, and mobilizing communities to action—aims to increase the number of adults completing college. Different locales require different strategies that must be driven by local stakeholders, including business, higher education, government, organized labor, workforce and economic development, community-based organizations, social service providers, and the adult learner population. No single entity can accomplish such large-scale movement. The Graduate! Network helps mobilize and connect communities around the country that recognize the potential of this population and of the organization’s approach to work together to define goals, align resources, remove barriers, and create new pathways for these adults. The following section describes select findings from the Bridging the Talent Gap project and provides recommendations for employers and individuals to embrace and benefit from the “transform your own” strategy.

## **BRIDGING THE TALENT GAP: SHARED EMPIRICAL DATA AS THE EMPLOYER’S VOICE**

From the outset, one of the project’s key objectives was gaining the employer’s voice in this transformation strategy. Bridging the Talent Gap is designed as a platform to understand the forces at play in small and medium-sized employers as well as the large employers so often the focus of such work and studies.

The Bridging the Talent Gap approach is founded at the intersection of two countervailing forces. Collaborative talent development (CTD) enterprises like Graduate! Network communities need reliable data to understand the ways in which employers partner with employees in education support. Consequently, understanding the local community

landscape of these relationships is also a crucial step toward effective practices. Unfortunately, this understanding is compromised by the lack of quality, diminished extent, and limited usefulness of available data from employers.

These deficiencies stem from fundamental properties of traditional business models. At its core, business relies on information as a competitive advantage. “Sound business practices” dictate that the sharing of information that imparts a competitive benefit runs counter to the gains business inherently seeks. This culture of data hoarding has had a profound influence on what we know about employer-based support for learning. The scarcity of data leads to overreliance on large national databases, self-published and self-interested studies, and easily accessible Internet reports that can lack context and rigorous analysis. An in-depth, comparative overview of the characteristics of these data sources underscores important problems that need to be addressed.

- **Restricted range of benefits.** Tuition assistance, the benefit most thoroughly considered in published reports, is only one of the multiple means by which employers provide a work environment more conducive to working learners’ success. Flexible work schedules, transparency of benefit opportunities, learning opportunities at the work site and during work hours, and child care assistance are just a few alternative examples. Any profile of the ways in which employers and working learners seek mutual benefit must include a more comprehensive survey of these benefits.
- **Overinclusion.** Data sources on tuition assistance programs typically provide a national overview rather than the nuanced understanding of benefits that would be useful for local communities. A community’s economic conditions, workforce characteristics, size, employment opportunities, and a multitude of additional variables serve to define the reality of what does and does not work well for a given employer. Arguably, the failure to replicate outstanding successes such as UPS’s Metropolitan College and Verizon Wireless’s Learning Link is more a function of corporate culture and the unique characteristics of these programs, the working learners participating in the programs, and the communities in which they are located rather than any

general problematic characteristic. Collapsing data across broad ranges of location, function, and size restricts applicable insight.

- **Replicability, reliability, and validity.** The methodological deficiencies of many reports readily available on the Internet are so numerous that resulting publications often resemble a marketing piece with little substance or usable information. For many data sources found on websites, there is scant discussion of research methodology, sampling procedures, or substantive rationale for the use of statistics covered in the reports.
- **Employer exclusion based on size.** Given that gathering data among a small number of large organizations is more straightforward and requires fewer resources than a large number of smaller organizations, much of the data used in these reports focuses on employers with more than 2,500 “eligible employees.” The reality of the U.S. workforce is not consistent with this approach. According to the U.S. Small Business Administration, small businesses have provided 55 percent of all jobs and 66 percent of all net new jobs since the 1970s. Furthermore, this trend is accelerating. The number of small businesses in the United States has increased by 49 percent since 1982. From 1990 through 2016, small business has added 8 million new jobs while big business has eliminated 4 million jobs in the same period.<sup>3</sup> The latest census data show that small businesses (fewer than 1,000 employees) have accounted for at least 80 percent of the annual payroll and 85 percent of all paid employees from 2011 to 2015.<sup>4</sup> Any report that focuses solely on the activity of large employers is not representative of the profile of U.S. employers or employees.

## SURVEY METHODOLOGY

Bridging the Talent Gap seeks to address these shortcomings through survey development, administration, and follow-up activity focused on three key principles. First, the survey construction and development elevate the community to the primary interest. All ques-

tions, responses, and analyses are intended to deliver information that captures the essential makeup of the community and characterizes the relationship between business and education in that specific area.<sup>5</sup> To this end, the survey comprises four environmental landscapes, each intended to highlight specific considerations:

- 1) The business community landscape provides information on the economic and demographic profile of the local business community, with emphasis on local economic outlook, anticipated growth, and business demographic information.
- 2) The hiring landscape portrays experiences of the business community in hiring new employees for specific high-demand positions. This section is helpful in assessing the challenges faced in filling key positions across a variety of factors and can provide useful insight by comparing the community's hiring challenges with other communities in the survey database.
- 3) The skills needs landscape explores the business community's general experience with skills gaps and how these gaps are measured by looking at labor pool educational attainment at three levels: high school, associate's degree, and bachelor's degree. The goal is to gain some understanding of general skills gaps in the community and the relative value added to skills mastery with additional educational attainment.
- 4) The learning landscape offers information on the potential return on investment (ROI) to be gained by investing in employees' learning, a profile of the characteristics necessary in partnerships with community learning providers, and prospects for future partnerships.

From January 2016 through May 2017, the survey was administered in 22 cities, counties, or regions across six states. A total of 1,657 surveys were fully or partially completed by a variety of organizational representatives, including human resource management, executive leadership, and small business owners.

The second principle relates to the data from these communities, which are aggregated in a bottom-up rather than a top-down process. Although typical approaches seek to capture national or international data in their administration and rely on sampling techniques to simulate

or infer regional perspectives, such practices can be misleading for local communities. This project focuses on data collection in a given community with specific expectations that the data will honestly characterize the nature of business-education partnerships and the talent development necessary for success in their endeavors. A quick comparison of the methods will serve to highlight the differences. *Manufacturing Barometer: Business Outlook Report* (PwC 2017) found that 32 percent of respondents expected to hire new employees in the coming year. Data from Bridging the Talent Gap show that more than 78 percent of employers involved in manufacturing expect to hire full-time regular employees in the near future. What is responsible for the notable difference in estimate? The *Manufacturing Barometer* report is one of a series of quarterly business outlook surveys. It was based on a sample of 60 businesses with an average of 7,985 employees (PwC 2017). In contrast, Bridging the Talent Gap data analyses were derived from 387 respondents representing manufacturing, with 87 percent of these from organizations with 1,000 or fewer employees. One interpretation of this disparity in hiring expectations suggests that small and medium businesses involved in manufacturing face a substantial challenge in finding suitable employees compared to their larger corporation counterparts. A host of potential causes could be responsible for these differences, but if the local CTD uses small-sample nationally derived information to infer conditions in the community, it can be misleading. This problem is exacerbated when the findings are highlighted in secondhand online reports derived from the original report without providing information on the underlying data. These differences underscore how differing data foundations can lead to notable differences in results.

Finally, the activities involved in building community support for survey participation, the analyses of results, and the sharing of the outcomes are all intended to provide information for an empowered community that culminates in collaborative action. Actionable evidence is made up of data that identifies critical issues that should be addressed by CTD initiatives; is mutually beneficial for working learners, employers, and learning providers; identifies key information to create paths for education-business-learner partnerships; and provides information on likely community candidates for such partnerships.

Analyses of the current database of respondents provide a voice for more than 1,600 businesses that have participated in Bridging the

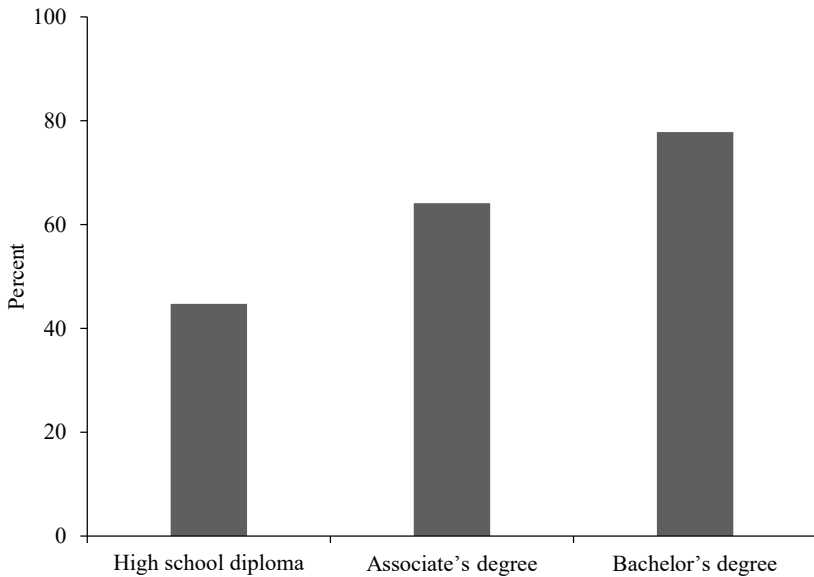
Talent Gap surveys through May 2017. Several results are noteworthy from these participants that point to issues needing immediate action, and potential remedies communities might take to promote the added value gained from a more educated workforce.

### **Employers Recognize That Greater Educational Attainment Results in Greater Applied Skills**

A common cultural theme claims that higher education is remiss in producing graduates who have applied skills that benefit the workplace. Data from our participants run counter to such assertions. Respondents considered the skills of their labor pool according to their highest educational attainment: a high school diploma, associate's degree, or bachelor's degree. Across all applied skills considered—which included ability to work with diverse coworkers/clients, application of information technology skills, leadership, problem solving, and teamwork/collaboration skills—the percentage of the labor pool possessing these skills increased notably with each level of education attained. As Figure 3.2 shows, 45 percent of the labor pool with a high school diploma had these skills in aggregate. This percentage increased to 64 percent for those with an associate's degree and 78 percent for those with a bachelor's degree. One interpretation of these data from the perspective of the employer is that the process of learning, regardless of the subject matter, is a value-added influence. Hiring from a more educated labor pool produces a greater likelihood of gaining an employee with the applied skills needed across virtually all workplace conditions. Interestingly, this trend holds for all sizes of employers. For small employers (1–200 employees), 47 percent of the labor pool with a high school diploma, 63 percent of those with an associate's degree, and 77 percent of those with a bachelor's degree were considered to possess applied skills. For medium-sized enterprises (201–1,000 employees), these percentages were 41 percent for high school diploma holders, 65 percent for associate's degree holders, and 79 percent for bachelor's degree holders. From the perspective of the employer, more education clearly is associated with gains in workplace-valued skills regardless of organization size.

*Action Opportunity:* Higher education spends considerable resources and time in promoting efforts to meet employers' workforce

**Figure 3.2 Percent of Labor Pool Possessing Applied Skills**



SOURCE: Bridging the Talent Gap, the Talent Alignment Survey.

NOTE: All data gathered from survey administration February 2016 through May 2017. Administration locations included multiple sites in Florida, Indiana, Kentucky, New Jersey, Tennessee, and Washington.

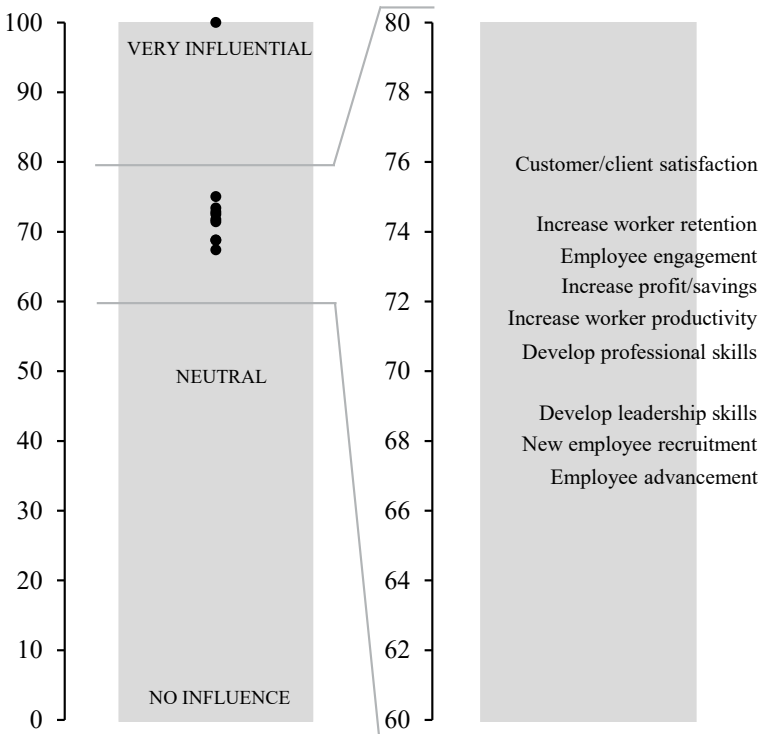
needs. Although anecdotal evidence from large corporations is a stand-in technique for demonstrating the responsiveness and efficacy of higher education's efforts, it rarely speaks to the more pragmatic needs of small and medium-sized enterprises. These data provide a direct summary of the surveyed employers' perspective, especially for businesses with 1,000 or fewer employees, and offer a basis for raising awareness that the credentials granted by colleges and universities are a deep driver for a more skilled workforce, regardless of graduates' academic focus.

### **Education Programs Are Influential in Helping Businesses Achieve Organizational Goals**

Figure 3.3 shows the influence of education programs on the ability to achieve organizational goals from an employer's perspective.

Nine organizational goals were selected by item analysis reports by top employers to the 2016 Great Places to Work and the 2016 *Training* magazine Top 125 education employers describing the influence of education. For example, multiple organizations reported the benefits accrued in terms of decreased worker turnover based on education benefit. This was then identified as an organizational goal that was included in the survey. These goals are listed beside their respective average rating in Figure 3.3. As the results indicate, education had a profound impact on achievement for all goals, with a range of 67–75, where 1 = no influence

**Figure 3.3 Influence of Education Programs on Ability to Achieve Organizational Goals (1 = no influence at all; 100 = very influential)**



SOURCE: Bridging the Talent Gap, the Talent Alignment Survey.

NOTE: All data gathered from survey administration February 2016 through May 2017. Administration locations included multiple sites in Florida, Indiana, Kentucky, New Jersey, Tennessee, and Washington.



ence at all and 100 = very influential. Both the level of influence and the consistently high responses point to a reality that deserves deeper analysis and development.

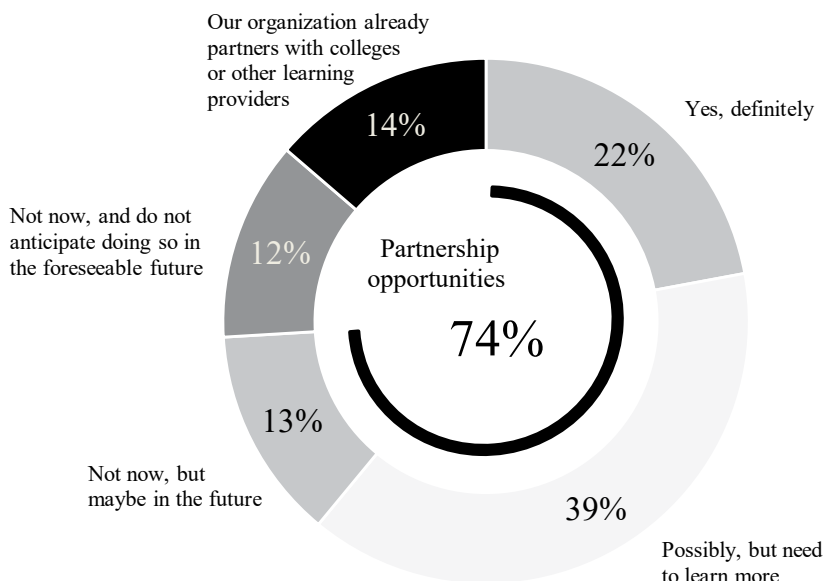
*Action Opportunity:* These data indicate a meaningful opportunity for higher education and businesses to collaborate in specific ways to address two strands of exploration. The first concerns more detailed inquiry into the elements of education that have both common and unique influence on organizational goals. The second entails cooperative efforts to create more closely aligned learning with organizational goals. Data obtained from this survey can serve as a baseline from which to launch such initiatives.

### **Employers Do Not Currently Take Advantage of the Benefits of Working with Learning Providers**

When asked about their current relationship with higher education, employers reveal a level of involvement that is inconsistent with their perspective on the value of education, and partnerships are incongruent with the actual benefits of education for the workplace as described above. For example, as seen in Figure 3.4, when asked about existing or planned partnerships with local higher education institutions to support employees' learning, only 14 percent reported they already do so. Equally problematic, the majority of employers (55 percent) are not taking full advantage of the expertise and resources local colleges and universities hold to assist in assessing the talent gaps their employees face. Fortunately, a large portion of employers embrace the *notion* of working more closely with local higher education institutions. Seventy-four percent say they would either definitely or possibly consider partnering with a local institution. Only 12 percent say they have no plans to partner.

*Action Opportunity:* The downside of meager interaction with education is countered by the sizable potential for partnering between higher education and business. The discrepancy between the actual partnerships and the desire to do so is more indicative of lack of effort or know-how on the part of education institutions than it is a shortcoming of businesses. An ample proportion of businesses would welcome the opportunity to discover ways in which the higher education and business communities can collaborate. CTDs should take the steps of

**Figure 3.4 Consideration of Partnership with Local Postsecondary Institutions or Other Learning Provider to Support Education, Learning, or Training for Your Employees**



SOURCE: Bridging the Talent Gap, the Talent Alignment Survey.

NOTE: All data gathered from survey administration February 2016 through May 2017. Administration locations included multiple sites in Florida, Indiana, Kentucky, New Jersey, Tennessee, and Washington.

identifying organizations in their area who fit this partnering potential as an inaugural community initiative, followed by intereducation provider collaboration to fit their employers’ learning needs.

**Employers Are Convinced That Their Employees Are Too Busy to Pursue Education**

Respondents were asked why they think their employees did not take more advantage of the education programs offered. Figure 3.5 depicts employers’ perspectives on the reasons. A large majority (70 percent) claimed their employees were too busy or otherwise committed. This response is surprising, given that only 6 percent thought there

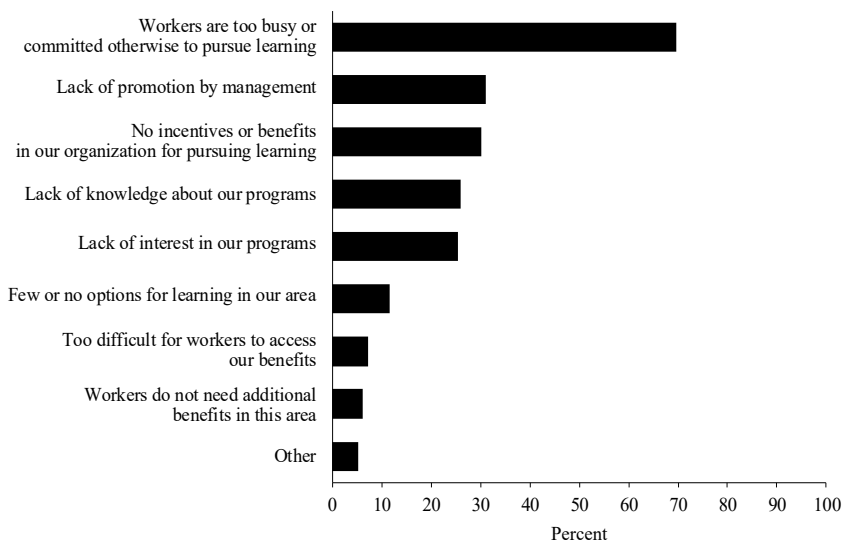
was no need for additional education. One explanation for such a divergence could be in the worker population that most often uses employers' education benefits. The majority of employers (53 percent) identify mid-level employees as most often taking advantage of their education benefits. Only 20 percent of employers reported that their entry-level employees are most likely to take advantage of education benefits. Of course, entry-level workers make less in wages and must work more if they shoulder the burdensome cost of education personally. The irony in this disparity is that the very employees who have the least time—and would benefit most from advancing their education—least participate in the activity that would most positively influence them.

*Action Opportunity:* Employers are missing a core opportunity in not addressing the difficulty entry-level workers face in achieving more education. As the data above reveal, more education strengthens the applied skill sets of the workforce and has the added benefit of notable contributions to helping employers achieve their organizational goals. Investment in the education of entry-level workers holds the greatest potential for the greatest good. Programs aimed at assisting entry-level workers (e.g., the UPS Metropolitan College, Verizon's Learning Link) show remarkable workplace gains in worker productivity, retention, and employee loyalty. Immediate emphasis on the advantages and benefits from employer learning support for entry-level employees is one of the more impactful areas CTD organizations can explore.

### **New Learning Credentials Are Emerging as Equal to or Exceeding Anticipated Future Need for More Traditional Education Milestones**

The historical franchise higher education has held for decades is giving way to a new set of credentials employers are eager to embrace. As Figure 3.6 indicates, data show that the greatest need for education credentials over the next five years will be for those holding a bachelor's degree (44 percent expecting increased need over the next five years), but emergent trends in education are clear. Increased needs for industry or professional association credentials (41 percent expecting increased need) and technical college credentials (37 percent anticipating increased need) approach the same anticipated need as bachelor's degrees. Notably, the more traditional credential of an associate's degree is slightly less needed in the future than a high school diploma

**Figure 3.5 Reasons Employees Do Not Take More Advantage of Employer’s Education Benefits**



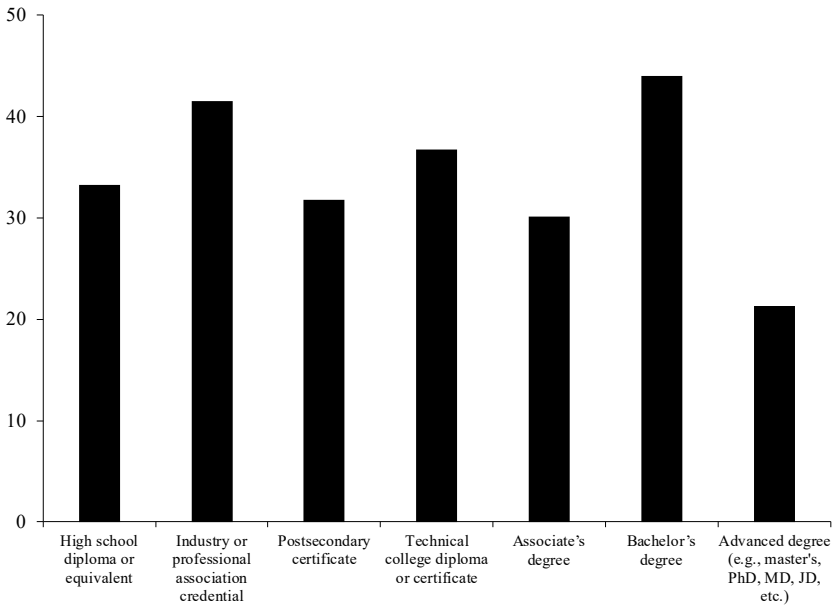
SOURCE: Bridging the Talent Gap, the Talent Alignment Survey.

NOTE: All data gathered from survey administration February 2016 through May 2017. Administration locations included multiple sites in Florida, Indiana, Kentucky, New Jersey, Tennessee, and Washington.

or its equivalent (30 percent versus 33 percent, respectively, expecting increased need). From the employer’s perspective, there is a massive shift in anticipated learning needs that marks a turning point for the education plans of future workers and learners.

*Action Opportunity:* Higher education and businesses have an immediate and urgent need to collaborate in this new learning arena. As witnessed with the emergent “bootcamp” concept, programs providing focused, specific, short-term, accelerated learning are meaningful portals into higher learning and higher-paying positions. Higher education institutions possess the expertise and resources that lend legitimacy and efficacy to this movement. Ironically, if higher education does not step into this area, it risks becoming less relevant in a culture that has begun to question the cost and utility of more traditional markers of learning. This is an ideal intersection of business, education, and governmental

**Figure 3.6 Percent of Employers Anticipating Increased Need for Workers by Credential**



SOURCE: Bridging the Talent Gap, the Talent Alignment Survey.

NOTE: All data gathered from survey administration February 2016 through May 2017. Administration locations included multiple sites in Florida, Indiana, Kentucky, New Jersey, Tennessee, and Washington.

involvement in which cooperative effort accrues to the benefit of the common good.

## SUMMARY

Survey findings show that a valuable relationship exists between employers who provide learning benefits and employees who take advantage of these programs. Until now, much of the evidence to support this notion has not been generalizable due to the anecdotal nature of the success stories. Consistently lacking in the research were data from

midsized and smaller employers describing the nature of employer-provided educational benefits, the need for employer-provided educational benefits, and affirmation of the ROI for the employer. While many, primarily larger, companies have been able to measure isolated ROIs for their learning benefits programs, these specific ROIs lack meaning when applied to companies such as small and medium-sized employers, which are operating under vastly dissimilar circumstances. Until now, for companies interested in leveraging their education benefits as a strategic asset, little if any data existed to help them make objective decisions in that direction.

Communities need objective information from which to inform interested employers about how to make investments in their workforce that reinforce employers' goals, the employees' educational attainment, and regional economic prosperity. Locally focused and data-driven approaches, such as Bridging the Talent Gap, provide this objective information, which is a tested, productive framework from which to build the case for more employers to enter into partnerships with their employees and their communities. When more of these partnerships occur, more businesses have an opportunity to thrive, and ultimately more individuals have an opportunity to succeed.

## Notes

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1. See <http://cityobservatory.org/talent-and-prosperity> (accessed March 14, 2018).
2. See [https://www.luminafoundation.org/goal\\_2025](https://www.luminafoundation.org/goal_2025) (accessed March 14, 2018).
3. See <https://www.sba.gov/managing-business/running-business/energy-efficiency/sustainable-business-practices/small-business-trends> (accessed March 14, 2018).
4. See <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (accessed March 14, 2018).
5. Some survey questions contained in the Bridging the Talent Gap Talent Alignment Survey are from the Society for Human Resource Management's (SHRM's) "Local Skills Shortages" survey and are used with permission from SHRM.

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# 4

## **Apprenticeship Benefits and Costs**

### **A Roadmap to Measurement**

Jessica Nicholson  
Ryan Noonan  
Susan Helper  
David Langdon

Some studies have estimated the benefits of apprenticeships to U.S. workers or society, but there is very little research on how apprenticeships benefit U.S. businesses. In 2016, researchers conducted a study (Case Western Reserve University and U.S. Department of Commerce 2016) to better understand the costs and benefits of a diverse set of Registered Apprenticeship programs in 13 firms and intermediaries, such as nonprofits and labor unions, from different states and across the manufacturing, health care, retail trade, and information technology (IT) sectors.

Interviews and site visits with each entity resulted in a road map to help companies measure the costs and benefits of their apprenticeship programs. Firms that are considering a new apprenticeship program, just starting one, or with one well under way all could use the road map to improve their current or future programs. Detailed data analysis from two firms show a positive return on investment relative to filling the jobs by another means.

#### **WHAT IS APPRENTICESHIP?**

The U.S. Department of Labor (DOL) defines Registered Apprenticeship programs as “innovative work-based learning and postsecond-



ary earn-and-learn models that meet national standards.” These programs have five defining features:

- 1) Participants are paid by employers during training.
- 2) Programs meet standards for registration established by the DOL or federally recognized State Apprenticeship agencies.
- 3) Programs provide on-the-job learning and job-related classroom or technical instruction.
- 4) On-the-job learning is conducted under the direction of one or more of the employer’s personnel (mentors).
- 5) Training results in an industry-recognized credential that certifies occupational proficiency.

At a minimum, programs must combine classroom instruction with paid on-the-job training that teaches workers practical skills, and the full apprenticeship must last at least one year. The classroom training is usually tuition free to the apprentice. Many of the companies with whom researchers spoke also pay hourly wages or a flat stipend to the employees for their classroom time. Some firms provide all classroom training in-house, while some partner with local community colleges to outsource this training while providing hands-on training at the company. Others partner with other firms to form consortia, like Apprenticeship 2000 or the North Carolina Triangle Apprenticeship Program, to jointly provide classroom training to apprentices across several firms all at once.

Mentors take time from their regular duties to guide the apprentice’s acquisition of technical skills, help integrate the apprentice into the company, and pass on practical knowledge. Although the mentor may also be the apprentice’s supervisor, the roles and responsibilities of mentor and supervisor are distinct. A supervisor provides administrative oversight and may or may not have experience in the apprentice’s occupation, whereas a mentor oversees the apprentice’s on-the-job training as an experienced worker in that occupation.

Other types of work-based learning share many elements of apprenticeships. For example, internships and apprenticeships both provide work experience. Apprenticeship, however, is not just work experience, nor is it just on-the-job training to do a specific task. Other types of on-the-job training can involve formal, paid hands-on training, and for-

mal classroom lessons, like apprenticeships. A registered apprenticeship provides formal classroom and on-the-job training under a mentor, includes pay progression, and culminates with the apprentice graduating with a certification (and in some cases, multiple certifications) showing he or she is fully proficient to do a job. In the vast majority of the cases, apprentices transition directly into permanent employment after graduating.

## STUDY METHODOLOGY

Researchers sought to understand why firms choose apprenticeship as a training strategy and what makes apprenticeship successful by studying organizations across a variety of industries, occupations, regions, and firm sizes. Notably, the study group is not representative of all firms and intermediaries that have considered or started apprenticeship programs. However, even with this small sample, similar themes and challenges emerged across the organizations, as detailed in the full report.

Researchers conducted phone interviews, primarily with senior human resources managers and production managers, who noted anecdotal evidence that apprenticeships benefited employers. Most firms easily provided some cost information, such as the cost of hiring workers off the street versus apprentices or the cost of training and educating one apprentice. However, it was evident that most firms did not carry out full cost and benefit analyses to know the full impact of their apprenticeship programs.

Specifically, few of the 13 organizations had data on the benefits they identified from their apprenticeship programs. One barrier to doing so was that key benefit data are derived from companies' production metrics, while cost data come from human resources or payroll information. Most firms did not blend those data sets to examine how their productivity measures related to how workers were hired and trained. The few firms with solid data on benefits did weigh these data against program costs, and one even went as far as calculating a measure of the firm's return on investment (ROI) for apprentices versus other hires. Such complete analysis, however, was not the norm. Following the ini-

tial interviews, researchers visited several firms that offered to share cost and benefit data and calculated ROI for apprenticeship programs.

## **ROAD MAP FOR MEASUREMENT**

With information collected through interviews and site visits, consistent themes emerged regarding cost and benefits of apprenticeship programs. Evaluating success is much easier if firms collect data from the beginning or even prior to starting their program. Regardless of when data collection begins, firms should consider alternative scenarios, or “counterfactuals,” to evaluate how apprenticeship compares to other ways of building a skilled workforce (such as hiring off the street, using temporary or contract workers, or paying existing staff overtime).

The following six steps will help firms measure the return to investing in apprenticeships and improve their programs over time. While they may seem obvious, they are not necessarily easy to implement. The rest of this chapter offers a general approach to completing these six steps and provides examples of best practices.

### **DETERMINE THE TOTAL COSTS OF APPRENTICESHIP AND THE COSTS OF ALTERNATIVE HIRING METHODS**

For most firms, identifying costs is relatively straightforward. Table 4.1 provides some examples of these costs, and the following sections provide more detail about how they are defined and measured.

#### **Fixed Costs**

Some costs remain more or less constant regardless of the number of apprentices in a program. To a large extent, these “fixed costs” represent the cost of setting up the program in the first place. Firms can develop a curriculum in-house or they can outsource this job to a local community college, workforce development organization, intermediary, or other partner organization. Modifying a preexisting curriculum,

**Table 4.1 Costs of Apprenticeships**

| Fixed costs               | Variable costs                          |
|---------------------------|---|
| Curriculum development    | Wages and benefits of apprentices       |
| Equipment purchases       | Time provided by mentor                 |
| Staff time spent on setup | Supplies and uniforms                   |
| Overhead and management   | Tuition, books, and classroom materials |
| Classroom space           |   |
| Recruitment               |   |

such as an associate’s degree program, may be relatively inexpensive. Developing a new approach from scratch can be fairly costly, whether done by staff on the company payroll or by a private agent for a fee.

Purchases of equipment that can be used by all apprentices and by future classes also count as fixed costs. Hypertherm, a New Hampshire–based precision manufacturer, teaches students in the classroom using the same kinds of machines they will later operate on the factory floor. Dartmouth-Hitchcock, a medical center also in New Hampshire, provides each of its medical assistant apprentices with a loaner laptop to use for the duration of the program and uses a projector and models of various organs in the classroom to teach students about human anatomy.

Most of the 13 programs in the study relied on at least one staff member to manage the program, and some maintained a larger staff. These staff members managed relationships with consortia, educational institutions, community groups, government agencies, and even other groups within the company. They usually monitored overall performance of the program and managed records as well. At many firms, the staff who managed the apprenticeship programs spent the rest of their time with other workforce management or operational tasks.

It is also important to count what economists would call “opportunity costs”—that is, the cost of using a resource for apprenticeship rather than another purpose, such as facility space used for apprenticeship functions. Many companies repurposed conference rooms or other spaces within the existing facility to train their students. Others assumed facility costs directly when they built or retrofitted spaces. These costs can be significant, depending on the size and nature of the training facility—Hypertherm spent \$2 million to construct the Hypertherm Technical Training Institute to train their skilled manufacturing workers.

Recruiting costs are twofold: identifying the target population and reaching it.<sup>1</sup> Job postings, participation in career fairs, and presentations at local high schools or colleges all entail hard costs and staff time to attend events.

### **Variable Costs**

Wages and benefits, which vary based on the number of apprentices in the program, comprise the largest costs associated with apprenticeship programs. Most, though not all, of the firms in the study paid their apprentices for on-the-job duties and classroom time, and also paid for apprentices' tuition, books, and supplies.

The time that mentors spend teaching apprentices, and therefore not doing their own production work, represents another opportunity cost for companies. One way to measure this cost is to estimate the output of mentors, prorated to reflect the percentage of their work time spent as mentors.

### **Adding up the Costs**

The total per-apprentice costs of the 13 organizations ranged from under \$25,000 to around \$250,000. This limited sample portrays the large variation in per-apprentice costs across companies. All the companies, whatever their apprenticeship investments, believed that the pay-off justified the cost.

Dartmouth-Hitchcock Medical Center provided a detailed breakdown of costs for its medical assistant apprentice program, including classroom training, tuition, on-site classroom space, wages of apprentices, a workforce development consultant, and two apprentice supervisors. These costs totaled approximately \$60,000 per apprentice for its one-year program.

A fundamental goal of companies is to hire and retain skilled workers, and apprenticeships are just one way to do so. Many of the costs listed above are also incurred when the job is filled through a direct hire of a fully skilled worker, the contracting of a temp worker, increasing the hours of existing staff, or some other method. Firms need to compare the costs of an apprenticeship program to the costs of these alternative hiring methods when considering or evaluating an apprenticeship

program. For example, although wages make up a significant portion of apprenticeship costs, an apprentice's labor cost is usually less than that of an off-the-street hire. Only one firm in the study regularly did this type of cost analysis, as well as a benefit analysis. It noted a positive ROI from its multiple apprenticeship programs.

## **DETERMINE THE MEASURABLE BENEFITS OF APPRENTICESHIPS**

While calculating costs is fairly straightforward, determining the benefits of an apprenticeship program is often much more challenging. Many costs associated with running an apprenticeship program appear on a company's balance sheet or accounts payable, but the benefits of apprenticeship rarely do.

All the organizations in the study believed that there were sizable short-term benefits realized during the apprenticeship period and other long-term benefits down the road. Table 4.2 lists the most common benefits. Many firms believed that their apprentices became as equally productive as—or even more productive than—traditional employees before the apprenticeship was over. As a result, apprentices' production work more than offset their wage and tuition costs.

### **Production Metrics**

To measure the production-related benefit, a firm should emphasize the quantitative metrics used to judge the success of its particular business, such as parts per minute, number of prescriptions filled, or computer coding projects successfully completed. Performance reviews are not a good substitute for these metrics. They are ubiquitous but can be subjective and difficult to quantify. Rigorous analysis of key metrics can uncover the extent to which apprentices and graduated apprentices have higher productivity than workers trained in other ways.

The 13 organizations frequently cited the benefits of classroom training, including the theory of their work processes. Employees learned not just what tasks needed to be performed but why. This broad knowledge helped them diagnose potential production issues, quickly troubleshoot problems after they occurred, and improve on-time delivery.

**Table 4.2 Common Benefits of Apprenticeships**

| Production  | Workforce   | Soft skills                                      |
|---|---|--|
| Output during the apprenticeship at a reduced wage                              | Reduced turnover  | Employee engagement and loyalty                  |
| Higher post-apprenticeship productivity relative to similarly tenured employees | Pipeline of skilled employees   | Greater problem-solving ability and adaptability |
| Reduction in mistakes or errors   | Better matching of employee skills and character with employer needs and firm culture<br><br>Lower recruiting costs<br><br>Development of future managers | Reduced need for supervision                     |

**Workforce Metrics**

Many other key benefits of apprenticeship programs are not directly related to production outcomes or easy to measure, but companies tried to take them into account. These benefits, if measured, would likely increase the proven payoff of apprenticeships.

Among the most-cited benefits was reduced employee turnover—in many cases, firms considered it even more important than increased productivity. During site visits, apprentices described a feeling of loyalty to their hiring firm for the opportunity the apprenticeship provided them and for the relationships they developed along the way with other apprentices and their mentors. CVS-Health officials said employees who started at the company as apprentices were twice as likely to stay. Blue Cross Blue Shield of South Carolina (BCBSSC) cited an attrition rate of 4 percent for employees who graduate from their apprenticeship program, compared to a 13 percent industry average. Dartmouth-Hitchcock went further, noting that its apprentice medical assistants reduced workload and stress of other employees, including physicians, and drove a companywide reduction in turnover.

Companies also save on potential recruitment costs by having a pipeline of skilled employees available to replace retirees or others who leave the company. Building trades traditionally have used an apprenticeship model to move workers from apprentice to journey worker to supervisor, providing guidance and mentorship to new apprentices at every step. BCBSSC has adopted the same model, with each employee responsible for training employees at the level below. Dr. Schneider, an auto parts manufacturer in Kentucky, has not conducted a formal study on the ROI of its apprenticeship program but believes that apprenticeship saves the firm 20 percent on recruitment costs alone, aside from the other benefits the program provides.

Many firms used apprenticeships to find workers from a diverse, previously untapped pool of candidates, including women, minorities, veterans, and the long-term unemployed. Apprenticeships offered these candidates an opportunity to gain entry to a field or industry that otherwise may have been difficult to enter. CVS-Health, in partnership with community organizations, was a strong proponent of this approach, citing both high-minded goals like corporate social responsibility and the everyday need to expand the labor force and fill positions.

Finally, a long-term measure that firms can use is leadership development. Many firms believed that the intensive training, immersion in company culture, and strong theoretical underpinning provided by apprenticeships were ideal for preparing future managers. Other soft skills that many programs emphasized, such as attendance, writing, and public speaking, were also key for developing future leaders. BCBSSC estimated that 22 percent of graduates from its apprenticeship program have been promoted to leadership roles.

### **Soft Skill Metrics**

Apprenticeships are likely to provide other benefits that are even harder to measure. For example, former apprentices might help to recruit friends to new positions, reducing the workload for supervisors.

Because they understand the principles behind their work, apprentices may be more “flexible” in several senses: they carry out a greater variety of routine tasks at a point in time (leading to increased capacity utilization), they can do higher-value tasks (such as those requiring judgment or initiative), and they can facilitate innovation because they



learn quickly and have problem-solving skills. Such broad skills can be especially difficult to capture through regular production or performance metrics.

### **Adding Up the Benefits**

The value of apprentice output should be compared to a baseline “counterfactual” level of output for an employee that would have been hired had an apprentice not been available.<sup>2</sup> Many companies in the study, including LaunchCode, Siemens, and Hypertherm, claimed that apprentices were significantly more productive than other hires. In some cases, firms truly cannot find workers that meet their minimum standards and, as a result, turn down or delay work. When this happens, the counterfactual level of output is zero, and the entirety of an apprentice’s output should be counted as a benefit to the firm.

The firms studied in this research cited varying benefits from apprenticeships. Not every metric will matter to every firm, so it is important for firms to consider which benefits to specifically measure in advance. For some companies, long-term loyalty may not be an important goal. If an apprentice is productive during his or her training, and then chooses to leave after completing the program, a firm may have already recouped the costs of its investment. BCBSSC requires apprentices to continue working for two years after program completion, essentially guaranteeing a benefit for its investment. For a consortium, such as Apprenticeship 2000 or the North Carolina Triangle Apprenticeship Program, one of the key outcomes may be the creation of a robust local labor force with manufacturing skills that are readily transferable between member firms. Such an ecosystem benefits all partners, even if any given apprentice may not remain in a single firm for a long time.

### **LOOK WITHIN DIFFERENT COMPANY DEPARTMENTS FOR APPLICABLE DATA TO MEASURE THOSE BENEFITS, AND BEGIN COLLECTING DATA EARLY AND OFTEN**

Once a firm has identified expected benefits from an apprenticeship program, it must collect the data to measure those benefits. It is impor-

tant to begin gathering data early, even if a full evaluation of multiple graduated cohorts is years off. Early data collection may allow a firm to adjust program size and classroom and on-the-job training if the program is not providing the desired initial benefits.

To measure all benefits, firms may need to creatively blend new data with existing data from across departments, units, or systems within their organization. For example, in larger organizations, the human resources department has personnel data about wages, benefits, and turnover; the finance department has cost and revenue data that may help measure productivity; and operations has data on the real output of employees.

Organizational barriers are common. In many firms, particularly large ones, one department may be unaware of the existence of data in other departments that are relevant to the cost-benefit analysis of apprenticeships.

Firms should also compare certain measures both before and after the implementation of an apprenticeship program, such as the baseline level of productivity, turnover, and errors. To do so, firms need to have a time-series of consistent data that span several years. For example, measuring the net benefits of a four-year apprenticeship program could require data spanning a decade or more to get a clear picture of productivity before the implementation of the program, the period when apprentices are in the program, and the period after the program.

It is generally easier for firms to precisely measure performance metrics for the entire organization, rather than an individual level. For this reason, firms should first focus on aggregate performance of apprentices within a work unit versus aggregate performance of other workers in those units. Once those measures are fully understood, data should be collected on individual employees to the extent possible. It is essential to separate the analysis of the apprentice program from performance evaluation of individuals. Issues that occur early in the life of a program are not necessarily the fault of individual apprentices or managers.

## **ACCOUNT FOR OTHER CHANGES AT THE COMPANY, AS WELL AS EXTERNAL FACTORS, THAT AFFECT PROGRAM PERFORMANCE**

In any company, it is rare for new initiatives, such as an apprenticeship program, to be adopted independently of other organizational changes. New work processes, new technologies, and changes in training, for instance, also contribute to company and work unit performance. Detailed data from before and after any such change can help illustrate how other variables affect overall performance.

Health care providers such as Dartmouth-Hitchcock have experienced both internal and external changes over the last several years. While Dartmouth-Hitchcock's medical assistant apprenticeship is one factor in the company's increased service metrics over that time, the hospital also cited electronic medical records, the Affordable Care Act, and the overall aging of the population as factors changing the kinds of work Dartmouth-Hitchcock does and how it does that work.

External factors may account for observed changes in performance. Increased company productivity may have to do more with a general economic upturn than with the creation of an apprenticeship program. Correlation does not mean causation. Many factors combined to affect a firm's performance metrics, and detailed data gathered with high frequency help disentangle the individual effects of each factor.

## **ANALYZE AND SHARE THE COST AND BENEFITS DATA ACROSS THE COMPANY**

Performing ROI calculations to understand the value of an investment is nothing new for any company. The goal of this road map is to help companies think comprehensively and creatively about the costs and benefits of apprenticeships to determine the most realistic ROI of apprenticeship programs.

All the companies in the study believed that the benefits of apprenticeships outweighed the costs, but many wanted more complete ROI numbers to make more evidence-based decisions, market to prospective

employees, and convince senior management and boards to approve funding to expand apprenticeship programs. These firms believe that workforce development and talent acquisition strategies, such as the decision to train apprentices, closely interact with decisions in areas such as technology and marketing. Firms with deeply trained workers can invest in more complex equipment and may be able to target more demanding market segments, such as those requiring better customer service or faster innovation.

## MAKE IMPROVEMENTS BASED ON THE ANALYSIS

As with any new business process, firms often learn as they go. In interviews, firms shared some of the lessons they learned during planning and implementation of their apprenticeship programs. Below are some examples of tweaks firms made because of experience.

**Mentor assignment.** Apprentice-mentor pairs may not always turn out to be good matches, for reasons related to training needs or personality. Assessing these relationships is important, and firms should not be afraid to make changes to improve matches.

**Apprentice uniforms.** It may be useful to have a method to differentiate apprentices from other employees for safety or other reasons. Siemens first had apprentices wear different uniforms than experienced employees, but this made it difficult for apprentices to fit in with existing employees and reduced camaraderie and teamwork. Since then, apprentices wear the same uniforms as other employees but have a special badge sewn onto the uniform. This small difference signifies that apprentices are still in training mode but also allows them to blend in and feel like part of the team with experienced workers.

**Scheduling.** Dartmouth-Hitchcock had trouble in the early stages of a pharmacy technician apprenticeship program because of shift schedules that were incompatible with apprentice work-life balance. Many apprentices were scheduled to work late into the night and return early the next morning. It is difficult for any employee to perform pro-

ductively on little sleep, but it may be even harder when that employee is also engaged in an intense learning process. Dartmouth-Hitchcock subsequently adjusted the scheduling process before relaunching its pharmacy technician apprenticeship program.

As these few examples highlight, no company gets it exactly right on the first try, and what counts as “right” often is a moving target. Firms’ needs change over time, and apprenticeship programs should also evolve to remain useful. The companies that the researchers profiled provide a wealth of experience for other firms looking to develop apprenticeship programs.

## **CONCLUSION: MEASURING THE HARD TO MEASURE**

Leaving out a hard-to-measure cost or benefit is equivalent to assuming its value is zero. For example, the case for apprenticeship at Siemens is strongest when it is based on apprentices’ increased productivity and increased flexibility in performing production tasks. If, for example, the flexibility of apprentices were not valued in the ROI calculation, the case for apprenticeship would be much weaker. It is difficult to put a value on an apprentice’s deep understanding of fundamental principles and hands-on knowledge. However, firms may want to guess at reasonable numbers, drawing on accounts such as this one to generate a range of estimates, or adopt techniques that account for variance in capacity utilization, such as the portfolio analysis described in the Siemens case in the full report (Case Western Reserve University and U.S. Department of Commerce 2016).

The benefits of apprenticeships for the firms studied were greater than most firms had estimated. Siemens obtains at least a 50 percent rate of return on its apprenticeship program compared to hiring machinists from other sources. Most of the gains can be attributed to the flexibility that Siemens gained in employing workers in Charlotte, North Carolina. Apprentice graduates’ ability to perform various tasks and work on multiple machines helps the plant make full use of spare capacity, when available, allowing the plant to take on new work repairing generators, a task that involves more judgment than standard production work. Because Siemens’ apprentice graduates have a strong grasp

of the principles of their work, they can think through more complex processes, making them well suited for tasks that involve judgment.

Dartmouth-Hitchcock found that its medical assistant program nearly paid for itself within the first year. The program had an internal rate of return of 40 percent compared to using overtime with existing medical staff, and it was essential to a major expansion and reorganization of its medical services provisions. Reducing the long-term use of overtime also helped reduce staff burnout and turnover while maintaining high-quality care.

This report thus shows that the performance metrics used by companies may not capture the full benefit of investing in apprenticeship programs. In many cases, firms already have the existing data across departments to highlight such benefits—it is just a matter of merging and tracking such data over time.

## Notes

This chapter is a heavily revised excerpt of material previously published as “The Benefits and Costs of Apprenticeship: A Business Perspective.” Please see <http://esa.doc.gov/reports/benefits-and-costs-apprenticeships-business-perspective> for the full version of the report (Case Western Reserve University and U.S. Department of Commerce 2016).

1. Strictly speaking, recruiting costs are not entirely fixed. Researchers decided to group it with fixed costs because it is not a function of the number of apprentices hired, but rather the amount of outreach companies wished to conduct to reach a sufficiently large pool of potential job applicants. Interestingly, some firms found that recruiting costs were lower for apprenticeships than for finding off-the-street hires.
2. For many companies, filling key occupations through apprenticeships or other means is not an either/or decision. Companies typically filled positions in multiple ways. Knowing the full costs and benefits of apprenticeships versus other recruiting methods helps firms determine what share of a specific occupation they would like to fill through apprenticeships.

## Reference

Case Western Reserve University and U.S. Department of Commerce. 2016. "The Benefits and Costs of Apprenticeship: A Business Perspective." Cleveland, OH, and Washington, DC: Case Western Reserve University and U.S. Department of Commerce. <http://esa.doc.gov/reports/benefits-and-costs-apprenticeships-business-perspective> (accessed February 20, 2018).

## 5

# Engaging Manufacturers to Promote Skills Development

Katherine McClelland

*We can and must improve American education and technical training. . . . One of the great bottlenecks for this country's economic growth in this decade will be . . . a great demand and an undersupply of highly trained manpower.*

—President John F. Kennedy (1962)

The challenge of workforce readiness has ebbed and flowed throughout U.S. history, often following the strength of the economy. Yet, while unemployment remains low in the wake of the Great Recession, 80 percent of manufacturers report a moderate or serious shortage of qualified applicants for skilled and highly skilled production positions. This is despite the fact that manufacturing executives are willing to pay more than market rates (Accenture and Manufacturing Institute 2014). This challenge is only expected to increase as a result of a retiring skilled workforce. By 2025, 2 million manufacturing jobs are expected to go unfilled because of an estimated 2.7 million retirements and 700,000 newly created jobs from natural business growth (Deloitte and Manufacturing Institute 2015). Many debate the exact nature of the skills gap and the numbers that support it, but students across the country are not coming out of the education system with skills matching the needs of the nation's employers. This is especially true in manufacturing, where the real cost to manufacturers because of skill shortages is up to 11 percent of net earnings. A survey of manufacturing executives reveals that they believe the emerging workforce is lacking technical and computer skills, problem-solving skills, basic technical training, and math skills (Accenture and Manufacturing Institute 2014; Deloitte and Manufacturing Institute 2015).<sup>1</sup>



At the same time, half of recent college graduates report that they are not using skills they learned in college at work, and 86 percent say they are learning new skills outside college (Rockefeller Foundation and Edelman Intelligence 2017). Community and technical colleges are playing an important role in upskilling, and 54 percent of working adults now believe it is “essential” to get training to update skills throughout their working lives (Pew Research Center 2016).

## **COMMON WORKFORCE CHALLENGES MANUFACTURING EMPLOYERS FACE**

### **Costs of Workforce Development: Real and Perceived**

Employers are increasingly taking charge of their workforce challenges. Instead of believing they can’t afford to train and upskill internal talent, many employers now believe they cannot afford *not* to. A survey of manufacturers finds that the most common strategy to upskill employees in advanced manufacturing is to provide training in-house, followed by recruiting local STEM students and offering outside vocational training (PWC 2016). This training, however, comes at a cost. Manufacturers, when providing training in-house, report investing approximately \$3,000 per new hire and approximately \$1,500 per incumbent employee in training each year (Accenture and Manufacturing Institute 2014).

To address these costs, many regional and sectoral partnerships have emerged. Instead of competing with each other for business, employers are focused on working together to address their similar workforce challenges. These solutions often come in the form of partnering with local community or technical colleges and workforce intermediaries. Employers also are looking for longer-term strategies to invest earlier in the talent pipeline at the middle and high school levels.

### **The Need for Early Engagement with the Talent Pipeline**

Engaging the talent pipeline early is important because a common challenge among manufacturers is the negative perception of the industry and its corresponding career options. According to a recent study,

although over three-quarters of those surveyed believe that manufacturing is important to Americans' economic prosperity and standard of living, one-third of respondents would not encourage their children to pursue a manufacturing career (Deloitte, Manufacturing Institute, and National Association of Manufacturers 2017). However, survey respondents who were familiar with manufacturing were nearly two times as likely to encourage children to pursue a manufacturing career. This finding demonstrates the importance of increased visibility of manufacturing opportunities in communities across the United States for both students and parents. Additionally, 64 percent of students surveyed by the Student Research Foundation and enrolled in career and technical education say their own interests and experiences have the strongest impact on what academic and career pathway they will choose. Early exposure to the broad array of manufacturing and employment opportunities is extremely important in ensuring a strong talent pipeline in the future.

### **Fears of Automation and Job Loss in Manufacturing from within the Potential Talent Pool**

Another common challenge that manufacturers face is the perception that automation will decrease the number of manufacturing jobs. However, only 17 percent of surveyed manufacturers are reporting that robots and automation will result in hiring fewer employees. Around 37 percent of respondents believe that the adoption of advanced manufacturing technologies will result in hiring additional employees, while 45 percent said it will have no impact on hiring (PWC 2016). With advancing and emerging technology, educators and employers must unite to face the challenge of how to shape four principles for creating a strong manufacturing talent pipeline.

No matter who is taking the lead in organizing a local, statewide, or regional workforce development strategy, multiple partners are required to create a cohesive system responsive to industry demands. High-quality workforce partnerships offer various ways for employers to engage with the workforce system, such as talent pipeline development, engaging more females in the workforce, or retention and upskilling. Partnerships strengthen communication and allow workforce entities to meet employers where they are and find solutions to real-time challenges.

To ensure that the employers' perspectives were accounted for in addressing workforce challenges, the National Association of Manufacturers (2014) assembled a Task Force on Competitiveness & the Workforce, made up of 17 National Association of Manufacturers board members representing large and small manufacturers. This task force outlined four guiding principles for building a skilled workforce. These principles focused on manufacturers coming together to speak with one voice regarding their workforce needs and engaging with key stakeholders in their community to build a system that delivers a sustainable pipeline of skilled talent. These four principles include:

- 1) Determine your organizations' hiring needs and assess available training programs or whether other options are needed.
- 2) Align and collaborate with other manufacturers.
- 3) Engage with educational institutions and other training providers.
- 4) Create a system to build and sustain a talent pipeline by engaging with schools and promoting manufacturing as a career choice.

An intermediary between employers and educators is often crucial in helping articulate needs expressed by employers and translate such needs to action items carried out by academic partners or workforce agencies. For instance, the Manufacturing Institute, in partnership with the National Aviation Consortium, created a return on investment calculator to assess the business impact of the skills gap. The calculator measured potential savings based on reduced employee turnover, reduced hiring costs, or replacing on-the-job training with partnerships with local education or training institutions. This can be especially helpful as intermediaries or education and training partners work to make the case for engagement to employer partners.

## **EMPLOYER-LED BEST PRACTICES**

Some of the most promising initiatives across the country involve local industries partnering with nearby high schools, community colleges, or college systems to bring relevant classes to their institutions,

while also bringing students into the workplace to gain on-the-job experience. This is beneficial for both the companies that build and sustain a steady stream of qualified workers and the schools that provide students with high-quality work experience while earning a salary and academic credit. Upon completing courses, students will be equipped with an industry-backed certification and have more opportunities to continue through school or their respective career pathways.

The following sections detail similar initiatives employers have undertaken to address their talent challenges in their communities. When thinking about local replication of any of these best practices, it is important to remember that employers are not always ready to dive head first into costly or time-consuming projects to address their workforce challenges. A toolkit with a range of target areas and engagement opportunities allows workforce entities to meet employers where they are as they begin to craft solutions to their respective challenges. These examples provide a range of engagement, from a month or less to long-term systematic interventions, as well as across various focus areas in the talent pipeline.

## **Engaging All Levels of the Talent Pipeline**

### **Students, the future manufacturing workforce**

Providing early exposure to the wide range of manufacturing careers is a key step in creating a solid talent pipeline for years to come. Vermeer Corporation has taken an initial step to engage nearly 700 local students from 10 different schools in Pella, Iowa, targeting sixth and ninth grades by inviting them to an on-site annual Manufacturing Day event with the goal of expanding general knowledge of manufacturing and its careers. At 30 different activity areas, Vermeer team members spoke about their unique roles and skill sets, and how they impact the world. They offered a hands-on activity or question that complemented that discussion and/or highlighted a related STEM concept. Prior to the inaugural event, two Vermeer staff spent 30 hours over four weeks planning and organizing. In subsequent years, planning time is cut in half. On the day of the event, around 100 individuals staffed the event, including staff to welcome students and lead tours and activities. After just one day, 40 percent of surveyed students increased their under-

standing of manufacturing and 35 percent increased their desire to work in manufacturing.<sup>2</sup>

### **Entry-level talent**

To help ensure that their local manufacturing community has a pool of quality fabrication and assembly workers from which to choose, APSCO Power in Tulsa, Oklahoma, is providing students from three area high schools with on-site training and firsthand experience of what it's like to work in the dynamic and challenging field of manufacturing. In the fall, students tour APSCO's automotive parts fabrication and assembly facility, and in the spring, interested students are interviewed and selected for the Certified Production Technician (CPT) internship program. About 45 students participated in the 2017 CPT program. Interns train as a CPT for three hours a day from January to May and are paid \$10 an hour. Upon completion of the program, students receive a preemployment interview. ASPCO hires at least two interns, and other partner companies hire the remaining students. APSCO is the primary sponsor of the program and invests about \$1,000 per student for paid internships. The company has set up a nonprofit to raise funds and help offset the costs of the program.<sup>3</sup>

### **Incumbent leadership development and community engagement**

Manufacturers looking to increase visibility in their communities as well as provide leadership opportunities to their newest talent could follow Behlen Mfg. Co.'s example by creating a community ambassador model. Behlen created a Career Dream Team to spotlight a group of talented young employees from area manufacturers and related businesses (with STEM plus business needs) and had them play the role of ambassadors for their regional industry to local middle and high school education partners. They bring forward a message of inspiration, passion, and drive to potential talent pools who are starting or changing their career paths. Career Dream Team Ambassadors reach out to students and parents through classroom visits, career fairs, company tours, job shadowing, community events, and radio programs. Behlen designated an employee as the Dream Team Coordinator to build relationships with local manufacturers and schools, set monthly/bimonthly meetings with the ambassadors to discuss upcoming opportunities,

help with presentations, and serve as an overall resource. Whether they are speaking to students, women, or veterans, ambassadors help audiences understand and see themselves in the career pathway of various manufacturing jobs. The Career Dream Team is a low-cost, high-impact approach to inspiring the next generation of manufacturers, improving the regions' talent supply chain, and increasing companies' exposure in their communities.<sup>4</sup>

### **Upskilling incumbent talent**

Because technology is constantly advancing and continuous training is becoming necessary to maintain relevancy of skills and competencies, some employers have created continued learning requirements for incumbent workers. The manufacturing firm ATL Technology based in Springville, Utah, for example, commits to 40 hours of training a year for each employee and partners with Salt Lake Community College's (SLCC) Medical Device Manufacturing program to help employees fulfill this requirement. In four, eight-week-long courses, the employed students gain core knowledge and new skills needed to be successful in the medical device industry. The company's CEO, Brad Brown, even took the introductory course himself, reporting that he found the instructors to be "outstanding." From the program's beginning in 2015 through early 2017, 22 employees went through the program and took at least the introductory course. ATL Technology pays the program tuition for its employees and offers an incentive to take the course by providing a 1 percent pay raise for every completed class, with a maximum 4 percent raise. ATL Technology representatives indicate that the SLCC training helps reduce turnover by investing in its employees and that the company is experiencing 50 percent savings on training costs by partnering with a local community college.<sup>5</sup>

### **Employee retention strategies**

Manufacturers, especially small- and medium-sized employers, face several challenges with employee retention. In recent years, employees' personal finances have played a larger role, when even small bumps in the road can have major consequences for those with less than \$1,000 in savings (Huddleston 2016). Louisville, Kentucky-based manufacturer Universal Woods, a company with fewer than 250

employees, has attempted to address employee retention by embedding financial strategies into its corporate culture. These strategies aim to help reduce turnover by offering virtually all employees generous benefits that include a compensation package with a competitive wage, quarterly bonuses based on sales, a 401(k) retirement plan, unlimited paid vacation time, and health care benefits with affordable deductibles. Furthermore, the company also provides employees with holiday gift cards, an emergency \$1,000 loan program, and financial planning assistance.

In addition to their generous benefits package, Universal Woods works to upskill its incumbent workforce by offering on-site classes administered by Jefferson Community Technical College. These education programs include English as a second language and an assertive cross-training, on-the-job learning program to enforce the expectation that all employees will be trained to perform several jobs instead of being restricted or limited to one particular job. The company's retention strategy includes team-based leadership with minimal supervision companywide; providing lunch on overtime days or nights; incorporation of nonexempt employees into customer visits, student events, and plant tours; flexibility in scheduling for planned absences for children events, family issues, or appointments; and transparency of the company's financial information and plans. Despite the costs associated with these programs, Universal Woods' profitability has significantly increased since 2010, and the company has experienced a 43 percent increase in its employee retention rate.<sup>6</sup>

### **Engaging Target Populations**

According to leading executives, "There is a direct correlation between diversity and inclusion and profitability, including the speed and type of innovation, and diversity of thought" (Deloitte and Manufacturing Institute 2017). With this in mind, manufacturers are looking to recruit and retain new target populations, such as women and veterans. By engaging talent pools that are traditionally underrepresented in their industry, manufacturing executives are finding that their companies are improving profits and innovations.

## Women

Manufacturers across the country are looking for ways to recruit female talent to manufacturing and retain the talent that they have. In 2016, women totaled about 47 percent of the U.S. labor force, but only 29 percent of the manufacturing workforce, despite holding more than half of all U.S. managerial and professional positions across all industries (Bureau of Labor Statistics 2015). In a recent survey, respondents indicate that having women on leadership teams increases manufacturers' ability to deliver diverse perspectives in decision making, innovative and creative approaches and solutions, balanced organizational management, and improved financial performance (Deloitte and Manufacturing Institute 2017). A 2016 analysis shows that an increase from no females in corporate leadership to 30 percent representation is associated with a 15 percent increase in net profitability (Noland, Moran, and Kotschwar 2016).

When considering efforts to retain and grow female incumbent talent, women in manufacturing indicate that formal and informal mentorship programs, flexible work practices, and increasing the visibility of key leaders who serve as role models are the key drivers of their decisions to stay and grow in manufacturing (Deloitte and Manufacturing Institute 2017). To provide increased opportunities for exposure, the Manufacturing Institute created the STEP Ahead Initiative, an annual award and leadership program that honors female leaders in manufacturing. By nominating female incumbent talent, employers provide opportunities to connect talented workers to key leaders within the company and their community. Since 2013, the Institute has honored 672 women in manufacturing who have mentored and sponsored more than 300,000 individuals—from peers in the industry to school-age children (Deloitte and Manufacturing Institute 2017).

The firm Dudek & Bock in Chicago, Illinois, created a program to provide its female employees leadership opportunities and help the company build a talent pipeline for potential internships and future employees by exposing young girls to the diverse roles in manufacturing. Dudek & Bock Spring Manufacturing partnered with Triton College's GADgET (Girls Adventuring in Design Engineering and Technology) summer program. Designed to introduce girls between the ages of 12 and 16 to the world of manufacturing, this summer program



features a site visit for approximately 40 “GADgET Girls” hosted by the female employees of Dudek & Bock, which includes a facility tour and a “Lunch & Learn,” where female senior management discuss career opportunities available in manufacturing. GADgET is done in partnership with the Fabricators & Manufacturers Association and funded by the Chicago Foundation for Women, the Paul M. Angell Foundation, NICOR, and the Kinder Morgan Foundation, such that the company incurs few to no hard costs outside of staff time. Dudek & Bock dedicate two to three employees to plan for the half-day event, devoting around 15 hours, and four to five employees participate in the event for 3.5 hours.<sup>7</sup>

### **Veterans**

Evidence shows that recruiting veterans provides many advantages for employers, as veterans quickly learn new skills and concepts, perform well under pressure, work well in teams or independently, and have proven leadership skills (Institute for Veterans and Military Families 2012). Sandvik Coromant, headquartered in Sandviken, Sweden, with locations in the United States, has been capitalizing on this talent pool for over 50 years by providing training for veterans interested in manufacturing, allowing them to find opportunities to develop their careers in the manufacturing industry. The training takes place within their own facilities, online or with local institutions to help develop up-to-date curriculum with the latest modern manufacturing skills. Sandvik funds this training as part of its regular operations budget, comprising 6 percent of its research and development budget, including a designated full-time employment trainer.<sup>8</sup>

## **EMPLOYER-LED POLICY SOLUTIONS**

Federal legislation such as the Carl D. Perkins Career and Technical Education Act and the Workforce Innovation and Opportunity Act are in place to support the alignment of education and training programs to employers’ needs, but state policy also plays an important role in bringing partners together to address the regional workforce needs. Many of

the most successful models focus on supporting two-year institutions to address the changing needs of the state and local economy.

Kansas has been a leader in using state policies to engage students in college preparation and workforce development as early as eighth grade. Each student enrolled in grades 8 through 12 receives an individual career plan. The state also has created incentives for high schools to take advantage of dual enrollment, especially in Career and Technical Education (CTE), by awarding \$1,000 per high school graduate to the respective school district if a student earns an industry-recognized credential in a high-need occupation. These awards must be used to reimburse students for up to half the cost of an industry-recognized credential assessment. Additionally, high school students are eligible to receive free tuition for college-level CTE courses, including night and online classes. The state has also implemented the Kansas WORKReady! Certificate, a credential that gives employers and job seekers a uniform measure of key workplace skills. These initiatives have given students opportunities to access postsecondary education, while local employers can count on a more reliable stream of qualified workers to fill existing skills gaps.<sup>9</sup>

South Carolina has focused on apprenticeships to help fill the needs of employers across the state through the creation of Apprenticeship Carolina in 2007, and as of mid-2017, served 18,117 apprentices in 876 apprenticeship programs, with close to 6,500 active apprentices.<sup>10</sup> Employers who take on apprenticeships are awarded a \$1,000 tax credit per apprentice and are given access to complimentary apprenticeship consultants to guide them through the registered apprenticeship development process.

While governor of Indiana, Vice President Mike Pence and the state legislature proposed several bills targeted at creating industry partnerships to bolster internship opportunities for students, such as Indiana Works Councils and Indiana Career Council, and to better align education and workforce efforts. Both councils draw on public and private sector expertise to coordinate participants in the state's educational, job skills, and career training systems and provide work-based learning opportunities for high-wage, high-demand jobs. The 11 regional Works Councils focus on alignment of regional CTE training with local business needs and have awarded millions in innovation CTE training grants to school-business partnerships. The Career Council's mission

encourages college completion and/or attainment of postsecondary skills, and improved performance of the state's career services to students and adults. Indiana has also created several career academies, which serve as one of many options for public high school and middle school students.<sup>11</sup>

Tennessee has created a statewide Drive to 55 campaign to get 55 percent of Tennesseans equipped with a college degree or certificate by the year 2025. As part of the campaign, the state legislature established Tennessee LEAP (Labor Education Alignment Program) in 2013 after receiving calls from around the state asking for greater communication between education and industry to proactively align the supply of graduates to future industry needs. LEAP has two main components: a \$10 million Skills Gap competition and the creation of a Workforce Sub-cabinet to review applications for the Skills Gap competition. To apply for the Skills Gap grants, a group must create a Drive to 55 regional alignment group that will focus on existing best practices and forecasting future regional workforce needs to fund program development or supply necessary equipment.<sup>12</sup>

Despite the numerous changes needed in the education system and in state and federal policies to address both the skills gap and the need for upskilling to keep up with the rapid pace of innovation in the United States, many companies and schools have enacted partnerships and policies upon which to build their own strategies. These strategies are different, depending on local and regional needs and opportunities. No one company or education provider can accomplish this feat alone; however, policies at the state and federal levels should help incentivize firms to support and sustain these partnerships moving forward to ensure a U.S. workforce that is equipped for the twenty-first century.

## Notes

1. Percentage of executives indicating current employees are not sufficient in the following key skills: technology/computer, 70 percent; problem solving, 69 percent; basic technical training, 67 percent; math, 60 percent.
2. See "Vermeer's Manufacturing Day," <http://www.themanufacturinginstitute.org/~media/c950cfab74854842b8bd7671345c3558.ashx> (accessed February 6, 2018). To learn more about Vermeer's Manufacturing Day, contact Teri Vos, Corporate Communication, at [terivos@vermeer.com](mailto:terivos@vermeer.com).

3. See “APSCO’s Certified Production Technician Program, <http://www.themanufacturinginstitute.org/~media/c533779524d34b31b6178ab2d17412fa.ashx> (accessed February 6, 2018). For more information on APSCO’s CPT Education Program, contact Stephanie Cameron at [scameron@apscopower.com](mailto:scameron@apscopower.com).
4. See “Behlen’s Career Dream Team,” <http://www.themanufacturinginstitute.org/~media/1e294ce3983e46f1825bcb18d9b7edad.ashx> (accessed February 6, 2018). To learn more about Behlen’s Dream Team, contact Juli Thelen at [juli.thelen@behlenmfg.com](mailto:juli.thelen@behlenmfg.com).
5. See “ATL Technology’s Biotech Training Partnership,” <http://www.mfgtalenthub.com/wp-content/uploads/2017/06/ATL-Technology-1.pdf> (accessed February 6, 2018). To learn more about ATL Technology’s Biotech Training Partnership, contact Kay Carter of Salt Lake Community College at [kay.carter@slcc.edu](mailto:kay.carter@slcc.edu).
6. See “Universal Wood Education Assistance Program,” <http://www.themanufacturinginstitute.org/~media/663dc4dcbbc948278e0c168b5b86cab4.ashx> (accessed August 2017). For more information on Universal Woods’ Employee Retention Program, contact Tim Holt at [timholt@prodigy.net](mailto:timholt@prodigy.net).
7. See “Dudek & Bock’s GADgET Girls Partnership,” <http://www.mfgtalenthub.com/wp-content/uploads/2017/06/Dudek-Bock.pdf> (accessed February 6, 2018). To learn more about Dudek & Bock’s GADgET Girls, contact Kathleen Dudek at [KDudek@DUDEK-BOCK.com](mailto:KDudek@DUDEK-BOCK.com).
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9. See “Career and Technical Education in Kansas Fact Sheet,” <http://www.kansascommerce.com/DocumentCenter/Home/View/1286> [https://www.kansasworks.com/ada/skillmatch/skl\\_WorkReadyOverview.cfm](https://www.kansasworks.com/ada/skillmatch/skl_WorkReadyOverview.cfm) (accessed February 6, 2018).
10. See Apprenticeship Carolina, <http://www.apprenticeshipcarolina.com/> (accessed February 6, 2018).
11. See Indiana Career Council, <http://www.in.gov/icc/> (accessed February 6, 2018).
12. See Drive to 55: LEAP, <http://driveto55.org/initiatives/tennessee-leap/> (accessed February 6, 2018).

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## 6

# Power Skills for Jobs of the Future

Jeanne C. Meister

### CHANGE IS OUR ONE CONSTANT IN THE NEW WORLD OF WORK

Award-winning historian Norman Davies once compared historical change to an avalanche: “The starting point is a snow-covered mountainside that looks solid. All changes take place under the surface and are rather invisible.” The one certainty for anyone in the path of an avalanche is that standing still is not an option. This analogy can be applied to how individuals, teams, and organizations navigate the new world of work.



We begin our discussion by examining the forces of change that are impacting how work gets done. In broad terms, three forces are changing work and the workforce: the experience economy, and technological and demographic shifts. The workplace of the future is about creating and enhancing the experience at work—what I call the *experience economy*, as outlined in *The Future Workplace Experience: 10 Rules for Mastering Disruption in Recruiting and Engaging Employees* (Meister and Mulcahy 2017). Essentially, the experience economy shows how the last best experience we all have in our personal lives is becoming the minimum expectation for what we expect in the workplace—how we learn, communicate, and recognize others. Next, technological advances in artificial intelligence, virtual reality, augmented reality, and sensors at work are changing how job candidates discover potential employers and how employers use these technologies to grow and develop employees. Finally, demographics are shifting the composition of the workforce. Workers are working much longer, and the new normal can be 60-year careers, according to Gratton and Scott (2017). These forces of change are reshaping the workforce. First, with the growth of the gig economy—nearly 35 percent of all workers now

work in alternative work arrangements that either supplement full-time work or are composed of “gigs”—more workers with in-demand skills are opting to work on their own terms. Second, the emergence of intelligent technologies is creating a “blended workforce,” one that is made up of workers plus artificial intelligence assistants. This blended workforce is demanding a new set of power skills that include not just digital literacy but also uniquely human skills, such as emotional intelligence, people management, and learning to learn. Finally, this change is affecting individual workers, teams, and organizations in new ways, such as a deeper commitment to continuous learning; identifying new power skills for success; and experimenting with a range of new credentials, such as digital badges. Figure 6.1 shows how organizations are thinking about navigating the future workplace and the implications on individuals, teams, and organizations.

**HOW THE FAST PACE OF CHANGE IMPACTS THE NEW WORLD OF WORK**

The world of work operates at a rapid pace and is filled with paradoxes. While unemployment is down, it is taking longer to fill key job roles. The ratio of unemployed people per job opening in the United

**Figure 6.1 Future Workplace Model**

| <u>Three forces of change</u>  | <u>Workforces redefined</u>  | <u>Impact on:</u>   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Experience economy</li> <li>• Technological</li> <li>• Demographic</li> </ul> |  <p><b>Gig economy workers</b></p>                              | <p><b>Individual workers</b><br/>                     Continuous learning<br/>                     Desire for skill development</p>   |
|  |  <p><b>New blended workforce: worker plus AI assistants</b></p> | <p><b>Teams</b><br/>                     Team intelligence<br/>                     Full timers plus gig workers</p> <p><b>Organization</b><br/>                     New power skills<br/>                     Digital badges</p> |

States is below 1.5, but the amount of time it takes to hire a new worker has reached a postrecession high of about 26 days. According to the U.S. Department of Labor's monthly Job Openings and Labor Turnover Survey (JOLTS), job openings in the United States have reached their highest point since the government started tracking the series back in 2000 (Bureau of Labor Statistics 2017). However, hiring has been low in comparison to job openings. This data can be interpreted in several different ways. The gap between hires and openings—and the time it takes to fill jobs—could be a sign that employers are being more selective, but I believe the issue behind this data is a persistent skills gap between the types of skills employers require and the skills workers have in the marketplace.

According to the 2016/2017 Talent Shortage Survey conducted by Manpower Group (2017), 40 percent of U.S. employers report a skills gap and difficulty filling positions. More recent research by Future Workplace entitled *Closing the Skills Gap* finds that, of the 600 surveyed human resources leaders in North America at the vice president level and above, over half believe there is a skills gap in their organization, and over a third say filling their open positions to close the gap was harder in 2018 than it was in 2017.<sup>1</sup> Seventy percent of these leaders say up to 500 job openings have gone unfilled at their respective companies in the past year, and almost half attribute these openings to a shortage of qualified job candidates.

To combat this issue, companies are turning to investments in training and development to try to offset the pressing skills mismatch. JOLTS predicts that in 2020 there will be 1.4 million more software development jobs than applicants who can fill them (Bureau of Labor Statistics 2017). Educational programs can't seem to produce candidates for these positions fast enough. Employers report difficulties in filling these positions because of a lack of both available applicants and technical competency. This talent shortage has increased as an issue in six of the nine largest global economies between 2015 and 2016. The number of employers investing in training and developing existing employees to fill open positions has doubled from one in five to over half in the past year (Manpower Group 2017).

By the year 2020, 47 percent of revenue for the biggest Fortune 500 companies will be driven by digital technology (Fenwick 2015). Amber Grewal, vice president of Global Talent Acquisition at IBM, believes



this will have a huge impact on how companies attract, retain, and develop talent. She says, “As technology becomes a large part of the company’s operating model, digital skills are impacting all industries and functions. Whether you are in technology, finance, marketing, or HR, adopting an agile way of working, being comfortable using all the technologies you have access to at work, and leveraging design thinking to understand the needs and expectations of individual segments of your employees will be the foundational components to thriving in the digital age.”<sup>22</sup> This means that companies will increasingly incorporate artificial intelligence, data analytics, and other social and mobile technologies to transform and personalize the candidate experience.

## **ORGANIZATIONAL IMPLICATIONS IN THE NEW WORLD OF WORK: THE NEW POWER SKILLS**

What is the impact on individuals, teams, and organizations in this new world of work? First, with digital technologies impacting all industries, more jobs will require a mix of digital and human skills. Some employers are starting to focus on both of these areas. Take, for example, former General Electric CEO Jeff Immelt’s 2015 announcement that every new hire will learn to code. Immelt sees coding as a new way for learners to build critical thinking skills. Many countries have already integrated coding into their curricula. In 2014, England made computing part of its national primary curriculum, and Estonia has already started coding classes in its schools as early as first grade. The Netherlands, Belgium, and Finland also have national programs.

In the United States, some states are adjusting their K–12 curricula to align with this new emerging skill. In February 2016, the Florida State Senate approved a first-of-its-kind proposal to allow computer coding to fulfill a foreign language requirement in high school. The bill’s sponsor, Sen. Jeremy Ring, a former Yahoo! executive, contended that in a competitive job market, computer skills are as important as speaking another language, and that computer coding is a skill more aligned with liberal arts than math or science (Hager 2016).

Yet, digital skills are not enough to thrive in the future workplace. To stay employable in the age of automation, one needs to acquire “core power

skills”—what I define as the combination of cross-functional skills such as creativity, emotional intelligence, and people management skills. These are included in the World Economic Forum listing of skills needed for the future, the core power skills identified by Future Workplace research in *Closing the Skills Gap*, and input from clients of Future Workplace, including heads of human resources and corporate learning at Fortune 1000 firms (see Table 6.1).

**Table 6.1 Twenty Core Power Skills Needed for the Future Workplace**

|                            |                                    |
|----------------------------|------------------------------------|
| 1. Complex problem solving | 11. Strategic thinking             |
| 2. Critical thinking       | 12. Executive presentation         |
| 3. Creativity              | 13. Project management             |
| 4. People management       | 14. Analytical skills              |
| 5. Coordination            | 15. Understanding the impact of AI |
| 6. Emotional intelligence  | 16. Leadership ability             |
| 7. Service orientation     | 17. Change management              |
| 8. Judgment                | 18. Team intelligence              |
| 9. Negotiation             | 19. Digital literacy               |
| 10. Cognitive flexibility  | 20. Computational thinking         |

SOURCES: Created by author from World Economic Forum and Future Workplace LLC.

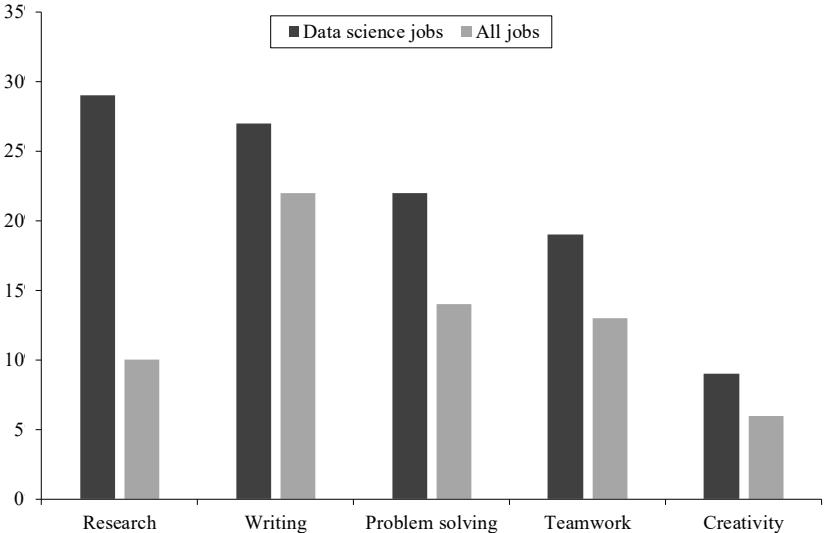
As the World Economic Forum (2016) has detailed, complex problem solving, critical thinking, and creativity will become the most crucial skills a worker can develop to obtain and retain a job. As new technologies, artificial intelligence, and automation replace jobs we thought were safe from automation—such as knowledge-based work in insurance, legal, and journalism professions—it will become increasingly important for workers to develop uniquely human skills. In my work as founder of the Future Workplace Network, we regularly query our clients on the core “power” skills they expect of workers. Our clients acknowledge the ever-shorter shelf life of skills and the growing importance of learning to learn. As evidence, the massively open online course (MOOC) “Learning How to Learn” has been one of the top-enrolled MOOCs for the past four years by Class Central, the online search engine for tracking MOOCs.

Employers are also expanding the definition of skills expected of workers to include what I refer to as “higher levels of uniquely human skills.” One example is team intelligence, which is knowing how to work with and develop the best teams by focusing on their strengths and understanding their team dynamics. Team intelligence is becoming increasingly important as global teams collaborate to get work done. Creating the right team environment can lead to improved levels of productivity, innovation, and employee engagement.

In addition to the importance of these uniquely human skills, HR leaders see a growing importance in developing deep cross-functional capabilities, because job growth in hybrid jobs—those that require deep technical skills as well as a strong set of soft skills such as creativity, problem solving, teamwork, writing, and research—has been robust (see Figure 6.2).

Finally, our clients identified a new set of workplace power skills, including understanding the impact of artificial intelligence on how works gets done, building computational thinking skills to approach

**Figure 6.2 Percentage of Job Postings Requesting Specific Types of Soft Skills, Data Science and Analysis Jobs vs. All jobs**



SOURCE: Sigelman (2017).

new problems at work, and understanding how to work effectively in a team. These power skills are becoming increasingly important in the workplace.

## **WHAT COMPANIES CAN DO TO BUILD NEW POWER SKILLS FOR THE 2020 WORKPLACE**

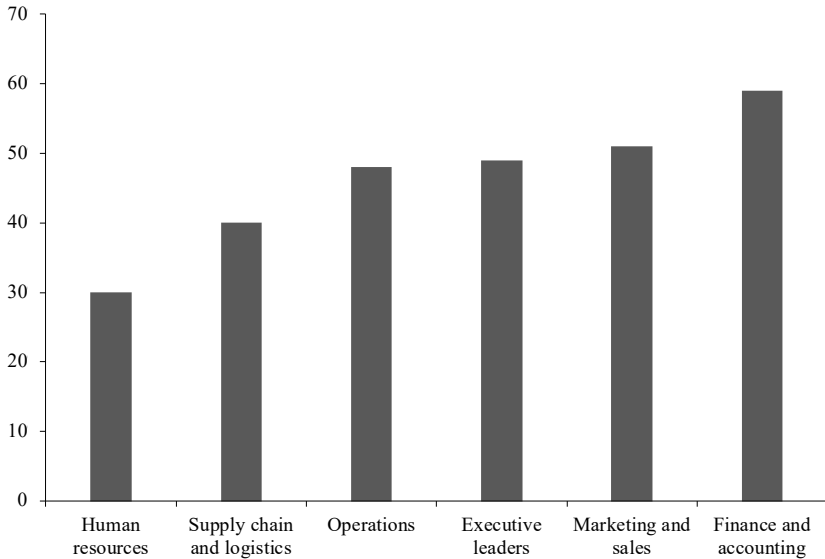
How are companies navigating the new world of work? First, both companies and individual workers need to pay more attention to the importance of continuous learning. Going forward, employers can do three things that continue to close the skills gaps.

### **1) Build Cross-Functional Skills**

Jobs that require only one skill set are in significant decline. As reported by Dr. David J. Deming (2017) of Harvard University, many jobs that require only mathematical skills have been automated, but roles that combine mathematical and interpersonal skills (such as economists, health technicians, and management analysts) are projected to be in high demand. As noted in Figure 6.3, significant proportions of employers will expect that their managers have both data science and analytical skills by 2020. In some fields, such as finance and accounting and marketing and sales, the majority of employers will expect managers to have these skills. These are technical skills that go beyond leadership, people management, and interpersonal skills that likely originally qualified someone for a management position. Cross-functional skills are important for labor market success going forward.

The notion of developing cross-functional skills is not new; in fact, “T”-shaped skills were first described in 1991. T-shaped individuals combine both a depth and breadth of skills possessing deep functional expertise with well-honed social skills to collaborate across disciplines. Now, with automation potentially impacting up to 60 percent of occupations, it is becoming more important than ever for individuals to demonstrate these T-shaped skills combining uniquely “human” skills (executive presence, empathy, and communications) with technical ones (Meister 2017).

**Figure 6.3 Percent of Employers That Will Require Their Managers to Have Data and Analytics Skills by 2020, by Field**



SOURCE: Business Higher Ed Forum and Gallup (2016).

## **2) Use Investment in Learning to Both Develop and Recruit New Employees**

We are seeing more companies use their investments in training to both develop new skills and identify new talent with the skills needed for success. To do this, organizations are investing in learning and development to attract the best people in the marketplace.

One example of this is the newly designed MOOC, developed in partnership between Price Waterhouse Cooper (PwC) and the online learning firm Coursera, entitled “Data Analysis and Presentation Skills: The PwC Approach Specialization.”<sup>3</sup> As Michael Fenton, chief people officer of PwC, says, “PwC’s collaboration with Coursera is about more than creating a new course; it’s about helping people become more confident as they face the future.”<sup>4</sup> This five-course MOOC specialization focuses on both understanding and applying data analytics tools, as well as crafting business presentations to identify insights uncovered in the data analysis. To date, over 14,000 learners in 192 countries have

enrolled in this MOOC, and another 71,481 non-PwC learners enrolled who are interested in enhancing their skills. Certainly, the non-PwC learners create an immediate talent pool of prospective employees who have mastered an important skill set in data science and presentation. These learners then have the option to opt into the PwC Talent Network to learn more about data analysis industry news and current openings at PwC.

### **3) Build Corporate/Higher Education Partnerships**

As part of the Future Workplace *Closing the Skills Gap* research, we surveyed 600 leaders of human resources in North America and discovered that nearly 40 percent of companies are not collaborating with institutions of higher education to ensure their college curriculums are responsive to the needs of employers. This is leading to a mismatch between the supply and demand of skills.

Employers are experimenting with various ways to close the skills gap. IBM, for example, has partnered with an institution of higher education, Northeastern University, to offer college credits for completion of an IBM online learning program, “Cognitive Class Analytic Technologies.” When learners complete the 30 hours of work associated with this online course and earn a score of 85 percent or higher, they earn an open digital badge from IBM, as well as three credits within the Northeastern University Masters in Analytics program. This corporate/higher education partnership is unique because it verifies learners’ credentials and shows employers what learners know, where they learned their skills, and why an employer should hire them. “The combination of digital badges plus college credit is a huge motivating factor to complete an online learning program,” says David Leaser, senior program executive, Innovation and Growth Initiatives, IBM. “People benefit from a stackable credential at the university level, and this also enhances their personal brand.”<sup>5</sup> For example, a LinkedIn study found that open digital badges on a person’s LinkedIn profile can increase profile views by up to 600 percent (Leaser 2016).

Digital badges provide a platform to empower students and working adults to share their verified learning achievements. According to Peter Janzow, vice president of Credly (IBM’s digital badge platform partner), digital badges are verified in real time and contain rich meta data

of an individual's skills, which gives the learner an easy way to broadcast their skills.<sup>6</sup> By going beyond paper certificates to digital badges, credentials can be shared and verified on the Web for maximum visibility on networks like LinkedIn, Facebook, and Twitter. Corporations that can use digital badges to upskill their workforces also reap benefits. Compared to informal individual peer assessments, these badges may have increased value since they represent verified and résumé-worthy learning achievements.

As we look to the future of skills and jobs, one thing is clear: employees and employers are operating at a relentless speed to keep up with massive disruptions in the marketplace and are experimenting with ways to close the skills gap.

No industry is safe from having its “Uber moment”—in fact, these Uber moments will only become more commonplace across all industries spanning from transportation to financial services and publishing.<sup>7</sup> Investing in continuous learning, recognizing the need to develop a new set of power skills, and partnering with universities to offer and accredit digital credentials are some of the strategies used to develop workers who can adapt to the ever-changing workplace. As Norman Davies warns, we cannot stand still in the middle of an avalanche. Companies must prepare employees today to develop the power skills of tomorrow.

## Notes

The author thanks Kevin Solar, graduate of Fordham University and now Community Engagement Manager at Future Workplace, for his contribution to this chapter.

1. The Future Workplace's *Closing the Skills Gap* research will be available as a graphic of key findings. For a copy of this, email [info@futureworkplace.com](mailto:info@futureworkplace.com).
2. Personal communication with the author, January 3, 2018.
3. For more information visit <https://www.coursera.org/specializations/pwc-analytics> (accessed April 24, 2018).
4. Personal communication with the author, June 21, 2017.
5. Personal communication with the author, April 19, 2018.
6. Personal communication with the author, April 19, 2018.
7. An Uber moment is defined as a moment in time when disruptive forces negatively impact the current state of employment in an industry. For example, it is predicted that a large number of banks will disappear over the next few years as a result of digital disruption.

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# 7

## Leadership Development for a Twenty-First Century Workplace

Henry G. “Hank” Jackson

In business journals and other media, highly successful business leaders are celebrated and their successes mined for nuggets of wisdom we hope to learn from. But what about leaders who fail? We seem to hear about them only when the catastrophic consequences make the news.

For most organizations, poor leadership rarely makes headlines because its impact is felt intermittently and can often go unrecognized for years. Typically, it translates into missed opportunities or failure to reach potential. However, the slow drip of substandard leadership can pool into very public incidents that are not easily washed from the public consciousness.

Many of us recall the implosion of Enron in 2001 and think that blaming a few individuals—including its founder and CEO Kenneth Lay—for unethical behavior is justified. But a deeper analysis of the scandal uncovered a culture of poor leadership behavior across the organization, including failed communication and misaligned values at multiple levels (Seeger and Ulmer 2003). Chief among the root causes of the cultural deficit were a lack of leadership development programs and failure to identify potential leaders early in their careers.

Although most of us will probably never work in a leadership environment as dysfunctional as Enron, HR and non-HR professionals still puzzle over the same questions:

- How can potentially great leaders be identified?
- How can leaders be developed so that our workforces and enterprises grow and improve?
- How can leadership liabilities be avoided?
- What can HR do to ensure leadership sustainability?

These questions should trigger HR and other business leaders to consider and address the true cost of poor leadership, which researchers have called the “silent killer” of organizations (Groysberg and Slind 2012).

Enron’s cautionary tale of failure made global news, but, typically, leadership dysfunction goes mostly unseen and unaddressed because the consequences are not as immediately obvious. But make no mistake: poor leadership has direct and insidious effects on the business bottom line (Leadership Forge 2016).

Failing leaders drive away good employees at a high rate, leading to higher recruitment costs. Among employees who stay put amid the dysfunction, you will find significant impacts on their day-to-day productivity in the form of lost business opportunities, decreased efficiency, missed deadlines, and sunken morale. Less-engaged teams are also less customer focused and prone to minimizing their efforts and adopting counterproductive behavior.

But the effects of poor leadership do not stop there. Subpar employees drive away loyal customers, forcing business efforts toward acquiring new customers, which is five times as costly as retaining loyal ones. Estimates put the cost of a bad leader at around \$15,000 per staff member lost to voluntary turnover and \$7,000 in lost revenue per loyal customer (Leadership Forge 2016).

Because of the potential for great loss, organizations have no choice but to develop leaders using the same focus they direct to other efforts, such as marketing and operations. But too many are ignoring this investment, even as they spend more capital on employee development in marketing, sales, customer service, and operations. As Enron—and more recently Wells Fargo—learned, failing to provide professional development programs for potential leaders will result in gaps where negligent and damaging practices can enter and go unchecked until a crisis arises.

## **WORKPLACE MEGATRENDS DEMAND SKILLED LEADERS**

It’s not surprising that today’s fast-moving organizations often have a shortage of key leadership skills. In the Society for Human Re-

source Management's *Business and Human Capital Challenges* report (2015), interviews with leaders in both the HR and non-HR sectors revealed leadership shortfalls, particularly in skills involving people management, coalition building, and political savvy. The findings also highlighted a lack of leaders having a twenty-first-century understanding of global and cultural effectiveness.

Why are these competencies so critical? In both the *Challenges* report and a recent Society for Human Resource Management Foundation (2016) report, *The Future of Work*, business leaders and HR executives point to three key macro trends affecting the way business is conducted today and their challenges to leadership.

First is the ascendancy of digital technology and automation. These innovations tend to be great for industry but can have a devastating effect on employee engagement. Life may be easier for workers in some ways, but increased workloads and productivity expectations can cause stress.

When people can work from anywhere and at any time of the day, the pressure to do more, do it faster, and at higher skill levels goes on 24/7. Even so, higher expectations and productivity demands have not necessarily meant higher pay. And these days, losing a job to automation is a realistic worry for a growing number of workers.

Great leaders will champion policies like workplace flexibility (“workflex”) that are fair to both the employee and the organization—supporting workers with holistic, flexible work-life policies and paid leave while assuring continuity, predictability, and stability to employers.

The second megatrend is the changing nature of the compact between employer and employee. The basic relationship was essentially built for business in the 1960s, when employees would spend an entire career at an organization and retire with a pension and a gold watch. Today we have the gig economy, more contracting, frequent job hopping, and the loss of middle-class jobs that once provided decades of stability and economic opportunity for families. Blind loyalty to an employer is out of fashion, as employees increasingly see career development as a “what can you do for me” transaction. In other words, employees are looking to their organizations as vehicles to achieve their own goals.

Great leaders will support the aspirations of their employees by designing work functions that nurture the career development of their staff

as well as focus on the needs of the organization. These leaders also focus on tools like mentoring, coaching, and cross-functional work assignments to build a broad base of skills among their teams.

Finally, the megatrend of the multinational, multigenerational workforce is also changing how leaders must lead. There are five distinct generations in today's workplace—from the “greatest generation” to millennials, each with different motivations, expectations, and working styles.

For too long, managing multiple generations has focused on stereotypes and differences. But a skilled leader today will understand how the distinct sets of skills and contributions of each generation come together to make the engine of business run smoothly and far. And when you mix people together on teams, giving older and younger hires the chance to learn from each other, you are using a multigenerational workforce to your advantage instead of expecting these individuals to conform to fit a culture or a label.

With global population shifts, workforces are becoming dizzyingly diverse in other ways: by 2050, new immigrants and their children will account for 83 percent of the growth in the U.S. working-age population (Center for American Progress 2012). Smart leaders will actively engage and develop their immigrant employees, supporting them to become an integral part of the workforce and their larger communities. They know this leads to higher retention, productivity, loyalty, and a future bench of leaders who can attract others with similar strengths, skills, and experiences (Urban Institute 2015). This type of diversity also positions organizations to compete in the global marketplace.

Great leaders approach their diverse workforce planning by identifying the skills needs of the organization today and tomorrow. They leverage tools like future-oriented job analysis and job redesign to envision how their teams will look from a skills-mix perspective. In addition, they tend to track global immigration trends and their relationship to economic factors so that they can adapt to workforce demands.

It's clear that leaders must be prepared on multiple levels. They must be able to lead teams that can create, innovate, and operate efficiently in volatile and unpredictable environments, able not only to adapt and respond to change but also to predict and get ahead of it. This requires constant learning.

## WHAT DO TODAY'S LEADERS NEED?

Today's leaders, regardless of position or industry, must possess four basic capabilities: 1) people management skills, 2) business and data acumen, 3) interpersonal savvy, and 4) a bedrock of technical knowledge and prowess. With an appropriate mix of these skills, the leaders of tomorrow can adapt and, more importantly, learn and respond quickly to challenges and business disruptors. In fact, the need to predict how your employees will react to new situations becomes more important than predicting the trends of business.

This means doing leadership development very differently. First, leaders need to let go of the perception that leadership equals control. Today, leadership means empowering others to stretch themselves, opening opportunities to build things that have broader applications than the organization's usual functions. And it means understanding that failure is part of the learning process. Leaders can take a page from Silicon Valley and its use of "fail-cons"—conferences that explore the reasons behind the failure of ideas or companies as a way to gain insight on what might succeed going forward.

Leaders must also foster a "culture of fluidity" that promotes adaptability. Successful developers of tomorrow's workforce actually create opportunities for employees to adapt. These opportunities could include cross-functional roles, creativity hours—hours dedicated to creative exercises not associated with core tasks or responsibilities—and performance incentives that reward behavior that is altruistic in nature and goes above and beyond the call of duty. Moreover, leaders should recognize those who adopt fluid concepts in project delivery and management of others.

Finally, people should always come first. Specifically, modern leaders will have evolved to focus on an engaged workforce just as much as results. When done effectively, the effect on the bottom line is unmistakable. Organizations will enjoy a workforce of individuals who will treat the organization as its primary partner in achieving a joint mission.

## **THE DIFFERENCE IN DEVELOPING LEADERS**

Leadership development is vastly different from other kinds of professional development. As Development Dimensions International, Inc.'s (DDI) global leadership forecast indicates, the most common methods for training staff will not work for leaders (DDI and Conference Board 2014). Leadership development is more likely to feature cross-functional work assignments, competency-oriented training, and executive coaching.

Leadership development is also characterized by long-term engagement with a variety of learning options. The most successful leaders leverage development through on-the-job experiences, including mentorship and developmental work assignments. Because leadership competencies are multidimensional and complex, it is important to focus on learning opportunities that mimic the live work environment and bring into focus the multifaceted decision-making processes used by leaders.

Identifying and retaining potential future leaders is the last piece of the puzzle. Here, HR can play a vital role as the human capital strategic planner who identifies future leaders at the earliest point possible and sets them up for long-term development. In my experience, leaders who are not guided through a comprehensive talent management process often fall short of their potential in their current environment. However, they thrive in an organization where leadership development is expected of its managers.

## **HOW DO YOU KNOW YOU ARE GETTING IT RIGHT?**

The ultimate measure of leadership success is a sustainable enterprise that is profitable, competitive, and innovating. But from a different perspective, success will be apparent when the organization's key brand ambassadors are no longer the people at the top, but have become the employees and consumers themselves. When your workforce and your customers are doing your recruiting for you and attracting top talent, your leadership is doing a lot right.

Ultimately, the success of any organization can be measured by its contribution to the lives of others, including its community, its workforce, and society as a whole. These are certainly among the most satisfying fruits of excellent leadership.

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## **Part 2**

# **Investing in Undervalued Human Capital**



# 8

## Programs to Increase the Supply of Skilled Workers

Alexander Ruder

Although the U.S. economy is experiencing its second-longest recorded economic expansion, two features of the labor market pose increasing challenges for employers and job seekers. First, cyclical tightness in the labor market means fewer job seekers are pursuing each open position. As a result, employers face potentially longer delays to find and hire qualified workers to fill open positions. Second, the decreasing rate of labor force participation—a decrease associated with longer-term structural changes in the labor market such as automation, job seekers unqualified for available jobs, increased postsecondary schooling, and a greater share of older Americans in the labor force—contributes to the challenge of filling available jobs and, more broadly, continuing economic growth. Both these trends point to a need for policymakers to look beyond the traditional labor market pipeline in order to increase the supply of skilled workers.

The chapters in this section examine policy changes and targeted interventions that seek to prepare individuals for stable, well-paying jobs and enable businesses to efficiently hire skilled workers. The chapters suggest that policymakers must target these initiatives because specific demographic and socioeconomic groups face a unique set of circumstances that limit group members' potential to qualify for and obtain available jobs. The policy interventions also must be intensive in order to address the multidimensional nature of the challenges and ultimately lead more workers to enter the labor force and meet the needs of employers.

Each chapter focuses on one of several diverse demographic and socioeconomic groups, including adult learners, American Indian and Alaska Native (AIAN) individuals, inner-city high school youth, low-income individuals, and veterans. Common to all chapters is the obser-

vation by the various authors that members of these groups often do not have the credentials necessary to qualify for middle-skill and high-skill job openings. However, the reasons for the skills gap differ across each group. The authors reveal these differences, propose policy recommendations, and detail intensive interventions that demonstrate success in increasing educational attainment, employment, and earnings.

A key contribution of these chapters is to illuminate how these groups also face unique combinations of nonskill barriers to employment. For example, some veterans have physical and mental strains that negatively impact their job search, while members of the AIAN community experience labor market discrimination and benefit from culturally relevant education. The chapters provide examples of programs designed to overcome or raise awareness of these barriers while also discussing solutions to more broadly experienced nonskill barriers, such as lack of access to affordable and convenient transportation.

Together, the chapters offer several general lessons for targeting intensive programs to specific populations. First, policies must account for the different education and labor market challenges across these groups. Second, policies must help members of these groups better align their skills and experiences with credential and skill requirements demanded by employers. Third, education and training interventions cannot address single challenges in isolation from others—comprehensive interventions that offer training and support at different points in the individual's life are most likely to succeed.

## **TARGETED POLICIES AND PROGRAMS**

Policies must account for the different education and labor market challenges confronted by adult learners, AIAN individuals, inner-city high school youth, low-income individuals, veterans, and other unique groups. Chapter author E. Wilson Finch observes that adult learners must navigate an education and training system that primarily serves traditional-age students. R. Jason Faberman and Thomas Haasl note that recent veterans may unavoidably enter the civilian labor force during a cyclical economic downturn, which adds an even greater challenge to finding full-time employment. Low-income individuals may struggle

with financial instability that precludes further investments in their own human capital, as discussed in the chapter by Maurice A. Jones.

## **CREDENTIAL ALIGNMENT AND PROGRAM CHOICE**

At least two challenges arise when considering how to align job seekers' skills with the skills that employers require. First, job seekers may already have skills and experiences relevant to current and future jobs; however, without a formal credential, they struggle to signal their qualifications to employers. Veterans, for example, need to map diverse skills obtained in the military to skills demanded by civilian employers. Similarly, adult learners must effectively communicate to employers the value and relevance of skills learned outside the formal classroom. To facilitate that communication, policymakers can partner with employers to develop systems to validate an individual's industry-relevant competencies.

Second, some youth and adults still choose to obtain credentials in fields that are unlikely to lead to jobs with stable employment and higher earnings. AIAN individuals, as discussed by Patrice H. Kunesh and Richard M. Todd, are underrepresented in higher-paying technology fields and overrepresented in lower-paying service professions. Supportive services for youth and adult learners can introduce students to different careers, help students understand the costs and benefits of choosing various training programs, and provide the support needed to succeed in those programs.

## **MULTIDIMENSIONAL INTERVENTIONS**

Policymakers and employers should continue to invest in interventions that offer training and support at different points in the individual's life. These interventions include academic support services, career mentoring and job search assistance, and adult support services. For example, Maurice Jones reviews the Bridges to Career Opportunity program, in which lower-income individuals receive academic readiness support,

career coaching, job retention training, and financial stability coaching. The Manufacturing Connect program for inner-city high school youth, which is the focus of Rick Mattoon and Susan Longworth's chapter, also incorporates academic, employment, and social support services, though specifically designed to help individuals successfully obtain jobs in the manufacturing sector. Both chapters suggest that these services are more likely to lead to better training choices, improved program completion and employment rates, and higher earnings when bundled together rather than offered in isolation.

## **FUTURE WORK: EVALUATION AND SCALABILITY**

The chapters in this section emphasize the need to target intensive policy interventions to meet the unique needs of specific populations. As policymakers consider how to develop these targeted investments, more research is needed to evaluate their implementation, effectiveness, and efficiency. Of course, given the multidimensional nature of the interventions, the long duration of the programs, and the long-term outcome measures, rigorous evaluation is challenging to undertake. However, evidence of success is necessary for policymakers and stakeholders to continue to support these investments and to expand them to other locations and policymaking contexts. Evidence of program effectiveness, together with the understanding of the implementation of these programs in different policymaking contexts, allows policymakers to refine or abandon unsuccessful programs and build the evidence base necessary to scale up successful programs.

# 9

## Adult Learners

### Activating Prior Knowledge and Acquiring New Skills

E. Wilson Finch

Since the 2007–2008 financial crisis, the United States has seen a slow but steady recovery of the millions of jobs lost during the Great Recession. An often untold side of this recovery is that most of the new jobs created—99 percent—went to people with at least some postsecondary education. Only 1 percent of the 5.6 million jobs that require a high school diploma or less have returned, and most of these have been low-skill and low-wage (Carnevale, Jayasundera, and Gulish 2016). Many reports and studies have highlighted this failure of the United States to produce enough postsecondary graduates to satisfy future jobs (Baum, Ma, and Payea 2013; Carnevale, Smith, and Strohl 2010, 2013). Evidence is also mounting that the job seekers benefiting from the recent growth in new “good jobs” are predominantly those with education beyond high school (Carnevale et al. 2017).

The aforementioned disparities augur a complex crisis: as communities and businesses continue to create well-paid, high-quality jobs, the prospect grows that the nation’s workforce will fail to meet the rapidly changing needs of an increasingly technologically advanced, knowledge-based economy. In other words, the increasing demand for “middle skill” workers in the United States will far outpace the supply of these workers. Data from the Bureau of Labor Statistics cited in a recent *Journal of Business* report provides a measure of the problem: despite 8.3 million people looking for work in July 2015, 5.4 million job openings went unfilled, and more than 54 percent of employers reported open positions for which they could not find qualified candidates (Whittaker and Williams 2016). The lack of potential workers with the necessary postsecondary credentials is hampering economic



development across the nation and within many states (Carnevale, Smith, and Strohl 2013), and those individuals without postsecondary credentials are much less economically secure in times of economic fluctuation (BLS 2016).

The deficit of skilled workers is being exacerbated by three tendencies within industry and education: 1) neglecting to effectively engage substantial proportions of potential workers (particularly adults and nontraditional learners) in efforts to combat the deficit, 2) failing to adequately capture and validate existing learning possessed by those workers and apply it to their current and future jobs, and 3) inadequately aligning credentialing outcomes with the verifiable needs of employers, workforce and economic development goals, and industry sectors. In this article, we will explore each of these tendencies in detail, first discussing current challenges to engaging working-age individuals within higher education and, consequently, within the higher-skill job market. Next, we will consider potential sources of workers' knowledge and skills. Specific questions for consideration include how adults' learning and gaps in learning can be assessed and what barriers prevent these assessments. Subsequently, we will review specific, promising strategies for communities, employers, and institutions of higher education (IHEs), with assistance from the government and policymakers, and offer examples for partnerships to support increased assessment of knowledge, encourage corresponding training and credentialing, and better align workforce and education outcomes.

## **UNTAPPED POTENTIAL**

Many initial efforts to address the skilled worker gap have focused on input, specifically on getting new potential workers into the workforce system via credentialing. To that end, some policymakers have placed increased emphasis not only on improving access to IHEs, but also on fostering successful degree completion. This latter and more recent effort has been made with the realization that most students who enroll do not graduate in the expected time frame, and many never finish at all.<sup>1</sup> Yet policies for access and completion have remained primarily directed at traditional college students (full-time, first-time stu-

dents aged 18–22 years old). Importantly, this traditional pipeline is in decline nationally (Kiley 2013), and additionally, there is not much room for improvement in the traditional pathway in most states, even if this source of students and workers was not decreasing (Finch 2016).

While there are notable examples of states, IHEs, communities, and other stakeholders developing policies and programs to address non-traditional students' needs, including adults over the age of 24, overall these programs are viewed as extensions of existing traditionally focused programs and do not offer comprehensive support for adult learners.<sup>2</sup> This is perplexing, since adults lately have been the fastest-growing population within American higher education (Hess 2011; Wyatt 2011). Furthermore, there is a failure to recognize that adults have unique needs and priorities in higher education that are often not sufficiently satisfied (Ruffalo Noel Levitz 2016). As such, stakeholders should focus more resources and efforts on identifying and satisfying the needs of the adult learner population, with particular strategies to assist their enrollment, persistence, and degree attainment within systems of higher education.

Because this traditional high-school-to-college pipeline is drying up, there is a need to reorient efforts toward activating larger numbers of individuals who are already of working age (that is, adults), especially those who are not connected to the formal economy, those underemployed in low-skill and low-wage occupations, and those who are vulnerable to job loss due to automation or offshoring. The potential benefit of such targeted treatment is twofold. This strategy is likely to increase the pipeline of new students with more pronounced career motivations (Knowles 1980; Ross-Gordon 2011) moving into, through, and out of higher education into those new, higher-skill jobs. Additionally, this reorientation will help place those unemployed and underemployed individuals into new jobs more quickly in the changing economy.

## **SURVEYING SOURCES OF SKILLS AND KNOWLEDGE**

Focusing on the input of new individuals to the economy largely ignores those who are already there but could, through education and training, perform the higher-skilled jobs the economy requires. In par-

ticular, there is a struggle to validate and recognize existing learning already possessed by workers and match it with growing jobs and sectors. What skills, knowledge, competencies, and learning do workers have already? Do we (or the workers themselves) know the full extent of their knowledge and how it not only applies to their current jobs and career choices, but to potential and future career options in their region? Oftentimes, the answer to these questions is “No.” Workers, employers, IHEs, and industry professionals often at best can answer that question only with learning that has been clearly documented, particularly through formal training environments and credentialing. Even then, this is not always satisfactory. What about learning, training, and experiences that are informal within the workplace, or even learning that has been gained entirely outside a workplace or an IHE?

There are several reasons this determination is critical.

- First, it is inefficient to ask workers to undertake education or training for something they already know, wasting time and money for both employers and employees. Furthermore, adult learners and their employers are far less likely to engage in a process that seems repetitive and a waste of their time when they have competing priorities.
- Second, how can employers and industries be sure that they cannot find the people to fill skilled roles if they do not have a proper understanding of sources of knowledge beyond formal training and credentialing or do not know what learning their employees already possess?
- Last, it is more effective to pursue and train a potential worker (or even more so, a current employee) who is already in the workforce and may already possess some of the real-world (and in-demand) skills than to educate, train, and attract a traditional student from scratch.

Before determining strategies for evaluating and recognizing workers’ knowledge, it is important to understand the sources and challenges associated with utilizing and documenting them. Many of us are accustomed to the idea that we learn at school and that a college education is acquired in college classrooms. In reality, however, learning takes place in all aspects of a person’s life—through military experience, raising a family, volunteering, and perhaps most significantly in the workplace.

Learning that occurs in the workplace can be very job specific, but it can also be broader—something that helps employees develop skills and competencies, take on new responsibilities, and even contribute to the organization’s bottom line. Thus, learning, whether in the workplace or elsewhere, can occur in a number of ways.

### **Formal Learning in the Workplace or Formal Credentialing**

Formal learning is intentional learning that happens in college classes or professional trainings. Because of the established structure and expertise of higher education, industry certifications, and formalized workplace trainings, many employers, workforce developers, and industry experts rely on such credentialing to determine the skills and knowledge possessed by a worker. However, increasingly, many employers have indicated that they feel students exiting higher-education programs do not have the necessary skills or knowledge they would expect of them, which is often referred to as the “skills gap,” particularly in soft skills (Jaschik 2015). There is some debate over the exact cause of this gap—whether it is due to inadequacies in the programs, the rapid changes within industries compared to the length of programs, generational shifts, or the lack of clarity from industry and employers about needs and expectations (Freifeld 2014; Tulgan 2016; Whittaker and Williams 2016). Furthermore, while highly valued, many individuals and those outside formal learning environments tend to find these structures inflexible and slow to react, which poses serious problems for workforce alignment with rapid changes in the economy and skills (Anderson, Boyles, and Rainie 2012). It also tends to be the most expensive and time-consuming form of learning, typically requiring substantial time and resources to be set aside to complete it.

### **Informal Learning in the Workplace or Elsewhere**

Informal (or experiential) learning occurs when someone is exposed to situations that facilitate acquiring knowledge or a new skill. Within the workplace, most jobs require a certain level of specialized knowledge that is often acquired informally by learning from peers and supervisors, studying instructional materials, or through simple trial and error. However, many adults have additional learning experiences out-

side work from the military, volunteer work, self-study, or daily life that may lend themselves to being applied in their current or future occupations (Klein-Collins 2010). This type of learning is more flexible in its structure, more varied in its sources, and very often directly applicable (and current) to the worker's job. However, as it is not typically part of workplace culture to constantly and rigorously evaluate workers' learning, employers often do not realize such knowledge exists, do not think to ask about it, and do not systematically evaluate it. Furthermore, workers are not typically well equipped to recognize their own informal learning or to articulate these skills and knowledge to employers (Millar and Miller 2014).

### **Nonformal Learning in the Workplace and Elsewhere**

Nonformal learning takes place in a structured setting like a workshop or mentoring session. Sometimes, employers organize nonformal situations in which the employee is likely to learn general lessons and tricks of the trade. Nonformal learning shares many of the characteristics, benefits, and drawbacks of informal learning, but it is more deliberate and structured, similar to formal training, making it more likely to be noticed by employers.

In short, employers do not tend to recognize or support learning that takes place outside formal settings, let alone document it or evaluate it, and employers also tend to feel that the formal training that is provided is not adequate. Similarly, workers' conceptions of what they know are more likely to be based on what they have learned in formal settings, and they are not always the best advocates for their own informal and nonformal learning. Both employers and employees do not feel that they fully grasp what a given worker truly knows and whether it aligns with workforce needs.

Who should be responsible for evaluating and validating various types of learning, particularly informal and nonformal learning? Traditionally (although not always uniformly or adequately), higher-education providers have undertaken this task through efforts such as Prior Learning Assessment (PLA). In the near future, they are probably best equipped to continue to do so, so long as the expansion of such efforts is supported. As it stands, such thorough evaluations are not typically part of the culture of most employers, and employers rarely have individuals

trained to recognize or assess such learning. Some do offer reviews in connection with promotions and hiring, but many rely heavily on formal learning sources. Others may indirectly support such efforts, such as by altering tuition assistance programs to pay for PLA fees at IHEs. Last, there are industry certifications, licensures, and apprenticeships (formal learning options) that may incorporate prior learning evaluations in some areas but not all, and these often do not cover soft skills. There may be an opportunity in the future for businesses and industries to take a more direct role in learning evaluation; at this point, however, it is an open question as to whether employers should begin to take on this particular role.

## TOOLS AND PRACTICES FOR VALIDATING LEARNING

While many challenges exist in determining current and prior learning, what do workers *need to know*, how do we *assess and validate* this learning, and how can we *encourage* workers to participate in this process within a postsecondary credentialing context? How do we teach these individuals the skills and knowledge that we have determined that they lack? Fortunately, there are some established and growing practices, within the academic realm, that many partnering communities, employers, and IHEs have begun to implement.

Prior learning assessment (PLA) and competency-based education (CBE) represent two specific opportunities to more formally align nonclassroom experiences with academic learning outcomes. PLA is the *assessment process* by which many colleges evaluate, for academic credit, the college-level knowledge and skills an individual has gained outside the classroom (or from noncollege instructional programs), including employment, military training and service, travel, hobbies, civic activities, and volunteer service. PLA recognizes and legitimizes the often-significant learning in which adults have engaged in many parts of their lives. Furthermore, students with PLA credit are 2.5 times more likely to graduate than students without PLA credit (Klein-Collins 2010). This is true for students regardless of race/ethnicity, age, financial aid status, or gender. PLA students also have higher persistence rates and a shorter time to degree completion, according to Klein-

Collins. Through PLA, adults learn the value of their experience, which boosts their confidence to complete their degrees.

CBE, meanwhile, is a term used for *education programs* that focus more on what students have learned, rather than on where or how long the learning takes place. Instead of evaluating student progress primarily on the amount of time spent in a classroom (using the credit hour, which is the default standard for measuring progress), CBE programs typically have clearly defined competencies that students must demonstrate through a rigorous assessment process before they can progress and earn a degree. Students may be assessed at various points in a CBE program on their content knowledge, and in doing so, IHEs determine what a student still needs to learn and teach the student only the knowledge and skills that they are missing—in other words, they fill in the knowledge gap. Because many CBE programs have been designed to allow students to learn and progress at their own pace, students with learning from life and work experience can save considerable time in earning a degree. Above all, CBE programs are designed to improve the quality of higher education by putting the focus squarely on demonstrated learning outcomes.

PLA and CBE should not be seen as separate strategies or approaches to degree completion. While PLA is primarily an *evaluation process* to convert noncollege learning into college credit, and CBE is an *educational approach* to delivering learning to students (learning that they did not obtain elsewhere), their relationship is a close one. Both PLA and CBE in all their forms share a common underlying philosophy that higher education needs to value and reward what a student knows and is able to do, regardless of how the student learned, where the student learned, and how long it took the student to learn—as long as the learning is at the college level. In fact, PLA can be an important gateway to the CBE program, with several PLA methods offered to students so that they can demonstrate required competencies based on their extra-institutional learning.

Both approaches also have particular roles to play in evaluating, documenting, and teaching the skills and knowledge that are essential to employers and industry. In particular, when drawing from job experiences, PLA can help integrate and better align a student's academic career with that student's professional career. What sets CBE programs apart is the focus on students being able to apply their knowledge in

real-world settings. Students often demonstrate competencies by completing the kind of projects or assignments that they would regularly encounter in an actual workplace. The idea is that through this kind of “authentic assessment,” IHEs will be able to say with confidence to employers that their graduates are well prepared for the workplace.

Employers respect work-based learning for its relevance and applicability. When this type of learning is woven through academic degrees, either by PLA or CBE, employers gain confidence that individuals with those degrees both know things and can do things and that the knowledge and skills development are mutually reinforcing. Both PLA and CBE precisely offer this interweaving of experiential learning within academia, tying education credentials to very real, highly valued workplace capabilities. Furthermore, PLA and CBE can play a more strategic role that helps align those IHEs to the communities they serve. Taking advantage of such opportunities will help employers recognize and value specific degrees and enable them to appreciate the benefits of postsecondary attainment more broadly. There are several examples of employer, education, and community partnerships that have promoted and supported PLA and CBE efforts.

### **Prior Learning Partnerships**

A community college in Wisconsin undertook an initiative to examine how the assessments in its Manufacturing Essentials program could be modified to evaluate whether noncredentialed manufacturing employees have the skills and knowledge equivalent to those with credentials and to develop new assessment tools and techniques. Manufacturing faculty also received training on PLA standards and quality and on the application of those standards within their manufacturing program.

When a cosmetics manufacturing facility in Ohio announced that it was closing, many of the employees were unsure what they would do next or whether the skills developed there would serve them in any other industry. In reviewing their job roles and responsibilities, the Council for Adult and Experiential Learning (CAEL) discovered that many of those same skills are desired by pharmaceutical manufacturers. “Skills crosswalks” were created to help the transitioning workers leverage the value of their experience and prior learning to identify new



career paths, and to progress through training more rapidly than they had expected or thought possible. Additional work was completed with local colleges and BioOhio, a bioscience industry association to help the employees fill the remaining skills gaps so that they were ready for jobs in the emerging pharmaceutical industry and to become able to adapt to changing economic conditions.

### **Competency-Based Collaborations**

Lipscomb University in Nashville, Tennessee, developed a competency-based education (CBE) model for nontraditional students returning to college to complete a degree. The Customized, Outcome-based, Relevant Evaluation (CORE) is a CBE model that integrates the use of behavioral assessment, online development, faculty coaching, and traditional coursework that can lead to a bachelor's degree. A total of 15 competencies are evaluated by Lipscomb, and these competencies can be added to students' transcripts through a system of electronic badges that document four levels of mastery for each competency. The badges can be used to demonstrate competencies to an employer, or they may be converted to credit hours and applied toward a bachelor's degree at Lipscomb. Furthermore, there is a behavioral assessment process, in which the student is placed in a simulated work situation and behavior is observed and evaluated by multiple assessors. Students who do not demonstrate all competencies can enroll in online, self-paced modules to develop the competencies. Faculty coaches assist the students during these courses. Many CORE students come to the program through their employers, who are interested in the behavioral assessment of work-related competencies (CAEL 2014).

Seattle City University (CityU) first began its endeavor with performance-based education 14 years ago in collaboration with the state of Washington through the development of a bachelor's-level, state certification program in K–12 teaching called the Alternative Route to Teacher Certification. In 2012, CityU launched two additional performance-based degree programs: 1) a Master's in Education (MEd) and 2) a Master's in Teaching (MIT). All of CityU's performance-based programs currently offered to the public are in the field of K–12 education, and the programs' primary target audience is professionals who are currently working in the field. The online, self-paced courses—or learning

blocks—in CityU’s performance-based programs are designed around a set of competencies. Candidates in these programs are assessed on their mastery of these competencies and state requirements through the evaluation of artifacts that they choose to submit from their own teaching practice. The completion of each learning block results in credit hours required for completion of the degree program (CAEL 2015).

## **TOOLS FOR ENCOURAGING WORKER ENGAGEMENT AND ALIGNING HIGHER EDUCATION AND WORKFORCE DEVELOPMENT**

This article has addressed population targets for upskilling within the economy as well as determining what these workers still need to know and how to teach it to them within higher education. While evaluating for and awarding academic credits toward a credential is important, college credit alone is insufficient for helping workers through education and into growing jobs in their communities. Employers, IHEs, and civic partnerships must take steps to promote lifelong learning and the engagement of adult learners generally, while also promoting the development and alignment of target-sector skills and developing a workforce that not only possesses requisite skills and knowledge but also can apply those skills and knowledge in the real world.

As with conventional coursework, IHEs run the risk of issuing credits (and accruing to credentials) that garner respect generally, but whose practical utility is unknown, misaligned, or nil. If IHEs apply rigorous standards to validating skills and knowledge that students and employers may not recognize as relevant, then we will have missed the mark. Of course, high relevance absent rigorous standards is equally problematic. We need both high standards and high relevance to local industry needs in order to show workers and employers the full value of the learning. Furthermore, if we cannot convince employers, workers, and other community partners to engage in and support this type of learning, then strategies such as PLA and CBE will be insufficient.

Such efforts are too numerous to fully explore within this article, and they often vary considerably, depending on the exact local context. However, below are some examples of such partnerships pursuing

efforts that are broader than, but complementary to, efforts to evaluate prior learning for college credit and postsecondary credentialing.

The Energy Providers Coalition for Education (EPCE) is a group of industry representatives that develops, sponsors, and promotes industry-driven, standardized, quality online learning programs to meet the workforce needs of the energy industry (EPCE 2018). EPCE partners with colleges to create an online curriculum that supports clean-energy solutions and smart-grid deployment in order to train current and future industry workers. In EPCE's nearly 15-year history, more than 5,000 electric power industry workers across a variety of job categories have furthered their education. The programs combine online instruction with both classroom and apprenticeship training. EPCE also built a model to move high school students directly from energy industry coursework into employment and/or into a postsecondary energy-industry certificate or degree.

The Nashville Chamber of Commerce partnered with the Council for Adult and Experiential Learning to help determine how area colleges, universities, and technology centers can engage new learners, including adults. Using CAEL's Adult Learning Focused Institution (ALFI—now rebranded as Adult Learner 360) criteria and tool kit, Nashville colleges identify opportunities to become more adult focused. Opportunities were identified for the IHEs to build and leverage strategic partnerships between employers and IHEs to engage more adult learners. In addition, Tennessee institutions enlisted technical assistance to encourage nontraditional learners to enroll in college through PLA efforts.

Northeast Indiana's Big Goal Collaborative worked with partners to create an education training asset map of the region that showed how the current landscape of skills aligned with the needs of the target and growing economic sectors (NIRP 2018). This included

- identifying which education programs are directly linked to the region's employers;
- reviewing economic and labor market data to verify which sectors are growing;
- creating a set of sectors and occupation groups that focus on the education asset inventory;
- reviewing education and training programs to document the programs and offerings that relate to the target lists; and

- providing analysis and regional recommendations to better align program offerings to meet target-sector needs.

The Tulsa Regional Chamber of Commerce recognized that general prosperity and high employment in the region was not reaching all neighborhoods and members of the community. Stakeholders in the Tulsa region worked with technical assistance providers to create a plan to better connect all Tulsa residents to learning and job opportunities. They analyzed the region's target sector and employment growth projections, local education and training systems supporting skill development in the target sectors, and the various barriers to gainful employment and access to education in three highly underserved neighborhoods in eastern, northern, and western Tulsa. This analysis led to a comprehensive strategy, which focused on improving programmatic and sector-focused content within the education and training system, communication mechanisms designed to increase the awareness of careers and education pathways, and collaboration among the many and varied workforce stakeholders and leaders in metro Tulsa (Tulsa Regional Chamber 2018).

## CONCLUSION

Simply stating that the United States currently lacks the skilled workforce it needs for the next generation of jobs fails to underscore the complexity of the problem. Challenges exist with the *individuals* being engaged (inputs), the *skills and knowledge* they already possess or need to learn (throughputs), and how well these efforts are *aligned* to national and regional needs (outputs). First, there are insufficient numbers of individuals being engaged in upskilling within the economy. In particular, efforts need to be taken to target existing workers and adults rather than relying on the traditional high school pipeline to help workers acquire those skills and fill those jobs. Second, there is an inadequate inventory and matching of the skills and knowledge that are currently possessed by American workers. Rather than assuming that workers lack knowledge simply because it has not been formally validated yet (or that they do have it simply because they have had formal training), it is critical that workforce and economic development part-

ners develop, support, and engage in thorough and rigorous methods of evaluating and validating worker skills and knowledge. Only then can programs be implemented to provide education and training to fill the knowledge gaps that exist. Last, in order for these efforts to be useful for wider economic development considerations, it is critical that these improved pipelines align higher education outputs with employer and sector needs and growth. Employers, IHEs, governments, communities, economic developers, and workers must partner to address each of these components comprehensively if the workers of today are to ever have the jobs of tomorrow.

### Notes

This chapter was partly adapted and compiled from other CAEL publications (CAEL 2014, 2015; Finch 2016; Klein-Collins 2010; Simon 2015, 2016; Tate and Klein-Collins 2015; Wax and Klein-Collins 2015). Examples provided are from instances where CAEL provided technical assistance services.

1. The national fall 2006 cohort for associate and bachelor's students was compared with the combined summer 2009 graduates using the most recent data from NCHEMS (2009). For more information, see American Association of Community Colleges (2016); Complete College America (2014).
2. In this chapter I will primarily be referring to "adult learners," which are defined as students aged 25 to 64. "Nontraditional students" are students that the National Center for Education Statistics defines as having one or more of the following characteristics: "delayed enrollment into postsecondary education; attends college part time; works full time; is financially independent; has dependents other than a spouse; is a single parent; or does not have a high school diploma." Adult learners represent a substantial proportion of nontraditional students, and there is considerable overlap in terms of needs, expectations, and outlooks (Pelletier 2010, p. 2).

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# 10

## The Challenges Facing Veteran Workers

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Military veterans are a small but important part of the U.S. labor market. Relative to other labor force participants, they face unique challenges to their employment prospects. Transitioning from the military to the civilian labor market is, almost by definition, a significant disruption in one's career path. The skills they acquire in the military may not be directly transferable to civilian work, and even if they are, there may be barriers in the job search process, such as licensing and certification requirements, that hinder them from finding work that suits their skill sets. The transition from military to civilian life also presents several additional challenges to veterans, such as issues with their mental or physical health, particularly for those who experience long periods of deployment.

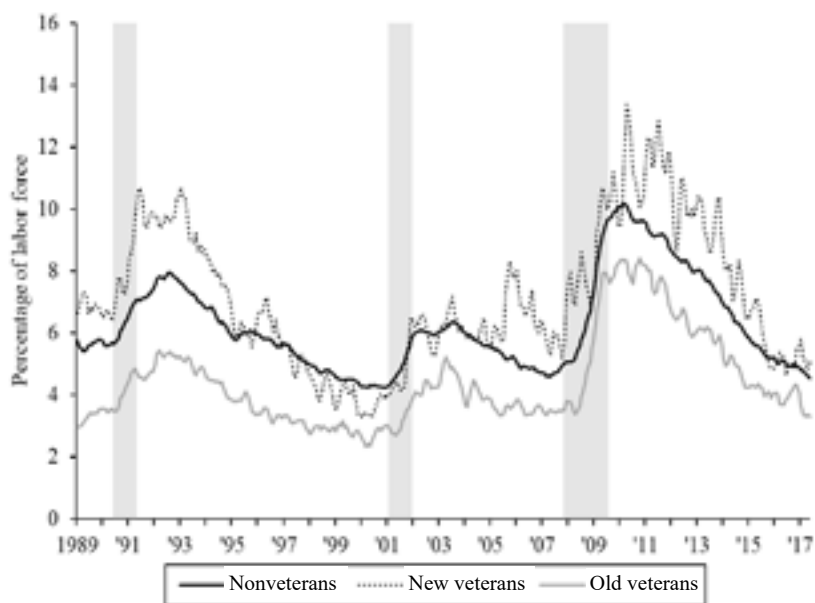
In short, veterans must overcome a wide variety of unique challenges when they transition from military service to the civilian labor market. While an array of programs are designed to aid veterans with their employment prospects, there is relatively little research on the effectiveness of these programs or on veterans' employment in general. In this chapter, we highlight some of the key findings on trends in veterans' labor market outcomes, including the factors that affect these trends. We also provide a review of existing programs and suggest areas for policymakers to focus on in the future that could improve the labor market experiences of veterans.

## TRENDS AND FACTORS IN VETERAN LABOR MARKET EXPERIENCES

In December 2016, veterans made up 4.8 percent of the U.S. labor force.<sup>1</sup> Veterans of the recent wars in Iraq and Afghanistan made up 1.7 percent. In general, the veteran unemployment rate differs from the nonveteran unemployment rate. As Figure 10.1 shows, there also is a considerable difference between veterans who recently entered the civilian labor force and older veterans, as newer veterans experience much higher unemployment rates than veterans as a whole and at least as high of unemployment rates as nonveterans. Conversely, older veterans consistently have a *lower* unemployment rate than either veterans as a whole or nonveterans. The unemployment rate of newer veterans is also more responsive to the business cycle: their unemployment rate rises more sharply than the unemployment rate of the other two groups during each recession, and it remains elevated for relatively longer as well.

One of the main drivers of the observed differences in unemployment rates between recent veterans, older veterans, and nonveterans is demographics (see, for example, Faberman and Foster [2013]; Heaton and Krull [2012]; and Loughran [2014]). Veterans tend to be less educated and a higher fraction of them are nonwhite—both of these demographics tend to have higher unemployment rates in the general population. Recent veterans are also younger, on average, and younger people tend to have higher unemployment rates than the general population as well.

Nevertheless, research has found that higher unemployment rates for certain groups of veterans persist even after one takes demographic differences between veterans and nonveterans into account. Heaton and Krull (2012) and Loughran (2014) find that young veterans face disproportionately high unemployment rates relative to young nonveterans, even after one controls for differences in other demographics. Faberman and Foster (2013) find that, even after controlling for differences in demographics, veterans of the recent wars in Iraq and Afghanistan have fared worse, in terms of their unemployment rates, than both veterans of earlier wars and nonveterans.

**Figure 10.1 Unemployment Rate by Veteran Status**

SOURCE: Authors' calculations using the Current Population Survey (CPS), following the methodology of Faberman and Foster (2013). Sample is made up of all individuals aged 18 to 64. Gray bars indicate recessions.

On average, veterans earn more compared to nonveterans. In December 2016, Iraq and Afghanistan war veterans earned an average hourly wage that was 16.2 percent more than nonveterans, and older veterans earned an average hourly wage that was 22.0 percent more than nonveterans.<sup>2</sup> Again, differences in demographics across the groups can account for a large portion of these gaps. Once we account for differences in demographics, recent veterans earn only 4.9 percent more and older veterans earn only 2.1 percent more than nonveterans. Accounting for differences in the industries and occupations that they work in eliminates these wage gaps entirely.<sup>3</sup> It is also worth noting that military salaries are usually considerably higher than salaries for comparable civilian occupations. Veterans often face significant declines in their earnings when transitioning to civilian life because of this fact alone. Consequently, most studies of veterans' earnings focus on their longer-run prospects.

These studies find mixed results on the earnings outcomes of veterans, which depend heavily on the veterans' demographic characteristics and their positions held while in the military. A salient finding in several studies is that minorities tend to benefit significantly, in terms of their long-run earnings outcomes, from military service (Angrist 1998; Hirsch and Mehay 2003; Loughran et al. 2011; Routon 2013), while white veterans show no long-run benefit (or penalty). Loughran et al. find that lower-skilled veterans also benefit from military service. One reason minorities may benefit from military service is that their service acts as a signal of employability that counteracts potential discriminatory hiring practices.<sup>4</sup> Loughran et al. argue that military service, regardless of race, provides several benefits that can potentially affect one's long-run earnings long after one's service has ended. These include the considerations that military enlistment incentivizes service members to undertake more training and formal education and that military service helps develop other skills valued in the labor market. In contrast, Rounton argues that there have been opposing forces in both the military and the civilian labor markets recently that could explain why, with the exceptions noted above, most veterans receive no significant earnings benefit from military service. On the one hand, advances in military technology have potentially increased the returns to military experience with respect to civilian job requirements. On the other, the civilian population has become more educated while the military population has not, and technological innovation has increased the returns to education more broadly within the civilian labor market. (The labor economics literature often refers to this as "skill-biased technological change.")

A major concern for both the employment and earnings outcomes of veterans is the applicability of the skills they gain during military service to the skills required within the civilian labor market. Curry Hall et al. (2014) examined the hiring experiences of employers that targeted veterans in their recruiting efforts. Employers consistently reported that matching veterans' skills to civilian job requirements was a major issue in hiring veterans. In a similar study, Kintzle et al. (2015) found that veterans have difficulty learning how their military experience may be used in the civilian job market.

Another concern is the timing of when veterans return to the civilian job market. At any point in time, there are two forces at play. First, military recruitment depends on the needs of the armed forces—wars

are times when the armed forces require more service members. Consequently, when the military needs to sharply increase its recruiting efforts, it more often than not relaxes its recruiting standards. Second, the success of new veterans in finding work as they transition to civilian life depends heavily on the strength of the labor market that they enter. Veterans that enter the labor market during an economic downturn will have a harder time finding work, all else being equal. The interaction between several factors—economic conditions, the demands and recruiting standards of the military, and the timing of when service members transition to civilian life—can present additional challenges to veterans entering the civilian labor market.

For example, Faberman and Foster (2013) find that new veterans have relatively higher unemployment rates when there are large drawdowns in the size of the military. This occurred following the first Gulf War and the more recent wars in Iraq and Afghanistan. Both military drawdowns occurred during economic downturns (1991–1992 and 2009–2011), exacerbating the poor job-finding prospects of these veterans. Moreover, the increase in demand for soldiers because of these wars generally caused the military to reduce its recruiting standards. This meant that the military was more likely to employ service members that would have had relatively more difficulty finding work regardless of their military service.

For instance, as the wars in Iraq and Afghanistan dragged on, the military was more likely to accept recruits with a criminal record. As these wars wound down, the military drew down its forces, and those who would not normally have been accepted for service were the first to be mustered out. This created a situation where the recent veterans entering the labor market, all other things being equal, would have a harder time finding work than veterans whose recruitment was not the result of more lax recruiting standards. Changes in the composition of veterans entering the workforce because of these factors may be one reason Collins et al. (2014) and Faberman and Foster (2013) find that veterans of the recent wars have fared relatively worse than veterans in other periods.

Borgschulte and Martorell (2016) show that economic conditions can also affect when veterans choose to leave the military. Service members will be less likely to leave when economic conditions are poor. At the same time, military drawdowns, like the one that accompa-

nied the reduction in American forces committed to the wars in Iraq and Afghanistan, may give them little choice. Veterans who are mustered out despite a desire to reenlist may be forced to look for work with relatively poor job prospects. In this sense, their labor market outcomes may not be that much different from the outcomes of civilians who have been laid off.

Finally, there are concerns that physical and mental health issues resulting from military service can negatively impact the job prospects of new veterans. Issues with physical mobility, hearing or eyesight, post-traumatic stress disorder (PTSD), depression, and substance abuse are just some of the hurdles facing returning veterans. A combination of medical advances, which have helped save the lives of veterans who would otherwise have died in combat, and better diagnoses of mental health issues, has led recent veterans to use Veterans Health Administration services at higher rates than veterans of previous conflicts. Seal et al. (2009) find that over 40 percent of recent veterans received a diagnosis of at least one mental-health, psychological, or behavioral problem. Ramsey et al. (2017) find that PTSD is the most frequently reported mental health diagnosis across age and gender groups. Prolonged deployments may increase the risk of a physical or mental health issue for veterans, but it is unclear whether prolonged deployments alone have adverse effects on employment outcomes. For example, Horton et al. (2013) could not find a significant relationship between deployment experience and postmilitary employment outcomes, while Loughran (2014) finds that, while veterans are more likely to report a work disability than nonveterans, the increased incidence of work disabilities did not account for a notable amount of the difference in their unemployment rates relative to nonveterans.

## **EXISTING EMPLOYMENT AND TRAINING PROGRAMS FOR VETERANS**

A variety of government and nonprofit programs are available to veterans, several of which are familiar to the general public.<sup>5</sup> One of the largest is the GI Bill, which provides education assistance to veterans. Education benefits have had a considerable influence on the recruitment

and retention of military service members. These benefits also incentivize many veterans to enter postsecondary schooling upon return, and this schooling provides substantial benefits to veterans. These include added training and the opening up of opportunities for a range of potential careers.

Most studies find significant returns to veterans' employment outcomes from education benefit programs. Simon, Negrusa, and Warner (2010) find that increases in the dollar amount of GI Bill benefits lead to an increased uptake of the program but also a decrease in military retention rates as service members leave to pursue formal education. Barr (2015) finds that the post-9/11 GI Bill increased the college enrollment of both active-duty service members and new veterans, but only modestly so. When evaluating education benefit programs for veterans, it is important to keep in mind that, in general, veterans enrolled in schooling are typically nontraditional students. They tend to be older, are more likely to have families, and may be more financially independent than other students.

Veterans also tend to have relatively generous unemployment insurance benefits through the Unemployment Compensation for Ex-Servicemembers (UCX) program. Loughran and Klerman (2008) find that the take-up rate of these benefits by recent veterans has been relatively high. For both veterans and civilian job seekers, generous unemployment benefits can aid the jobless financially while they look for work, but these benefits also have the potential to reduce their search efforts.<sup>6</sup>

There are also several programs focused on increasing the hiring of veterans through subsidies or tax credits. One such program is the Work Opportunity Tax Credit (WOTC), which focuses on the hiring of hard-to-employ populations, including both veterans and nonveterans. Heaton (2012) examines the effectiveness of the WOTC and finds that it has a positive impact on the hiring of disabled veterans, particularly older veterans. The private sector and several nonprofit organizations have also created programs focused on hiring veterans. Curry Hall et al. (2014) examine the 100,000 Jobs Mission, conducted by a coalition of private-sector companies, and find that, while the program has generally been successful, employers nevertheless have reported difficulties in matching veterans' skills to the requirements of available jobs.



Finally, there are several programs, such as workshops and job fairs, that focus on aiding veterans in their job search. Examples of these programs include the Transition Assistance Program and Transition Goals, Plans, Success (TAP and Transition GPS, respectively). These programs provide recently separated veterans with assistance in their job search and general support for transitioning to civilian life. Transition GPS, which is implemented within TAP, is a mandatory five-day workshop for almost all separating service members. Service Member Transition Summits are job fairs held at local military installations where employers also obtain resources for recruiting and retaining veteran employees. All of these programs are administered by the Department of Defense.

## **AREAS FOR FURTHER WORK**

The labor market experiences of veterans, particularly recent veterans, and the wide variety of existing programs available to them, afford several avenues for both policymakers and researchers to better understand and improve veterans' labor market outcomes.

As we have seen, one of the biggest challenges facing veterans is the matching of the skills they acquire in the military with the skill requirements of available civilian jobs. There is already a wide assortment of programs meant to ensure that recent veterans can best apply their skills to civilian work, but hurdles remain. Some issues relate to the nontransferability of certain military skills (for example, those focused primarily on combat), while others relate to the language and terminology used in the military for particular skills and occupations. These differences in language can obfuscate the match between military skills and civilian job requirements. Programs and online tools exist that focus on military skills translations and job search assistance. These help veterans retool their résumés in a way that best highlights their skill set for civilian work. A continued commitment to these efforts is likely crucial for new veterans entering the civilian labor market.

Related to the issue of skills matching is the rise of occupational licensing. According to a report published by the Brookings Institution, approximately 25 percent of employed individuals held a currently

active certification or license in 2015, up from roughly 5 percent in the 1950s (Nunn 2016). Much of the rise in licensing has occurred in jobs that do not require a college degree, and consequently in occupations that veterans are most likely to apply for. Oftentimes, veterans have acquired the skills required for these civilian jobs during their military service, but they do not have the necessary occupational licenses. This can have an adverse effect on the transition to the civilian labor market. For instance, veterans may have to repeat education or training that overlaps with their military experience in order to obtain an occupational license. Consequently, some veterans may choose alternative career paths that are not as good a fit for their skill set because of the barriers that occupational licensing creates. The government has only recently begun taking steps to improve the situation. The Department of Defense created its Credentialing and Licensing Task Force in 2012 to address the issue, but roadblocks remain. There is certainly more that policymakers can do to ensure that veterans have the licensing commensurate with their skill sets, as well as the information necessary for them to pursue the potential occupational licenses required, well before they transition to civilian life.

Finally, policymakers need to be cognizant of the composition of new veterans and the economic conditions at the times when veterans transition to the civilian labor market. Wars are times when the military generally relaxes its recruiting standards to attract and retain more service members. When wars end, the military reduces its ranks, and those who were recruited under the more lax standards are often the first ones mustered out. Many of these individuals would have difficulty finding new work independent of their military service. Furthermore, their separations are essentially equivalent to a layoff in the civilian labor market. A vast amount of research in labor economics shows that individuals often face relatively long periods of unemployment and long-term earnings losses following a layoff (e.g., Jacobson, Lalonde, and Sullivan 1993; Couch and Placzek 2010; Davis and von Wachter 2011). There is also a long line of research that finds that individuals who enter the labor market during an economic downturn have difficulty finding work and experience adverse effects on their long-term earnings (e.g., Beaudry and DiNardo 1990; Bowlus 1995; Kahn 2010). Consequently, policymakers need to realize that times of military drawdowns and periods of poor economic conditions will be times when veterans'

labor market prospects will be most vulnerable. Devoting additional resources and time to veterans transitioning to civilian life during these periods can mitigate some of the difficulties veterans will likely face in finding work.

## Notes

The views expressed here are the authors' own and do not necessarily reflect those of the Federal Reserve Bank of Chicago or of the Federal Reserve System. The authors can be reached at [jfaberman@frbchi.org](mailto:jfaberman@frbchi.org) and [thaasl@frbchi.org](mailto:thaasl@frbchi.org).

1. These and all subsequent statistics reported in this chapter are estimated from the Current Population Survey of the Bureau of Labor Statistics. Guo, Pollak, and Bauman (2016) also provide a more extensive review of the labor market experiences of veterans.
2. The estimates are from authors' calculations using Current Population Survey data.
3. We calculate estimates in this paragraph using the CPS outgoing rotation group for December 2016. Our demographic controls include age, gender, race, education, marital status, an interaction between gender and marital status, the number of household children under 18, and the state of residence.
4. Discrimination in hiring practices has been studied extensively for many groups of workers. Such discrimination can be explicit or implicit, with the latter being what the labor economics literature refers to as "statistical discrimination."
5. For a more thorough review of the types of programs available to veterans, see Schaefer et al. (2015) and Collins et al. (2014). Buryk et al. (2015) have an overview that focuses on major federal educational benefits programs.
6. For research on the relationship between job search and unemployment benefits, see Krueger and Meyer (2002), Chetty (2008), and Krueger and Mueller (2010), among others.

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# 11

## **Narrowing Gaps through Educational Investments for American Indians and Alaska Natives**

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In many ways, the Makah and Ysleta del Sur Indian reservations are quite different. The Makah Reservation is in the northwest corner of the Olympic Peninsula, a cool, rainy, rural area in the Pacific Northwest. This is the ancestral homeland of the Makah people and the location of their traditions as skilled ocean fishers and forest hunters and gatherers. In contrast, the Ysleta del Sur Pueblo lies near the Mexican border in the hot, arid, inland environment of what is now metropolitan El Paso, Texas. The Pueblo was established there by indigenous agricultural people forced to move from their homelands, which had been located in New Mexico hundreds of miles to the north of El Paso, under duress during the Spanish colonial period.

Despite very different environments, cultures, and histories, these reservations have a couple of important things in common. As discussed below, both have relatively high employment rates and relatively diverse economies, compared to many other reservations. And this commonality may not be an accident, for both also have been recognized for exemplary commitment to education and workforce development (NCAI Partnership for Tribal Governance 2016).

To put the accomplishments of communities like these in context, this chapter summarizes recent research on how and why educational and workforce outcomes for American Indian and Alaska Native (AIAN) individuals still lag behind those of whites in the United States. It then discusses policy implications and initiatives some AIAN communities are taking to close these gaps by promoting effective, cul-



turally appropriate education and workforce development programs. Because studies show that the level of AIAN educational attainment is an important correlate of AIAN workforce outcomes, we emphasize programs that target AIAN children and youth.

## **WORKFORCE OUTCOMES STILL LAG FOR AMERICAN INDIANS AND ALASKA NATIVES**

Employment and earnings are among the most basic indicators of workforce success. AIAN adults continue to lag behind white adults by both of these measures.

Discussion of AIAN workforce issues often centers on the high unemployment rate among AIAN adults, especially in tribal areas. However, Austin (2013, p. 5) makes the case that the percentage of adults who are employed provides a better benchmark for AIAN economic progress:

While the unemployment rate is the most commonly used measure of joblessness, it is not the best measure for populations suffering from chronically high unemployment. In these communities a significant segment of the population stops looking for work because their odds of finding work are very low. Once someone stops looking for work, she is no longer counted as unemployed. . . . Technically, to be “unemployed,” one must be looking for work. . . . The employment rate, or the employment-to-population ratio, is a better measure. . . . This measure simply provides the share of the population that is working. Whether or not individuals are actively looking for work does not affect the measure.

Austin uses U.S. Census data to show “a very large disparity” in employment rates between whites and American Indians. For prime-age (25 to 54 years old) American adults in 2009–2011, “the American Indian employment rate was 64.7 percent, 13.4 percentage points lower than the white rate. . . . [This gap] is more than four times the size of the decline seen nationally over the Great Recession. Thus, the data suggest that, relative to whites, Native Americans typically live under economic conditions comparable to a recession with impacts four times as harmful as the Great Recession’s overall effects” (Austin 2013, p. 5). Austin

goes on to show that the employment rate gap is somewhat deeper for AIAN adults who identify as single race (AIAN only) as compared to multiple race (AIAN and other), for men as compared to women, and for AIAN adults living on or near reservations as compared to those not.

Compounding AIAN adults' lower rate of employment is the tendency for employed AIAN adults to concentrate in occupations with a relatively low percentage of college graduates. After ranking 26 major occupations by the extent to which their workers have attended college (a measure of occupational skill requirements), Wise, Liebler, and Todd (2017) use U.S. Census data to show that the distribution of AIAN workers across these occupations has been significantly different from that of non-Hispanic whites from 1980 through 2008–2012.

In particular, AIAN workers are overrepresented in occupations with a relatively low percentage of college graduates (such as farming, fisheries, and forestry; building and grounds cleaning and maintenance; extraction; and construction) and underrepresented in most occupations with a relatively high percentage of college graduates (such as architecture and engineering; life, physical, and social sciences; law; health care; education; finance; and computer and mathematics). Paralleling Austin's findings, Wise, Liebler, and Todd (2017) show that occupational gaps are larger for single-race AIAN workers and for men, and that living on or near a reservation reinforces the tendency to work in an occupation with a relatively low percentage of college graduates.

A lower employment rate plus overrepresentation of AIAN workers in occupations with a relatively low percentage of college graduates translates into reduced earnings for AIAN adults. According to the 2016 American Community Survey, median annual earnings for all AIAN adults with earnings in the past year were about \$24,600, or roughly two-thirds of the corresponding figure for non-Hispanic whites of about \$36,700.<sup>1</sup> Men of both races earned more than women, but in percentage terms the earnings gap was bigger for AIAN men (who earned about 61 percent as much as their non-Hispanic white peers) than for women (72 percent). The gaps for AIAN men and women were somewhat smaller when looking at either full-time, year-round workers only or "other" workers (not full-time, year-round) only. However, the higher percentage of AIAN workers who lacked full-time, year-round work contributed to the larger overall earnings gap between AIAN and non-Hispanic white workers.

## **AIAN EDUCATIONAL ATTAINMENT IS ONE KEY FACTOR**

The studies reviewed above show a consistent pattern of subpar workforce outcomes for the AIAN population, from rates of employment to occupation to earnings. These studies and others also identify factors that are at least statistically associated with these AIAN workforce gaps. Chief among these factors is the relatively low level of AIAN educational attainment. However, the studies also show that measurable demographic factors such as education do not fully explain the gaps, leaving open the possibility that labor force discrimination may be an additional factor.

Table 11.1 summarizes two key measures of AIAN and white educational attainment since 1990. It shows that the percentage of adults 25 years old and older who have at least a high school degree and the percentage with at least a bachelor's degree steadily increased from 1990 to 2015 for both races. However, the rate of increase was similar for both AIAN and white adults, so that the percentage point gap in at least high school attainment fell slowly, and the percentage point gap for college attainment actually rose (because of the much higher 1990 base level among whites).<sup>2</sup> On the one hand, the increasing levels of attainment among AIAN adults are clearly a positive development that, other things being equal, tends to boost AIAN employment, occupational attainment, and earnings. On the other hand, the persistent gaps in AIAN-white educational attainment could contribute to continued gaps in workforce outcomes.

Research does in fact suggest that education is a key factor associated with poorer AIAN workforce outcomes. Based on a multivariate analysis that includes numerous demographic factors, Austin (2013) concludes that “the factor that does the most to increase American Indians’ odds of employment is higher education. . . . American Indians with advanced degrees have seven times the odds of American Indians with less than a high school education.” Similarly, Wise, Liebler, and Todd (2017, p. 20) find that “differences in educational attainment are the single most important explanatory factor behind the race-group differences in whether a worker is in an occupation group with relatively high education.”<sup>3</sup> They also find that educational attainment affects

**Table 11.1 Educational Attainment by Race (% persons 25 years old or more)**

|                         | High school degree or equivalent or higher |       |                         |
|-------------------------|--|-------|-------------------------|
|                         | American Indian /<br>Alaska Native         | White | Percentage<br>point gap |
| 1990                    | 65.5                                       | 77.9  | 12.4                    |
| 2000                    | 70.9                                       | 83.6  | 12.7                    |
| 2010                    | 80.5                                       | 90.7  | 10.2                    |
| 2015                    | 82.5                                       | 92.3  | 9.7                     |
| % change, 1990–<br>2015 | 126.0                                      | 118.4 | –2.7                    |
|                         | Bachelor's degree or higher                |       |                         |
|                         | American Indian /<br>Alaska Native         | White | Percentage<br>point gap |
| 1990                    | 9.3  | 21.5  | 12.2                    |
| 2000                    | 11.5                                       | 26.1  | 14.6                    |
| 2010                    | 14.2                                       | 31.4  | 17.3                    |
| 2015                    | 14.6                                       | 34.2  | 19.6                    |
| % change, 1990–<br>2015 | 157.2                                      | 159.2 | 7.4                     |

SOURCE: National Center for Education Statistics. For 1990 and 2000, 2004 *Digest of Educational Statistics*, Table 12. For 2010 and 2015, 2016 *Digest of Educational Statistics*, Table 104.40. Figures include Hispanic individuals.

occupational education levels for both sexes but to a greater extent for women than men.

Although education is the factor most strongly associated with workforce outcomes for AIAN adults, other factors also contribute. Austin (2013) finds that veterans and those who speak only English at home have higher odds of employment, and that disabled persons or, to a small degree, those living on or near reservations have lower odds. He also finds that AIAN employment rates differ significantly among U.S. states. With regard to the odds of being in an occupation with a relatively high percentage of college graduates, Wise, Liebler, and Todd (2017) also find small positive effects associated with English proficiency and small negative effects associated with living on or near a reservation.<sup>4</sup>

Multivariate demographic analyses like these frequently fail to fully account for the AIAN-white workforce gaps. On that basis, Austin (2013, p. 13) concludes that this “leaves open the possibility that racial discrimination may play a role” in low AIAN employment rates. Similarly, Wise, Liebler, and Todd (2017, p. 3) regard their inability to fully account for the underrepresentation of AIAN workers in high-education occupations “as a sign that deeper social and economic issues may continue to restrain the well-being of the AIAN population.”

Two recent studies shed additional light on the relationship between higher educational attainment and workforce outcomes. Keo, Peterson, and West (2018) study the extent to which a college degree is associated with higher earnings for AIAN and non-Hispanic white adults. Comparing outcomes of college graduates and those with only a high school degree, they confirm numerous earlier studies that find a college degree has a strong positive effect on participation in the labor force, employment, and earnings. For AIAN adults, for example, Keo, Peterson, and West find that completing college is associated with about a 7 percentage point increase in employment rates. This effect is larger than for non-Hispanic whites, meaning that AIAN workers experience larger increases in employment associated with higher education than their non-Hispanic white peers. However, the differential returns are not sufficient to close the non-Hispanic white–AIAN employment gap. They find a similar pattern when college effects are measured by labor force participation—higher returns for AIAN adults but not enough to fully close the racial gap in participation.

For earnings, the results in Keo, Peterson, and West (2018) are more complicated. On the one hand, the usual finding of much higher earnings among college graduates clearly applies to AIAN workers, given Keo, Peterson, and West’s result that an AIAN worker with a bachelor’s degree earns 52.3 percent more than an AIAN worker with no college course work. On the other hand, they find that the comparable gain for a non-Hispanic white college graduate with a BA is even higher, at 58.2 percent. They find similar patterns for other postsecondary degrees. These weaker AIAN earnings gains persist even when Keo, Peterson, and West control for occupation and field of study. Simulating what would happen if AIAN education levels converged with those of non-Hispanic white adults, other things being equal, they find that equalization in educational attainment would reduce the AIAN–non-Hispanic

white earnings gap by less than 10 percent.<sup>5</sup> They stress that although enhanced college attendance and completion are important in advancing the well-being of AIAN communities, the elimination of persistent racial earnings inequalities will require additional interventions, such as addressing systemic and institutional discrimination.

Leibert's (2016) detailed study of young workers in Minnesota complements Keo, Peterson, and West's national findings. She combines data on 200,000 Minnesota students who obtained a postsecondary credential between 2010 and 2013 with employment data on workers covered by Minnesota's Unemployment Insurance program.<sup>6</sup>

Leibert (2016) traces post-college graduation labor market experience while controlling for individual differences in race, academic degree, age, and other factors. Her results, partially summarized in Table 11.2, show that, compared to non-Hispanic whites as well as other racial and ethnic groups, Minnesota American Indian college graduates were overrepresented in part-time or temporary/seasonal employment and earned less than other graduates at almost every education and age level and persistently over time.

Leibert (2016) also finds that younger college completers (between the ages of 20 and 30) have smaller gaps in employment status and earnings. Compared to younger college graduates or workers with less than a bachelor's degree, AIAN and blacks who gain postsecondary degrees after age 30 fall relatively further behind non-Hispanic whites in finding well-paid, full-time jobs, as shown in Table 11.3. These age

**Table 11.2 Employment and Wage Outcomes in the Second Year after Graduation, in Minnesota (by race/ethnicity, completers of all award levels, classes of 2011–2013)**

| Racial/ethnic group | Median annual wages (\$) |                       | Employment status (%) |                       |         |
|---------------------|--------------------------|-----------------------|-----------------------|-----------------------|---------|
|                     | Part-time                | Full-time, year-round | Part-time or seasonal | Full-time, year-round | Unknown |
| American Indian     | 14,688                   | 37,389                | 46.6                  | 27.60                 | 25.80   |
| Asian               | 17,610                   | 42,015                | 42.0                  | 35.40                 | 22.60   |
| Black               | 16,762                   | 41,210                | 48.2                  | 31.60                 | 20.20   |
| Hispanic/Latino     | 16,656                   | 42,124                | 43.2                  | 31.50                 | 25.30   |
| Two or more races   | 16,295                   | 39,434                | 46.2                  | 30.60                 | 23.20   |
| White               | 18,480                   | 43,738                | 42.6                  | 34.30                 | 23.10   |

SOURCE: Re-created by authors from Leibert (2016).

effects are significant for the AIAN workforce because “American Indian graduates . . . are . . . older compared to other college graduates. . . . [Some] 39.7 percent of American Indian graduates completed a post-secondary credential after age 30, compared to 25.3 percent of [non-Hispanic] white and 22.5 percent of Asian graduates” (p. 4).

More clearly than Keo, Peterson, and West (2018), Leibert (2016) finds that occupation and field of study may be associated with workforce gaps. Her Minnesota-only sample shows that American Indian graduates are overrepresented in fields that typically lead to low-paying personal- or food-service jobs. In fields that typically lead to high-paying jobs, such as science, technology, engineering, and mathematics (STEM), she finds (p. 7) that American Indians are underrepresented “because fewer enroll and the large majority of those who enroll do not complete [their course of study].” Non-Hispanic whites who graduate in the typically low-paying fields earn not much more than their American Indian peers, but a much smaller share of non-Hispanic whites gradu-

**Table 11.3 Wage Outcomes by Race, Age, and Education Level, in Minnesota**

| Age at graduation | Education level      | Racial group    | Share of graduates employed full-time year-round (%) | Median annual full-time wages (\$) | Earnings ratio to whites (%) |
|-------------------|----------------------|-----------------|--|------------------------------------|------------------------------|
| 20 to 30          | Below bachelor’s     | American Indian | 20.8   | 29,764                             | 83.7                         |
|                   |                      | Black           | 22.1   | 32,186                             | 90.5                         |
|                   |                      | White           | 29.9   | 35,574                             | 100.0                        |
|                   | Bachelor’s and above | American Indian | 32.5   | 41,104                             | 94.6                         |
|                   |                      | Black           | 30.6   | 39,975                             | 92.0                         |
|                   |                      | White           | 33.5   | 43,473                             | 100.0                        |
| 31 to 55          | Below bachelor’s     | American Indian | 27.0   | 35,236                             | 82.4                         |
|                   |                      | Black           | 33.4   | 39,754                             | 93.0                         |
|                   |                      | White           | 36.9   | 42,754                             | 100.0                        |
|                   | Bachelor’s and above | American Indian | 32.4   | 47,837                             | 70.3                         |
|                   |                      | Black           | 43.4   | 54,539                             | 80.1                         |
|                   |                      | White           | 43.4   | 68,071                             | 100.0                        |

SOURCE: Re-created by authors from Leibert (2016).

ate in these fields. Leibert concludes that “American Indians . . . are missing out on excellent job opportunities in fast-growing occupations. . . . These results also demonstrate that racial minorities who pursue in-demand majors have good labor market outcomes” (p. 7).

## **POLICY CONSIDERATIONS**

The common finding that measurable demographic factors do not fully account for observed workforce outcome gaps and the more detailed findings of Keo, Peterson, and West (2018) and Leibert (2016) concerning outcomes for college graduates have implications for both tribal and nontribal policymakers. As noted above, the general inability to statistically explain workforce gaps raises the possibility that labor market discrimination continues to harm AIAN workers and job seekers. This suggests a need for deeper research as well as active enforcement of labor laws that prohibit racial discrimination in the workplace.

Their finding that earnings gains for AIAN college graduates, though large, are less than for non-Hispanic whites, suggests to Keo, Peterson, and West (2018, pp. 14–15) that AIAN adults “will have a harder time paying off college debt.” This, they argue, will discourage AIAN youth from pursuing higher education and thereby contribute to wealth and income inequality and lower intergenerational economic mobility. For these reasons, they favor financially aiding AIAN college students with grants rather than loans. Alternatively, in light of evidence that AIAN students are disproportionately motivated by a desire to help their tribal communities, they recommend consideration of loan-forgiveness programs for AIAN students, for example by tying forgiveness to “working in a job that directly gives back to the community.”

Leibert’s (2016) findings regarding the effects of age of completion and field of study lead her to some targeted recommendations. Based on her finding that racial disparities are much smaller among those who graduate college before age 30, she recommends programs that help AIAN and other minority students enter and complete college while still young adults. To ensure that minority students get the most out of their college degree, she suggests that policymakers “increase in-school support to ensure that minority students learn about employers’



expectations and hiring practices, set clear learning and career goals, gain early career experience especially in an industry related to the field of study, and conduct a well-targeted job search.” Like Keo, Peterson, and West (2018), she warns that reducing racial gaps in college completion will not be sufficient to eliminate racial disparities in labor market outcomes, because of evidence that “systemic barriers are preventing inclusion even for people who successfully complete an in-demand credential.” She sees the hiring of racial minority college graduates at high rates and competitive wages in some industries (e.g., nursing and residential care facilities) as evidence that barriers can be overcome but points out that other industries continue to lag (e.g., construction and manufacturing). On that basis, she suggests a general need for Minnesota’s business community to “increase recruitment and hiring of qualified racial minorities.”

## TRIBAL COMMUNITY INITIATIVES

The Makah Tribe and Ysleta del Sur Pueblo Tribe demonstrate how tribal communities are promoting higher educational attainment as part of broader strategies to eliminate AIAN workforce gaps. To pique students’ interest in college generally and STEM fields specifically, the tribe has cosponsored a fisheries management internship with hands-on and academic components. In recent years, as many as 100 percent of Makah reservation high school graduates have gone on to postsecondary education, frequently with financial aid from the tribe (NCAI Policy Research Center 2012). Similarly, the Tigua people of Ysleta del Sur Pueblo are addressing Leibert’s recommendation “that minority students learn about employers’ expectations and hiring practices” by helping to fund the Tigua Next Generation Program. It places 14- to 21-year-old Tigua youth in five-week paid summer jobs to give them experience with a range of potential careers and help them set their educational and occupational sights high (NCAI Partnership for Tribal Governance 2015).

These two tribes are part of a broad pattern of tribal educational and workforce initiatives that range from cradle to career. A leading example is the Coeur d’Alene Tribe, whose “education pipeline” approach to

workforce development comprehensively supports and monitors tribal members' workforce development (NCAI Partnership for Tribal Governance 2016). The Pipeline originated about a decade ago, when the four-year graduation rate at the main high school serving tribal (and other area) youth was under 35 percent. At about that time, in the midst of the tribe's foundation-funded visioning and planning process aimed at improving the quality of reservation life,<sup>7</sup> the tribe's Department of Education ("Department") was asked to explain its work to tribal officials.

The Department ultimately responded by mapping out an "education pipeline," which includes 15 stages of workforce development from infancy to postgraduate degrees, with monitoring of the numbers of tribal and nontribal youth at each stage and stage-specific programs designed to support their progression. The Department began using the pipeline concept to collect data, monitor progress, and manage its responsibilities across the entire cradle-to-career path. That allowed the Department to identify "ruptures," where too many youth were failing to progress, and then target resources and new programs to fix them. By the 2014–2015 school year, when an additional set of student supports was put in place for high school students, the four-year high school graduation rate had reached 55 percent. Over the next two years, these supports reached more students, and the four-year graduation rate rose to about two-thirds.<sup>8</sup> The tribe also has entered into partnerships with regional colleges and universities to support the next stage of learning for future tribal workers, including college programming to deepen tribal students' cultural identity and civic pride in hopes that they will bring their new skills back to the community.

Few tribal or nontribal communities can boast a fully articulated and comprehensive workforce development framework like that which is in place at Coeur d'Alene. However, many AIAN communities across the country have innovative education and workforce development programs that collectively span the same cradle-to-career range of activity, as shown by the following examples and sources of information:

**Early Childhood Development (ECD) Programs.** Head Start, Early Head Start, and an array of other ECD programs are available in many AIAN communities, although access to high-quality programs remains an issue. The White Earth Nation in Minnesota has a flagship

ECD program and for 17 years has sponsored a highly regarded ECD professional development conference on the science of brain development. Evidence that high-quality ECD programs are the foundation of both cultural preservation and workforce development in Indian country was presented at the Federal Reserve Bank of Minneapolis during the Center for Indian Country Development's October 2016 conference, titled "Early Childhood Development in Indian Country."<sup>9</sup> The conference presented examples from multiple tribes and programs, including the feasibility and benefits of the growing number of programs that combine high-quality ECD activities with tribal language immersion and cultural preservation content. Better Way Foundation, a conference participant, and the Shakopee Mdewakanton Sioux Community subsequently partnered with the Center for Indian Country Development to seek new ideas for sustaining and enhancing both early childhood development and early childhood nutrition programs in Minnesota's tribal communities. In 2017, this "Healthy Communities, Healthy Nations" initiative led to several dialogues on ECD needs and next steps with providers, funders, and tribal leaders in Minnesota, as well as a set of recommendations for further action over the following three years (Shakopee Mdewakanton Sioux Community et al. 2018).

**Work Experience and Career Planning Programs.** A number of tribes, including the Makah, Coeur d'Alene, Chickasaw, and Saginaw Chippewa, expose their youth to information about prospective careers or work experience, often via internships or summer jobs in tribal government or tribally owned enterprises (NCAI Policy Research Center 2012). Other organizations provide similar experiences for AIAN youth from across the country, sometimes in a specific field. For example, the Indigenous Food and Agriculture Initiative at the University of Arkansas School of Law conducts a multiday Native Youth in Food and Agriculture Leadership Summit each summer for a rapidly growing number of participants from around the United States.<sup>10</sup>

**Support for AIAN College Students.** Adapting to college life is difficult for many students, but AIAN students often face an additional combination of challenges related to low incomes, few family mentors with college experience, their first extended absence from a close-knit Native culture, and the feeling of belonging to a small minority group

that is at times invisible and at other times disrespected. Programs that help students survive and thrive on campus range from the very local, such as the Payne Family Native American Center at the University of Montana and similar student centers on other campuses, to national programs such as College Horizons, the Native Pathways to College program of the American Indian College Fund, and scholarships for advanced degrees offered by the American Indian Graduate Center.

The growth of tribal colleges and universities in recent decades has also helped many youth attend college at low cost while maintaining important local family and cultural ties. Articulation agreements between tribal colleges and larger regional institutions can help students to transfer and continue postsecondary studies elsewhere. The comprehensive Wokini Initiative announced by South Dakota State University (SDSU) in 2017 will “offer programming and support to enrolled members of the nine tribal nations in South Dakota interested in gaining access to educational and advancement opportunities at South Dakota State University . . . [and] will also enhance research and outreach collaborations and programs with tribes, tribal colleges and other tribal organizations in the state.”<sup>11</sup> A groundbreaking aspect of the Wokini Initiative links its funding to land taken from Indian tribes in the nineteenth century and used to establish SDSU as the state’s land grant institution. These and other strategies were discussed at the Federal Reserve Bank of Minneapolis Center for Indian Country Development’s “Tribal Community Perspectives on Higher Education” conference in September 2017.<sup>12</sup>

**Programs for Adults.** This chapter primarily focuses on workforce development programs aimed at children and youth. This focus reflects the significance of education as a factor associated with AIAN workforce gaps as well as the authors’ areas of relative expertise. However, the National Congress of American Indians (NCAI) maintains an active dialogue and set of resource materials on traditional adult-oriented workforce development programs and policy issues. We invite readers to visit the NCAI website ([www.ncai.org](http://www.ncai.org)) and the materials there associated with NCAI’s Partnership for Tribal Governance (PTG), which works with tribal nations to document their innovative approaches to workforce development (many of which we have drawn on here). In addition, a number of successful workforce development training programs at tribal colleges and universities have been profiled in *Tribal*

*College: Journal of American Indian Higher Education*, including the American Indian Higher Education Consortium/Tribal Colleges and Universities Advanced Manufacturing Network Initiative funded by the U.S. Department of Energy's National Nuclear Security Administration (Kuslikis 2018); building trades apprenticeship programs sponsored by Iñisaġvik College in Alaska (Brown 2018); the Tribal College Consortium for Developing Montana and North Dakota Workforce (DeMaND), which used equipment simulators and other innovative practices to accelerate workforce training, especially for jobs in the booming shale-oil sector, accessible to tribal members at four tribal colleges and universities in Montana and North Dakota (Worley 2014); and Leech Lake Tribal College's successful peace officer training program, early childhood education degree program, and Integrated Residential Builder degree program, which has recently expanded to include internships leading to careers as photovoltaic, or solar panel, installers (Buckland 2018).

## CONCLUSION

Workforce outcomes for American Indians and Alaska Natives continue to significantly lag behind the outcomes of whites in the United States. We have reviewed evidence suggesting that differences in educational attainment account for much of this gap, although both subtle and overt labor force discrimination may also play a role. AIAN communities and tribal governments recognize the educational issues and are taking steps to close the attainment gaps. Progress has been uneven and too slow for many of the children and families affected. Neel Kashkari, president of the Federal Reserve Bank of Minneapolis, says the continuing large gap in AIAN educational achievement is "absolutely unacceptable"; Kashkari calls for "decisive action and improvement."<sup>13</sup> Leaders in AIAN communities, tribes, and tribal educational institutions must rise to this challenge, but they cannot do the job alone. The federal government's responsibility to the AIAN people of the United States, as well as the best interests of state governments seeking to build strong twenty-first century workforces, call for decisive action as well. This action includes the provision of reliable and adequate funding for

a national American Indian and Alaska Native “education pipeline” and high expectations for its educators and students. As President Kashkari put it, “Our nation cannot afford to shortchange the current generation of American Indian and Alaska Native students, let alone future generations.”

## Notes

The views expressed here are those of the authors and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

1. The figures in this paragraph are derived from the U.S. Census Bureau’s 2016 American Community Survey one-year estimates and are based on earnings over the past 12 months for individuals 16 years and over.
2. The percentage-point gap in high school attainment shrank between 1990 and 2010 because the rate of increase among the AIAN population was sufficiently higher than for whites to outweigh the relative difference in initial levels of AIAN and white high school graduation rates. By contrast, the initial 1990 percentage point gap in AIAN and white attainment of bachelor’s degrees was larger, and the subsequent rate of increase for AIAN individuals only slightly higher. As a result, the 1990–2010 percentage point gain in bachelor’s degrees for whites outstripped the gain for AIAN individuals because the much higher base level for whites had a larger effect on changes in the percentage point gap than the only somewhat more rapid pace of increase for AIAN individuals.
3. This result may seem trivial or obvious by definition, but it is not. As Wise, Liebler, and Todd (2017) note, the educational attainment of individual AIAN adults need not be closely related, on average, to the population-wide educational level associated with occupations. The AIAN population is simply too small, relative to the overall population that is used to rank occupations by educational level, to yield a significant automatic link. Furthermore, Wise, Liebler, and Todd obtain similar results about the strong explanatory power of education if they first rank occupations by income instead of by education. Thus, the stated result is meaningful and informative.
4. The negative effect of reservations on occupational education level may reflect the outsized concentration of reservation jobs in the government sector and in the casino-linked industries of “arts/entertainment/recreation” and “accommodation and food services,” as documented in Akee, Mykerezi, and Todd (2017).
5. The simulations do not, however, account for full market adjustments, such as how wages by occupation might change if the supply of minority college graduates were to rise substantially.
6. Excluded are graduates who went to work for the federal government, were self-employed, or left the state; graduates under 20 or over 55 years old; individuals who did not report any race or reported as “Native Hawaiian” or “Other Pacific

- Islander”; individuals who reported being “nonresident alien”; and graduates in a few academic programs that lack reliable wage records or student records.
7. This was one of the Horizons community development programs funded by the Northwest Area Foundation and implemented with additional support from, in this case, the University of Idaho Extension Service.
  8. Because the number of students involved is small—about 10 to 12 in each ninth-grade cohort tracked through graduation—further monitoring over more years will be needed to assess the statistical significance of these increases.
  9. See <https://www.minneapolisfed.org/indiancountry/events/all-events/early-childhood-development-in-indian-country> for conference materials and videos (accessed September 4, 2018).
  10. See <http://indigenousfoodandag.com/youth-summit> (accessed September 4, 2018).
  11. See <https://www.sdstate.edu/wokini> (accessed September 4, 2018).
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# 12

## **The Middle-Skills Gap**

### **Community-Based Solutions to Meet Employer Demands**

Maurice A. Jones

Official statistics indicate that the economy is strong. The April 2018 national unemployment rate of 3.9 percent was the lowest since 2000 (Bureau of Labor Statistics 2018b; Kitroeff 2018). In many urban neighborhoods and rural communities across the country, however, high unemployment rates persist, and people are struggling to achieve financial stability. Whereas the Atlanta metro area currently has one of the highest job-growth rates in the nation (Bureau of Labor Statistics 2018a) and relatively low unemployment, in nearby Vine City, a neighborhood just west of downtown, the unemployment rate was 19.4 percent, and more than 40 percent of residents lived in poverty as of 2016 (U.S. Census Bureau 2018). The unfortunate reality is that many low- and moderate-income people face persistent barriers to financial security and employment, despite living in cities that are experiencing strong growth.

At the same time, many companies cannot find qualified talent to fill jobs, particularly “middle-skills” positions. These positions generally require more than a high school diploma but less than a four-year bachelor’s degree, as well as additional credentials like technical certifications and associate degrees. Many applicants lack these technical skills in addition to basic reading, writing, and math skills. Yet as recently as 2015, 73 percent of employers reported that they expected their demand for middle-skills positions to increase (Chanmugam, Smith, and Worrell 2014). Estimates suggest that between now and 2024, the U.S. economy will create 16 million middle-skills job openings (National Skills Coalition 2017).

There is a supply-and-demand mismatch at play in the market. Employers have a clear and growing demand for workers with training and qualifications to fill middle-skills positions, while low- and moderate-income communities have a supply of millions of residents who are under- and unemployed but lack the skills necessary to meet this demand. Middle-skills positions offer financial stability and economic security (some of these jobs pay at least \$55,000 according to Carnevale et al. [2017]) and thus a path to the middle class. Solving this market mismatch requires preparing people to meet employers' demand for technically proficient workers, a process that could transform high-poverty communities and further strengthen our overall economy.

As secretary of commerce and trade for the Commonwealth of Virginia, I saw firsthand the challenges and transformative possibilities of solving this market mismatch. In 2014, we identified that the state would need to replace more than 930,000 retiring workers and fill another 500,000 jobs by 2022—the combined total represents about one-fifth of the working population (U.S. Census Bureau 2014; Virginia Board of Workforce Development 2014). We further determined that 50 to 65 percent of the positions could be classified as middle skilled.

On one of my tours through the state, I met a man in his thirties whom we had connected to a middle-skills career pathway. Hailing from an extremely poor part of rural Virginia, this young man had recently left prison after serving several years for drug-related charges. He had never held a traditional job. Through the Commonwealth's workforce efforts, he began attending an employment services program that connected him with a welding course, from which he eventually earned an American Welding Society certification. Shortly thereafter, a local construction company hired him at a wage that propelled his ascent into the middle class.

This economic impact in and of itself was certainly significant, but what struck me most about the young man's story was how this job had transformed him on a personal level. He reported having a new level of confidence that allowed him to support his formerly estranged daughter and his community in a way he could not have imagined previously. By learning a trade, he had become a market participant equipped with technical skills that had value. He could leverage those skills to seek out new opportunities that enabled him to earn a living wage. His story crystallized for me the notion that cultivating a talent supply to meet this

market demand is not only an economic imperative but also a human one. Finding a way to integrate undervalued talent successfully into the workforce gives workers market power and the satisfaction that comes from having a value that the market will reward, which can transform those workers' lives and their communities.

Creating a work-ready talent supply to meet an enormous market demand, however, is not an easy task. Even in Virginia, where we had an extensive public system of 15 local Workforce Development Boards, 24 state-level programs, a new state-funded pay-for-performance model, and the Virginia Board of Workforce Development, it was difficult to reach our target populations. Often, chronically unemployed people whom we desperately wanted to serve did not utilize the available resources. Some were not aware they existed. Others faced logistical challenges in arriving at the program locations. And those who did enroll in our programs often felt uncomfortable about opening up to staff in these completely new environments.

The sheer magnitude and scale of this public system made it challenging to adjust programs to meet the needs of any particular community or specific population. Virginia's workforce development programs, not unlike similar programs across the country, had to prioritize geographic breadth to serve the entire state over personal depth with any one community or client. While some who participate in this massive public system, like the young man I met, can find a way to succeed without much personalized attention, many more struggle to develop the skills to enter the workforce and become full market participants who can command a living wage.

## **A COMMUNITY-BASED WORKFORCE SOLUTION**

In truth, the mechanism for effectively supplying talent from low- and moderate-income communities to compete for middle-skills jobs cannot rely on the traditional public-sector workforce system alone. Rather, we must incorporate community-based, private organizations into the workforce development apparatus to develop a talent supply more efficiently. Research shows that training low-income individuals for careers in high-growth sectors can positively impact their economic

well-being (Hendra et al. 2016), with the biggest boost coming from partnerships with experienced community organizations (Schaberg 2017), many of which can reach individuals with untapped talent and help guide and support them through the training process. Private enterprises, including nonprofits, have the trust of communities and the flexibility to customize workforce programs and services to meet a diverse set of employers' shifting demands.

Part of the reason I was so excited to join the Local Initiatives Support Corporation (LISC) last year was because of its focus on partnering with community-based organizations. LISC believes partnerships with organizations that are *of the community* and that enjoy the trust of residents through long-term relationships with them are the most effective way to deliver services that will advance the progress of low- and moderate-income communities across the country. LISC's Financial Opportunity Center (FOC) approach in particular is one model that relies on partnerships with community-based private enterprises, such as faith-based organizations and community colleges.

Specifically, the FOC model transforms community-based private workforce development enterprises into full-service sites that have devised solutions for the two issues many traditional workforce programs face—recruitment and retention. By offering employment services in the very communities where low- and moderate-income people live and using a one-on-one coaching approach, FOCs can get these target populations through the door and coming back. Community members are often already aware of these organizations because of the deep roots they have in the communities. This connectedness facilitates the formation of long-term relationships with clients. Moreover, FOCs help create a supply of workers that are not only technically proficient but also well grounded—workers that are capable of achieving economic mobility as well as maintaining active civic and family lives outside work, empowered by living wages and stable finances.

## **A FOUNDATION OF FINANCIAL WELL-BEING**

Upon a client's arrival at the FOC, the community-based organization pairs the client with a coach to work on three programmatic areas of

the bundled services model—1) financial counseling, 2) employment services, and 3) income support services. Coaches serve as the client's primary point of contact for all of his or her questions. In some cases, they might share their cell phone numbers and strive to become their client's trusted advisers. Although workforce programs, including some I oversaw in Virginia, also offer one-on-one financial counseling, the FOC model is distinct in its commitment to using individual coaches to address clients' financial stability as the foundation for their workforce attachment and skills development.

This focus on financial stability is absolutely essential for getting people living in low- and moderate-income neighborhoods positioned to absorb all the benefits of employment and, eventually, on track for a middle-skills career. In 2016, the Pew Charitable Trusts reported that over two-thirds of people living in high-poverty areas either spend more than they earn or just break even every month. People in these communities are often more likely to struggle to meet basic financial obligations, such as paying their mortgage, rent, or utility bill (Pew Charitable Trusts 2016). So, as a first step at each FOC, a coach works with the client to organize his or her financial life. The coach helps the client develop a plan for managing the client's expenses and reducing existing debt. Coaches teach clients strategies to increase their credit scores. Our data indicate these efforts work. FOC clients are more likely than those going through traditional workforce programs to pay their bills on time, and they have bigger reductions in non-asset-related debt (Roder 2016).

This financial organization also allows them, once they have a job, to feel as though the work is actually paying off, because they can see a path toward a more stable financial future. They start performing better at work because they are less stressed about how they will pay their bills. In fact, FOC clients who take advantage of these combined services significantly improved their ability to retain a job in the second year after program entry (Roder 2016).

## **CREDENTIAL BUILDING**

Preparing people for middle-skills jobs, however, requires more than just stabilizing their finances. We also need to have a laser focus

on developing their educational and technical skills to meet the talent demands of local employers.

Many new FOC clients test between a sixth- and eighth-grade level of literacy and numeracy on the Test of Adult Basic Education (TABE), but many credentialed training programs typically require a tenth-grade literacy and numeracy level.<sup>1</sup> The Bridges to Career Opportunity (BCO) program, which LISC piloted in 2013 at select FOC sites, provides specialized support to fast-track clients through academic readiness programs to help them reach the grade levels needed to be successful in occupational skills training programs. The academic readiness training focuses on basic reading and math skills that are contextualized to the clients' chosen career tracks. The curriculum also includes employability skills, and it may feature employer partners as guest speakers.<sup>2</sup>

In addition to helping clients improve their reading and numeracy skills, coaches work with clients on applying for training programs and jobs that will put them on a career ladder. Importantly, coaches continue to provide job retention, income support services, and financial-stability support services throughout the training programs in order to maintain clients' financial well-being. The FOC and BCO models together can quickly move people from sixth-grade reading and math competencies to having the skills necessary to earn family-sustaining wages. Research has shown these kinds of real-world, "bridging" activities to be effective in increasing retention in community colleges (Martin and Broadus 2013), and LISC is bringing the community relationships and know-how of local partners to the BCO model to help reach individuals who might otherwise not be served by these larger institutions. Indeed, LISC's own research has shown that within six months of entering one of our FOCs, clients have a 74 percent job placement rate, and 76 percent of clients have increased their net income (Rankin 2015).

## **MATCHING TALENT AND EMPLOYERS**

Individual client stories reveal the program's transformative impact. Jovan (last name omitted) was raised in Chicago public housing projects, sold drugs, and eventually served time for a felony conviction. After leaving prison, he remained unemployed for more than seven

years. Many formerly incarcerated people face a similar predicament. More than two-thirds end up being long-term unemployed (deVuonopowell et al. 2015). In 2015, Jovan declared bankruptcy, which served as a wake-up call to find “a career, not just a job.”

This resolution led him to the North Lawndale Employment Network (NLEN), an FOC/BCO community-based partner in the North Lawndale neighborhood on Chicago’s west side, where more than 50 percent of adult residents have a criminal background and 94 percent of residents live below the federal poverty line (NLEN 2012). In addition to working with his coach to design a financial plan, Jovan enrolled in NLEN’s U-Turn Permitted, a four-week job-readiness program for men and women who have a felony background, which included lessons on how to broach his felony conviction with employers. Two weeks after graduating from that program, he was referred by his coach to a front-desk greeter job at a community services building located in North Lawndale.

While working, Jovan completed NLEN’s Bridge Literacy program to improve his reading skills so he could enter Moving Forward, a diesel mechanics training program offered with guidance from the Chicago Transit Authority (CTA). He had always been good at working on cars, so the Moving Forward program was a good fit. In August 2016, the CTA hired him as a full-time apprentice through its Second Chance program, and he passed his repair, mechanic, and bus operator exams. In March 2017, he received a promotion to become a rail car repairman, a position that paid him \$21.90 an hour, and he now sees a career track to management. Jovan’s coach also worked with him to increase his credit score by 144 points in 18 months. He is now enjoying financial stability for the first time in his life.

Jovan’s story underscores two key elements of the BCO program. The first is the incredible persistence it takes for both the community-based organization and the client to overcome obstacles to employment. In order to achieve such significant outcomes in a relatively short period of time, Jovan had to utilize all of the resources available at NLEN. While our local partners and the FOC/BCO model cannot imbue this sense of commitment in all of their clients, the FOC/BCO model does a remarkable job in breaking down any barriers that arise in clients’ pathways to skill development and employment. The model is able to



do this because of the partners' local presence in the communities and their ability to adapt to clients' needs.

For example, because transportation can be a challenge for many clients, NLEN recommended resources to Jovan that were conveniently located. The transitional job he obtained at the community services building was in North Lawndale. The Moving Forward credentials program that NLEN offered was located in the neighborhood as well. And, of course, his coach at NLEN was the driving force behind his connection with these resources. Rather than having to research opportunities independently to develop a career strategy, Jovan was able to rely on his coach, who worked with him to design a concrete plan. He even reported that having access to NLEN's physical space and computer lab became a welcome refuge when he needed to study or focus.

Another vital component of the BCO model Jovan's story highlights is the need for strong partnerships with employers. Pairing the Moving Forward credentials program with guidance from the CTA provided the contextualized training that can be beneficial to program participants. Community-based organizations are well positioned to identify these employer partners and work with them to cultivate a talent supply that will meet their hiring needs. A large government workforce-development infrastructure cannot realistically offer this level of customized service to enable staffers to understand and ultimately match an individual employer's hiring demands with a supply of workers educated in that employer's own language through the contextualized training. However, in the future, especially as we look to fill the middle-skills gap, it is essential that employer partners also commit to hiring program participants into career positions within their organizations, just as the CTA does through Moving Forward. Doing so provides a crucial link between the educational and professional environments and can position clients for a successful transition to full-time employment.

Pairing the FOC/BCO model with the health field has also offered significant opportunities for advancing clients' wage progression and putting them on the path to financial stability. "Sarah," a client at one of our Houston-based programs, first entered an FOC in 2014. Though she had experience working in hospitals in her native Ethiopia, she had been unable to secure a health-care position in the United States. At the FOC run by the Alliance for Multicultural Community Services, Sarah

enrolled in a Certified Nursing Assistant (CNA) program. Fairly quickly, however, her coaches realized she wanted to do more in the health-care field than just attain her CNA certification. They recommended her to another local FOC site managed by Wesley Community Center, where she was able to enroll in its BCO program and continue to increase her knowledge of the health-care sector. Through Wesley, Sarah was able to receive more specialized phlebotomy training at Houston Community College, which she completed in August 2015. Before entering the FOC, Sarah had mostly been working in warehouse jobs making near minimum wage. By September 2014, after working with her FOC coach, she had obtained a full-time job at an assisted living facility, making \$9.00 an hour, and she later moved on to become a patient care technician at a Houston-area hospital, earning \$13.66 an hour.

Despite this success, by December 2015, Sarah was feeling frustrated about the lack of advancement opportunities at her job and the low wages she earned, but she wasn't sure how to make a change. She decided to return to Wesley Community Center and seek additional guidance. Sarah met with her employment services coach for several sessions aimed at increasing her self-esteem and confidence as she contemplated looking for a new job. Her coach also encouraged her to attend an "employment boot camp" at Wesley that prepares participants for paid internships at the Houston Methodist Hospital, located in the Texas Medical Center. Sarah completed the program and applied for an internship, but was instead offered a full-time, Patient Care Assistant II position at the hospital with a wage of \$16.50 an hour. Because of the training and coaching Sarah received through the FOC and BCO programs, she attained a new level of confidence about her career and a living-wage job.

## **EXPANDING THE IMPACT**

Both Jovan's and Sarah's stories demonstrate that the work of preparing the under- and unemployed to compete in the workforce is incremental and highly personal. The FOC/BCO model, however, offers opportunities for scaling and replication, which will be necessary to continue narrowing the middle-skills gap. In fact, using strong

oversight and data collection coupled with rigorous outside evaluations (Roder 2016), LISC has already shepherded the model from a pilot program with four centers in Chicago to nearly 80 centers in 30 cities, serving more than 20,000 people of all ages and races. We have worked with a diverse set of community-based partners to embed FOC/BCOs into their existing programs, and we are also constantly looking to work with new partners to expand the program and increase its impact.

For example, we are beginning to explore how we can bring the model into rural environments, where resources may be more dispersed, but where people's need for these services is incredibly great. By adopting a "mobile" FOC model, we are hoping to maintain the local advantage of our urban programs, while providing flexibility to cover wider geographic areas that might lack public transportation. We are also thinking about incorporating digital literacy in the professional skills training programs the BCOs offer. No matter the industry, fluency with basic computer programs has become and will continue to be a necessity in the modern economy.

Moving forward, we are also seeking to ensure that clients progress toward earning a living wage through their participation in FOC/BCO programs. Over 50 percent of American workers are making less than \$30,600 a year (Social Security Administration 2018). Across all of the high-poverty areas where LISC works, such as the North Lawndale area of Chicago, the median per capita income is \$18,600 (U.S. Census Bureau 2018). Getting people into jobs is not enough: we need to put them on a path to earning wages that will enable them to provide comfortably for their families, and we need to steadfastly support them on that journey. Only then can our clients and communities truly enjoy economic stability.

At LISC, we work to forge resilient and inclusive communities of opportunity across America—great places to live, work, visit, do business, and raise families. In pursuit of this mission, we strive to find and incubate market-based solutions to solve social problems, and we relish our role of convening local players to tackle these issues.

The FOC/BCO model is one such solution. By stabilizing low- and moderate-income clients' financial lives and supporting them as they enter the workforce, the FCO/BCO model offers a proven and efficient method for supplying underused talent to meet employers' growing demand for filling middle-skills jobs (Rankin 2015; Roder 2016).

Solving for this middle-skills gap on a national scale, however, actually requires a local solution. By investing in and working with community-based, private partners, we can catalyze opportunity in the communities where this talent lives. Our nation's future prosperity depends on getting it done.

## Notes

1. One example is Creating IT Futures, a national effort of the Computing Technology Industry Association (CompTIA) that is involved in multiple federally funded initiatives by TechHire, a network of communities, educators, and employers' initiatives. The Creating IT Futures program requires a minimum tenth-grade math and reading level prior to initial application acceptance. See Creating IT Futures (2018).
2. For more information about the BCO program, see LISC (2018).

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# 13

## **Manufacturing Connect**

### **Teaching Advanced Manufacturing Skills to Inner-City Students**

Rick Mattoon  
Susan Longworth

The purpose of this summary is to introduce readers to the Manufacturing Connect program, its intended outcomes, and the challenges faced in achieving those outcomes. The motivation for creating this summary was driven in large part by the important question raised by the program—does manufacturing, in particular advanced manufacturing, provide sustainable career opportunities for disadvantaged youth within their communities?—with an eye toward the potential for replicability in other schools and communities. We the authors are both affiliated with the program on a volunteer basis, as a board member (Mattoon) and advisory committee member (Longworth), and those roles have informed our impressions as put forth in this chapter.

Manufacturing Connect (MC) is the flagship program of the Chicago-based Manufacturing Renaissance organization. Its creation is based in several broad economic and social trends. The first trend has been the disinvestment and job loss in predominantly African American communities in Chicago that was often accompanied by a decline in manufacturing jobs in these neighborhoods. The second trend is the increasing difficulty that existing manufacturers have had in finding skilled workers. The final trend has been a growing desire in the city to provide a career-focused high school education option that can allow non-college bound workers access to better-paying jobs. These trends motivate broader social goals to encourage manufacturing growth in urban areas and to create economic opportunity in disadvantaged communities. As such, the MC program has complex goals that go beyond the traditional training program, which often simply focuses on improving employ-



ment outcomes for the participant. To execute its strategy, Manufacturing Renaissance depends on a stakeholder network to support the program. This network includes local manufacturers, community organizations, organized labor, the Chicago city government, and the Chicago Public School system.

## **WHAT IS THE MANUFACTURING CONNECT PROGRAM?**

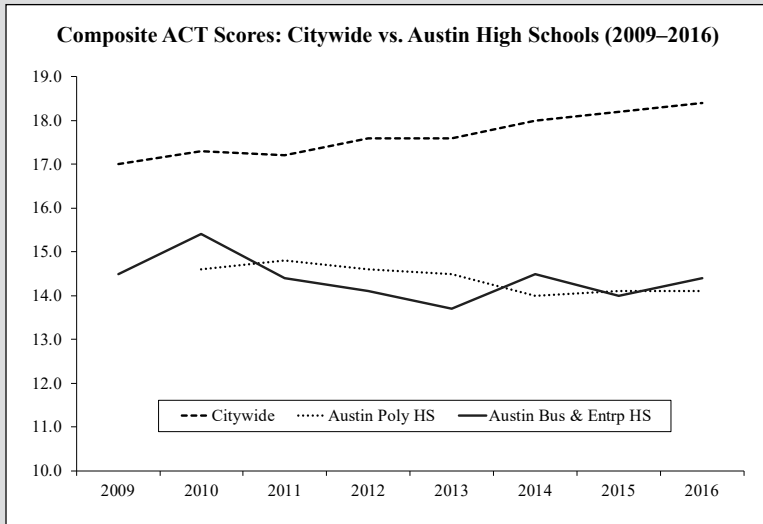
While started with primarily foundation support, Manufacturing Connect currently is funded for the most part by a four-and-a-half-year grant from the U.S. Department of Labor that supports the high school program.<sup>1</sup> Other public support funds the Young Manufacturers Association program, which focuses on young adults, ages 18–29.<sup>2</sup> The Chicago Teachers Union Foundation supports the Instructor’s Apprenticeship for Advanced Manufacturing, which provides teacher training. A fourth program focused on adult training began in February 2017 and operates under the auspices of a partner agency.

A clear challenge for the program has been issues faced by the high school in the Austin community (see Box 13.1) in which the program is embedded. Austin, located on the west side of the city, is the largest of Chicago’s 77 officially designated community areas. Austin College and Career Academy is a general-enrollment high school that has seen significant enrollment declines and has experienced academic performance issues. The school currently has just under 300 students (approximately 25 percent of its capacity). As a result, it is unable to provide and fill seats for a comprehensive general high school curriculum, making it difficult to both attract and retain students. In addition, the school has had six principals in the last 10 years.

MC is currently staffed by 11 people, with 9 assigned to the high school program and 2 to the Young Manufacturers program, which began in 2016. The variety of positions in the high school program illustrates the desire of the program to provide not only direct instruction but also supportive student services to increase the chances for success for student participants. In addition to a machining instructor, positions include a parent coordinator, an industry coordinator, a mentoring coordinator, a case manager, a tutor, and a postsecondary coach.

**Box 13.1 Understanding the Context: Chicago’s Austin Neighborhood**

The Manufacturing Connect program is currently housed within the Austin College and Career Academy, a merger of three underutilized high schools effective as of the 2015–2016 school year. The school currently has 287 students, 99 percent of whom are African American. The preexisting schools had a utilization rate of 30–35 percent in 2015, which motivated the merger. Year-end attendance rates (EOY 2016) at the three schools prior to consolidation were at least 10 percentage points below system-wide rates, although some progress had been made in recent years. Student achievement (as measured by ACT scores) also lags behind that of the district.<sup>1</sup>

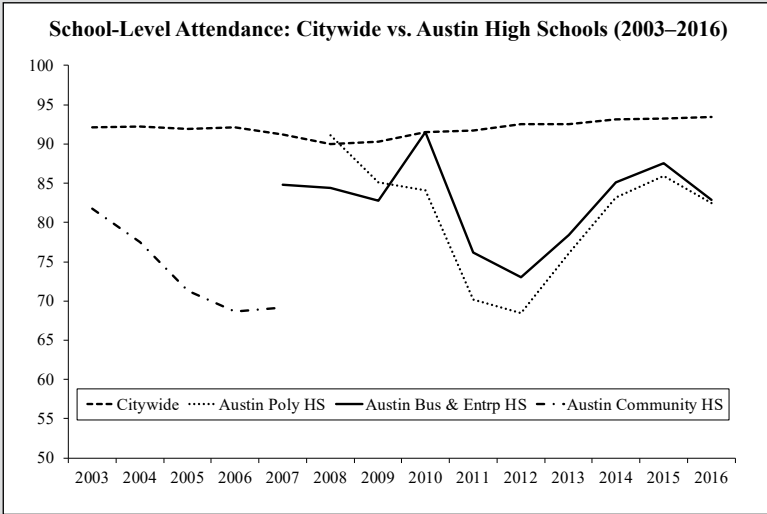


SOURCE: Authors’ compilation using data from schools (CPS 2018).

The struggling performance of the Austin high schools is evident from the two graphs, indicating that this is not a new phenomenon, nor one that is close to being solved.<sup>2</sup> This evidence reflects the broader condition of the community, which has struggled through decades of disinvestment, presenting additional challenges in meeting the student and school-based outcomes, but also greatly hindering the ability to meet community-wide objectives.

Population loss, since 1970, has been on par with the city as a whole; however, data in Box Table 1 reflect the additional challenges Austin residents have in engaging with the economy, stemming from declines in

**Box 13.1 (continued)**



SOURCE: Authors' compilation using data from schools (CPS 2018).

the labor force participation rate and significant increases in the unemployment rate. Although the percentage of the population with a bachelor's degree has increased, it has not kept pace with increases at the city level, nor has it appeared to offset a growing poverty rate. As is often reported in the news, Austin is plagued by a devastating incidence of violent crime, and advances in reducing violent crime citywide do not appear to have made significant inroads into this community. Austin is disproportionately African American, when compared to much of the rest of the city.

Researchers and practitioners alike often cite the chronic “disinvestment” that has plagued the Austin and other high-poverty, majority-minority communities across the city. To be sure, Home Mortgage Disclosure Act data point to a consistently lower level of mortgage originations in the Austin community when compared to the city.

Taken in the aggregate, these data point to a community whose residents are economically stressed and in need of opportunities that will help them provide for their families and sustain their community. Other community health indicators are even more striking, with low-birth-weight babies, infant mortality, teen pregnancy, stroke, and cancer rates among the worst in the city (City of Chicago 2018). One of the leading resources for both com-

**Box 13.1 (continued)**

munity and economic development can often be found within neighborhood educational institutions and the resources and services they provide in addition to a standard academic curriculum. However, in this case, the neighborhood high school is not in a position to play the role of community anchor.

**Box Table 1 Comparison of Austin and Chicago Demographics**

|   | Austin<br>(2010)                              | Chicago<br>(2010)                              | Austin,<br>change<br>since 1970<br>(%) | Chicago,<br>change<br>since 1970<br>(%) |
|---|---|--|--|---|
| Population  | 98,514  | 2,695,249                                      | -23                                    | -21                                     |
| % of population under 18 yrs                      | 27  | 23   | -12                                    | -28                                     |
| Labor force participation (%)                     | 58  | 66   | -8                                     | 9                                       |
| Unemployment rate (%)                             | 23  | 13   | 451                                    | 200                                     |
| Poverty rate (%)                                  | 30  | 22   | 212                                    | 54                                      |
| % of over-25 population with<br>bachelor's degree | 11  | 34   | 83                                     | 315                                     |
| % of population African American                  | 85  | 2  | -1                                     | -16                                     |
| Vacancy rate (%)                                  | 14  | 13   | 230                                    | 116                                     |
|   | Austin<br>(2015)                              | Chicago<br>(2015)                              | Austin,<br>change<br>since 2002<br>(%) | Chicago,<br>change<br>since 2002<br>(%) |
| Violent crimes                                    | 1,805   | 23,093   | -8                                     | -48                                     |
|   | Austin,<br>per capita<br>HMDA<br>originations | Chicago,<br>per capita<br>HMDA<br>originations |  |   |
| 1990  | 0.009   | 0.010  |  |   |
| 2000  | 0.021   | 0.041  |  |   |
| 2010  | 0.008   | 0.021  |  |   |

SOURCE: American Community Survey, Home Mortgage Disclosure Act (HMDA), and authors' calculations.

**Box Notes**

1. These results are drawn from data from the three separated schools. Data for the merged school are not yet available. See also ACCA (2018).
2. The attendance graph reflects the attendance at the original Austin Community High School before it was divided into three schools, in a move that is consistent with a citywide trend toward smaller schools (CPS 2018).

The program prides itself on offering “wraparound services” to support the broad needs that often face disadvantaged high school youth.

The budget for the Manufacturing Connect program for FY 2017 is \$1,016,082, with \$892,082 (88 percent) allocated to the in-school MC program, and the remainder supporting the out-of-school Young Manufacturers Association. In the current school year, 130 students are participating in the in-school program, making the cost per pupil, per year, \$6,870. Costs are allocated between machine shop training and classroom/machine shop time (11 percent) and internships, summer jobs, work-readiness skills training, career/college coaching, engagement with partners, mentoring, and so on (89 percent). In addition, there are the costs of services borne by external organizations supporting MC students. MC refers students for support from other nonprofit community groups in Austin. These can include tutoring/math remediation, social work/case management, supports for child care, transportation, and housing.

## **DEFINING MANUFACTURING CONNECT OUTCOMES**

The program focuses on four outcome areas: 1) preparing students for employment, 2) preparing students for college, 3) increase odds of labor market success (by providing social supports), and 4) influencing community development. The most recent results are for the 2015–2016 school year.

Manufacturing Connect reports that 31 out of 32 seniors who participated in the program graduated from high school.<sup>3</sup> Of this group, 14 are attending college, with 4 studying engineering. Six of the graduates are currently working in manufacturing jobs.

The MC’s two main focal areas are to prepare students for work and to build their readiness for college.

In terms of work preparation and college readiness and exposure, 150 students (in grades 9–12) participated in some program activity in 2015–2016:

- 103 students were exposed to manufacturing jobs through job shadowing, job internships, summer jobs, and field trips, through the manufacturing partner engagement program. Through this

program, 58 manufacturers had 232 points of contact with students.

- Another aspect of the program provides students with nationally recognized industry credentials for the metal working industry. In 2015–2016, 46 students earned 67 National Institute of Metalworking Skills (NIMS) credentials.
- Finally, 67 students participated in a workshop series focusing on work transition. In the area of college readiness, 26 eleventh- and twelfth-grade students enrolled in the dual-credit Manufacturing Technology course at Daley Community College, earning at least three college credits.
- All graduating seniors applied to at least one college and completed their financial aid form (Free Application for Federal Student Aid, or FAFSA).

The final two programmatic areas concern wraparound social services and community capacity development.

Wraparound social services were extended to 33 students who were paired with a mentor, and 15 received regular academic tutoring. In community capacity development, Manufacturing Connect alumni (classes 2011–2016) have had 65 job placements, 222 career coaching sessions on topics including job placements, conflict resolution on the job, résumé writing, and job-search techniques. (Program leadership estimates that, on average, career coaches meet six times with each participant in preparation for a job placement or postsecondary education.) The program is also developing a student pipeline through middle school outreach. Some 198 eighth-graders participated in a five-week manufacturing and engineering enrichment program, with 60 expressing interest in continuing. Thirty teachers participated in 160 coaching sessions to build capacity for implementing project-based learning.

Manufacturing Connect has collected some data on outcomes since the inception of the program. As Table 13.1 indicates, there has been some volatility in both the number of students attending the high school and the number of participants in the program.

However, in terms of job tenure, of the 46 individuals placed in jobs, over 55 percent of graduates have been in their positions for more than 90 days, and over 40 percent had been with the same company for more than a year following placement.

**Table 13.1 Manufacturing Connect Outcomes per Graduating Class**

| Graduating class cohort | # APA students | # of M3C participants | # of participants |           | # of work experiences | # placed in mfg. jobs |
|-------------------------|----------------|-----------------------|-------------------|-----------|-----------------------|-----------------------|
|                         |                |                       | w/ NIMS           | # of NIMS |                       |                       |
| 2011                    | 92             | 38                    | 16                | 18        | 86                    | 4                     |
| 2012                    | 83             | 53                    | 53                | 87        | 103                   | 18                    |
| 2013                    | 39             | 23                    | 19                | 40        | 38                    | 7                     |
| 2014                    | 60             | 25                    | 25                | 47        | 59                    | 3                     |
| 2015                    | 54             | 14                    | 13                | 15        | 26                    | 8                     |
| 2016                    | 60             | 32                    | 21                | 28        | 51                    | 6                     |
| Total                   | 388            | 185                   | 147               | 235       | 363                   | 46                    |

SOURCE: Manufacturing Connect.

## CHALLENGES TO THE MANUFACTURING CONNECT MODEL

### Maintaining Stakeholder Support

Intrinsic to the manufacturing connect model is the need for a broad-based “advocacy coalition” that includes stakeholders to promote and support the program. Such coalitions are by definition multifaceted and range from community-based engagement to aligned technical expertise. As a result, such coalitions can be hard to form and sustain, particularly when certain stakeholders may only be primarily interested in one aspect of the program. At its inception, Manufacturing Connect cultivated a unique alliance between industry and labor by including the Illinois Manufacturers Association and the Chicago Federation of Labor as key constituencies; however, support from key community groups was not garnered at the outset. Initial support from the Illinois Manufacturers Association has been replaced by support from individual manufacturing firms. ACT (Austin Coming Together, comprising a coalition of 50 member community organizations) initially had at best lukewarm support for the project, although since then it has been actively engaged.

ACT and MC have been working closely together to shape an economic and workforce development agenda that prioritizes manufac-

turing. This includes convening other local organizations and service providers to ensure local residents have access to manufacturing career pathways, either through the MC program at the high school or through other similar training programs. For example, ACT was responsible for bringing the Jane Addams Resource Corporation (JARC) to the table, which led to establishing an adult training program, set to open in early 2017.

MC has working relationships with several other organizations that could be further developed. Currently the structure is more of a referral relationship in that they refer participants to MC and work to supplement each other's programs. For example, MC works with Westside Health Authority, Bethel New Life, the Center for Nonviolence, Safer Foundation, Youth Guidance, Access Community Health Network, New Moms, Primo Center for Women and Children, and Banner Academy (an alternative school).

With much of the program to date funded by external sources—federal and philanthropic—MC leadership struggles to align interests and funding to sustain activities, a common problem for entities working in an environment of scarce and sometimes competing resources.

### **Is the Model Correct: Is Manufacturing the Right Target?**

As indicated by its multiple outcome measurements, the Manufacturing Connect program can be viewed through a variety of outcome lenses. However, connecting all is the presupposition that manufacturing (re)development—the retention and creation of quality manufacturing jobs and their companies—is one of the best opportunities for rebuilding distressed communities. To support this, Manufacturing Connect points to the outsized multiplier impact of manufacturing jobs on the economy. MC estimates that for each \$1 of domestic manufacturing value-added, another \$3.60 of value-added is generated across the rest of the economy. Similarly, they suggest that each manufacturing job creates five other jobs in the economy. Finally, they point to higher wages paid to manufacturing workers.<sup>4</sup>

However, there are some challenges that the program needs to address. First is the geography of manufacturing. Given possibly higher land costs, less favorable (often smaller, noncontiguous) land availability, higher taxes, safety and congestion issues, as well as eroded



infrastructure, in distressed urban areas, Manufacturing Connect needs to establish that these locations are economically viable manufacturing investments. For students who complete the program to be able to stay in the community, they must be able to find manufacturing jobs in close proximity. Otherwise, participants have to leave Austin in order to take advantage of jobs that may be available outside the city's boundaries, overcoming transportation barriers.

Second, the program must be responsive to the trend toward declining manufacturing employment and increased automation in the sector. While manufacturing output has continued to rise, employment levels continue to slump—often against a countervailing narrative of unfilled jobs and a “skills gap.” During the Great Recession, manufacturing job losses exceeded two million, and through September 2016, roughly 30 percent of those jobs had been recovered. While the existing jobs within the sector may be good, manufacturing is unlikely to add jobs as quickly as other sectors of the economy. For example, if a program was focused on accessing employment in the fast-growing education and health sector, it would pay dividends, as jobs actually increased by 689,000 in that sector during the Great Recession and have since grown by almost 3.2 million during the recovery (BLS 2018). Furthermore, given the concentration of large hospitals and universities in urban areas, access to these jobs for urban residents may be easier.

Austin is the largest of Chicago's 77 communities, both by area and population. Located on the western boundary of the city, it is positioned near transportation assets, something that has often been cited as a competitive advantage for the community. The southern portion of the community is bisected by an expressway, having access to freight rail and other intermodal services with the capacity to serve small manufacturing companies. There is a slightly higher percentage of manufacturing companies located within the Austin community limits than is reflected citywide. However, the majority of businesses in the community are service, retail, and health care or social assistance.

## **Significant Upfront Costs Yield Distant Payoffs Leading to Fear of Metrics, Given That Program Is Expensive and Payoffs Will Be Long-Term**

### **Upfront costs**

Programs that are designed to serve disadvantaged populations often are more costly in order to address barriers to work. As Manufacturing Connect shows, many of these expenses are tangential to the academic component of the program, as students need social supports and extra tutoring to succeed. In the case of Manufacturing Connect, this can be a particularly high hurdle, since the curriculum focuses on advanced math and engineering skills for a student population that often lacks appropriate prerequisites. In an application to the John D. and Catherine T. MacArthur Foundation “100 & Change” grant competition, Manufacturing Connect estimated that, over five years, a fully scaled program could produce a maximum of 4,080 graduates at an estimated program cost of roughly \$125 million. This would put the all-in cost per graduate at roughly \$30,600.

### **Long-term returns**

Another unknown at this point is the advancement path of graduates. Given how few cohorts have graduated from the program, it is difficult to assess whether students who obtain jobs through the Manufacturing Connect model are able to receive career and wage advancement. A related aspect of this is whether the NIMS credentials that the students receive translate into recognized salary gains. In theory, credentials that establish competence should see salary benefits.

### **Measuring return on investment**

Using a business-focused metric like return on investment (ROI) can seem out of sync with the mission-driven nature of a nonprofit social enterprise. However, funders are increasingly interested in the efficiency with which funds are converted into tangible mission goals, and they often ask for explicit calculations of returns on their invested funds. As such, Manufacturing Connect needs to consider three dimensions of ROI: 1) returns to the student/program participant, 2) returns to the school system, and 3) returns to society/the community.

Quantifying returns to the student in the program is perhaps the most frequently requested outcome measurement. Understanding whether the student is better off by participating in the program can be measured along two dimensions. First, what outcomes are better for the student in Manufacturing Connect compared to a similar student who does not participate? Second, does the Manufacturing Connect student do better than similar students who participate in other career preparation programs in nonmanufacturing fields? Both dimensions require measuring wages over time for each graduating cohort. Given the relative youth of the Manufacturing Connect program, many graduates are now in college and have yet to reach full-time employment.

The second return is to the Chicago Public Schools (CPS). Given that much of the program expense for Manufacturing Connect is currently covered by philanthropic foundations and the U.S. Department of Labor, Manufacturing Connect puts little budget pressure on the financially strapped CPS. However, in order to have a sustainable program in the future, CPS will need to significantly increase its financial commitment. In fact, one model for expansion of Manufacturing Connect suggests that it use a franchise structure by which CPS would essentially pay Manufacturing Renaissance an annual franchise fee to have additional Manufacturing Connect-style programs in other CPS schools. In practice, this would mean that CPS would need to measure the educational and community benefits it receives from Manufacturing Connect against the benefits from all other programs CPS must provide. Will Manufacturing Connect be able to demonstrate that it provides a higher rate of return to CPS in comparison to other career education courses or adding additional course offerings across the entire system? Manufacturing Connect will need to establish a clear set of returns that either are currently not available to CPS or exceed the returns they are getting from existing programs. However, in order to truly measure return, the programmatic contexts must be calibrated across institutions. Currently, the MC program is housed within an underutilized school (see Box 1), undermining the ability to embed programmatic offerings within a robust general curriculum, and most likely accruing additional costs to the program.

Finally, Manufacturing Connect needs to establish the broad set of benefits that it can provide to society and the city at large. To estab-

lish the case for broad public support (beyond the CPS), Manufacturing Connect needs to show that general taxpayer support for the program will increase returns for society as a whole. These measures can include higher tax receipts (reflected by higher wages of program graduates) and more stable inner-city neighborhoods, as well as avoided costs through reductions in social service expenses. Many of these benefits will be avoided costs, so they are hard to calculate, but identifying them can help make the case that all taxpayers will receive a benefit from the program. The key to fully operating or expanding is to establish who should pay for supporting Manufacturing Connect.

## CONCLUDING OBSERVATIONS

It is still too early to judge the success of the Manufacturing Connect program in Austin. On the positive side, the program has continued to receive external funding support and has shown the ability to add resources (such as wraparound services) that are likely to help students succeed. However, it is our opinion that four aspects of the program need further development or refinement.

**1. The current project struggles to quantify explicit goals for neighborhood and economic development.** Since reversing disinvestment in urban communities is a goal for the program, it seems appropriate to establish measures for how new investment might occur and for defining what the relationship is between providing training in advanced manufacturing and attracting firms into the neighborhood. At one point, the parent (Manufacturing Renaissance) was actively involved in clearing and preparing a new industrial site in the neighborhood for redevelopment, but this effort has since stalled. During its period of involvement, it was clear that this commercial development effort drew resources and focus away from the educational program. This raises the issue of carefully examining the internal capacity of any not-for-profit and its ability to provide expanded services. If, however, community development is a goal of the program, it seems reasonable to offer some specific goals for measuring new investment and retention

of businesses, as well as specific measures of whether manufacturing activity expands within the Austin community. Partnering with an economic development agency might be an appropriate strategy.

**2. Another consideration in evaluating the program involves the structural challenges of the Austin community.** In many ways, MC is a “boutique” educational intervention designed to appeal to a specific type of student. Therefore, is it reasonable to expect broad success for a program that is placed into a high school struggling with leadership issues in a neighborhood that suffers from chronic disinvestment? The answers may become apparent if MC is expanded to larger and more stable high schools in Chicago, with an expanded capacity to implement lessons learned from the Austin experience, but as currently configured, it may be that the program is simply being asked to do too much. As such, measuring the environment for success and determining whether the complementary resources are available may be a necessary step in judging the “fit” of MC with the community. In an ideal world, one would want to develop a list of community characteristics that might be necessary to ensure success. A primary indicator would be the existence of a community-driven “quality of life” or economic development plan that would clearly articulate the need for and commitment to such a program.

**3. Defining the capacity of the not-for-profit to deliver the program.** Having a reliable revenue stream is often a challenge for not-for-profits. Foundation support can be unpredictable and is often designed to serve as “start-up” funding for a program and not for sustained support. Government grants can be equally constricting, either in scope of time or impact. This volatility in funding often causes organizations to expand and contract according to funding levels, and even shift course in response to a funding opportunity. An educational program such as MC will take many years to fully demonstrate results. As such, stable and predictable levels of funding are critical, as well as a clear focus on what MC is trying to achieve. Nonprofit organizations are often challenged to ensure that staffing and budget allocations support the core mission rather than being diverted into other areas, especially in cases where there is not a clear policy agenda driving their efforts.

**4. Commitment to evaluation.** Program evaluation is often expensive and frequently is not paid for by funders. For an innovative program such as MC, it is critical that an evaluation structure is put in place from the outset and maintained so that efforts to understand what does and does not work in the program can be identified. The current set of reported outcomes from the program fail to establish whether the results are good or bad. Since there were no a priori standards set for what outcomes to expect, interpreting whether the program met or exceeded goals in terms of the number of participants, graduates, or credential recipients is difficult.

In summary, while the MC program operates with the laudable intention of retaining good-quality jobs and lifting the economic prospects of its host community and its residents, many factors affect the program's ultimate success. In this case, context matters, as there are significant challenges to the program at both the community level as well as system wide. The program would benefit from increased efforts to collect both performance and "context" data, working toward documenting both short-term and long-term outcomes. Finally, within a shifting funding landscape, especially at the federal level, the MC program is in dire need of long-term, sustainable strategic support that would allow key staff to focus on developing the model and identifying opportunities for expansion and replication that would return economies of scale to management.

## Notes

1. For more information on the Manufacturing Connect program, see the chapter "Youth Job Creation and Employer Engagement in U.S. Manufacturing," by Nichola Lowe, Julianne Stern, John R. Bryson, and Rachel Mulhull, in Volume 2 of this book.
2. The Young Manufacturers Association is the programmatic umbrella used to serve two groups: 1) Manufacturing Career and College Connect program alumni and 2) other 18–29-year-old young adults interested in pursuing career-track training and employment in manufacturing.
3. For the purposes of the program, a Manufacturing Career and College Connect (MCCC) program participant is defined as a student who meets three conditions: that student 1) is enrolled in the Austin College and Career Academy (Austin Polytech), 2) is programmed into the engineering/manufacturing course sequence, and 3) has completed an MCCC application with parent signature for permission to

participate in the program. For the high-school level program, these are the only three requirements.

4. The website of the National Association of Manufacturers largely echoes these calculations. See National Association of Manufacturers (2018).

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## **Part 3**

# **Investing in Historically Black Colleges and Universities**





# 14

## **The Critical Role of Historically Black Colleges and Universities in Workforce Development**

Todd Greene  
Ashley Bozarth

Civil rights leader and distinguished American educator Benjamin Elijah Mays stated, “For he who starts behind in the great race of life must forever remain behind or run faster than the man in front” (Colston 2002, p. 96).<sup>1</sup> Despite the passage of more than 150 years since the end of formal slavery, African Americans are still behind based on nearly all economic measures, including wealth and economic mobility.

It should come as no surprise then that African Americans fare no better in the labor market, where wages lag behind their white counterparts. While the roots and causes of these gaps are myriad, it is clear, as Dr. Mays suggests, that extraordinary measures and targeted approaches are needed to arrive at greater economic equality. There has been some progress, including higher rates of high school degree completion, but much work remains.<sup>2</sup> Historically black colleges and universities (HBCUs) play a major role in preparing this population for the workforce. In addition to both academic- and technical-oriented degree offerings, confidence-building support offered through HBCU environments also can offer graduates a fundamental cornerstone for workforce success.<sup>3</sup>

The origins of today’s more than 100 HBCUs vary. Some started as state-sponsored land grant institutions, others were sponsored by religious organizations, and still others were the benefactors of wealthy philanthropists. Their missions, however, have been essentially uniform: to provide higher education opportunities primarily to students of color who at that time were largely excluded from other colleges or universities or in some cases did not feel comfortable in these institu-

tions.<sup>4</sup> With legal and cultural changes, especially over the past five decades, some observers have questioned the necessity for institutions designed to serve a particular racial population, thus viewing HBCUs as anachronisms. Other challenges have placed additional strains on many HBCUs, including relatively small endowments, decreased enrollment (U.S. Department of Education 2016), and in some cases complete closure. Yet, while some HBCUs have faltered under this modern framework, others have met the challenge with strong results. As of 2016, for example, both Spelman and Morehouse College, as well as Howard, Claflin, Hampton, and Tuskegee Universities, had higher six-year graduation rates for African American students than the national average across all four-year institutions (U.S. Department of Education 2016).<sup>5</sup>

The modern-day relevance of maintaining and supporting HBCUs is perhaps best evidenced by the stark differences in labor market outcomes for African Americans relative to whites. A 2017 Federal Reserve Bank of San Francisco *Economic Letter* identifies that among the factors contributing to the black-white wage gap are those more difficult to measure, “such as discrimination, differences in school quality, or differences in career opportunities” (Daly, Hobijn, and Pedtke 2017, p. 4). HBCUs are uniquely positioned to prepare their graduates to overcome each of these factors, especially since a significantly higher percentage of their students are from low-income families. For instance, 59 percent of HBCU students at four-year institutions come from families that earn \$30,000 or less a year, compared to 33 percent of students nationally (U.S. Department of Education 2016).

Indeed, attending and graduating from HBCUs has been an important pathway for African Americans out of postslavery squalor and into the middle class. While HBCUs claim many famous Americans as graduates, including Martin Luther King Jr., Langston Hughes, and Marion Wright Edelman, they are also responsible for graduating hundreds of thousands of African Americans who work in many Fortune 1000 companies and who have occupations within diverse industry sectors across the United States and around the world.

The authors in this section, current or former HBCU presidents and a vice president, are well situated to discuss the past and the future of HBCUs. Each makes a compelling contemporary case on why HBCUs are vital components of our country’s workforce development effort, worthy of both recognition and support.

Clark Atlanta University President Ronald A. Johnson's chapter details the origins and contributions of HBCUs to the workplace, and also makes a strong case for the importance of diversity on the overall economy. He points out how HBCUs produce graduates who can respond to the modern economy's need for well-educated workers skilled in critical thinking. Perhaps most compelling is Johnson's assertion that HBCU students are more prepared for the workplace thanks to experiences less likely to occur in a non-HBCU environment. These types of experiences support self-actualization and self-esteem building—two important attributes that may help African Americans overcome labor challenges such as discrimination. Johnson also suggests that because HBCUs have a high proportion of first-generation college students, new models must be developed to ensure student debt is not a barrier and that these students are able to attend and complete college.

Former Morehouse College President John Silvanus Wilson, Jr. builds on the notion of rethinking federal government policies and funding models for HBCUs through a new investing lens incorporating the public and private sectors. Wilson also turns the lens inward and suggests ways that HBCUs themselves can improve viability with approaches such as developing more robust endowments and implementing governance infrastructures that position these institutions for greater success. He concludes with a call for increased investment in those HBCUs with a leadership structure that can effectively and efficiently deploy additional capital.

Morehouse School of Medicine (MSM) President and Dean Valerie Montgomery Rice and Vice President David Hefner provide yet another valuable perspective. They explore the numerous impediments to workplace success for minorities through a systems approach. They draw the connection between reading scores, poverty, community health, labor market outcomes, and the benefits of science, technology, engineering, arts, and mathematics (STEAM) education. The authors assert that workforce performance measures like chronic absenteeism are correlated to health disparities and make a strong case for how workforce development investments should be linked to efforts designed to address these health disparities. They adeptly point out precollege interventions as the most successful pathway for promoting college graduation, including the development of more integrated programmatic initiatives with K–12 and community partners. Montgomery Rice and

Hefner describe MSM's efforts to strengthen academic performance at a nearby elementary school through evidence-based interventions in partnership with the local school district and a nonprofit.

These three chapters are not only individually compelling, but when considered collectively, they present a cohesive narrative on the various factors and solutions needed to prepare a stronger workforce, particularly for African Americans who face additional challenges. Indeed, the success of various workforce development efforts is often measured using labor outcomes such as wages and career advancement. While these are important factors, they do not account for the individual's starting position in terms of family income, wealth, housing, and schools. The population and communities served by HBCUs are less likely to start at the same point in the "great race of life," as suggested in the quote by Benjamin Mays.

Yet, as another seminal American educator, Booker T. Washington, once wrote, "success is to be measured not so much by the position that one has reached in life as by the obstacles which he has overcome" (Washington 1901, p. 39). While HBCUs certainly have achieved various degrees of success in terms of student outcomes, the authors in this section make the exigent case that HBCU students and graduates contribute significantly to the success of our economy. As a nation, we should continue to invest in HBCUs, perhaps with different and more resource-intensive approaches than for non-HBCU institutions. Additional investments will help ensure that HBCUs continue to serve their important and necessary role in workforce development, workplace diversity, and equitable labor market outcomes.

## Notes

The authors thank Mels de Zeeuw for his contributions to the data analysis pertaining to HBCUs.

1. In addition to playing a foundational role in the civil rights movement, Dr. Benjamin E. Mays was the president of Morehouse College for nearly 30 years.
2. The gap between the proportion of non-Hispanic blacks and whites over the age of 25 with at least a high school degree has narrowed to 6 percentage points in 2017 (U.S. Census Bureau 2017), compared to more than 20 percentage points in the mid-twentieth century (U.S. Census Bureau 1999). The gap between the proportion of non-Hispanic blacks and whites over the age of 25 with a bachelor's degree or higher was about 14 percentage points in 2017 (U.S. Census Bureau 2017).

3. Data show that minority HBCU graduates are more likely to cite experiential learning opportunities offered through their campuses as an important factor contributing to their workplace engagement (Gallup Inc. 2015).
4. The Higher Education Act of 1965 defines an HBCU as “any historically black college or university that was established prior to 1964, whose principal mission was, and is, the education of black Americans and that is accredited by a nationally recognized accrediting agency or association determined by the Secretary [of Education] to be a reliable authority as to the quality of training offered or is, according to such an agency or association, making reasonable progress toward accreditation.” See U.S. Department of Education, n.d.
5. The national average six-year African American graduation rate across all institutions in 2016 was 49.7 percent, lower than comparative rates at Spelman College (77.5 percent), Howard University (60.9 percent), Claflin University (58.6 percent), Hampton University (55.4 percent), Tuskegee University (50.4 percent), and Morehouse College (50.3 percent) (U.S. Department of Education 2016).

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# 15

## **HBCUs as Pipelines for Diversified Intellect, Creativity, and Innovation**

Ronald A. Johnson

If America is to sustain and increase its competitiveness in the global economy, then it must fully commit to increasing the diversity of its workforce. Researchers at the Center for American Progress outline the benefits of a diverse workforce in very simple terms: “Businesses that embrace diversity have a more solid footing in the marketplace than others” (Kerby and Burns 2012). Diverse workforces drive economic growth and can capture a larger share of the consumer market. Recruiting from a diverse talent pool increases the likelihood of a more qualified workforce, mitigates the costs of employee turnover, and fosters greater creativity and innovation. In addition, heightened diversity among a board of directors will increase corporate proficiency (Kerby and Burns 2012). Historical analysis confirms the benefits of diversity. In a landmark study, Ashraf and Galor (2011) conclude that cultural assimilation and cultural diffusion between the years 1820 and 2000 have positively impacted global economic development.

To meet the demand for well-educated, well-qualified, and diverse talent, inroads must be made to broaden and improve educational attainment among African Americans and Hispanics, who make up 14 and 17 percent of the population, respectively (U.S. Census Bureau 2016). This is particularly important given the growing diversity in this country—Hispanics are expected to make up 30 percent of the U.S. population by 2050 (Kaiser Family Foundation 2013).

One effective and expedient means of addressing this pipeline for well-qualified talent, creativity, and innovation is to identify and support relevant programming among the nation’s 101 Historically Black Colleges and Universities (HBCUs). An HBCU, as officially defined by the



United States Congress in Title III of the Higher Education Act of 1965, is an institution that was accredited and established before 1964 for the primary purpose of educating African Americans. One common thread among HBCUs is the enrollment of low-income students who would be unable to matriculate without the assistance of Pell Grants—funding provided to bridge unmet financial need. While some question the relevance of the nation’s HBCUs, other observers recognize that these unique institutions excel in creating diverse and successful talent that, as a result, engender greater economic and cultural success for employers.

Although HBCUs were created to educate African Americans, most have been racially diverse from inception. Clark Atlanta University, for example, was established in 1988 through the consolidation of its parent institutions, Atlanta University (1865) and Clark College (1869), both of which were founded by the Freedman’s Bureau and administered by the leadership of the United Methodist Church. From its inception, Atlanta University included white faculty and students.

Today, the diversity of the nation’s 101 HBCU campuses varies. In 2016 for example, Clark Atlanta University had 83 percent African American students, 4 percent international students of numerous races, and less than 1 percent Hispanic, Asian, and white students (Clark Atlanta University 2017). Howard University in Washington, DC, and Hampton University in Virginia follow similar trends. Conversely, at Bluefield State College in West Virginia, African American students make up only 9 percent of the population, while white students constitute 85 percent (College Factual 2017).

## **PATHWAY TO ACADEMIC PARITY**

Like their non-HBCU counterparts, America’s HBCUs provide a comprehensive academic experience, preparing students to enter and compete in the U.S. labor force. HBCU graduates account for 40 percent of the African American members of the United States Congress, 12.5 percent of African American CEOs, 40 percent of African American engineers, 80 percent of African American judges, half of African American lawyers, and half of African American professors at non-HBCU institutions (Thurgood Marshall College Fund 2015). HBCUs

are particularly effective in producing African American professionals in STEM fields. For example, HBCUs generate one-third of African American students with biological and mathematics degrees and close to 20 percent of all African American students with engineering degrees (New America 2015).

According to a 2017 study published by the *Education Trust*, HBCUs outperform predominantly white institutions (PWIs) in graduating low-income black students (Nichols and Evans-Bell 2017). On one hand, the average six-year graduation rate for African American students in the nation’s HBCUs (32 percent) is lower than for African Americans at the 676 non-HBCU institutions included in the study’s sample. However, at least 40 percent of freshmen enrolled at four-year HBCUs receive Pell Grants, and roughly half of all HBCUs enroll a freshman class with three quarters of low-income students. Upon closer examination, when stratified according to the percentage of low-income freshmen enrolled, HBCU graduation rates exceed those of non-HBCUs, as seen in Table 15.1 (Nichols and Evans-Bell 2017).

**Table 15.1 Average Institutional Graduation Rates among HBCUs and Non-HBCUs, Based on Enrollment of Low-Income Students**

|  | Graduation rate among African American students (%) |          | Number of institutions |          |
|--|---|----------|------------------------|----------|
|  | HBCU  | Non-HBCU | HBCU                   | Non-HBCU |
| Institutions with 40–75% Pell freshmen | 37.8  | 32.0     | 38                     | 294      |
| Institutions with 40–65% Pell freshmen | 41.8  | 32.1     | 17                     | 277      |
| Institutions with 65–75% Pell freshmen | 34.4  | 30.3     | 21                     | 17       |

SOURCE: Nichols and Evans-Bell (2017).

## RESPONSE TO ECONOMIC DISPARITY

There is no disputing existing income and wealth inequality across the nation’s economic landscape, especially with regard to racial dis-

parities. A Pew Research Center report (2016) shows that U.S. households headed by a black person earn on average a little more than half of what average white households earn. White households are, in turn, approximately 13 times wealthier than black households. Despite seismic shifts in the global marketplace, the key to financial well-being remains completing a college degree (Pew Research Center 2016).

Given these disparities, HBCUs can play an important role in bridging the gap between educational attainment and economic mobility. A 2017 study (Chetty et al. 2017) evaluating college students' economic mobility found that only 3.8 percent of students at "Ivy Plus" institutions (the eight Ivy League institutions, plus University of Chicago, Stanford, MIT, and Duke University) come from households at the bottom quintile of the income distribution. Researchers also determined that students who come from families in the top 1 percent of income distribution were more likely to enroll at Ivy Plus institutions than the entire bottom half of the distribution. The study concludes that, while there is substantial variation in mobility rates across the higher education institutions, "increasing low-income access to colleges with good student outcomes could increase the contribution of higher education to upward mobility" (p. 41). According to a Brookings analysis (Reeves and Joo 2017), a larger share of students at HBCUs come from families in the bottom income quintile compared to the average across all U.S. colleges and universities. The *New York Times* (2017) uses the Chetty et al. data to show that of 69 higher education institutions studied in Georgia, the top 5 with the highest share of students who moved up at least two income quintiles as adults are HBCUs.

## **A BEACON OF HIGHER EDUCATION**

The importance of HBCUs goes beyond their success in producing baccalaureate and postbaccalaureate graduates who are well-educated, well-equipped, and fully motivated to enter and excel in the global workforce. These institutions are a key part of the ecosystem in their respective communities, directly engaging with community partners to improve the quality of life in both urban and rural underprivileged neighborhoods. They facilitate interest among many black

youth in going to college, whether they end up attending an HBCU or non-HBCU. HBCUs are active in college fairs, are part of black college bus tours, and serve as a beacon of higher education for many young African Americans who watch in amazement the annual homecoming parades that troop through their neighborhoods every fall.

## **THE UNSEEN HBCU ADVANTAGE**

For low-income students who aim to participate in the global knowledge economy, HBCUs offer academic rigor and opportunity for economic mobility. Beyond the prospect of degrees and income, HBCUs also foster students' sense of belonging, self-esteem, and self-actualization. While African American students at non-HBCUs may perceive themselves as "others," HBCU students experience an innate sense of belonging, owing in part to the homogeneity of their campus communities, their immersion in social history, and their common social values, economic circumstances, experiences, and goals.

HBCU graduates, in general, do not depend on workplace culture or other postcollege environments to self-actualize. They typically begin careers with their sense of belonging already satisfied and therefore are able to engage more fully in organizational goals, leading to increased individual and corporate success. This is not to say that non-HBCU African American graduates cannot have positive post-secondary experiences, self-actualize, develop strong self-esteem, and be successful. However, the transformative process that takes place within HBCUs creates a social, cultural, and organizational balance that forms a springboard for workplace assimilation, engagement, and, ultimately, success.

## **A MEASURE OF WELL-BEING**

The 2015 *Gallup-USA Funds Minority College Graduates Report* indexes responses collected from almost 56,000 adults of all races who received bachelor's degrees between 1940 and 2015. Research-

ers measured respondents' well-being based upon five elements: purpose, social, financial, community, and physical. In particular, black HBCU graduates are more likely to have strong purpose and financial well-being than black graduates who did not receive their degrees from HBCUs. Over half of black HBCU graduates strongly agreed that their university prepared them well for life outside college, compared to less than one-third of black non-HBCU graduates. More black HBCU graduates noted being engaged in their work, which positively influences employee productivity and well-being. Black students at HBCUs were also more likely to work on long-term projects, secure internships, and participate in extracurricular activities, indicating greater opportunities for workforce preparation.

The *Gallup-USA Funds Report* survey asked respondents about three specific support structures during college: 1) professors who made them excited about learning, 2) professors who cared about them as people, and 3) a mentor who encouraged them to pursue their goals and dreams. The report asserts that "black graduates of HBCUs are more than twice as likely as black graduates of non-HBCUs to recall experiencing all three support measures" (p. 5).

The depth of support that African American graduates at HBCUs received, notably having at least one professor who made them excited about learning and having a mentor who encouraged them to pursue their goals and dreams, increased the likelihood that they were engaged in the postcollege workplace and thriving across all five measures of well-being. In addition, African American HBCU graduates who had at least one professor who made them excited about learning and/or who had a mentor were more likely than black non-HBCU graduates to be engaged at work.

## **MOVING FROM COMMON GROUND TO HIGHER GROUND**

The network of 101 HBCU institutions comprises a premium pipeline of talent, intellect, and creativity, undergirded by an increasing focus on innovation and entrepreneurship. Although they vary greatly in size, affiliation, enrollment, and programming, HBCUs share simi-

lar rocky ground, owing, in part, to lack of funding. This prevailing burden is compounded by the fact that the overwhelming majority of HBCU students cannot afford the cost of a college education. Reliance on grants and loans from private or government sources precipitates massive student debt and, often, loan defaults. HBCUs are more likely to enroll first-generation college attendees, such that many students need mentoring and coaching along with traditional academic advising because they are underprepared for college level work (New America 2015).

For more than 180 years, these historically disadvantaged, underfunded institutions have transformed low-income, economically disadvantaged, socially disenfranchised students into productive, highly capable employees. If HBCUs are to prosper and continue as a significant component of America's labor pipeline, they will need to be strengthened through more robust and intentional policies and practices. While the literature of higher education is replete with prescriptions on how colleges and universities can provide better labor market outcomes for their graduates, broader support of Historically Black Colleges and Universities will exponentially increase their capacity to diversify, strengthen, and increase the competitiveness of the U.S. labor force in the global marketplace.

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# 16

## Assessing Infrastructural Health

### Optimizing Return on Investment in HBCUs

John Silvanus Wilson, Jr.

A quarter century ago, in his book *Head to Head*, MIT economist Lester Thurow predicted, “In the 21st century, the education and skills of the workforce will end up being the dominant competitive weapon” (Thurow 1992, p. 51). I was a mere 7 years into my young career at MIT, and in my 16 years there, I occasionally heard Dr. Thurow and other remarkable professors make predictions about the way we will eventually live, work, and compete. Sometimes Thurow’s accuracy was hard to assess, but regarding this “brain race” projection, he could not have been more prescient.

We live in a world where an individual’s cultivated intelligence can be an increasingly powerful determinant of their life chances and lifestyle. And despite many complicated histories, much of the anticipated success of institutions, communities, regions, and nations can all be largely tied to the quality of the education and skills of those who populate them. In today’s knowledge-based world economy, since it is true that a high-quality education can yield both a high-quality workforce and a promising future, then the best way to invest in a nation’s workforce and future is to make strategic investments in the education system that generates talent for them.

But what constitutes a smart, strategic investment in education? How much of the nearly \$60 billion in private charitable giving to all of America’s educational institutions (pre-K through college) in 2016 (Giving USA 2017) is poised to yield impressive investment returns, especially where workforce quality is concerned? And was a meaningful, measurable difference made by the \$41 billion, or two-thirds of the 2016 giving total, which specifically targeted American higher education (Council for Aid to Education 2017)? How can we know? What is

the best way to invest in America's workforce via America's colleges and universities?

I want to draw on my 32-year career in higher education to offer a helpful way to think about making these investments, specifically in Historically Black Colleges and Universities (HBCUs). But first, it is important to highlight how our nation will benefit if we develop a new and broader approach to investment.

## **INVESTING IN AMERICA'S WORKFORCE IS ABOUT OUR NATIONAL COMPETITIVENESS**

The future of America's status in the world is tied directly to how well we prepare our workforce to compete globally and live nobly. In this quest, the underlying demographics in this country may need to frame and drive strategy in ways that are unfamiliar and untested. Why? Since the fall of 2014, the majority of our nation's public school students are of color (Hussar and Bailey 2014, p. 33). Yet, genius is more evenly distributed among America's racial and ethnic groups than are the opportunities to discover, nurture, and benefit from it. Educational preparation that many Americans of color now receive can and should be more compatible with what the country's bright future requires. While our emerging diversity is not at all a threat to the nation's future, our failure to democratize and optimize our structures and systems for harvesting such diversity is.

This need to improve access to a high-quality education is not a new challenge. It is an old one bursting with new urgency. Decades of national and regional reports and initiatives, spanning from *A Nation at Risk* in 1983 to the final grants of the Obama administration's \$4.3 billion "Race to the Top" initiative in 2016, have addressed how various education reforms must improve both student achievement and workforce competitiveness. Many of these past efforts also targeted support for students who traditionally have been underserved by the nation's educational systems, including racial/ethnic minorities, students from low-income families, and English-language learners. Yet, as achievement gaps have persisted, the nation's alarm about the need for gap closure still seems insufficiently amplified, and the consequences of

further delays are increasingly obvious. The least well-served segments of America's citizenry are expanding, while the long-standing structural impediments remain largely in place. It therefore stands to reason that brightening the nation's future hinges on empowering those institutions that can do the best job of systematically removing those impediments and closing those gaps.

This is a mission-critical "readiness challenge." Meeting it will require larger and wiser investments and adjustments in both our K–12 and postsecondary systems. In my view, while the U.S. Department of Education should focus on innovative investments in K–12 education that yield more college-ready students, the private corporate and philanthropic sectors should focus on innovative investments in higher education that yield more student-ready colleges. And a key to readying America's colleges for a more diverse student population is investing in those with demonstrated effectiveness in educating students of color.

I had the privilege of being appointed by President Barack Obama to serve our nation as the executive director of the White House Initiative on Historically Black Colleges and Universities ("the HBCU Initiative") between 2009 and 2013. Both President Obama and Education Secretary Arne Duncan were of the firm belief that, in a brainpower-dependent world economy, nothing matters more than a high-quality education. A generation before Barack Obama took office, America led the world in having the highest college graduation rate, but by 2010 America slipped to twelfth place among developed countries. Our analysis revealed that the pathway to becoming number one again would require us to spend the next decade shifting from 40 percent of Americans having college degrees or certificates to approximately 60 percent. We called it "the 2020 goal" (Duncan 2010).

When the 2020 goal was established, the 105 HBCUs were graduating approximately 36,000 students per year. Reaching the overall 2020 goal would require them to reach or exceed a new annual base of 50,000. A clear message was sent to black higher education and to the entire nation—namely, it will be impossible to return to our privileged status as the most educated, diverse, and competitive workforce in the world without the vital additional contribution HBCUs can and must make.

On President Obama's watch, federal investments in HBCUs were generally viewed as synonymous with investment in the long-term

quality of the nation's future. The first term of the Obama presidency featured "rising tide-style" general increases in all federal financial aid, including an increase in the core, transactional funding to HBCUs, which went from \$3.97 billion in 2008 before he took office to \$5.3 billion by 2012. Every source of annual federal funding to HBCUs—grants, contracts, appropriations, and student aid—increased during President Obama's administration, and their total annual federal funding still exceeds \$5 billion today (Toldson 2017).

Fundamentally driven by the need to improve America's workforce quality, diversity, and competitiveness, the Obama-era increases in federal funding to all of education, and especially to HBCUs, included a confidence that the private sector might provide a similar boost in gifts, recognizing that HBCUs have a great track record for preparing minorities for work and life. But the private sector never followed suit. During my tenure as director of the White House HBCU Initiative, at a time when capital campaigning in American higher education was attracting billions in private-sector investments, we concluded that HBCUs were receiving very little of it. In 2010, when the Council for Advancement and Support of Education reported that private-sector contributions (including from corporations, foundations, and private individuals) to higher education totaled \$28 billion (CASE 2011), the HBCU Initiative staff determined from the National Center for Education Statistics 2011 report that the combined total raised by all HBCUs that year was roughly \$194 million, or 0.7 percent. Although few in the private philanthropic sector have heavily funded HBCUs to date, there are indeed good reasons to target them for more investment.

## **WHY IT MAKES SENSE TO INVEST IN THE WORKFORCE VIA HBCUs**

Understanding how HBCUs might play a larger investment-aided role in America's future should build upon the profoundly important role they played in the past. America's ability to emerge from the Civil War and become the most powerful nation on earth would have been compromised had HBCUs not been such a stabilizing force. These insti-

tutions were principally responsible for converting a previously illiterate population to 70 percent literate by 1915 (LeMelle and LeMelle 1969, p. 33). Through 1969, HBCUs extended well beyond the standard training of preachers and teachers. They shaped a new middle class of doctors, lawyers, and leaders in business and politics. Countless HBCU students and graduates were the generals and foot soldiers of the civil rights movement, leading to the demise of “Jim Crow” apartheid across the southern states.

Today, HBCUs continue to play a fundamental role in shaping the nation’s increasingly diverse workforce. While they represent only 3 percent of higher-education institutions, 14 percent of the bachelor’s degrees earned by African-Americans in 2015–16 came from HBCUs (National Center for Education Statistics 2018). In addition, HBCUs produce close to 18 percent of African-Americans awarded STEM degrees, including the nearly 20 percent of the African-Americans earning engineering degrees, and 30 percent of those with mathematical science degrees (Nguyen 2015). This talent, produced by HBCUs including and especially Morehouse College, Spelman College, North Carolina A&T University, Morgan State University, and Howard University, is critical to the nation’s long-term health. Technology hubs around the world should think strategically about building talent pipelines from HBCUs known for such productivity. And while only 2 percent of the nation’s K–12 teachers are African-American males (Walker 2015), HBCUs also remain among the top producers of black male teachers, some of whom are focused in science, technology, engineering, arts, and mathematics (STEAM).

When I served as president of Morehouse College from 2013 to 2017, among our most compelling workforce-readiness narratives was the story of a student named Paul Judge from New Orleans. He enrolled in Morehouse in 1995 with a profile that reflected many of the opportunity and achievement gaps endemic among students from underserved urban areas. Yet Paul “drank the Morehouse high-achievement Kool-Aid” and ended up graduating in three years, heading to Georgia Tech for advanced degrees, culminating with a doctorate in computer science. Applying his brilliance to create, build, run, and sell multiple companies, he is now one of the most highly respected cyber-security experts in the country. His story encouraged my team and me to work

aggressively to deepen our STEAM curriculum to enrich the preparation of over 800 African-American male STEAM majors on campus at any given point.

STEAM sector strength is only one facet of the current value proposition of many HBCUs. When companies and philanthropies consider investment in institutions, they will consider a wide array of measurable strengths and outcomes. As an example, while directing the HBCU Initiative, I was told by a senior executive from a major high-tech company that he and his team were looking to invest generally in a category of educational institutions. Once they focused on realizing higher-impact outcomes, they decided to conduct a more scrutinizing quality scan of that sector. They tried to identify differentiating factors and target the most optimal institutions, heightening both their investment per campus and their return per investment. This refined assessment led them to invest in institutions with strong leadership and vision, and where the curriculum and pedagogy aligned with their company's workforce needs. They felt rewarded by both the process and the outcomes.

This extra scrutiny serves as a guide for HBCUs as they consider new and more meaningful engagement with investors in the broader private and philanthropic community. In the last three decades, individual colleges and universities have already made significant headway through multibillion-dollar capital campaigns to elevate their institutional strength and competitive profile. Many of the most ambitious institutions now have endowments that dwarf their annual expenses by an order of magnitude, stable and well-aided enrollments, faculty with competitive salaries and robust academic support, state-of-the-art living and learning facilities with minimal deferred maintenance, and technology-supported and data-driven administrative cultures. As a result, their investment worthiness is both clear and compelling.

Yet, as the HBCU Initiative staff determined in early 2013, while most of America's strongest liberal arts colleges have completed capital campaigns of at least \$400 million each, only 5 of the HBCUs had even attempted campaigns for over \$100 million.<sup>1</sup> That is in part why no HBCU has made such a comparably scaled shift to this new, competitive profile. No HBCU is likely to enter this coveted echelon of institutional strength until key leaders in the business and philanthropic communities begin to think anew about investing in these institutions, and until HBCU leaders create the infrastructure to attract such investment.

## HOW TO THINK ABOUT INVESTING IN THE WORKFORCE VIA HBCUs

So, what variables should prospective donors consider when thinking about whether and how to significantly invest in a new growth strategy for aspiring HBCUs, which ultimately will increase the competitiveness of the nation's workforce? In advance of investing, prospective donors should assess an institution's strengths and weaknesses in three critical areas to optimize the investment return: cultural infrastructure, capital infrastructure, and governance infrastructure.

### The Cultural Infrastructure

Does the institution have the cultural infrastructure for optimizing the return on a major investment?

In this context, *culture* refers not to that of individuals or races but to organizational culture, or the degree to which those who lead, manage, and staff each corporation, college, or university are alert and responsive to the threats and opportunities surrounding their institutions. Their alertness, or lack thereof, can often be more consequential than their organizational strategy. MIT professor Edgar Schein spent decades clarifying the roots, development, and profound influence of organizational and occupational cultures. The importance of culture in facilitating or preventing change once led him to assert: "The only thing of real importance that leaders do is to create and manage culture. If you do not manage culture, it manages you, and you may not even be aware of the extent to which this is happening" (Schein 1985, p. 11).

As with any aspiring organization, if new investment-fueled strategies are to yield meaningfully scaled outcomes for HBCUs, they may have to include fundamental shifts in campus cultural norms as well. In the same way that narrow thinking in the philanthropic community may explain some of the resource gaps between America's wealthiest colleges and the less wealthy HBCU sector, key aspects of the organizational culture on each campus may also be at the root of that gap. The fact that only five HBCUs have taken on \$100 million-plus capital campaigns may relate to how organizational dynamics can stifle change and growth.



The January 2018 cover story of the *Harvard Business Review*, “The Culture Factor,” describes the methods for assessing organizational culture and emphasizes the critical relationship between strategy and culture and, in turn, between culture and outcomes (Groysberg et al. 2018). A strong institutional culture aligned with strategy and leadership can drive positive outcomes. However, if the leader and strategy are more forward looking than the culture, building a meaningful capital campaign to attract investment will be more difficult, and the pathway to a competitive institutional profile may be impossible to navigate.

Prospective investors may consider requesting that institutions first perform an assessment of their cultural infrastructure. Such assessments can reveal valuable information relevant to investment worthiness. Campus leaders can only bring transformation to an institution where the culture is aligned or can be adapted to the imperatives of institutional competitiveness and associated strategies for investment. The notion that culture is often fundamentally incompatible with strategy is at the root of the business truism popularly attributed to the late management guru Peter Drucker: “Culture eats strategy for breakfast.” Prospective donors should be aware that making an investment of any size in an institution’s new strategy without prior appropriate attention to the campus cultural infrastructure could very well end up paying only for breakfast.

### **The Capital Infrastructure**

Does the institution have the capital infrastructure for optimizing the return on a major investment?

Investors should assess both hard capital (financial and human resources) and soft capital (social systems and culture) to determine the caliber of campus infrastructure. *Hard capital* refers to the quality of an institution’s human, academic, financial, physical, and information foundation for providing a solid educational experience. Factors include the quality and drive of the faculty and students; the sophistication and sharpness of the leadership and staff; the caliber of the curriculum and pedagogy; student enrollment; size, stability, and growth prospects of the endowment; financial management capacity; advancement operations and alumni giving returns; age of campus facilities, along with the patterns of deferred maintenance; and quality of technology-based, data-driven systems. Obstacles across a combination of these

areas may compromise student outcomes and create a riskier environment for investment.

In 2004, when Achieving the Dream (ATD), a national nonprofit organization, set out to improve community college student outcomes, they determined that scaled results would require the targeted colleges to “engage in bold, holistic, sustainable institutional change” (ATD 2018).<sup>2</sup> Since not every community college interested in receiving an investment was capable of such change, ATD developed an Institutional Change Assessment Tool to identify the most investment worthy among them. The tool measures how an institution’s partners, policies, and practices related to the factors listed above can improve the success of all students, but especially those who are low-income or of color. With some adjustments, the tool could also be used to help determine the investment worthiness of HBCUs (Manning 2016).

While hard capital is a crucial consideration for investment, an institution’s *soft capital* may provide a more important differentiator. In this context, investors should assess what might be called the “character arc” of the campus, which leads to questions such as: Is there a long-term vision that galvanizes those who live, learn, and work on the campus? What is the strategic plan guiding them toward a new future? Are the vision and strategy appropriately ambitious, and are the advancement plans scaled to realize them? What traditions and practices shape campus life and help inform and inspire students into becoming productive citizens of the world? Is the campus delivering an educational experience that will produce graduates who are not only able to live well but also inclined to provide service and investment so others have the means to live well, too?

It is worth noting that many HBCUs are known for the strength of their soft capital, particularly measured by the remarkable and exemplary servant leadership by many of their graduates. For instance, it is well known that the students of these institutions were on the front lines of the civil rights movement of the 1960s (Wolff 2016). Institutions that possess strong soft capital and institutional character should have an edge in any assessments of investment worthiness. As investors consider expanding their reach, assessments of institutions’ capital infrastructure will determine the extent to which additional funding will meaningfully, measurably, strategically, and sustainably elevate the nation’s future workforce.

## The Governance Infrastructure

Does the institution have the governance infrastructure for optimizing the return on a major investment?

When Clark Kerr served as the first chancellor of the University of California, Berkeley, he observed that “no institution can ever be better than its board” (Kerr and Gade 1989, p. 94). Since significant deficiencies in a campus infrastructure tend to be unwittingly authored by significant deficiencies in its governance, prospective investors should include an assessment of the governance infrastructure, basing it on two of the key roles that trustees play.

First, investors should assess how well a board of trustees selects and supports a president. The Association of Governing Boards (AGB) is the recognized authority on what constitutes “great governance.” Relying on AGB principles, investors will find it appropriate to determine whether and how the “board partners with the president and senior leadership to achieve the mission, sustain core operations, and attain the strategic priorities of the institution” (AGB 2010, p. 1). Among other information requests, investors can ask for specific examples of how the campus-trustee partnership has enriched and advanced the institution’s capital infrastructure.

AGB also insists that a board “must establish conditions that generate success for the president” (2010, p. 1). That is measured best not only by how much the trustees provide and attract funding but also by how much they adhere to healthy governance practices like honoring term limits, avoiding conflicts of interest, holding board leadership accountable, and respecting the line between governance and management. Any prospective investor should also examine the fitness of the president—that is, her or his experience, vision, strategic plan, financial and managerial acumen, and investment-worthy ideas. Clear and accurate data on the culture, leadership, and partnership between the board and president can meaningfully inform both investment and partnership decisions.

Beyond clarifying board structure and fitness of the president, prospective investors should determine the degree to which trustees have either strengthened or diminished *the presidency*. Some context here is important.

The strongest colleges and universities in America today may all be challenged, but rarely do they face existential threats stemming from basic infrastructural decay. That is the case largely because most have benefitted from infrastructure-enhancing presidential leadership. Capital campaigns have become centrally important in higher education, as presidents use them to bolster the hard and soft capital of the institutional infrastructure in legacy-worthy ways.

Many of these stronger institutions can point to one or more eras in their history when high-quality presidents helped build a high-performance campus culture. In such settings, institutions become insulated from hard and soft capital infrastructural instability and uncertainty. If an institution has had a series or tradition of effective, infrastructure-enriching presidents, then this usually means their *presidency* is strong. And the singular entity charged with ensuring that an institution's presidency becomes and remains strong is the board of trustees. Prospective investors should understand that the health of the presidency is a primary indicator of the health of the board.

High presidential turnover among HBCUs and other smaller institutions is among the starkest indicators of a profound governance failure in today's disrupted higher education industry.

In recent years, at least 16 of the public and private HBCUs have actively searched for a new president at any given point (Gasman 2012). This pattern of short-term presidents and fundamentally unstable presidencies deters not only new and transformational leadership but also new and transformational investments.

Prospective investors should understand that the condition of the presidency of an institution should wisely be regarded as a central part of what makes it investment worthy. They should understand that there is no such thing as a broken presidency and a healthy board. They should also understand that only briefly can any institution, president, or presidency be better than its board.

## THE WAY FORWARD

At America's more prestigious colleges and universities, donations add up to the tens and hundreds of millions, rather than the tens and

hundreds of thousands. With increased investment, many HBCUs and other minority-serving institutions are poised to do a much better job of enhancing our nation's competitiveness. The long-standing productivity of the HBCU sector, as well as the continued diversification or "browning" of America, elevate the importance of the role to be played by these institutions. For the sake of the nation's future, institutions that can more effectively clarify and market their ability to educate for workforce competitiveness should be rewarded with the same substantial investments that flow to the top tier of the industry. Some HBCUs are singularly worthy of far more than the entire 0.7 percent of America's annual private-sector philanthropic generosity that recently flowed to all HBCUs.

Investments should be based on preassessments of the quality and growth patterns of the cultural, capital, and governance infrastructures. Thoughtful and strategic scrutiny can lead to more substantial investments in HBCUs, thereby improving educational outcomes and enhancing the competitiveness of the nation's workforce.

## Notes

1. As of 2013, the White House Initiative on Historically Black Colleges and Universities listed these five HBCUs as having completed capital campaigns in excess of \$100 million: Claflin College, Hampton University, Howard University, Morehouse College, and Spelman College.
2. For more information, visit <http://achievingthedream.org/our-approach>.

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# 17

## Promoting the Health of Communities for Long-Term Benefits

Valerie Montgomery Rice  
David Hefner

(Note: This essay includes three introductory stories with common characteristics of socioeconomic conditions facing students at an Atlanta elementary school that have both educational achievement and economic implications. Though the characteristics are common, the events, circumstances, and people within the stories are all fictitious.)

*Looking sheepishly out of the corner of his eyes, Michael, a fourth-grade student at Tuskegee Airmen Global Academy, pauses between reciting sight words. His mentor, a physiology professor at Morehouse School of Medicine, sits silently as Michael gathers himself and tries to sound out the word. An empty silence ensues. Then patience gives way to frustration.*

*“That word’s too hard,” Michael says impatiently. “I can’t do it.” His mentor smiles. He sees himself in Michael. Four decades ago, he too was a fourth-grade student at a Title 1 elementary school raised by a single parent.*

*“It’s OK,” the mentor says in a reassuring voice. “We’ll work on it, and you’ll get it. But you must work hard, pay attention in class, and believe in your ability to learn. Because you can, and you will do it. And one day, you’ll also be a scientist.”*

*The mentor shakes Michael’s hand as if to close a formal agreement. Michael makes eye contact and slowly begins to sit up in his chair with a renewed sense of safety. Aware of the time, the mentor brings the session to a close, looks down at the notecard, and circles the sight word: “that.”*



## INTRODUCTION

It is more than a moral obligation to address the fact that millions of children in the United States are not learning the basic reading skills needed to enter and advance in the labor market. As research and practice continue to link health, education, and workforce outcomes, the need for closer attention to literacy issues is particularly acute in low-income communities of color. Effective programs and practices will improve the well-being and success of children in K–12 education and will facilitate stronger labor market outcomes for both workers and employers.

In many ways, reading is the gateway to success. In turn, there is a relationship between lack of literacy and incarceration. Those in prison are less likely to have completed high school than the general population (Wolf Harlow 2015), and the majority of people in prison have basic or below basic levels of literacy (Greenberg, Dunleavy, and Kutner 2007). Ninety-five percent of incarcerated individuals are released and reintegrated into their communities (Hughes and Wilson 2002), and research shows that inmates who receive education while in prison are significantly less likely to return to prison (Davis et al. 2013). The link between academic failure and delinquency, violence, and crime is welded to reading failure.

Reading proficiency is what we call in academic medicine “a social determinant of health.” That is, it affects a wide range of health, functioning, and quality-of-life outcomes and risks. Being a proficient reader by third grade is largely a function of a child’s environment before, during, and after birth. Did the mother smoke or drink during pregnancy? Did she have adequate prenatal care? Was the baby born prematurely? Can the parents read? Did the child receive early childhood education? Is the home environment conducive to learning?

Many of these environmental conditions are related to a family’s socioeconomic status, and research shows that poverty increases the likelihood that children will perform poorly in school (Lacour and Tissington 2011). Poor children are more likely to be born prematurely, have delayed cognitive development, and have reading deficiencies (Brumberg and Shah 2015), as well as drop out of high school, be poor as adults, and be incarcerated as adults (Rumberger 2013). Poverty

entraps poor children at birth in a generational gulf that is almost impossible to escape.

In 2016, 13.3 million children in the United States lived in poverty, representing roughly 18 percent of the population under 18 years old. Children made up one-third of the people in poverty but only 23 percent of the population (Semega, Fontenot, and Kollar 2017). Just over one-third of African American children and 28 percent of Latino children live below the federal poverty line, compared to 12 percent of white children (KIDS COUNT data center 2016). Consequently, the fate of poor children is largely written before they are born.

## HEALTH EQUITY

The academic medical community—including the National Institutes of Health and its associated National Center on Minority Health and Health Disparities<sup>1</sup>—affirms what research has shown: disparities in health disproportionately affect populations who systematically have experienced greater social and economic obstacles based on race or ethnicity, religion, socioeconomic status, gender, age, mental health status, and a host of other determinants (Dankwa-Mullan et al. 2010). These disparities are not new. Owing to the long and violent history of enslavement and racial injustice in the United States, African Americans have been continuously and severely crippled by socioeconomic, educational, and health disparities, leading to violence and premature deaths each year.

In 2010, the concept of “health equity” emerged, which Braveman (2014, p. 6) defines as “the principle underlying a commitment to reduce—and, ultimately, eliminate—disparities in health and its determinants, including social determinants. Pursuing health equity means striving for the highest possible standard of health for all people and giving special attention to the needs of those at greatest risk of poor health, based on social conditions.”

Morehouse School of Medicine (MSM) recognized years ago that health was a cradle-to-grave continuum heavily framed by one’s early physical, social, emotional, and intellectual foundation and success. In response, in 2014, we adopted an inner-city public elementary school

in alignment with our mission and vision to advance health equity. Though still an evolving partnership, we believe that evidence-based investments in youth and parents within vulnerable communities provide immediate and downstream benefits to both the American labor market and local, state, and national economies.

## **OUR PARTNERSHIP**

The Tuskegee Airmen Global (TAG) Academy—named after the famed African American pilots in World War II—is located just blocks from Morehouse School of Medicine in an economically depressed community. It enrolls more than 700 students, 98 percent of whom are African American; all qualify for free or reduced-price lunch. The student mobility rate is about 44 percent, which means new students enroll and others withdraw consistently throughout the school year. As of 2017, less than a quarter of third-grade students at TAG read at or above grade level, and about 15 percent of all students had proficient scores in the state math assessment. Tuskegee Airmen Global Academy’s overall school performance is higher than just 14 percent of all schools in the state of Georgia. MSM has more work to do, given these numbers, and the fact that the school’s reading and math scores are significantly below its school district’s average (Governor’s Office of Student Achievement 2018).

Three years ago, Morehouse School of Medicine launched a partnership with the Atlanta Public School District, TAG Academy, and Atlanta CARES, an affiliate of the National CARES Mentoring Movement. Armed with decades of data on the causes of health disparities in the United States, we embarked on a vision to create health equity in the lives of the children and families of TAG Academy. In the first year, we built a STEAM lab (science, technology, engineering, arts, and mathematics) for the students, purchased back-to-school supplies and winter coats, held our first parent leadership session, and sponsored several academic enrichment field trips. As president and dean of Morehouse School of Medicine, I also challenged our 1,000-plus faculty and staff to commit to mentoring a student for at least one hour a month during work hours.

Today, our partnership with TAG Academy is becoming part of our institutional DNA. It is core to our ability to translate what we know into practice and impact health in the communities we serve. The partnership, fortified by a memorandum of understanding, now includes nearly 100 MSM mentors and nearly 200 TAG student mentees that often meet two times a month; a robust STEAM program designed to build and sustain interest in future STEAM careers; a tutoring program led by a class of public health master's and medical students; financial literacy for third-graders; a six-week health training program to mobilize teachers to lead student groups in changing health behavior, improving environmental health, and influencing practices that support healthier schools; an eight-week workshop with parents to train them to lead parenting education sessions that will transform parenting culture and provide communal social support; and a Safe Routes to School program to ensure students make it to and from school safely. MSM is currently discussing developing a comprehensive family resource center and school-based health clinic at the school.

Our big goals are to ensure that every child that MSM and partners work with at TAG Academy graduates from high school, and that every parent has a secure job in order to end intergenerational poverty and the wastelands that follow. It's no small feat, but it's the good fight. If health equity is to exist, it must begin with children and grow organically in the communal and social networks that support them. Using big data and analytics, innovations in learning and technology, and strategic public-private partnerships, we are committed to finding evidence-based interventions that work and scale them up.

Our still-evolving TAG Academy partnership has already earned four local community awards, including the "Partner of the Year Award" by the Atlanta Public School District. Other medical schools with "pipeline" programs have inquired about it. The program's success has led to expanded partnerships with hotels, cultural arts centers, banks, and local businesses. We also have been fortunate to receive philanthropic support from entities that understand the power and infinite value of human capital. And between the 2014–15 and 2016–17 academic school years, TAG Academy's overall statewide College and Career Ready Performance Index (CCRPI) increased by close to 8 percentage points (Governor's Office of Student Achievement 2018), a result, we believe, of the comprehensive approach being applied by the school, MSM, and other partners.

Consistent and sustained success, however, depends on the village. It depends on the support of organizations both near and far, particularly from the business and philanthropic communities. We cannot afford to do nothing. The costs of education and health disparities are too great, and the loss of human capital too daunting and inhumane. Pipeline initiatives like ours offer a unique example of leveraging unconventional partnerships to address systemic and structural barriers to upward mobility for children.

## THE HIGH COST OF DISPARITIES IN EDUCATION AND HEALTH

*A single mother of five, Michael's mom, Sheila, has faced disappointments since dropping out of high school at age 15. That's when she had her first child and quickly realized the demands of motherhood. Raised by her grandmother, Sheila never met her father, and her mother suffered from mental illness that led to homelessness and hospitalization. Sheila was the product of two generations in poverty.*

*Notwithstanding, she did her best to care for her son. As a teenager, however, she made mistakes. One mistake led to another, and she quickly found herself in her mid-20s with four kids, a sketchy work history, no high school diploma, and no trade skill.*

*Her oldest son Michael is now a fourth grader, and Sheila has difficulty helping him with homework because of her own academic deficiencies. Her children cannot participate in after-school activities like sports, cheerleading, or the school chess club because she needs the older kids home to take care of the younger ones.*

*At night, when her children are in bed, Sheila often cries herself to sleep as she contemplates the challenges that lie ahead for her children. They're the same challenges she faced. She wants more, but limited experiences and countless setbacks have dimmed her vision. This is all she knows.*

Millions of students in inner-city public schools have mothers like Sheila. Gripped by circumstances at birth, low-income children are faced with systemic generational poverty that research suggests feeds

on itself and has far-reaching immediate and long-term economic and societal implications. These implications undermine our nation's economic strength and sense of societal consciousness.

While the national high school graduation rate is at an all-time high, roughly one in five high school students do not earn a high school diploma in four years (National Center for Education Statistics 2017). And although graduation rates for students of color and low-income students have increased over time, we must be mindful that there are still significant gaps for historically underserved students, which translate into lost potential for our communities and our country.

Let's consider the economic implications of not completing high school. Over their lifetime, high school dropouts will cost the country billions. Full-time workers age 25 and older without a high school diploma had median weekly earnings of \$520 in 2017. That compares with a median of \$712 for high school graduates who never attended college, \$836 for workers with an associate's degree, and \$1,173 for workers with a bachelor's degree (U.S. Bureau of Labor Statistics 2018).

Beyond wage differences, high school dropouts tend to have higher rates of poverty and more incidences in the criminal justice system (Alliance for Excellent Education, n.d.). According to the U.S. Department of Education, one-fifth of young adults between the ages of 18 and 24 who dropped out of school were more than twice as likely as college graduates to live in poverty. This compares to 24 percent with a high school diploma and 14 percent with a bachelor's degree or more (National Center for Education Statistics 2011). Another study shows that 1 out of 10 young males who did not complete high school were in juvenile detention or jail, compared to 1 in 35 young male high school graduates (Sum, Khatiwada, and McLaughlin 2009). Lack of high school education only fuels America's annual \$80 billion prison system, which costs taxpayers about \$260 per resident annually (Kearney 2014).<sup>2</sup>

Other studies show that high school dropouts tend to have more chronic health problems (Vaughn, Salas-Wright, and Maynard 2014) and higher mortality rates (Krueger et al. 2015). In fact, the nation would save \$7.3 billion in Medicaid spending if the number of high school dropouts was cut in half, according to a 2013 Alliance for Excellent Education report. After including improved productivity at work, reduced needs for acute-care services, and the elimination

of pain caused by illness and disease into this calculation, the report shows that benefits increase even more: “\$12 billion in heart disease-related savings; \$11.9 billion in obesity-related savings; \$6.4 billion in alcoholism-related savings; and \$8.9 billion in smoking-related savings.” Good education is associated with good health.

Ensuring that all students graduate from high school with the knowledge and skills they need to succeed in college and future jobs would provide widespread benefits for today’s economy. An increased high school graduation rate would produce more employable graduates and more engaged students for future growth of society. Just one year of a high school class with a 90 percent graduation rate could generate up to 65,700 new jobs, \$16.8 billion and \$877 million in home and automobile sales, respectively, and \$1.3 billion more in annual federal and state tax revenues (Alliance for Excellent Education, n.d.).

## ADDRESSING SOCIAL DETERMINANTS OF HEALTH

*It’s October, and Michael has already missed the equivalent of three weeks of school. When he does attend, he’s often late. Typically, his homework is not done, and he isn’t prepared for class. Notes home to his mother Sheila go unanswered.*

*Absenteeism and tardiness have been a consistent problem for Michael since first grade. Sheila says the reasons vary from year to year: from Michael’s “bad” asthma to lack of transportation when he and his siblings miss the bus to Sheila’s sometimes late-night work schedule. Sheila says she’s trying but lacks a support system she can trust.*

*The cumulative effects of missing so much classroom instruction and other environmental obstacles at home are apparent. Michael is barely reading on a first-grade level, and his behavior has worsened. Since first grade, the school nurse has suggested Michael get his eyes checked and tested for ADHD, but Sheila assumes she cannot afford it.*

*With the assistance of the school administration and faculty, Michael’s mentor is trying to help. Michael now receives after-noon tutoring, and Sheila recently enrolled in the parenting lead-*

*ership workshop led by Morehouse School of Medicine. The timing couldn't be better—in two years, Michael enters middle school.*

Absenteeism is an obstacle at inner-city, low-income schools, according to experts. It is not only a sign of potential concerns at home but also results in children missing foundational classroom instruction necessary to advance from one grade to the next.

Improving the conditions in which children live, learn, work, and play, and the quality of their relationships, addresses some of the causes of absenteeism and creates a healthier population, society, and workforce. By working to establish policies that positively influence social and economic conditions, we can improve education and health for large numbers of people in ways that can be sustained over time.

Recent studies examining ways to effectively curtail the influence of family disadvantages on student achievement suggest “a holistic approach that simultaneously attempts to strengthen both home and school influences in disadvantaged communities” (Egalite 2016). One such successful program cited by researchers is the “Promise Neighborhoods” initiative funded by a grant program of the U.S. Department of Education.<sup>3</sup> Founded in the Harlem community in New York City, Promise Neighborhood programs address social determinants of health, provide wraparound services for both students and parents, and emphasize public-private partnerships. Morehouse School of Medicine was a Promise Neighborhoods planning grant recipient in the mid-2000s, and we are using a similar approach in our TAG Academy initiative.

Other policy recommendations around early student achievement tend to align with the framework of our comprehensive partnership with TAG Academy. To address the emotional, social, and cognitive development of students, these recommendations include building outside networks that expand the opportunities to both students and their parents. For our TAG partnership, we are expanding and/or building networks with banks, cultural arts centers, city and state governments, private enterprise, philanthropic foundations, other colleges and universities, nonprofits, and more.

In a KIDS COUNT report, the Annie E. Casey Foundation provided four recommendations essential to addressing and increasing reading proficiency of children. Included in the recommendations were developing an early care and education system, strengthening parents’



roles in their children's educations, supporting initiatives to improve low-performing schools, and implementing scalable solutions to chronic absenteeism and summer learning loss (Fiester 2010). We support the recommendations, as they address the social determinants that impact child development.

Getting our children on the path to reading success is the way to success. Creating health equity requires investments upstream—in both students and their parents—to break the cycle of generational poverty. By addressing the social determinants of health at the structural level for low-income elementary children, we in turn help ensure reading proficiency by third grade and home environments with stable working parents. In so doing, we provide immediate and downstream benefits to both the American labor market and local, state, and national economies.

## Notes

1. The origins of the National Center on Minority Health and Health Disparities can be traced back to the 1990 creation of the Office of Research on Minority Health within the Office of the Director of the National Institutes of Health (NIH). This office emerged based on the strong interest in Congress and the community for a more targeted NIH focus on research on minority health and health disparities.
2. A 2016 U.S. Department of Education report suggests that increasing investments in education—from early childhood through college—could improve skills, opportunities, and career outcomes for at-risk children and youth, particularly if the additional funds are focused on high-poverty schools. Investing more in school success for disadvantaged children and youth could reduce disciplinary issues and reverse the school-to-prison pipeline. In addition, educational programs for incarcerated youth and adults could reduce recidivism and crime by developing skills and providing opportunities. For more information see Stullich, Morgan, and Schak 2016.
3. For more information on Promise Neighborhoods, visit <https://www2.ed.gov/programs/promiseneighborhoods/index.html> (accessed September 4, 2018).

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## **Part 4**

# **Investing in Workers with Different Abilities**



# 18

## Creating Economic Opportunity through Work and Support

Kathy Krepcio

In the United States, a significant challenge facing people with physical and intellectual disabilities and workers experiencing chronic health or disabling conditions has been accessing, maintaining, or returning to steady employment. In the 28 years since the signing of the Americans with Disabilities Act (ADA), which outlawed workplace discrimination against workers with disabilities, the unemployment rate for people with disabilities has been disproportionately high as compared to the general population.

Research on disabilities has long shown that working-age Americans with disabilities are more likely to live in poverty than other workers, and they did not share equally in the economic prosperity of the late 1990s and have not in the growing economy of the past decade. In fact, a pervasive gap remains between those with work-limiting disabilities and those without when it comes to household income, employment, and poverty (Erickson, Lee, and von Schrader 2017; Stapleton et al. 2005). Since 2008 when the U.S. Census Bureau and the Bureau of Labor Statistics began to generate data on people with disabilities, the employment rate for people with disabilities has generally lagged behind the general population, but it has experienced an unprecedented rise over the past two years (Kessler Foundation and University of New Hampshire 2018). This narrowing employment gap is due in part to the strengthening of the U.S. economy and the tightening labor market, which have generated greater demand for workers.

Since the enactment of the ADA, research has focused on how to improve the quality of life of people with disabilities by:

- reducing dependence on public programs, such as federal and state disability and medical insurance;

- addressing misaligned financial incentives to stay at or return to work;
- improving employment skills and educational attainment;
- addressing significant barriers to employment, including discrimination as well as access to simple services and early interventions such as affordable, accessible transportation and early rehabilitation; and
- overcoming attitudes and stigma toward work and disability by employers, parents, coworkers, insurers, medical personnel, and the social services delivery system.

Fundamentally, these issues are challenging to address because people with disabilities are not a homogenous group. They have a range of disabilities, from those born with or who acquired physical disabilities or disabling conditions due to chronic health conditions at a young age, to individuals of all ages with intellectual and cognitive disabilities such as autism, to those with learning disabilities. As such, a very complex set of issues exists around the intersection of disability, aging, health, and employment, and scalable solutions have not been widely tested or implemented to meet every individual's unique circumstances.

For example, individuals who have had a disability since birth or a young age may be familiar with job accommodation, assistive technology, and other supports, but they may not have acquired or been provided equal access to a high quality education and to the employability skills necessary to get a well-paying, full-time job. Other individuals who acquire a disability later in life, or who experience a chronic medical condition as they age, may have the credentials, experience, and skills to remain working, but they may be unfamiliar with available services and supports to maintain employment or be unable to overcome disability or age discrimination. Still others may be coping with age-related disabilities (such as hearing loss), learning disabilities, or mental health issues and may not identify with having a disability and have little knowledge of resources that could help them keep working (Heidkamp, Mabe, and DeGraaf 2012).

## **STRATEGIES TO IMPROVE THE LIVES OF PEOPLE FACING SIGNIFICANT CHALLENGES TO EMPLOYMENT**

While today's public policies and major federal and state benefit systems are still built largely on the premise that people with disabilities cannot work, progress has been made toward changing policies, practices, and attitudes, and recognizing that employment and economic self-sufficiency are important determinants for people with disabilities to achieve both health and well-being.

The three chapters in this section illuminate challenges in addressing disability and employment through the lens of various populations as they make efforts to enter, remain, or return to the labor market. The chapters also offer solutions, involving policy changes, community building, public-private partnerships, and private investments, which have the potential to improve employment opportunities and increase the share of economic prosperity available to people with disabilities across the United States.

In "Empowering Workers with Disabilities: A Philadelphia Story," John Colborn, Stephanie Koch, and Laura Welder focus on how youth with disabilities can achieve greater independence through services and supports tailored to the needs of young adults and their families. Connecting youth to local employment and community-based activities helps foster a strong local network and system of supports key to long-term success. The chapter offers a case study of the Philadelphia Independence Network (PIN), a program of JEVS Human Services designed to help young adults create satisfying lives that include meaningful work, while promoting individual autonomy and independence. A critical component of the PIN model is the unique public-private partnership between JEVS and families of PIN members—JEVS relies on this network of families to support PIN members and help them access employment opportunities.

In "Philanthropy: Building Best Practices in Disability Inclusion" by James Emmett, Meg O'Connell, and Judith M. Smith, the authors discuss the important role of employers in creating a culture of inclusion in the workplace. Companies who support and invest in a culture of inclusion can accrue benefits including better workforce stability and



retention, improved workplace culture and industry image, and better quality relationships with customers and local communities. The authors point out the significant role the philanthropic community has played in initiating and investing in innovative strategies for disability inclusion across corporate America. They also highlight how private foundations, government agencies, nonprofits, and workforce development systems can expand employment opportunities and access to work in the private sector for people with disabilities by working closely with major corporations to increase their disability inclusion efforts.

Finally, in “Reducing Job Loss among Workers with New Health Problems,” Yonatan Ben-Shalom, Jennifer Christian, and David Stapleton focus on the millions of Americans who lose their jobs or leave the workforce, often permanently, because of a medical condition. As they note, “Research indicates that many workers who might otherwise be able to stay in the labor force are losing their jobs and livelihoods today because no one provides the prompt and practical extra support they need. . . . As a result, these workers fall through critical gaps in the social support system, often leading to suboptimal medical and functional outcomes as well as preventable work disability.” The authors demonstrate how early intervention to address common health conditions can prevent both needless work disabilities and the resulting years spent in poverty due to diminishing income and reliance on public benefits. Barriers that stand in the way of reducing work disability include a lack of clear public responsibility for addressing the issue, contradictory incentives to stay at or return to work, and insufficient communication among the medical, insurance, and employment systems designed to protect workers. Various solutions presented, if tested, have the potential to reduce preventable work disability and reliance on federal and state disability benefit systems, and, in turn, increase employment access and retention for workers with disabilities.

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# 19

## **Empowering Workers with Disabilities**

### **A Philadelphia Story**

John Colborn  
Stephanie Koch  
Laura Welder

#### **THE ISSUE**

Work is a fundamental, yet transformative element of life. In addition to wages earned, work presents employees with purpose, integrates them within a community, stimulates motivation, reinforces and builds on education, and empowers them with ongoing offerings of opportunity. The basic elements of successful employment do not change based on one's ability. As the U.S. Department of Labor's Campaign for Disability Employment touts, "At work, it's what people CAN do that matters."<sup>1</sup>

According to the U.S. Department of Labor (2017), 20.6 percent of individuals over age 16 with a disability were participating in the labor force<sup>2</sup> as of May 2017, compared to the 68.6 percent of those in the same age group without a disability. In 2016, 10.5 percent of individuals with disabilities were unemployed, significantly more than the 4.6 percent without a disability (Bureau of Labor Statistics 2018). What leads to this great disparity?

The hiring process generally follows a well-trodden path. Employers tend to seek individuals with loosely related credentials and previous experience, relying on typical assessment techniques rooted in résumé/application reviews and interviews, despite ample anecdotal evidence of the limitations of these approaches. When diving into the vast labor pool before them, employers neglect less conventional modes

of hiring individuals with disabilities and instead tap more traditional populations.

However, a confluence of factors has led at least some employers to take a second look at their employment practices. Tighter labor markets across regions and industries have forced many employers to look beyond their usual labor-sourcing techniques. HR professionals are also beginning to question the traditional hiring process and are looking for ways to improve upon the generic college credential and work history assessment. Finally, as social expectations of workplace diversity and inclusion change, employers have begun to look at less traditional hiring techniques to enhance team effectiveness, better position the organization in labor markets, and improve workplace attractiveness more generally.

Indeed, a plethora of supported employment services are provided by organizations that assist employees with on-the-job training, workplace modifications, and job development and placement strategies that lead to long-term employee retention and business success. The key to this success is to incorporate workforce development practices across all supports that individuals with disabilities may receive. Similar to the practices utilized by recruiters and job placement firms for individuals without disabilities, community-integrated employment, which provides opportunities for all individuals to fully participate within the community, works to discover an individual's strengths, weaknesses, and skills, and matches them to a job that fits both their interests and experience. Consider a student with an intellectual disability who worked in a laundry after school for four years; could a next rung on a career pathway ladder be in a retail clothing store, managing inventory, and designing displays? Consider a hearing-impaired individual who loves to work with his hands; would a natural fit be an advanced manufacturing plant where the environment's noise would be too loud for someone without a hearing impairment?

With supports such as job matching, job coaching, and technological innovation, employment service organizations are able to dispel widespread misperceptions that individuals with disabilities are not capable of learning new skills and completing tasks. Hiring individuals with disabilities has a positive and significant impact on businesses and work places. In an analysis of workers with disabilities compared to workers without disability, Walgreens determined that workers with

disabilities had higher productivity, lower turnover, and a better safety record than their fellow workers without disabilities (Kaletta, Binks, and Robinson 2012). An inclusive, diverse workplace creates a positive culture for both employers and customers alike. Individuals with disabilities are currently the largest minority in the United States (U.S. Department of Labor 2018), and studies show that the more a company's staff reflects its demographics, the better its bottom line (U.S. Chamber of Commerce 2013). A workplace that represents the diversity of its targeted clients or customers will be better positioned to understand, appeal to, and serve similar populations.

Kristy Chambers, CEO of Columbus Community Center, a non-profit organization serving adults and teens with disabilities, remarked that individuals with disabilities often fit seamlessly into a company. "When you find that right fit, they become a part of the work culture and they truly can be an inspiration to their coworkers, customers and stakeholders," she says. "Anyone who has worked with someone with a disability in their work environment can agree that they're quite inspirational because they've overcome obstacles. It's a reminder to everyone that good work ethic and enthusiasm is really what makes a good employee" (Francom 2016). Combining tailored supports aimed to help individuals with disabilities obtain and retain jobs, increase their independence, and live self-sustaining lifestyles, has demonstrated benefits that affect employers, the local economy, and individuals with disabilities themselves.

## **A PHILADELPHIA MODEL FOR YOUTH WITH DISABILITIES**

To address the unmet needs of Philadelphia youth with disabilities, a group of parents approached JEVS Human Services in 2011 to partner in the creation of a co-ed community of young adults with disabilities. Since JEVS's founding in 1941, the agency has grown from a single focus—helping Jewish refugees find work after arriving to the United States—to a multifaceted twenty-first century nonprofit that serves more than 30,000 people annually through 29 programs. JEVS's mission—to enhance the employability, independence, and quality of

life of individuals through a broad range of programs and create innovative and sustainable solutions to address current and future community needs—promotes an asset-based approach to working with clients to help them achieve the most self-sufficient lifestyle possible. Drawn to JEVS's mission and commitment to help individuals from all backgrounds achieve independence through education, job readiness, and supportive services, these parents looked to JEVS as a natural partner in this endeavor. Together, they established the Philadelphia Independence Network (PIN), located 30 minutes west of Philadelphia in the borough of Narberth.

The first collaborative program of its kind in the Philadelphia area, PIN tailors supportive services to the needs and capabilities of each program member, building their independence, self-esteem, and skills and helping them connect to employment and other community-based activities while creating a network of friends. PIN achieves this through a partnership between JEVS staff, the youths' parents, and the members themselves. The overarching goal of the PIN program is to enhance participants' autonomy and independence across multiple domains. To achieve this goal, PIN staff along with a Steering Committee of parents aim to create and sustain a community of young adults with disabilities, providing opportunities for independence, socialization, and group enrichment, as well as individual residential habilitation and vocational placement and coaching services that meet each member's unique needs and skills.

PIN members are young adults who demonstrate potential to live independently with support. Rather than seeking individuals with a particular type of disability, PIN staff select members to join based on their interest in work and volunteer opportunities, as well as a desire to participate in social and educational programs. In other words, membership in PIN is not defined by a particular disability status, but rather by an ability and desire to become integrated, productive members of the community in which they live. Members live in their own apartments in a suburb of Philadelphia within walking distance to public transportation, so that they can access jobs, supermarkets, shopping, as well as cultural and sports venues. JEVS understands that PIN members often come to the program having had negative experiences within their wider communities due to misperceptions regarding their disability. PIN therefore strives to support all members in developing strong, posi-

tive relationships both within and outside the program and in preparing for, obtaining, and successfully maintaining employment.

The PIN model uniquely embraces a whole-life perspective such that employment services are fully embedded within the larger program and are delivered by cross-trained staff utilizing a team approach. The mentor associates/job coaches also assist members with daily life skills, allowing staff to more efficiently and successfully match members to jobs while also remaining responsive to employers and their needs. The program also features a dedicated career navigator. Although the career navigator's focus is employment related, as an integrated team member, she also works with members and mentor associates/job coaches across multiple activities and settings. This in-depth involvement allows the career navigator to identify areas in which a member excels as well as their individual learning styles and interests. In short, spending time with members in a variety of situations strongly informs individualized career development activities.

Many members come to PIN having successfully completed post-secondary education programs; identifying, preparing, and receiving support for internship and employment opportunities is the natural next step as they work toward independent living and self-sufficiency. PIN staff collaborate with members to find the right job, internship opportunity, or next step along their career path. Given employers' desire for accurate job matching (i.e., job seekers interests and strengths paired with job roles, skills expectations, and needs), PIN staff utilize a customized and person-centered approach to support members in exploring their interests and gaining clarity about their skills through specifically matched internships. As of the summer of 2017, PIN had 24 young adult members, 18 of whom were employed—a high success rate by any standard. While the employment rate of PIN members is certainly noteworthy, the program's retention outcomes demonstrate its real impact. Sixty-seven percent of members have maintained their employment well beyond the standard 90 days tracked by offices of vocational rehabilitation.<sup>3</sup>

The PIN model provides the following employment services:

- **Discovery process**, a qualitative and person-centered assessment that gathers information about an individual through conversations and observations during community-based experiences;



- **Job search planning**, a process that stems from the data gathered and assumptions made from the discovery process that helps identify industry matches and prepares the individuals for résumé development and further education about employment options;
- **Job development and negotiation**, a combination of efforts from PIN staff who develop employer relationships and support the PIN member during the interviewing process, including ensuring salaries offered are not subminimum and work schedules are compatible with the member's lifestyle; and
- **Post-employment support**, which includes job coaching, both on and off the job, to ensure the job match is a fit and that the individual is comfortable on the work site and is meeting employer expectations. Post-employment support also ensures that the job role is as described and that the individual has the opportunity to grow within the role.

This model applies the idea that, as for any young adult, meaningful career paths are not always linear and usually involve multiple jobs and job environments. Although it is highly unusual for both staff and an organization to dedicate time and resources for cross-training and providing services informed by a whole-life approach, PIN members such as John, whose story is told in the next section, have benefited from this holistic strategy.

## JOHN'S STORY

At 22 years of age, John (*name changed for privacy*) is one of PIN's youngest members. He has an autism spectrum disorder and came to PIN after struggling to find a path following graduation from high school. Prior to joining PIN, John had tried attending two independent-living college experience programs. Both programs were located out of state and contributed to the strong social anxiety he was experiencing, so John decided he needed to be closer to his family in Philadelphia.

In May 2015, John moved into his own apartment and joined PIN. Since joining the program, he has demonstrated tremendous growth in

his level of independence. Throughout his first year, John held a part-time job as part of a maintenance team at a private school. Although employed, he was very unhappy in this position and often talked of his dream to work for a major metropolitan transportation system.

John is well versed regarding public transportation systems in Philadelphia and other major urban areas. He is particularly interested in trains and is extremely knowledgeable about the broader operation of public transit systems as well as the mechanics of various types of trains. Since he was a teenager, John has attended the monthly public board meetings of Philadelphia's public transportation company. He is well known for his public comments and interest in improving the operations of public transportation systems. In June 2016, Philadelphia's public transportation provider offered John a job as an undercover rider to assess customer satisfaction regarding both the bus and subway systems.

John is thrilled to be able to work for a major public transit system and share his vast knowledge and passion, but this is not a simple job. He has worked very hard with PIN staff to learn how to channel his passion in a formal context, to learn new tasks quickly, and to demonstrate the soft skills critical for successful professional employment. Importantly, through his work with the PIN team, John has learned how to interpret the subtleties inherent in evaluating customer satisfaction. Since the beginning of 2017, John has been able to do his job almost completely independently. With the assistance of the PIN team, he also has learned how to complete the detailed reports required by his job.

Three months after John started his job, the transportation provider had to let its part-time undercover riders go, and John was the only employee that the provider decided to keep. Staff members clearly appreciate the expertise and knowledge that he brings to his work. Because his position remains part time, the PIN team is helping John find additional ways to contribute his public transportation skills, knowledge, and passion.

One option for John may be to become a peer mentor, teaching other young adults with disabilities how to use public transportation. The occupational therapy department of a large Philadelphia-based university recently approached PIN regarding research they are conducting on the utility of peer mentoring in travel training for individuals with disabilities. PIN connected John with the researchers, and he is helping

them identify best practices related to travel training, as well as providing input that informs their research direction and grant-seeking efforts.

John's story exemplifies many of the core values of the PIN model. The program is committed to helping members identify their areas of interest and strength, and achieve their highest level of self-sufficiency and independence. Through their job development efforts, the PIN team helps members translate interests and abilities into viable job opportunities. Once members have obtained employment, PIN staff provide ongoing job coaching to ensure a successful experience for both members and employers.

Notably, success on one particular job does not necessarily mean that job will be a member's only or last job. The PIN model is fluid, recognizing that finding the right job is often an iterative process. As with any young adult, members may "try on" several different jobs, learning as they go what will be an ideal match. As John's story demonstrates, the model is grounded not only in developing the skills necessary to succeed in employment, but also in the belief that members have unique perspectives and experiences valuable to the wider community. PIN members are expected to engage with their community through employment, volunteering, and participating in community activities based on their individual interests. Community integration and vocational development, both hallmarks of the PIN program, are overwhelmingly a "win-win" for members, employers, and the community as a whole.

## **THE PARENTS' PERSPECTIVE<sup>4</sup>**

Jerry and Lois are parents who have been involved in the development of the PIN program since the very beginning, and their son David was one of the first PIN members. When they describe their experience with PIN, they frame their perspectives around programmatic "elements of success." Jerry and Lois praise PIN as having successfully "created a culture of work" driven by the members themselves. By defining membership criteria in terms of desire and drive to work, rather than by clinical disability diagnosis, PIN attracts members who are strongly committed to working. Both members and staff are excited

about employment, because employment, education, and/or seeking employment is a requirement of the program. Members also hold each other accountable for actively engaging in employment activities. Jerry and Lois note that PIN staff does an excellent job collaborating with members to think beyond traditional employment opportunities and finding jobs that specifically meet individual needs, interests, and skills.

Jerry and Lois also believe that PIN's embedded vocational supports model is critical to the program's impact. Specifically, they identify staff cross-training as a major element of success within the model because there is a consistent level of content knowledge and expertise across all staff. They note that members can approach any available staff member at any given point with a work or life issue. Members can also seek out assistance from whichever staff person they feel most comfortable with, knowing that all staff members are equally capable of providing guidance.

In addition, Jerry and Lois have observed that the cross-trained PIN staff are well positioned to help members achieve a successful work-life balance. Recognizing that vocational and social issues tend to influence each other, PIN staff take a whole-life perspective and provide guidance across all life domains. As opposed to more traditional job coaching models where the coach is on-site with the participant for a short duration of time, the embedded PIN model allows staff to spend greater amounts of time with members, both on and off the job. This enables staff to identify and address more subtle challenges members face. Lois and Jerry also believe the continuity of PIN staff is a major program asset—PIN members do not have to start over multiple times with different staff persons throughout the employment-seeking and support process.

Jerry and Lois support the unique public-private partnership between JEVS and families of PIN members, who are integral contributors to the ongoing success of the program. In addition to families serving on the PIN Steering Committee, the program relies on the interconnected network of families as a resource for potential member jobs. This partnership increases members' independence and forces parents to confront their own issues related to their children's growing independence. In other words, member employment has served as a catalyst for parents to reexamine their perceptions of, and the ways they react to, their children. Parents must grow to recognize that their child is

no longer entirely financially dependent. Jerry and Lois describe this transition around the control of finances and general independence as a learning process with which both parents and the program members must grapple. To help both PIN members and their parents address this challenge, the PIN program has integrated a comprehensive financial literacy component to its model. This training assists members in building a solid financial base for themselves and ultimately achieving financial independence.

Jerry and Lois contrasted the PIN model with the traditional model at the Pennsylvania Office of Vocational Rehabilitation (OVR). Once participants seeking services solely through OVR secure a position, they are prohibited from receiving additional assistance to find future jobs. This limited support deters opportunities for economic mobility and financial self-sufficiency. In contrast, the PIN model recognizes that a member's first job will not necessarily be a final job. In support of the program's end goal, the PIN team works with members so that they require less staff guidance over time and assume an increasingly independent role in all facets of their lives.

## **THE EMPLOYERS' PERSPECTIVE<sup>5</sup>**

Robert (*not his real name*) is one of the 18 PIN members with a steady job. He works several days a week for Wells Fargo in the company's lock box operation. During a conversation involving Wells Fargo's decision to hire Robert, the bank emphatically expressed that employing individuals with disabilities benefits businesses' bottom line. Wells Fargo staff relayed that "programs such as [PIN] and organizations such as JEVS, help us make sure we [are] looking at increasing our talent and recruiting bases." Wells Fargo staff also described that hiring individuals with disabilities benefits the workplace more generally. A staff member specifically said, "We like to think that bringing Robert on board has had nothing but a positive effect on both our Team and the work environment. . . . Robert has such a strong work ethic and drive that we're hoping a lot of that rubs off on some of his current and future Team Members."

Echoing this belief, other employers spoke about the specific and unique skills people with disabilities bring to the workplace. The CEO of another organization that employs a PIN member remarked that employers usually underestimate what people with disabilities can contribute. She remarked that once employers recognize the talent people with disabilities bring to their jobs and how their contributions often fill an unmet need, “something special happens.” Employers that hire people with disabilities “get committed employees that increase businesses’ success and growth.”

Another employer believes that hiring individuals with disabilities helps dispel stereotypes that those with disabilities are unable to work in an integrated workforce setting. This employer shared that it is precisely an individual’s experience with a disability that makes her or him better able to connect and empathize not only with other employees but also with customers.

Finally, the employers of PIN members shared that actually engaging in the process of hiring people with disabilities helped dispel misconceptions that the process is intimidating and not worth the effort. One employer related an important lesson: spending time up front to get to know the individual as well as accommodations he or she might need is actually what every employer should be doing with *all* of their employees, not only those with an identified disability. Employers also learned that while it is important to respect individuals’ needs, it is equally important not to treat them differently than other employees; this means holding workers with disabilities to the same standards and codes of conduct.

## CONCLUSION

Models like PIN remain challenging to sustain. Public support systems may create a false perspective of the true advantages of work for individuals with disabilities. Issues that undermine the efforts of individuals with disabilities who want to work include: benefits reductions that occur after wage gains, a neglect of supports for transportation to and from employment (Maynard 2011; Vallas, Fremsted, and Ekman 2015), and job coaching offered only during working hours.

PIN's holistic model integrates both the social and vocational aspects of members' lives, supporting their growth toward living independently and building a career. It makes economic sense to support members in all areas of their lives, including finding and maintaining a well-suited job and creating meaningful, satisfying lives *within their community*. These supports cost society less money than the expense associated with supporting individuals who are unemployed and/or unnecessarily living in a costly group home (Nord and Hamre 2014).

Overall, the PIN model flips the traditional disability employment paradigm. PIN offers a whole-life, integrated approach that guides members to achieve independent lives, founded upon employment and participation within their community. The model benefits not only PIN members and their families but also employers and the overall community, proving that empowering individuals with disabilities is a worthwhile investment. With its successful implementation and sustainability over time, PIN in Narberth has gained a solid reputation for providing stable futures for young adults with disabilities and the ability to provide their parents the opportunity to enable their children's independence. This reputation has spread throughout the region and now expanded to New Jersey, where a second Steering Committee of interested parents has partnered with JEVS to develop a location in Collingswood, roughly 15 minutes from Center City Philadelphia. Both Collingswood and Narberth provide a welcoming and walkable town filled with employment, education, and social opportunities for members. The expansion has led JEVS to brand the two sites as the JEVS Independence Network.

## Notes

1. See the campaign's website: <https://www.dol.gov/odep/topics/CampaignForDisabilityEmployment.htm> (accessed September 7, 2018).
2. Labor force participation is defined as being employed or actively seeking work. It does not include individuals who are discouraged and stopped searching for jobs. The national unemployment rate is measured by the number of unemployed people as a percentage of the labor force. See the U.S. Bureau of Labor Statistics website: [https://www.bls.gov/cps/cps\\_htgm.htm](https://www.bls.gov/cps/cps_htgm.htm) (accessed September 7, 2018).
3. Once an individual begins employment, the job coach must work to ensure that the individual can retain the employment over time. An employment outcome is

achieved only if the individual has maintained the employment outcome for a minimum of 90 days (the standard job retention period). The job coach must follow the individual during this, often critical, initial period on the job. At the end of this period, the individual, the job coach, and the employer must consider the employment outcome to be satisfactory and agree that the individual is performing well on the job.

4. Information gathered from interviews between the authors and PIN parents that occurred on May 30, 2017.
5. Information gathered from interviews between the authors and employers that occurred on July 19, 2017.

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# 20

## Philanthropy

### Building Best Practices in Disability Inclusion

James Emmett  
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Over the past 50 years, corporate America has increasingly embraced the fact that hiring employees from diverse populations is key to maximizing the potential of American workers and enhancing economic stability. Unfortunately, while considerable progress has been made with regard to gender, sexual orientation, race, and ethnicity, the nation’s largest “minority” group—people with disabilities—continues to lag behind in the workplace for many reasons. Among these are cultural bias, the disability benefits system, subminimum wage practices, and the education system. Perhaps the most limiting factor has been an overarching misconception among employers that workers with disabilities are difficult to train, expensive to accommodate, and have limited capabilities and potential. In short, hiring people with disabilities may be viewed more as an act of charity, goodwill, or legal obligation rather than as good business practice.

Workplace Initiative, a program spearheaded by the Poses Family Foundation, has spent the past five years working with other funders, government agencies, nonprofits, workforce development systems, and, most importantly, companies themselves to help employers see individuals with disabilities for what they really are: one of the nation’s greatest untapped labor forces. With proper counsel and strong alliances, our partners—and a growing number of corporate leaders like them—have seen firsthand that investing in inclusion can pay off with concrete benefits to workforce stability and productivity, corporate culture, industry image, and community relationships.

What follows is an overview of how employers in the United States perceive people with disabilities, why perceptions are finally beginning

to shift, and what industry trailblazers are doing to transform disability inclusion from a charitable endeavor into a profitable workforce strategy that benefits all stakeholders.

## **A HISTORY OF UNTAPPED POTENTIAL**

The Americans with Disabilities Act (ADA) defines a person with a disability as someone “who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such impairment, or a person who is perceived by others as having such an impairment” (U.S. Department of Justice 2009). Disabilities can be evident, such as blindness or the inability to walk. Or, they can be “invisible,” as is often the case with chronic illnesses such as epilepsy and multiple sclerosis, mental health issues, and learning and attention issues such as dyslexia and attention deficit disorder (ADD).

The Civil Rights Act of 1964 outlawed discrimination based on gender, national origin, and religion, but it did not recognize people with disabilities (U.S. Equal Employment Opportunity Commission, n.d.). Those formalized protections came with the Rehabilitation Act of 1973 (U.S. Access Board, n.d.) and the ADA of 1990 (U.S. Department of Justice 2009).

Since its passage in 1990, the ADA has led to improved access to public facilities for people with disabilities. Clear examples of this are the curb cuts, automatic doors, Braille signage, and other equal access features that are now commonplace in communities and businesses across the nation. Yet progress toward equal opportunity and inclusion in the workplace has not been nearly as impressive. Astonishingly, the unemployment rate for people with disabilities is more than twice what it is for people without disabilities (Office of Disability Employment Policy, n.d.). This is true, in spite of the fact that:

- the ADA and other legislation have addressed employment discrimination and provided workplace accommodations for individuals with disabilities;

- seven out of 10 unemployed adults with disabilities say they would prefer to work (Parker and Szymanski 1998); and
- employers have expressed positive attitudes about hiring individuals with disabilities (Kessler Foundation 2017).

For many of the 56 million adults in this nation living with a disability (U.S. Census Bureau 2012), work is a story of potential unrealized, and people with disabilities remain under or off the radar as a viable source of talent for many employers. Of the 20 million who are of working age, approximately 80 percent are underemployed or unemployed (U.S. Department of Labor 2017).

## **CORPORATE TRAILBLAZING AND LEGISLATIVE MANDATES**

Within the past decade there has been some positive change, as companies have taken greater interest in disability hiring initiatives. Their attention, in good part, was triggered by an ambitious inclusion program launched in 2007 by the national pharmacy retailer Walgreens. This watershed initiative garnered even more attention in 2012 when Walgreens published the results of its five-year pilot. Three of the most motivating findings were that 90 percent of employees with disabilities performed on par with or better than their nondisabled colleagues, and employees with disabilities had 48 percent greater tenure and 40 percent less absenteeism (Kaletta, Binks, and Robinson 2012).

These results sparked significant movement in the supply chain and logistics industry. Companies like Best Buy, Lowe's, United Parcel Service (UPS), Starbucks, Procter & Gamble, and others began to follow suit and tap into workers with disabilities. Every one of them reported benefits similar to those of Walgreens (Kaletta, Binks, and Robinson 2012).

The federal government also has had an important hand in increasing disability inclusion, by holding companies more accountable when they discriminate and by creating more impactful legislation. In 2014, changes to Section 503 of the Rehabilitation Act of 1973 proposed a significant new metric, an "aspirational goal" that 7 percent of the

workforce of federal contractors and subcontractors be people with disabilities (U.S. Department of Labor, n.d.). The amended Section 503 was essentially an affirmative action measure for workers with disabilities, and it affected more than 250,000 employers in the United States (ADA National Network, n.d.). For the first time, federal contractors and subcontractors were not only allowed but also *expected* to ask job candidates and existing employees about their disability status. In addition, they were expected to track and record their disability employment data, hire individuals with disabilities, and create an inclusive culture in the workplace for all.

## **INNOVATION AND CULTURAL SHIFTS CREATE OPPORTUNITY**

Other more general cultural changes have given traction to the disability inclusion movement. A case in point is the technology boom, which has forever changed the way that nearly all people in this nation work, socialize, and think. Technological advances also have created opportunities for individuals with disabilities that did not exist even a decade ago (Greenemeier 2015). People who are blind now have screen readers enabling access to written e-mail and files. Those who are deaf or hard of hearing use instant messaging or online interpreting to communicate with others. People with dyslexia use apps such as Grammarly and spell-check to ensure their writing is error free and text-to-speech to overcome reading hurdles. This changing technology has allowed people who were previously considered unable to participate in a “normal” work environment to thrive.

Work culture itself—in part due to technology—has changed in ways that have benefited individuals with disabilities as well. This includes a greater focus on work-life balance, openness to job sharing, and tele-work and telecommuting opportunities (Owen 2012). All of these influences, combined with a shrinking labor force (Plumer 2013), have created a perfect storm of possibilities for people with disabilities—and the potential payoffs are big for them and employers alike.

## **THE PAYOFF FOR EMPLOYERS**

Started in 2012, the Workplace Initiative has worked with 19 major corporations and 275 partners to help more than 7,500 people with disabilities obtain meaningful, competitively paid employment. This list includes business leaders like Pepsi, UPS, and Cintas; and national and regional nonprofit organizations such as Tangram, Viaquest, Northwest Center, and the United States Business Leadership Network. Employers have reported the following:

- Overall, employees with disabilities have longer tenure, performance that is on par or better than nondisabled colleagues, lower absenteeism, and fewer safety incidents.
- The presence of employees with disabilities has improved workplace culture and increased employee engagement. Managers have said they have become “better managers” because they have learned to individualize their approach to helping each employee succeed (Kaletta, Binks, and Robinson 2012).
- Having a reputation as an inclusive employer and business has opened new market opportunities. Consumer studies have shown that people are more likely to patronize a business that shows a positive commitment to their population, and people with disabilities and their households spend over \$1 billion annually on consumer products (Nielsen 2016).

## **DISABILITY EMPLOYMENT TRENDS**

The Workplace Initiative team has had a front-row seat to many of the nation’s most successful disability inclusion programs. Some of the most exciting trends the team has observed are discussed in the following sections.

### **Pretraining Programs**

Employers are beginning to build their own talent pipeline through pretraining programs. These initiatives—which can run anywhere from

two weeks to three months—help individuals with disabilities learn key job skills so they can enter the workforce prescreened, pretrained, and ready to be productive.

The gold standard program of this kind is the Transitional Learning Center (TLC) developed by UPS, which was recognized as the 2016 “Large Employer of the Year” by the Association of People Supporting Employment First, at its Worldport sorting hub in Louisville, Kentucky. The TLC is a cooperative effort between UPS and the Coalition for Workforce Diversity, a network of employers and service providers committed to helping people with disabilities establish independence and find meaningful work.

The two-week preemployment training program is staffed and operated by UPS training supervisors and by job coaches from Options Unlimited. This program uses a classroom environment to teach participants about job responsibilities and soft skills. The TLC also features a fully simulated Worldport package-handling facility, which provides participants with invaluable hands-on practice.

Through the TLC, UPS has developed the “secret sauce” for sustainable success in hiring, retaining, and supporting employees with disabilities. The recipe consists of four key ingredients (Brody, Coffey, and Donahue 2016):

- **Culture:** With a culture that supports and celebrates all team members, people with disabilities are poised for success. The TLC builds on this culture by providing dedicated leadership, hands-on training, and other concrete evidence of the company’s commitment to inclusion in the workplace.
- **Collaboration:** Seamless internal and external coordination creates a strong but flexible structure that enables the TLC to achieve the goal of placing more than 100 employees in UPS jobs per year. Critical to the success of this collaboration is a cross-cutting leadership structure that drives seamless integration of the TLC into the Worldport training process. The TLC’s success also relies on external collaboration with a partner that facilitates a streamlined system for identifying and vetting potential candidates. This service is provided by Options Unlimited, Inc. on behalf of the Coalition for Workforce Diversity. For maximum continuity, Options Unlimited embeds a full-time employee in the TLC who oversees the recruitment, training, and support of participants.

- **Curriculum:** A “hear it, see it, do it, feel it” approach to every topic provides points of connection and understanding for all participants. In addition to targeted, soft-skills training sessions, TLC staff and participants start each day with an icebreaker activity to foster teamwork and encourage collaboration.
- **Company Return on Investment (ROI):** The TLC operates not out of goodwill but to meet Worldport’s business needs. Data from the program show a clear reduction in turnover, and the TLC provides a consistent pipeline of dedicated and trained employees entering UPS. The TLC team is committed to tracking and analyzing outcome data and aligning outcomes with the broader strategic hiring and onboarding goals of UPS.

## Neurodiversity Hiring

Neurodiversity is the idea that individuals with disabilities like autism and ADD think, learn, and process information differently. The concept has been embraced by disability activists who use it to fight stigma and promote inclusion in schools and in the workplace.

The idea of neurodiversity is gaining traction in corporate America. In recent years, numerous major companies have launched neurodiversity initiatives, including Microsoft, SAP, EY, Ford, and JPMorgan Chase. These efforts often focus on recruiting individuals with autism, but some also look to candidates with ADD and learning issues such as dyslexia (Austin and Pisano 2017).

In their 2017 *Harvard Business Review* article about how neurodiversity can provide a competitive advantage in the workforce, Austin and Pisano wrote, “Because neurodiverse people are wired differently from ‘neurotypical’ people, they may bring new perspectives to a company’s efforts to create or recognize value ” (p. 2). In one fascinating and illustrative example, the authors reference an Israeli Defense Forces (IDF) Special Intelligence Unit charged with analyzing aerial and satellite images. The group is primarily staffed with workers on the autism spectrum because the IDF has found that these individuals can detect patterns that others do not see (p. 2).

Not all employers have such specific needs. Nonetheless, the early results from neurodiversity initiatives are encouraging. They show that employees hired from a neurodiverse pool can demonstrate high levels of hyper focus and persistence in problem solving; provide a different



and unique perspective on product development; possess outstanding visual, spatial, and lateral thinking skills; excel in creativity; maintain excellent attendance and on-time behavior; and increase positive customer perception of a business (Rogers 2017).

Sourcing, hiring, managing, and maximizing the potential of neurodiverse employees can have its own unique challenges and requires an ongoing investment from the employer. While the scope of what employers are doing to this end is too great to review comprehensively here, examples include:

- **Focusing on job qualifications:** Neurodiverse individuals often behave in ways that do not match up with common perceptions of what makes a “good” employee. They may lack social and communication skills and may have difficulty being team players (Austin and Pisano 2017). Employers are now questioning whether these qualities traditionally deemed necessary for all employees are truly needed for every position, and they are shifting their expectations accordingly.
- **Adjusting the interview:** Understanding that candidates may not perform as well in traditional interview settings, leadership can work with HR to adjust expectations and develop alternate screening options. Job trials and visual supports within the interview process have proven helpful (Austin and Pisano 2017).
- **Structured onboarding:** Supporting neurodiverse employees through visually clear, stepwise, structured training can support successful onboarding.
- **Clear communication:** Providing explicit communication about job expectations and regular feedback on performance can help keep these employees on track and on task.
- **Office accommodations:** Adaptations such as repositioning workstations or supplying noise-canceling headphones may accommodate sensory sensitivities such as difficulty with flickering fluorescent lights or loud noises (Austin and Pisano 2017).
- **Workforce collaboration and support:** Training sessions can help existing employees and managers understand what they should expect from their neurodiverse colleagues. For example, the raw honesty common among individuals on the autism spectrum may be misconstrued as rudeness by some. Additionally,

companies with neurodiversity programs often design support systems for these employees. A “workplace support circle” might include a team manager, a team buddy, a job and life skills coach, a work mentor, and an “HR business partner” who oversees a group (Austin and Pisano 2017).

All of these strategies require commitment and investment, but as Austin and Pisano conclude, “the payoff for companies will be considerable: access to more of their employees’ talents along with diverse perspectives that may help them compete more effectively” (p. 103).

### **Cultivation of Natural Supports**

Traditionally, employers have turned to outside organizations when seeking workplace support for their employees with disabilities. For example, they might hire a specialized job coach who comes on-site to manage a specific employee’s training and supervision. While this practice has considerable benefits and is still widely used, such interventions can be costly and can sometimes lead to stigma and segregation.

For these and other reasons, an increasing number of employers are exploring what can be accomplished with “natural supports.” These supports tap into resources and practices that, in many cases, already exist in the workplace. Rather than assuming that these existing supports are sufficient, however, businesses should consider them a starting point from which leadership can build a strategic plan.

Below is a list of natural supports that have proven effective for workers with—and without—disabilities. They are rooted in the Universal Design for Learning (UDL) concept (U.S. Department of Education 2017), which proposes that adjustments made for individuals with disabilities benefit everyone. UDL supports the idea that all learners have strengths and weaknesses and, as such, can benefit when instructors use a variety of teaching methods and provide tailored support.

- **Modeling:** Many employees prefer training that involves modeling and demonstration instead of continuous verbal instruction.
- **Clear direction:** Providing straightforward and concrete instructions to new employees on core tasks may help them learn more quickly and gain fluency faster as compared to providing over-extended, complicated instructions.

- **Consistent feedback:** Ongoing positive and negative feedback is critical to establishing solid work routines.
- **Mentoring:** Assigning an experienced coworker to mentor a new employee can help that individual learn faster and better understand the formal and informal rules of the workplace.
- **Creating a “culture of help”:** Supervisors can support employees by cultivating a culture where asking for help is encouraged and rewarded.
- **Reviewing past successful supports:** One of the most helpful questions a supervisor can ask an employee is, “What has worked for you in the past and how can we use that support here?”
- **Multimodal training:** Using a variety of instructional approaches that play to visual, verbal, and kinesthetic strengths can ensure that critical training procedures are accessible to all employees.
- **“Celebrating the silence”:** Use silence to help employees with processing time. Allow pauses when delivering information so an employee can digest the material and form questions or validate their understanding of the shared information. Another approach is to allow employees time to digest information and share understandings or questions at a follow-up meeting.
- **Providing visual supports:** More workplaces are embracing principles of visual management and are supporting employees through structured methods such as checklists, signs, calendars, and feedback systems.
- **Formalizing informal rules:** Employees with social skills deficits often struggle with the “unwritten rules” of the workplace. Supports such as “rule cards” can include information to help employees fit in and assimilate to the work culture. Items on rule cards may include things like, “return to the work station 5 minutes before your break is over,” “only ask questions at the end of team meetings,” or “arrive 10 minutes before your start time” can be very helpful.

## Community Partnerships

The Coalition for Workforce Diversity in Louisville, Kentucky (which worked with UPS on its TLC), exemplifies another major trend in disability inclusion: large-scale community collaborations.

Coalitions of employment service providers encourage collaboration among multiple agencies that have historically competed for both funding and employer partners. In addition, they make it easier and faster for companies to find candidates with disabilities by building a talent pipeline, conducting assessments and prescreening, and setting up a single point of contact for employers. Many of these coalitions have established agreements whereby they share government funding for placements, further incentivizing collaboration.

A three-year initiative in New York City clearly illustrates the role and potential of such collaborative coalitions. The NYC: AT WORK initiative—the first public-private partnership to advance employment for New Yorkers with disabilities—is led by the Mayor’s Office for People with Disabilities (MOPD). MOPD coordinates all the organizations and systems that support job seekers with disabilities, including employment service providers, high schools, community colleges, colleges, and universities. Coordinated by MOPD, these entities provide a robust talent pipeline for the 50-plus employers that have made a commitment to the initiative. This structure is making it possible for businesses to hire people with disabilities at scale, while also fostering collaboration among players who previously competed with one another and struggled to overcome entrenched silos.<sup>1</sup>

## PHILANTHROPY

Large and small foundations alike have initiated and funded disability inclusion efforts for decades. They have been leaders and have long helped nonprofits provide advocacy, independent living skills, and training and jobs programs for individuals with disabilities. However, these philanthropic initiatives are more the exception than the rule. Less than 3 percent of all foundations were estimated to provide any funding for disability issues in 2011, and of the foundations that did provide funding, most were dedicated to research (Dickson 2011).

Very few foundations fund disability issues, perhaps because they consider it a health or employment matter for the government to address. The reality is that—with 80 percent of its working-aged adults unemployed or underemployed (Brody, Coffey, and Donahue 2016)—the population of disabled individuals in this nation struggles with the

very issues foundations tend to fund, including poverty and hunger. It would stand to reason that foundations would want to include disability issues as a part of their funding plans.

Over the past several years, 10 national foundations (Poses Family Foundation, Kessler Foundation, Ford Foundation, Autism Speaks, Next for Autism, May & Stanley Smith Charitable Trust, Ruderman Family Foundation, Craig H. Neilsen Foundation, ICD NY, and 100% Wine) have formed a funder collaborative, working together to increase employment outcomes for people with disabilities. Funder collaborative members share knowledge, discuss innovative programs, and cofund projects to improve disability employment strategies and outcomes. These philanthropic leaders believe that competitive employment can be the great equalizer for people with disabilities, helping them acquire new skills, moving them out of hunger and poverty, and expanding their civil rights. Another important goal of the funder collaborative is to help cultivate a better understanding of how disability and philanthropy are linked and to encourage more foundations to fund disability employment initiatives and programs.<sup>2</sup>

## **WHAT'S NEXT?**

The future is bright for disability inclusion. As more companies become engaged in disability employment and inclusion, their ever-growing bank of knowledge, performance data, and case studies will inform and encourage others to follow their lead. The Workplace Initiative team anticipates increased participation from employers in the United States and around the globe. Companies are educating their employees—recruiters, hiring managers, diversity professionals, and staff at large—about disability inclusion to create an environment that is open and inclusive for everyone. When all employees are confident that they will receive the accommodations and support they need to best perform their jobs, companies, the economy, and our society as a whole will thrive.

## Notes

1. For more information, visit <https://workplaceinitiative.org/> (accessed May 17, 2018). Also see NYC: ATWORK, <http://www1.nyc.gov/site/mopd/employment/nyc-at-work.page> (accessed November 9, 2017).
2. For more information, visit <https://workplaceinitiative.org/about/funder-collaborative/> (accessed May 17, 2018).

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# 21

## Reducing Job Loss among Workers with New Health Problems

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Every year, millions of Americans lose their jobs or leave the workforce because of a medical condition (including injuries and diseases, both physical and psychological), at least temporarily (Hollenbeck 2015). Approximately 2.5 million apply for Social Security Disability Insurance (SSDI) benefits, about 1 million receive awards, and 24 months later are enrolled in Medicare (SSA 2017, Table 60). Very few awardees ever exit SSDI for work, and many denied applicants never return to work (Liu and Stapleton 2011; Maestas, Mullen, and Strand 2013).

By definition, “working-age” adults are those who are mature and capable enough to engage in the kinds of productive activity that ultimately support the entire population, including those who are not of working age or are dependent—the young and the aged. Thus, working adults are the economic engine of human society. At the individual level, paid work enables independence and economic self-sufficiency. A comprehensive review of the scientific literature on the health consequences of work has validated the assertion that work is usually good for human well-being, including for people with chronic conditions (Waddell and Burton 2006). However, loss of livelihood has not generally been recognized as the devastating outcome of a health condition it is. Work disability worsens subsequent physical and mental health status and increases mortality (Strully 2009; Waddell and Burton 2006). Even if workers obtain SSDI benefits and Medicare, their families’ standard of living will likely go down substantially (Ben-Shalom and Burak 2016; Schimmel and Stapleton 2012).



A strong and growing body of research indicates that many workers who might otherwise be able to stay in the labor force are losing their jobs and livelihoods today because no one provides the prompt and practical extra support they need, especially those with greater risk of long-term or permanent departure from the workforce. As a result, these workers fall through critical gaps in the social support system, often leading to suboptimal medical and functional outcomes as well as preventable work disability.

After just a few weeks or months off work due to their medical problems, at-risk workers are likely to lose their jobs if they are not yet fully recovered and lack either the confidence or actual ability to do specific tasks required by their jobs. Too often, no one helps them manage this predicament. Moreover, even if they receive some kind of disability benefits, payments are rarely sufficient. Faced with financial hardship, a sense of desperation grows. Some workers begin to worry they will never get back to “100 percent” or will never be able to find another job because of their limitations and then start thinking of SSDI or other government programs as the safest solution. But going on SSDI means a permanently stunted future for workers and their families and higher government expenditures for SSDI, Medicare, and other public programs. Ironically, once workers are out of the labor force and receiving public benefits, access improves to employment supports financed by the Social Security Administration (SSA), the Department of Education (ED), the Department of Labor (DOL), and states. As will be discussed below, however, the passage of time has already significantly eroded the chance that such supports will result in work retention.

In this chapter, we first present two hypothetical examples that illustrate these problems. We then briefly synthesize a growing body of evidence that shows that many of those who leave the workforce with health problems could have been prevented from doing so if certain events had occurred as their illness or injury unfolded. Much of that research has focused on very common conditions such as lower back pain, other musculoskeletal conditions, depression, and anxiety. Despite the fact that these conditions do not typically cause any noticeable absence from work—let alone prolonged work disability—people with these conditions now make up nearly half of new SSDI entrants (SSA 2017).

We then go on to describe how common health conditions progress to needless work disability; synthesize evidence on how well-designed, timely, and practical services can substantially reduce such disability; consider the systemic barriers that impede efficient expansion of such services; and describe policy proposals to address the systemic barriers. We conclude by making the case for investment in further development, testing of, and eventual scaling up of policy proposals that prove effective.

## **TWO HYPOTHETICAL EXAMPLES THAT ILLUSTRATE THE PROBLEM**

Consider two contrasting scenarios that illustrate some of the systemic barriers that cause so many workers with medical conditions to remain outside the workforce. The first is a sheetrock worker (wall-board installer) who injures his shoulder at work, causing him to stop work, seek medical care, and file a claim for workers' compensation.<sup>1</sup> The three subsequent events occur:

- 1) His claim for benefits is accepted, so his medical care is paid for and he receives a cash stipend to cover his living expenses.
- 2) A doctor promptly provides effective, evidence-based medical care; sets expectations to either remain at work or resume work quickly; encourages the injured worker to recover while working at tasks appropriate to his current capabilities; and sends work capacity information to the employer.
- 3) His employer is willing and able to waive essential functions of his job in the short term so he can work while still recovering, and to make long-term reasonable accommodations in case his eventual recovery is incomplete. The sheetrock worker therefore is on track toward the best possible recovery of function in his shoulder and maintaining his livelihood.

The odds of a good recovery and continuing to work become significantly worse if any of those three circumstances are different. In the second case, consider a sheetrock worker who is unlucky enough to have

the identical type of shoulder injury at home, but has no disability insurance coverage for off-the-job medical problems.<sup>2</sup> Even though he has health-care coverage, his physician, like most physicians, is unaware that prolonged time out of work jeopardizes job retention (Jurisic et al. 2017). When his condition improves enough to allow some work, his doctor prescribes overly protective work restrictions. The employer has no “light duty” policy, will not accept him back until he is fully recovered, and discharges him when his Family and Medical Leave Act protections expire. The worker is desperate for cash but is not sure what is medically safe for him to do at work and, in any case, is unsure where or how to look for a new kind of work. Because he is still recovering from his injury, neither he nor the professionals he encounters consider him a person with a disability and thus a candidate for vocational rehabilitation (VR) services. He will not request VR services himself because he is unaware that they even exist. Discouraged, he sees no good options other than to pursue SSDI benefits. For months or even years, he will attempt to prove to SSA that he is unable to do substantial work, and eventually is coached by a lawyer or advocate. As a new beneficiary, he will be offered an SSA performance-based voucher (a Ticket to Work) for services designed to help him return to work (e.g., vocational rehabilitation or job placement and training) and eventually give up his hard-won SSDI benefits—months or years after such services would have been timely.

The worker in the first example experienced a better long-term outcome because his physician was work aware, his employer was open to on-the-job recovery, and his injury was covered by workers’ compensation. Long-term or permanent job loss is often the result of unfavorable circumstances in these three domains during the critical early period of a medical condition. In the sections below, we describe reasons for these disparities and offer some strategies for government at the local, state, and federal levels to positively influence the behavior of stakeholders and thereby increase workforce retention.

## HOW COMMON HEALTH CONDITIONS BECOME NEEDLESS WORK DISABILITIES

As shown in the scenarios above, prolonged work absence is frequently due to a mix of medical and nonmedical factors, rather than just medical conditions themselves. Certain conditions are often diagnosed but inappropriately treated (e.g., lower back pain), while others (e.g., psychiatric conditions) may be undiagnosed, inappropriately treated, or simply untreated (Anand and Ben-Shalom 2017; Wang, Demler, and Kessler 2002). The uneven quality of and access to medical care in the United States has been well documented (Institute of Medicine 2001; Rosenberg et al. 2016). Many employers, especially small firms, remain unwilling to allow workers to return to work until they are “back to 100 percent,” especially if their health problems are not work related. The majority of U.S. workers are not covered by any kind of disability benefits program during the critical early period after onset of injury or illness.<sup>3</sup> While unable to work, they receive neither a paycheck nor expert help to stay at or return to work.

Many frontline professionals dealing directly with the workers (i.e., health-care professionals, employers, and sometimes insurers) do not see it as their responsibility to help workers keep their jobs (Christian 2015). Moreover, these professionals typically operate in isolation, as well as with many institutional barriers and little incentive to collaborate. Many workers and their families know little about how to navigate these complex systems, nor do they understand their own role in recovery and return to work. Without coordinated support to help them get their lives back on track, they get lost in the various health-care and benefits systems available to them. With every passing day away from work, the odds of returning to the same job decline (Franklin et al. 2015). Eventually they lose their jobs, such that returning to the workforce is even harder.

After prolonged absence from work, workers may start to view themselves as too sick or disabled to work, and begin to seek alternative sources of income such as SSDI and Supplemental Security Income (SSI),<sup>4</sup> possibly on the advice of relatives, physicians, insurers, lawyers, or worker advocates. These parties may truly believe that applying for benefits is in the workers’ best interest to meet their immediate financial

and medical needs. However, misaligned financial incentives also likely play a role: lawyers stand to gain from successful SSDI applications (SSA 2018), benefits paid by any private insurers are usually reduced by SSDI benefits on a dollar-for-dollar basis (Salkever, Shinogle, and Purushothaman 2001), and health-care providers have an interest in helping uninsured workers access funding for their care.

## **EVIDENCE SHOWS THAT EARLY SUPPORT RESULTS IN BETTER OUTCOMES**

Regaining the capacity to work and remain in the labor force often leads to better overall quality of life for workers with medical conditions, as compared to leaving the labor force and becoming dependent on disability benefits. To reduce current levels of work loss and SSDI entry in the working population, work disability prevention services must be systematically applied soon after the onset of a health condition that threatens the worker's ability to work—while the person is still employed and long before they apply for SSDI (Waddell and Burton 2004).

Health-care services that restore capabilities required for work may not be enough. Optimally timed, well-targeted, quick interventions taken by other stakeholders (including the worker) during the first few weeks after the onset of such a condition can also have a major influence on whether the worker ultimately returns to work or leaves the labor force (see, for example, Franklin et al. 2013; Loisel and Anema 2013; Shaw et al. 2013). Even a few telephone conversations between the worker, health-care provider, and employer can make a big difference. Evidence has shown that the window of opportunity during which simple approaches can significantly impact the worker outcomes typically closes around 12 weeks after the onset of work disability (Christian, Wickizer, and Burton 2016). The best approach is to intervene immediately and avert any noticeable work absence.<sup>5</sup>

Most of the promising, evidence-based interventions were first developed and tested in the private sector by employers, private disability insurers, and workers' compensation insurers. For example, workers' compensation insurers emphasize safety programs to reduce

injuries, and stay-at-work/return-to-work (SAW/RTW) programs to reduce work disability after medical conditions arise. Private disability insurers also devote resources to early return-to-work programs. When these services are properly designed and delivered, many workers with newly acquired common health conditions can avoid prolonged work disability, job loss, and use of SSDI benefits (Bowling 2000; Caruso 2013; Franklin et al. 2015; McLaren, Reville, and Seabury 2010; Waddell, Burton, and Aylward 2008; Wickizer et al. 2004, 2011). Unfortunately, only a small proportion of workers currently have access to such assistance.

Evidence shows that tailored support services lead to greater job retention, particularly for workers with musculoskeletal conditions (especially lower back pain), mental health conditions, and other chronic conditions for which adherence to treatment is critical (Anand and Ben-Shalom 2017; Stapleton et al. 2015).<sup>6</sup> In the public sector, Washington State's Centers for Occupational Health and Education (COHEs) have demonstrated that providing a tightly defined set of immediate-to-early, evidence-based, and uncomplicated services to workers' compensation claimants can dramatically reduce long-term work disability (Stapleton and Christian 2016). The state agency that manages the public workers' compensation fund contracts with COHEs housed in the private health-care delivery system. COHEs recruit community physicians as members and educate them on four specific best practices in SAW/RTW for which they are paid. In addition, every newly injured worker who sees a COHE member physician is automatically assigned to one of the COHE's health services coordinators (HSCs). Both member physicians and the HSCs have access to data in the payer's claim system. The HSCs use the system to monitor their cases, looking for issues that might lead to long-term or permanent exits from the workforce. About 75 percent of cases receive no active intervention. As needed, HSCs communicate with workers, physicians, employers, and claims staff; obtain, clarify, or share information; expedite medical care; or facilitate arrangements for return to work on either a temporarily modified or regular work schedule.

Washington State's Department of Labor and Industries first tested the COHE model in the early 2000s. A series of rigorous evaluations found substantial reductions in lost work time and improvements in worker satisfaction as well as job retention, leading to statewide expan-

sion of the program.<sup>7</sup> Based in part on this documented success, the President's 2018 Fiscal Year Budget includes substantial funding for a new demonstration project that will test key features of the COHE model in several jurisdictions, which are not restricted to workers' compensation settings (OMB 2017).

## **SYSTEMIC BARRIERS IMPEDE EFFICIENT EXPANSION OF EVIDENCE-BASED SUPPORT**

Society has both economic and humanitarian interests in reducing the incidence of prolonged work disability and job loss, but multiple systemic barriers stand in the way of achieving that goal. Notable impediments include misaligned economic incentives among the various stakeholders; lack of dedicated resources coupled with fragmentation of responsibilities, capabilities, and accountability for delivering the necessary supports; and legal barriers to communication among those who need to cooperate in providing supports.

### **Misaligned Incentives**

The stakeholders who accrue most of the economic losses from work disability differ from the stakeholders most well positioned to prevent disability. If a median income worker exits the labor force because of work disability at age 50, the worker's family stands to lose on average \$420,000 through retirement age, mostly because of lost earnings, which are only partially replaced by public benefits (Ben-Shalom and Burak 2016). State governments stand to lose \$83,000 per worker during those years, primarily because of lost tax revenues. The federal government stands to lose over \$290,000 per worker through retirement age, due to the cost of cash benefits (SSDI and SSI), health insurance (Medicare and Medicaid), and lost tax revenues. Although workers and their families have the highest financial stake, they may be misinformed about the financial consequences of work disability and have little knowledge about how to prevent it. The federal government has the second highest financial stake, but it is not well positioned to help workers directly.

Stakeholders in the best positions to facilitate workforce retention are private disability, workers' compensation, and health insurers; health-care, rehabilitation, and other professionals; employers; and state and local health and human service agencies. Yet, these actors are typically limited in the degree to which they can intervene, or are even disincentivized to so. Although self-insured employers do have a clear stake in work disability outcomes, roughly half of the workforce is employed by organizations too small to self-insure for workers' compensation or disability benefits.<sup>8</sup> For employers that do not provide disability benefits, it will often *not* be in their financial interest to invest in interventions to retain workers with medical conditions—especially if the enterprise is small or if the employee can be readily replaced.

In the case of the health-care delivery sector, professionals derive financial benefit by maximizing service delivery, but they tend to focus only on patient diagnosis and treatment and not on return to function and work (Jurisic et al. 2017). In fact, health-care payment systems today typically favor services that may *increase* the chance of work disability, such as prescribing medications and performing surgery, rather than spending time educating patients and employers on accommodation strategies to assist workers' return (see, for example, Franklin et al. 2008).

### **Lack of Dedicated Resources**

Across the governmental, charitable, and nonprofit or for-profit private sectors in the United States, there is no substantial organization dedicated to the proposition that work disability is often preventable and requires active steps to avoid whenever feasible. On an incidental basis, programs funded by both the DOL and ED provide services to workers struggling with medical problems that may ultimately lead to their application for SSDI benefits. However, none of these programs focus specifically on helping workers with new medical conditions or diminished functional abilities retain their jobs or find new employment. For example, DOL-funded state programs target services to unemployed individuals, but those out of work due to new or still-evolving medical conditions are not typically included. ED-funded state vocational rehabilitation (VR) agencies deliver employment services to individuals with disabilities regardless of current or past employment, but by law



must give priority to those with the most severe disabilities. Hence, few VR clients are those who recently began experiencing medical problems and who are still employed.<sup>9</sup>

### **Fragmentation of Responsibilities**

Lack of resources dedicated to reducing work disability stems from a fragmentation of public sector responsibilities. This issue interacts with the misalignment of incentives in major ways. Fragmentation starts at the federal agency level. The two agencies that operate the programs most likely to experience savings from reductions in work disability, SSA and the Centers for Medicare and Medicaid Services (CMS), have no statutory authority to invest in prevention of work disability. SSA does make substantial investments in work supports for SSDI and SSI recipients, but only after months or years of work disability.

Fragmentation extends to state and local governments. In every state, a number of agencies are in a position to provide support to workers with medical conditions before they lose their jobs, but have neither the mandate nor much incentive to do so, either individually or collaboratively (Ben-Shalom 2016). For example, five states and Puerto Rico have mandatory short-term disability insurance (STDI) benefits, including three that provide insurance to most workers via public funds (California, New Jersey, and Rhode Island).<sup>10</sup> The three state-funded STDI programs could potentially modify their service approach to include proactive job-retention strategies, but they have pursued only modest efforts to date. State health agencies also could modify Medicaid benefit programs, influence health insurers, and health-care delivery organizations through their regulation of insurance and the Health Insurance Exchange, and adjust their public health programs. State departments operating ED-funded VR programs and DOL-operated employment and training programs could better coordinate their efforts across agency boundaries. State-operated Disability Determination Services make the initial medical eligibility decisions for SSDI and SSI applicants under the aegis of SSA, but they might be able to expand their service repertoire to workers still on the job.

One important source of fragmentation is that a worker with a medical condition attributed to work is usually eligible for cash benefits as well as medical and other services financed by workers' compensation,

as governed by state law, while the same worker with the same condition *not* attributed to work would need to seek assistance from other sources. Workers have strong incentives to claim that their condition is job related, while employers and insurers have strong incentives to deny their claim. A frequent result is litigation, which may delay assistance or otherwise cause needless work disability. Furthermore, even though the majority of workers' compensation expenditures are health related, the agencies that oversee those claims are different from those that oversee and regulate other health-related state activities. Hence, efforts to ensure delivery of high quality care to workers' compensation claimants seldom extend to workers with nonoccupational conditions.

### **Legal Barriers to Communications**

Privacy protections, particularly under the Health Insurance Portability and Accountability Act (HIPAA), prevent multistakeholder communication and coordination to help workers remain at work and employed. Such protections are necessary and appropriate, but the logistical challenges posed by authorization procedures and fear of potential liability often make it extremely difficult for the involved parties—workers, providers, employers, insurers, and SAW/RTW specialists—to exchange basic nonmedical information such as estimates of current work capacity and to collaborate on return-to-work planning. Although HIPAA does waive some privacy protections when a medical condition is covered under workers' compensation, health-care delivery organizations are typically unwilling to vary their procedures (Hodge 2003).

## **POLICY PROPOSALS THAT ADDRESS SYSTEMIC BARRIERS**

We begin by looking at several existing proposals that address the problem of misaligned incentives, each focused on strengthening employer and private insurer incentives to invest in programs that reduce work disability. We then present two other proposals developed

by the authors of this chapter, in collaboration with others, that address various aspects of the aforementioned systemic barriers.<sup>11</sup>

### **Improving Employer and Insurer Incentives**

Several policy proposals aim to reduce work disability primarily via major changes in incentives for employers and private disability insurers. Autor and Duggan (2010) suggest a federal requirement for employers to purchase medium-term disability insurance coverage that includes 24 months of cash benefits for workers before they are eligible for SSDI. Premiums would be experience rated, so that they would increase or decrease based on the number of individuals entering SSDI whom the employer had employed at the time of work disability onset. Burkhauser and Daly (2011) recommend adjusting the rate of the federal SSDI payroll taxes in a similar manner. Although these proposals might drive more investments to prevent work disability, the policies would place significant burdens on some employers, particularly small ones. They would also make the employment of low-skilled workers relatively less attractive, because such workers are much more likely to experience significant medical problems.<sup>12</sup>

Other proposals would strengthen private disability insurer investments in workforce retention in more modest ways. Anand and Wittenburg (2017) suggest a federal requirement for private disability insurers to pay the first 24 months of SSDI benefits for their eligible claimants in exchange for a payroll tax deduction. The payroll tax deduction would offset the expected increase in premiums that insurers would need to charge due to increased losses in those first 24 months.

In addition, the private disability insurance industry is promoting a proposal to expand private coverage by allowing employers to automatically enroll workers in their private disability insurance plans by default (at no cost to the government), similar to programs designed to increase employee participation in 401(k) retirement plans (Babbal and Meyer 2016). Presumably, this change would increase employee take-up rates for employers that offer disability insurance as a benefit option, and make private insurance more attractive to employers by lowering per-worker premiums. Premiums would decline because newly covered workers would be less likely to file claims. Once covered, workers would be eligible for whatever work retention services

are already offered by the carrier. However, since wage replacement rates for private coverage are often substantially more generous than for SSDI, more workers with medical conditions may leave the labor force in favor of long-term disability benefits, countering the positive impacts of increased work retention services.

### **Health and Work Service (HWS)**

Christian, Wickizer, and Burton (2016, p.1) recommend the “establishment of a community-focused Health & Work Service (HWS) dedicated to responding rapidly to new health-related work absence among working people due to potentially disabling conditions.” Modeled in part on Washington’s COHE design, the HWS would directly address the lack of dedicated resources and limited responsibility across federal, state, and local levels for reducing work disability. It would also address barriers to communication due to system fragmentation and privacy protections. To be successful, it would require the support and cooperation of federal and state agencies that have interrelated responsibilities.

The HWS would establish relationships at the local community level and actively elicit referrals from physicians, employers, and insurers, as well as self-referrals of workers with medical issues. Eligibility for HWS intervention would begin when work absence is expected to last or has lasted more than four weeks. The HWS would be charged with providing basic, low cost, evidence-informed services known to quickly improve long-term health and employment outcomes for common health problems. Typically, HWS staff would deliver services primarily by telephone or by Internet for no longer than three months (extended if necessary).<sup>13</sup> However, workers with unusual or catastrophic illnesses or injuries would be referred immediately to organizations providing comprehensive rehabilitation or more intensive services.

HWS staff would quickly evaluate each individual’s situation, screen for known risks for long-term or permanent unemployment, help to develop a return-to-work plan, and ensure coordinated delivery of the medical, rehabilitative, and other services needed to carry out that plan. The HWS would operate in a multisystem/multipayer environment, accepting referrals of employed patients with disability benefits coverage, workers’ compensation claims, health-care insurance, Medicaid, Medicare, or no benefits at all. A mixture of government subsidies,

charitable contributions, and fee-for-service revenue would support the service provisions.

### **Employment/Eligibility Service (EES)**

Stapleton, Ben-Shalom, and Mann (2016, p. 1) propose “the development, testing, and adoption of a nationwide system of integrated employment/eligibility services” (EESs). A state or local government could establish this approach, potentially in partnership with the private sector. EESs would fundamentally restructure the fragmented paths that workers currently take to enter SSDI if they think they are unemployable due to a medical condition. The EES would integrate timely provision of reemployment support services with a new process to determine SSDI eligibility.

EES outreach activities would encourage workers and their representatives to contact the EES immediately upon the onset of a work-threatening medical condition—preferably while the worker still has a job. Triage would be a central function of the EES, to quickly identify the group of workers needing assistance to return to work. A first group with serious medical conditions would be “fast-tracked” into SSDI. A second group would be offered employment supports—both temporary cash benefits and services. A third group would not be eligible for support.

The work supports would be conditional on the worker’s good faith effort to return to substantial work. If the worker’s medical condition becomes worse, or the worker is unable to return to work after a substantial effort, the worker’s eligibility for SSDI benefits will be reconsidered. The employment supports serve a dual purpose: on the one hand, they aim to improve employment security; on the other hand, they allow the worker to try out his or her work capability, build confidence, and earn money while provided with support. SSA would assess the reasonableness or sincerity of the applicant’s work attempts when reconsidering the application.

### **The HWS and EES Proposals Are Complementary**

The HWS would create a system at the community level that does not currently exist. It would make available basic SAW/RTW expertise

during the brief window when simple interventions have the biggest impact. HWS staff would prioritize and sort cases, and refer cases to the EES in which workers' obstacles to continued employment exceed the capabilities and time frame of the HWS.

From the national policy perspective, as well as the taxpayers' point of view, an HWS or EES system that effectively reduces labor force exit and SSDI entry is likely to result in large net benefits. Calculations by Stapleton, Ben-Shalom, and Mann (2016, p. 15) suggest that, in the long run—after a sustained period of annual investments in system development—“federal savings on the order of \$25 billion per year are certainly plausible,”<sup>14</sup> accounting for the \$7 billion in additional expenditures on work supports. The bulk of the savings would come from reduced SSDI expenditures, while other contributing factors would include decreased expenditure on Medicare, SSI, and Medicaid.

## **NEXT STEPS: DEVELOPMENT, TESTING, AND SCALING UP**

The dearth of public support for workers during the critical window of time after the onset of work-threatening health conditions leads to needless work disability. As a result, many workers unnecessarily lose their livelihoods and enter SSDI, Medicare, and other public programs. This lack of support is due not to an absence of evidence that well-designed assistance can reduce work disability, but rather to systemic barriers to efficiently expand the delivery of such assistance.

Policymakers are starting to pay more attention to the high public costs of the large numbers of workers experiencing needless work disability. As previously indicated, there is extensive evidence about services and other supports that can increase workforce retention for individual workers. The immediate challenge facing policymakers is how to develop and test proposals that would address the barriers before wholesale implementation. It is important to consider and readjust for unintended negative impacts of these proposals such as the hardships many workers with significant medical problems could experience, expenditures far exceeding expectations, or new administrative processes that may be dysfunctional.

Many have called for the federal government to support a series of multiagency development and demonstration projects for this purpose. For instance, the demonstration effort recommended by Liebman and Smalligan (2013) supports testing of the types of proposals described in the previous section, as would the multiagency efforts more recently recommended by the SSDI Solutions Initiative (McCrery and Pomeroy 2016b), the Bipartisan Policy Center (2015), and Office of Management and Budget in its budget proposal for fiscal year 2018 (OMB 2017). As we complete this chapter in early 2018, DOL and SSA are about to launch such an effort, the Retaining Employment and Talent After Injury/Illness (RETAIN) demonstration—an opportunity for states to develop and test workforce retention supports modeled after those used successfully in other contexts, including the COHE services described earlier. There is an enormous opportunity for such efforts to result in long-term, substantial reductions in both needless work disability and growth in public expenditures for disabled workers.

## Notes

1. Workers' compensation covers cash benefits and medical care to workers with job-related (or "on-the-job") medical conditions. In 46 states and the District of Columbia, employers may either purchase workers' compensation insurance in a competitive marketplace or self-insure. Four states—North Dakota, Ohio, Washington, and Wyoming—rely exclusively on state workers' compensation funds.
2. Short- and long-term disability insurance programs provide partial wage replacement to workers with medical conditions that are not job related. In 2014, less than 40 percent of all workers in private industry were covered by short-term disability income insurance, and 31 percent were covered by long-term disability income insurance; coverage rates were lower among low-paid workers (Monaco 2015).
3. Less than one-third of disabling injuries that result in work absence are caused by work and are potentially eligible for workers' compensation (Price et al. 2012). Although most workers are covered, not all are. For example, farm workers and sole proprietors are excluded in many states. Disability insurers play a less important role than one might think.
4. SSDI is a social insurance program that provides partial wage replacement to adult workers after the onset of a qualifying, long-term disability. To qualify for disabled worker SSDI benefits, the individual must be "disability insured" (i.e., have a sufficient recent work history), have a medically determinable impairment that has lasted or is expected to last for at least 12 months or result in death and prevent engagement in substantial gainful activity (SGA). In 2018, SSA considered SGA

to be the equivalent of the work required to have unsubsidized earnings above \$1,180 per month for nonblind applicants and \$1,970 for blind applicants. SSI is a means-tested benefit available to working-age adults meeting the same medical criteria who do not have enough work credits to qualify for SSDI, or whose assets, SSDI benefits, and any other income are low enough to satisfy the SSI means test. Countable asset limits, which have not changed since 1989, are \$2,000 for an individual and \$3,000 for a couple. The federal monthly SSI payment is the difference between countable income and an annually adjusted amount called the federal payment rate (in 2018, \$750 for an individual and \$1,125 for a couple). Children under age 18 may also be eligible for SSI, but the under-18 eligibility criteria are different; hence, SSA redetermines the eligibility of SSI children when they reach age 18. Some children with disabilities first become eligible for SSI at age 18 because their parents' income and assets are no longer germane to the means test. SSI eligibility for individuals over age 65 is based on the means test alone.

5. Under some circumstances, the window of opportunity may be extended beyond 12 weeks if the specific nature of the medical condition and its treatment still predict the ability to either remain at work or resume work quickly.
6. Examples of such successful interventions include the following: two states in Australia providing physicians with evidence-based guidelines for managing patients with lower back pain (Buchbinder, Jolley, and Wyatt 2001); a Canadian hospital using a multidisciplinary model of back pain management that includes both clinical and ergonomic approaches (Loisel et al. 1997); three health districts in Madrid, Spain, offering people with musculoskeletal conditions a program of education and protocol-based clinical management at their regular physician visits (Abasolo et al. 2005); and a Swedish occupational health-care center providing communication and problem-solving skills to workers with back pain and their immediate supervisors (Linton et al. 2016).
7. A rigorous evaluation of the COHE pilot found that the program, over 12 months, lowered medical costs by 7 percent, disability payment costs by 24 percent, and the jobless rate of workers by 21 percent; reductions in the latter two measures were even greater among workers with back sprains—34 and 37 percent, respectively (Wickizer et al. 2011). Preliminary follow-up results suggest that the COHE program reduced SSDI entry among participants by 26 percent in the eight years after they filed their workers' compensation claim (Franklin et al. 2015).
8. Virtually all employers who do not self-insure are still required to provide workers' compensation coverage through private or public insurance carriers.
9. A few state VR agencies (e.g., Alabama, Arkansas, and South Carolina) deliver services to the latter type of workers, but on a very small scale.
10. Hawaii and New York require employers to provide short-term disability benefits through self-insurance or a licensed carrier.
11. Both proposals were commissioned by the McCrery-Pomeroy SSDI Solutions Initiative, organized and managed by the Committee for a Responsible Federal Budget to identify "practical policy changes to improve the SSDI program and other services to people with disabilities." These proposals are described in detail in that initiative's book (McCrery and Pomeroy 2016b).



12. Stapleton et al. (2017) found that, in the absence of behavioral change, labor costs will rise substantially for many low-wage workers, whereas they will decline for high-wage workers. This finding points to a feature of SSDI's financial structure: the fact that low-wage workers are more likely to enter SSDI than those with higher wages makes SSDI more progressive than the program's wage-replacement schedule implies. The SSDI monthly benefit formula, based on an index of average past monthly wages that were subject to Social Security payroll taxation, is the same as that used for Social Security retirement benefits. In 2017, monthly benefits to new awardees replace 90 percent of the past wage average up to \$885, 32 percent from \$885 to \$5,336, and 15 percent for average wages in excess of that amount.
13. Service would largely be telephonic or Internet based because this method has been shown to be effective, feasible, and lower cost across wide geographic areas than face-to-face delivery in brick-and-mortar facilities (Burton et al. 2013).
14. Stapleton, Ben-Shalom, and Mann (2016), based on evidence from prior research, assumed, in the long run, a 15 percent reduction in SSDI entrants of all ages, and that the EESs would provide work supports for four times that many workers—that is, one in four workers receiving work supports would ultimately remain in the labor force and the rest would continue to SSDI.

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## **Part 5**

# **Investing in Workers of the Future**



## 22

# The Workforce Development Pipeline from Cradle to Career

Rob Grunewald

Population projections in the United States provide important context for long-run workforce development strategies. The average annual growth rate for adults aged 18 to 64 is expected to drop from above 1 percent (which it averaged from 1990 to 2010, according to U.S. Census Bureau figures) to below 0.5 percent during the next four decades. During this time, the average annual growth rate for the population over age 65 is expected to exceed 1 percent—one indication that the labor supply may struggle to keep up with demand for skilled workers (Vespa, Armstrong, and Medina 2018).

Over time, the economy may adjust to these demographic changes. For example, as labor supply tightens, higher wage offers could encourage older workers to delay retirement and workers marginally attached to the labor force to actively look for a job. In addition, businesses could turn to using more technology that requires less labor.

However, instead of leaving these future adjustments to chance, policymakers and business leaders have opportunities to make investments now in the workers of tomorrow, which could lead to gains in workforce productivity and a number of benefits to society. In the three chapters that follow, the authors look at how investments in early childhood and youth, as well as strategies for helping the formerly incarcerated gain employment, can boost the number of skilled workers in the economy.



## **CHILDHOOD: A SENSITIVE PERIOD FOR DEVELOPING WORKFORCE SKILLS**

Data show there is a sizable share of workers who have low skill and education levels. In 2016, 23.4 million adults aged 18 to 64 did not hold a high school degree or its equivalent—almost 12 percent of this age segment of the U.S. population (U.S. Census Bureau 2016). Increasing the high school graduation rate and overall educational attainment levels of the workforce would increase the supply of skilled workers. Strategic investments in early childhood and youth development could go a long way toward meeting this goal.

All ages in childhood are vital for growth and development, but the early years and adolescence are particularly important, as highlighted in subsequent chapters by me and Rivera-Batista et al. During early childhood, neural connections occur at a fast pace—more than a million per second in the infant brain. After the first few years of life, the pace of neural connection growth slows as the brain prunes some connections and reinforces others based on a child's experiences. Brain development during this period provides the building blocks for future learning and development (Center on the Developing Child 2018). Adolescence represents a second period of brain malleability, starting with the onset of puberty and lasting as late as the mid-20s. Brain development during this period largely addresses executive function, which includes the capacity for self-regulation (Steinberg 2014). With support from parents, schools, and communities, adolescents are more likely to develop capacities and skills, including self-regulation, critical thinking, and planning, that lead to success in adulthood and the workforce.

Research also makes clear that adverse experiences in childhood, such as the stresses of growing up in poverty, exposure to abuse or neglect, and household dysfunction, such as an incarcerated parent or parental mental illness, can impair healthy development, with implications that can last a lifetime (Dong et al. 2004). Children who arrive at kindergarten behind their peers tend to stay behind, and children without support to navigate the challenges of adolescence are at risk of not acquiring important work and life skills.

Ensuring children have a strong start and have continued support for development through adolescence benefits all of society; its benefits

include reduced costs in public budgets for education, health, human services, and crime, as well as the potential for higher tax revenue. Healthy child development also leads to a more productive workforce and a better chance for employers to find the skilled workers they need to fill open positions.

## **CONNECTING EX-PRISONERS TO EMPLOYMENT**

Emily Engel notes in her chapter, “Reintegrating the Formerly Incarcerated into the Workforce,” that, as of 2014, about 1 in every 110 adults was in prison or jail, and 1 in 52 were on parole or probation. This translates into a large number of adults who have challenges attaining employment because of the associated stigma and rules that bar ex-felons from being eligible for some jobs. In addition, the formerly incarcerated are less likely to have a high school degree, which also serves as a barrier to employment.

After leaving prison, the formerly incarcerated often lack social and professional networks to support reintegration into the labor force and society, and their workforce skills have likely atrophied. Engel discusses programs that assist the formerly incarcerated through a number of strategies, including individualized coaching, job training programs, and job placement. These programs often aim to cultivate “soft skills,” such as interpersonal communication, time management, and working effectively on teams. Program success is often measured by gains in employment and wage rates and reductions in recidivism.

## **KEY TAKEAWAYS**

While each of the essays in this section focus on a different population, from early childhood to adult, common themes emerge in working with children and the formerly incarcerated to improve the size and skills of the labor force.

*Quality and intensity of programs* are key ingredients to boost outcomes for children and adults. Effective teachers and research-

based approaches are consistent with positive child outcomes in early learning programs. Quality and intensity are also important for youth development programs, such as using outcome data to individualize a curriculum. Among programs for the formerly incarcerated, engaged coaches and relatively time-intensive training and work schedules have produced successful outcomes. As indicated in the essays, programs with higher quality and intensity may cost more than less intensive programs, but their positive impact on children and adults may actually yield higher rates of return to society.

*Two-generation approaches* can lead to stronger family stability and positive environments for child development. For example, high-quality and affordable child care allows parents to enter the workforce and be less likely to miss work or lose a job because of problems with child care arrangements. As Rivera-Batista et al. discuss in their chapter, “Workforce Policies and Programs to End Child Poverty in Puerto Rico,” the Boys and Girls Club of Puerto Rico’s youth development program includes a component to help children’s parents gain workforce skills and pathways to employment, which can ultimately improve family economic stability.

*Improving policy and systems* is key to providing support for children and families at scale. While it is important to cultivate quality programs in communities, addressing barriers to providing and accessing services through policy and systems change can lead to a wider reach. My chapter, “Early Childhood Investments: Paving the Way for the Future Workforce,” highlights key policy and system issues regarding the availability, quality, and affordability of child care. Solving policy and system-level constraints can foster better conditions for the creation or expansion of high-quality child care programs.

The formerly incarcerated population raises several policy considerations in regard to workforce development, including processes for skill development in prisons, barriers to employment after prison, and the laws and sentencing practices that lead to the nation’s relatively high incarceration rates.

*Continuity across different stages and types of services* is also vital. A number of different government agencies, nonprofits, businesses, and health and education organizations provide resources to help children enter school prepared, graduate from high school, and pursue postsecondary education and work opportunities. There are many

transition points between these resources, which can have implications for a child's success. Providing continuity during transitions, data sharing, and resource alignment can help children and their families navigate the cradle-to-career pipeline. In addition, the transition from incarceration to living outside prison is a particularly sensitive period, and a time when the employment programs that Engel's chapter highlights can provide a stable bridge.

## PREVENTION VS. REMEDIATION

The chapters in this section emphasize that investing in children and the formerly incarcerated at specific points in time—early childhood, adolescence, and the transition from prison—lowers the number of problems arising downstream and produces individual, societal, and economic benefits. These preventative efforts can reduce costs to government budgets, lead to better employment outcomes and life prospects, and, ultimately, address the growing demand for skilled labor.

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## 23

# Early Childhood Investments

## Paving the Way for the Future Workforce

Rob Grunewald

Successful investments in the workforce development pipeline, such as K–12 schools, technical schools, colleges and universities, and other training programs, depend in large part on the experiences students had years earlier. This is because the first few months and years of a child’s life establish the building blocks for skill development during school and at the workplace. With a strong foundation, the workforce development pipeline can build on early gains.

Research also shows that investments in early childhood development (ECD) can reduce downstream costs and support workforce productivity decades later. Early health and education programs targeted to disadvantaged children have been shown to improve school readiness, reduce grade retention and special education, and increase high school graduation rates and college enrollment. Studies also link early investments to higher earnings, a signal of stronger productivity in the workforce.

Not only can ECD programs support early development, but the presence of high-quality child care provides important workforce infrastructure that allows parents to enter the workforce and be productive at their jobs. In contrast, a lack of affordable, high-quality child care can keep parents out of the labor force, constraining employers’ ability to fill open positions. Research also indicates that disruptions in child care arrangements can reduce workforce productivity and increase employee turnover, which result in costs for businesses and families.

This chapter first discusses the science of ECD and the positive impact early investments can have on children and their families. Next, it considers how ECD programs support downstream workforce development initiatives and boost labor productivity. The chapter concludes

with an analysis of how child care serves as critical two-generation workforce development infrastructure and describes opportunities to address barriers to accessing high-quality child care.

## **THE SCIENCE OF EARLY CHILDHOOD DEVELOPMENT**

The science of ECD shows that investments during early childhood can have a positive effect on downstream workforce development. The first few years of life set the foundation for developing the attributes and skills needed to succeed in school and work, including math and language proficiency, collaboration, critical thinking, self-motivation, and persistence. As stated by James Heckman, Nobel laureate economist at the University of Chicago, skills learned later in life build on those learned as a young child; thus, “skills beget skills” (Heckman 2008).

Research into neuroscience and developmental psychology describes the type of early experiences that help children thrive, including stable and nurturing relationships with caregivers, language-rich environments, and encouragement to explore through movement and senses. With supportive early experiences, children are more likely to start kindergarten prepared to succeed.

Research also describes experiences that hinder healthy development. Adverse experiences and chronic exposure to “toxic stress” can lead to a brain wired for negligence or threat, impairing learning, memory, or the ability to self-regulate. Economically struggling families living in low-income areas are more likely to endure exposure to such negative experiences.

These disadvantageous circumstances can interfere with children’s early skill development, leading them to underperform relative to their peers even before kindergarten. One research study documented that, by the age of three years, children in families with college-educated parents have twice the vocabulary of children in low-income families, on average (Hart and Risley 1995). According to a report by Garcia and Weiss (2015), U.S. kindergarten children in the highest quintile by socioeconomic status have reading scores that are significantly higher than scores of their peers in the bottom quintile.

The achievement gap between children from more advantaged environments and those from disadvantaged situations is established before children enter kindergarten and widens somewhat during their time in school (Bradbury et al. 2015). That is, the experiences children have before they enter school likely have a stronger impact on the achievement gap than their experiences during their school-age years.

Early adversity not only affects school success but is also associated with mental and physical health issues later in life. According to the Adverse Childhood Experiences study, adults who suffered multiple types of adverse experiences in childhood were more likely to suffer from health problems, including heart disease, diabetes, substance abuse, and depression, compared with adults who did not have an adverse experience (Dong et al. 2004). For better or worse, early experiences have lifelong implications for education, health, and success in the workforce.

## **IMPACT OF EARLY INVESTMENTS ON YOUNG CHILDREN**

In response to the science of ECD, public investments in young children are designed to provide resources to children and families that promote development. They are often targeted to children and families who face risks for starting school behind their peers. Such investments include maternal and child home visits for families with pregnant women and young children, family health and nutrition programs, early learning programs, and early childhood mental health services. Child care programs provide early learning experiences for young children and also enable parents to participate in the workforce.

Four key longitudinal evaluations demonstrate that early interventions can have a positive impact on young children from disadvantaged environments that lasts well into adulthood (García et al. 2016; Heckman et al. 2010; Karoly et al. 1998; Reynolds et al. 2011). The Perry Preschool Program in Michigan and the Chicago Child-Parent Centers provided preschool at ages three and four, the Abecedarian project in North Carolina provided full-day care and education for children from a few months old through age four, and the Elmira Prenatal/Early Infancy



Project in New York provided home visits by a nurse to high-risk mothers during pregnancy until the child turned age two. The studies used well-matched comparison groups and cost-benefit analysis, and have demonstrated inflation-adjusted average annual rates of return from 7 percent to about 20 percent, depending on the size and timing of benefits relative to the cost of the program. While children and families benefit from these investments, the majority of benefits accrue to the rest of society and are still felt years later, as discussed in the next section.

Researchers continue to investigate the conditions necessary to carry forward positive impacts from early investments. At a 2015 research conference at the Federal Reserve Bank of Minneapolis on sustaining early childhood education gains, presenters identified the following conditions that are consistent with sustaining early gains: program quality, such as having trained and skilled teachers and a research-based curriculum; facilitating and aligning expectations and approaches between early learning programs, kindergarten classrooms, and early elementary classrooms; and engaging and supporting parents and guardians as children's primary teachers (Grunewald 2016).

## **IMPACT OF EARLY CHILDHOOD INVESTMENTS ON THE WORKFORCE DEVELOPMENT PIPELINE**

Early childhood investments can have a positive effect on the workforce development pipeline, whether for a child entering kindergarten or an adult enrolling in a workforce training program. Investments in disadvantaged children produce the largest benefits on a per-child basis and have the potential to close achievement gaps between children from disadvantaged and advantaged backgrounds. In addition, the skills children learn in ECD programs span the cognitive and noncognitive skills they need to thrive in school and in the workplace. Evaluations of several early childhood programs show gains in language, problem solving, and social-emotional skills.

## **School Readiness**

Early childhood investments can help children arrive at kindergarten prepared to succeed. School readiness effects have been found for early learning centers and a home-visiting program. One study indicates that children who attend an early learning program have stronger math and preliteracy scores compared with children in a home setting. Stronger effects are observed for children in classrooms who spend more time with activities that emphasize language, preliteracy, and math (Fuller et al. 2017). According to a randomized trial in Memphis, Tennessee, children whose mothers received counseling by visiting nurses during pregnancy and up to the child's second birthday had stronger cognitive skills for both genders at age six and stronger social-emotional skills for females at age six (Heckman et al. 2017).

## **Better K–12 Performance**

Evidence from long-term evaluations of the Perry Preschool, Abecedarian, and Chicago Child-Parent programs shows that children who attended these programs had higher achievement levels and were less likely to require special education. The Abecedarian and Chicago Child-Parent studies also show reductions in grade retention (Barnett and Masse 2007; Reynolds et al. 2011).

In addition to these long-term studies, more recent research also finds benefits to schools from investments in young children. In North Carolina, an evaluation of two resources—a statewide preschool program for disadvantaged four-year-olds and a county-level partnership network called Smart Start that funds a variety of services for young children—found positive effects on third-grade reading and math test scores, and reductions in the likelihood of special education placement (Ladd, Muschkin, and Dodge 2014; Muschkin, Ladd, and Dodge 2015).

Meanwhile, results from a study of the Tulsa, Oklahoma, Public Schools pre-K program for four-year-old children show enduring effects into middle school, including higher math achievement test scores and enrollment in honors courses, and reductions in grade retention (Gormley, Phillips, and Anderson 2018). An analysis of the Abbott Preschool Program offered in New Jersey's most disadvantaged school districts found evidence of gains in language arts and literacy, math, and

science by fifth grade (Barnett et al. 2013). Test score gains were larger for children who attended two years of preschool compared with one year of attendance. The Barnett study also indicated reductions in grade retention and special education.

In Salt Lake City, Utah, a study showed that providing preschool to vulnerable children is associated with reductions in expected special education placements. Based on results of this study, the school district, the state of Utah, private investors, and other partners developed a Pay for Success contract to expand preschool services. Private investors are paid back with a return if the expansion results in fewer than initially predicted special education placements (Pay for Success 2017).

### **High School Graduation Rates and Postsecondary Enrollment**

ECD programs also demonstrate greater high school graduation rates, such as those found in the Perry Preschool and Chicago Child-Parent Center studies. In addition, students who attended one year of Michigan's state-funded School Readiness Program in preschool had higher high school graduation rates compared with eligible children who did not attend. The finding was particularly strong for children of color (Schweinhart et al. 2012).

After high school, evidence from the Abecedarian study shows that participating children were three times more likely to go on to higher education (Barnett and Masse 2007). For context, it is important to note that while increased attendance at postsecondary institutions is consistent with the goal of investments in workforce development, it also represents a net cost to public budgets, as more low-income students use public subsidies to defray tuition expenses.

A recent meta-analysis of 22 early childhood education studies conducted between 1960 and 2016 shows substantial reductions in special education and grade retention, and increases in high school graduation rates (McCoy et al. 2017). The programs (including some of those previously cited) provided classroom-based early childhood education to children under age five.

## **Reductions in Crime and Health Problems**

Education is a key component of an employee's success in the workforce; however, non-education-related issues, such as crime and health problems, can also inhibit success. Involvement in crime and incarceration can reduce labor force participation and prospects for landing higher-wage jobs. Meanwhile, health problems have been identified as a significant barrier to participation and success in the workplace. Evidence from long-term early childhood studies shows that investments in vulnerable young children can reduce juvenile and adult crime (Heckman et al. 2010; Reynolds et al. 2011) as well as reduce risks for chronic conditions such as heart disease and diabetes (García et al. 2016).

## **CHILD CARE AS IMPORTANT WORKFORCE DEVELOPMENT INFRASTRUCTURE**

Child care not only serves as an important part of the ECD system to help children prepare for success in school and life, but child care programs also provide key workforce development infrastructure that enables parents to enter the workforce. The quality and consistency of child care offerings can also affect the productivity of parent employees and, in turn, impact local employment and business development.

### **Demand for Child Care**

In the United States, almost two-thirds of children under age six (about 15 million) have parents in the workforce (U.S. Census Bureau 2016).<sup>1</sup> According to the 2016 National Survey of Children's Health (the Child and Adolescent Health Measurement Initiative), 54 percent of respondents with a child under age six in the household noted that the child received care for at least 10 hours per week from someone other than the child's parent or guardian. Working parents may place their children in one or more types of child care arrangements, including informal care with a relative or neighbor, licensed family-based programs operated out of a home, or licensed child care centers.

When parents have reliable, high-quality child care, they can go to work confident that their children are in a stable and stimulating environment. But when child care arrangements fall apart during the day, parents may be distracted at work or need to leave to attend to the situation. Unstable child care can also put parent employees at risk of losing their jobs. As evidence, about 8 percent of respondents to the 2016 National Survey of Children's Health with a child under age six reported that during the past 12 months, they or someone in their family had to quit a job, not take one, or greatly change the conditions of a job because of problems with child care (Data Resource Center for Child and Adolescent Health 2016). A recent survey of parents with children under the age of five in Louisiana showed that over 40 percent of respondents had missed work during the previous three months because of child care issues (Davis et al. 2017).

While instability of child care affects parental employment and household finances, these issues also affect the bottom line of businesses. A report released by Cornell University suggests that parent absenteeism, productivity reductions, and turnover due to child care breakdowns cost U.S. businesses more than \$3 billion annually (Shellenback 2004).

Issues with child care can also keep parents from entering the workforce, particularly for low-income families with young children. A recent paper published by the U.S. Chamber of Commerce Foundation's Center for Education and Workforce notes that over 70 percent of nonworking, low-income adults with children under age five cite "taking care of home/family" as the reason they are not in the workforce (Stevens 2017).

In contrast, the availability of high-quality child care can lead to employment and higher earnings. The Abecedarian study shows that low-income mothers whose children participated in the full-day ECD program had higher levels of educational attainment and held higher-paying jobs (Barnett and Masse 2007). The average net present value of increased maternal labor income is estimated at \$117,000 (García et al. 2016). Another study found that availability of child care subsidies increased labor force participation rates for mothers of children aged three or younger. A threefold increase in funding for child care subsidies would lead to an estimated 376,000 more mothers being able to find work (Enchautegui et al. 2016).

## Barriers to Child Care

Despite the value of high-quality child care to families and businesses, there are a number of interrelated barriers to parents accessing child care services, including a lack of supply, issues regarding program quality, unpredictable job schedules for low-wage workers, overly restrictive public subsidies, and relatively high costs—a burden particularly for low- to moderate-income families.

**Child care availability.** This presents a challenge in several parts of the country. Part of the reason has to do with the child care business model, which typically produces thin profit margins at best for operators. A unique set of constraints on both the consumers and providers of child care creates a market laden with obstacles.

The vast majority of revenue in the market comes from parents' tuition payments. Parents with young children are typically in the early earning years of their careers. Many bring home less income than they will in their later years while facing costs associated with family formation, such as housing and transportation. That means child care costs are often unsustainable in family budgets, and it also means child care providers have little room to raise rates further.

The cost side of a child care provider's ledger is driven by hired labor, an expense that is essential to providing child care. As will be detailed later, wages in the child care sector are already low. With providers unable to lower wages further or reduce staff levels, there are few opportunities for finding efficiencies or cutting costs.

Bringing the child care business model to rural areas can be particularly challenging. The economies of scale to open a child care center are often not available in rural areas; therefore, the market tends to rely more on family child-care providers, which often cannot meet the full demand for child care. For example, an analysis of child care availability in Wisconsin demonstrates that children living in rural areas have fewer child care slots per young child than in more populated areas (Grunewald and Jahr 2017). In neighboring Minnesota, the number of child care slots available outside the Minneapolis–St. Paul metropolitan area decreased by about 15,000 during the period from 2006 to 2015 because of reductions in family child-care providers (Werner 2016).

Child care availability can also be affected by household income levels in communities. The Wisconsin analysis shows that child care availability per young child is greater in low-poverty areas as compared to higher-poverty areas (Grunewald and Jahr 2017).

**Child care quality.** This can affect how well a child care setting meets children’s developmental needs and provides stable care. For example, informal caregivers are less likely to have training in child development and pedagogy than teachers in licensed child-care centers and family child-care homes.

Many states use a “quality rating and improvement system” (QRIS) to establish standards of quality for licensed child-care providers and rate providers along a quality spectrum. QRIS also provides pathways and resources for providers to improve quality and gives accessible information to parents about the quality of providers. QRISs usually have four or five quality tiers with standards that go beyond the “health and safety” requirements of a child care license, such as staff education and qualifications, learning environments, family and community partnerships, and staff-to-child ratios (Grunewald and Horowitz 2018). In most states, participation is voluntary, and provider participation rates vary based on requirements and incentives. According to QRIS state data collected by the Quality Compendium, a catalog that compares quality initiatives including QRIS, the median participation rate among child care centers is 60 percent, and for family child-care programs it is 25 percent (Quality Compendium 2018).<sup>2</sup>

To date, QRIS validation studies have generally demonstrated positive associations between the stated rating and the observed level of quality; however, higher-rated providers have not consistently shown stronger child outcomes compared with lower-rated providers. This has led some states to make changes in rating criteria based on recent research and other feedback (Grunewald and Horowitz 2018).

**The cost of child care.** This is often a barrier to families accessing good-quality child care. In 2016, the national average annual tuition for an infant in a child care center was estimated at about \$11,000, and for a family child-care provider it was estimated at about \$8,700 (Fraga et al. 2017). The same study finds that for a four-year-old, average annual tuitions in 2016 were \$8,600 at a child care center and \$7,900 at a fam-

ily child-care provider. However, there is a wide variation in child care prices across states, the authors find. For example, Fraga et al. show that average annual tuitions for an infant at a child care center ranged from \$5,178 in Mississippi to \$20,125 in Massachusetts.

Government-funded child care subsidies can help defray the cost of child care for low-income families who receive them. The federal Child Care Development Fund (CCDF), a program of the U.S. Department of Health and Human Services' Administration for Children and Families, partially funds state-run child care subsidies that lower the cost of child care for low-income families while parents work, go to school, or attend job training. However, federal and state funding for child care subsidies reach only a fraction of eligible recipients. In 2013, about 13 million children would have been eligible, based on federal rules, to receive a child care subsidy through CCDF and related government funding streams; only 16 percent of them actually did (Chien 2017).

Furthermore, child care subsidy reimbursement rates are often set lower than prevailing market tuition rates. Providers often need to choose between three options: 1) charging parents the difference between the tuition price and the child care subsidy reimbursement amount, 2) absorbing the difference, or 3) only serving relatively higher-income families.

**All three barriers—1) availability, 2) quality, and 3) cost—are interrelated.** These issues often intersect in regard to the child care workforce. There are about two million people working in child care centers, family child-care homes, private and public preschools, and Head Start programs (NSECE Project Team 2013). As discussed earlier, labor costs make up a large share of expenses for providers. Since the quality of interactions between teachers and children are an important determinant of child development outcomes, the training and abilities of this workforce are crucial to the success of early childhood interventions.

Despite the influence teachers and caregivers have on the development of young children, they receive relatively small pay. Excluding family child-care home providers, the median hourly wage for teachers and caregivers responsible for children who are infants to aged five is about \$11 per hour (NSECE Project Team 2013).<sup>3</sup> Occupational employment data show that in 2015, median hourly wages for child



care-related occupations were well below \$15 per hour, including child care workers (\$9.77), self-employed home care providers (\$12.44), and preschool teachers (\$13.74) (Whitebook, McLean, and Austin 2016). Relatively low wage rates make it challenging to attract and retain talent in the sector.

### **Addressing Child Care Barriers**

The issues facing child care availability, quality, and cost are challenging, but there are a number of strategies available to address them at the federal, state, and local levels. Government funding and policy have an important role to play, while private-public partnerships and businesses are also well positioned to help address these issues.

State and federal governments could increase the amount of funding for child care subsidies and scale up the amount paid per subsidy relative to program quality. For example, a number of states use QRIS to implement tiered reimbursement subsidy payments based on a provider's rating. This incentivizes providers to increase their rating and helps cover costs associated with quality improvements. In addition, the child and dependent care tax credit contributes to child care tuition, providing a benefit of up to \$3,000 for one individual and \$6,000 for two or more individuals (Internal Revenue Service 2018).

Another strategy is to realign child care resources with developmental outcomes for children. Child care subsidies are often tied to work or education requirements for parents that fail to reflect the needs of the entire family. For example, a subsidy may be restricted to specific hours even when a parent faces volatile work scheduling, and families may paradoxically face the loss of subsidies if a parent pursues better job opportunities.

In Minnesota, policymakers have begun to address this issue. The state's Early Learning Scholarships are available for low-income or high-risk parents with three- and four-year-old children, and for high-risk families with children from birth through age two. They allow children to attend a quality-rated early learning program of the parents' choice. Local governments and philanthropists have funded similar initiatives in other parts of the country.<sup>4</sup>

The state also recently adopted a set of federally recommended practices that support parents' flexibility and earnings growth in their

broader child care subsidy program. And in 2014, Minnesota made it easier for parents enrolled in the Temporary Assistance for Needy Families (TANF) program to engage in workforce development activities without losing access to child care subsidies and other resources (Minnesota House of Representatives 2014).

These policy designs encourage continuity of services for children, support parental choice and success in the workforce, and, in the case of the scholarships, leverage other public early-learning funding streams.

Channeling more funding to early learning markets can increase access to child care among low- to moderate-income families and give providers the resources to hire more qualified staff and offer more competitive wages. There are also strategies to support the education and retention of child care teachers, such as the Teacher Education and Compensation Helps (TEACH) Early Childhood Program, which is available in 23 states and Washington, DC.<sup>5</sup>

While encouraging access to child care centers and family child-care providers has a number of benefits, many families likely will continue to choose to make informal care arrangements with family, friends, and neighbors for at least part of their child care. For these settings, government agencies and nonprofits could provide ECD training and materials to informal providers through group-based sessions or home visits to improve caregiver-and-child interaction and activities.

Public-private partnerships can also play a key role in supporting child care. In Minnesota, a nonprofit organization, Parent Aware for School Readiness (PASR), supported the state's child care QRIS by providing in-kind marketing and web design expertise and by funding an evaluation. The PASR board primarily consisted of business leaders.<sup>6</sup> As most child care providers are independent small businesses, private-sector business leaders have an opportunity to provide guidance on marketing, business planning, finance, and governance. For example, First Children's Finance has created opportunities for business leaders in a number of states to volunteer as mentors or serve on advisory boards to support the business side of child care.<sup>7</sup> Finally, employers can implement strategies to help parent employees access child care, including subsidizing slots at a provider or even offering on-site child care. In a rural Minnesota town, companies are helping address the problem of local child care access by paying for slots at a new child care center (Aamot 2017).

## GOING UPSTREAM

Every part of the workforce development pipeline has much to gain by making sure children are off to a strong start. Child care infrastructure also ensures that parents have stable care options so they can choose to enter the workforce and be productive at their jobs. While segments of the workforce pipeline face their own challenges, whether in K–12 schools, postsecondary education, or workforce training, supporting children and families during the early years can make workforce development much easier down the road.

### Notes

1. “Have parents in the workforce” can refer to children either with two parents in the workforce or with one parent in the workforce.
2. Medians calculated by author based on center-based program data available from 37 states and family child-care program data available from 36 states.
3. Adjusted 2012 median wage to 2016 dollars using the Personal Consumption Expenditures Price Index.
4. For example, the Denver Preschool Program uses a voter-approved 0.15 percent sales tax to provide tuition support to families to help pay for four-year-old preschool. Erie’s Future Fund in Erie, Pennsylvania, provides scholarships to low-income families to enroll their three- or four-year-old children in a good-quality early learning program of their choice; scholarships are funded by local donors.
5. For more information, visit [www.teachechnationalcenter.org](http://www.teachechnationalcenter.org).
6. For more information, visit [www.closegapsby5.org](http://www.closegapsby5.org).
7. For more information, visit [www.firstchildrensfinance.org](http://www.firstchildrensfinance.org).

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## 24

# Workforce Policies and Programs to End Child Poverty in Puerto Rico

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Even before Puerto Rico was ravaged by Hurricane Maria in 2017, the island was experiencing an economic depression, as shown by the decrease in gross national product nearly every year since 2005 (Puerto Rico Planning Board 2014). There were some interrelated factors that resulted in this sustained downturn, including

- the elimination of Section 936, which previously granted U.S. corporations tax exemption on income generated from U.S. territories (Feliciano and Green 2017);
- low workforce participation (Bram and Wheeler 2016);
- population loss caused by out-migration and declining birthrates (Abel and Deitz 2014); and
- the government's \$70 billion debt (Decambre 2017).

The devastating impacts from Hurricane Maria and economic recovery efforts will only exacerbate the island's debt, declining competitiveness, and migration patterns. Recovery efforts undoubtedly will require a large input of workers and resources and will take priority over other needs in the coming years. At the same time, however, longer-term workforce development issues, including both child poverty reduction and population retention, should remain at the forefront of efforts to spur economic growth on the island.

According to the Kids Count Data Center (2018a), in 2016 roughly 6 out of 10 children in Puerto Rico were living below the federal poverty rate, and nearly 4 in 10 were living in extreme poverty.<sup>1</sup> The poverty rate was nearly three times that of the continental United States.



The island's youth population also decreased by 32 percent between 2006 and 2016, mostly from the migration of families with children and declining fertility rates. Migration patterns after Maria threaten to accelerate loss of the youth population. The Center for Puerto Rican Studies estimates that more than 55,000 children could leave over the next year as a result of Hurricane Maria (Meléndez and Hinojosa 2017).

In the short term, child poverty and population loss can slow Puerto Rico's recovery in various ways. In the long term, there will be fewer youth and adults able to enter the workforce because of population decline, the effects of child poverty on employability, and the exacerbating impacts from the recent hurricane. In particular, child poverty may negatively impact development and translate to significant losses in the economy. A study found that child poverty costs the United States roughly \$500 billion dollars a year in lost human capital and in health and judicial costs (Holzer et al. 2008). Research also finds that natural disasters can compound the effects of poverty. For example, children who experienced Hurricane Katrina had a higher likelihood of dropping out of high school and being unemployed as adults (Fothergill and Peek 2015). If policies do not address the challenges posed by child poverty and population loss—challenges that were aggravated by Hurricane Maria—Puerto Rico's economy will face further structural impediments to its short-term recovery and long-term economic development.

This chapter will discuss the dual strategy of 1) research and public-policy work and 2) innovative direct services programming implemented by the Boys and Girls Club of Puerto Rico and the Youth Development Institute to address child poverty. Reducing child poverty should translate to increasing opportunities for families with children, which could help curb migration of individuals who leave the island seeking better economic opportunities. Both institutions are tackling an essential but often overlooked component of long-term and sustainable economic development, and one that will be of essence for Puerto Rico's economic recovery and growth.

## **DUAL STRATEGY APPROACH<sup>2</sup>**

The Boys and Girls Club of Puerto Rico (BG CPR) has delivered comprehensive services to youth in Puerto Rico for 50 years. It is cur-

rently one of the largest organizations supporting youth on the island, with 13 locations that serve more than 15,000 young people each year. Traditionally, the organization has provided safe meeting places, support with strong role models, and programming around education, health and life skills, the arts, leadership, and sports and recreation. However, as the organization undertook a strategic planning review in 2012, it became clear that the youth it served needed more. The challenges of structural and intergenerational poverty were at times undermining any progress made by the Club. It was also clear that the challenges faced by participants were reflective of challenges faced by all Puerto Rican children living in poverty.

As a result, BGCPR developed a dual strategy to tackle the issues of systemic child poverty through 1) research and public policy work and 2) innovative direct services programming. On the research and public policy side, in 2013, the Boys and Girls Club created the Youth Development Institute of Puerto Rico (YDI)<sup>3</sup> to promote economic security for youth by collecting and disseminating data on the condition of children and their families, including economic indicators; producing data-driven public policy recommendations; and carrying out data- and community-driven advocacy work.

On the programmatic side, BGCPR is piloting a “two-generation approach” in the Ramos Antonini Boys and Girls Club in San Juan, through an initiative dubbed “Vimenti.” The two-generation approach involves simultaneously addressing the needs of both children and parents in order to address poverty. This includes comprehensive educational services for children and youth, a workforce development strand for both parents and youth, and family services. Components of the two-generation approach have been gradually implemented, with the full model expected to be in operation by August of 2018. The full model will feature a school for children ages five and six, and it will require complete family enrollment in all services. The implementation of some of the components, primarily education and workforce services, has shown promising results. A research and policy lab in collaboration with the Youth Development Institute will evaluate impacts once the full model is implemented. YDI plans to use these findings to inform public policy recommendations. Eventually, the results of the pilot at Ramos Antonini could contribute to an evidence-based model replicated in other communities in Puerto Rico.

### **Strategy 1: Research and Public Policy Work on Economic Instability, Child Poverty, and Potential Workforce Development Strategies**

Analysis of U.S. Census data compiled by the Youth Development Institute shows that child poverty is rooted in several structural issues that go beyond the current economic crisis, one of which is parents' participation in the workforce. The child poverty rate in 1999, a time when the island was experiencing a fair amount of economic growth, stood at 58 percent (Mather 2003). As of 2016, the child poverty rates remained at a similar level of 56 percent. In addition, 53 percent of children had parents who lacked secure employment, and 28 percent of children living in low-income households did not have a parent in the workforce (Kids Count Data Center 2018b). As of November 2017, Puerto Rico's labor participation rate was 40 percent (Statistical Institute of Puerto Rico 2017), much lower than the 63 percent labor participation rate in the United States (Bureau of Labor Statistics 2018). When compared to individual states, Puerto Rico's participation is still over ten percentage points below that of West Virginia, which has the lowest labor force participation rate in the country (Bureau of Labor Statistics).

BGCPR saw that addressing parental participation in the labor market would be key to decreasing child poverty in the communities the clubs served. The Ramos Antonini club serves 450 children, 98 percent of whom are living under the poverty line and 90 percent in single-female-headed households. Two-thirds of families reported a monthly income of \$299 or less. The vast majority of this reported income comes from government assistance and pensions (Public Housing Administration 2014).

Further analysis was needed to understand why those parents were not employed and/or not participating in the labor force. According to a literature scan conducted by the Youth Development Institute, public transfers can serve as a driver for the low labor force participation rate (Collins, Bosworth, and Soto-Class 2006). A review of the literature on single-female-headed households also suggests that in general, mothers in Puerto Rico face a series of barriers to employment, including lack of relevant skills and adequate and cost-effective child care (Rosa 2016). Through conversations with families in the Ramos Antonini community, BGCPR confirmed these and other barriers to work, including dis-

incentives to join the workforce due to losing benefits, lack of child care, lack of social capital, and, most notably, lack of marketable skills or education.

BGCPR also analyzed global economic trends and the industries poised for growth in Puerto Rico over the coming years. One of the areas identified for growth was tourism, which contributes \$7.4 billion to the Puerto Rican economy and accounts for 8 percent of the gross domestic product. This industry generates approximately 67,000 direct and indirect jobs (World Travel and Tourism Council 2017). Puerto Rico Planning Board data (2014) indicate that 3.2 million tourists traveled to Puerto Rico in 2014, which represents 14 percent of all tourists to the Caribbean. The World Travel and Tourism Council also projects that tourism to the island will generate a 3 percent increase in employment by 2027.

BGCPR examined barriers to employing young people at the rate required for the tourism industry's growth and found significant opportunities to add value. Roadblocks to long-term employment and retention include lack of knowledge about the nature and extent of meaningful careers in the hospitality industry, and not being suitably qualified for the opportunities. Given the proximity of the Ramos Antonini community to major tourism hubs in San Juan, BGCPR decided to address these barriers and make tourism the focus industry of its pilot project.

## **Strategy 2: A Two-Generation Approach**

The two-generation approach has emerged in recent years as a new way to improve economic opportunity for low-income families in the United States. The approach offers services, support, and opportunities for learning and empowerment to both children *and* parents. Evidence suggests that the two-generation approach has the potential to significantly increase financial stability for low-income families (Aspen Institute 2016).

Taking into account BGCPR's focus on economic security and on ending the cycle of poverty through economic development, the Vimenti pilot at Ramos Antonini features three programmatic pillars: 1) education, 2) economic development, and 3) family. These are all combined into a "one-stop shop model" for both child development and workforce development.

**Pillar no. 1: Education**

In 2015, roughly 40 percent of juniors in high school in Puerto Rico were proficient in language arts, science, and English, and only 10 percent were proficient in mathematics (Statistical Institute of Puerto Rico 2016). Puerto Rico also had the lowest National Assessment of Educational Progress (NAEP) scores, with all students performing at basic and prebasic levels in fourth-grade mathematics (National Center for Education Statistics 2017).

Given these performance data, as well as the impact on educational outcomes of living in poverty (Ratcliffe 2015), it was crucial for BGCPR to address education as part of a broader strategy to reduce poverty and promote workforce participation. The Education Pillar comprises three components: 1) the Vimenti School, 2) academic support, and 3) post-secondary support.

**The Vimenti School.** The Vimenti School will be the first independent and tuition-free school to be based in a housing project in Puerto Rico. It is the result of a collaboration between BGCPR and a prestigious private school in Puerto Rico. The school will start with kindergarten and first grade in the fall of 2018 and will add one new grade each year thereafter. The school also will serve as a one-stop shop for parents, as it will provide access to workforce training, social services, and other supports. It will be considered a lab for education innovation in servicing low-income students in Puerto Rico.

**Academic support.** The academic support component includes regular tutoring sessions for Spanish, literacy and conversational English, and others. These supports will be available for Vimenti School students as well as for BGCPR after-school participants, as it has been in the past. The tutoring program started in 2013 and impacts more than 80 children and youth ages 6 to 17 each year. Each participant goes through an individual assessment to determine their needs and to develop a plan based on their established educational goals. According to internal evaluations of student outcomes, some academic gains have already been achieved: half of participants increased their language arts grade by at least 25 percent, and all participants experienced gains in test scores.

**Postsecondary support.** In the BGCPR after-school program, youth ages 13 to 21 go through five stages in which they 1) complete tests to determine their talents and interests, 2) design experiences related to those talents and interests, 3) map out their sociocultural environment to identify obstacles to completing their studies, 4) participate in activities to learn about university life while still in high school, and 5) receive vocational guidance and support in the transition to postsecondary institutions. Once in college, BGCPR staff follow up directly with students every quarter. Participants must be enrolled in college to continue participating in the program. Parents take part in all phases of the program and also receive supports if they choose to pursue higher education.

During implementation of this pillar, BGCPR found it needed to focus more on the logistics around transitioning to college. Many students faced challenges succeeding at the postsecondary level because of costs of transportation, lodging, and food, as well as academic difficulties. BGCPR also had to double down on supports and mentoring to prevent students from dropping out during their first year.

## **Pillar no. 2: Economic development**

The economic development pillar seeks to develop the skills necessary for both youth and their parents to enter the workforce and gain economic security. It features two components: entrepreneurship and careers.

**Entrepreneurship.** Reducing poverty through workforce development also includes providing the skills necessary for entrepreneurship. BGCPR's work to build entrepreneurial mindsets and skills begins with participants as young as six years old. The organization uses "Project Makers," a project-based learning curriculum designed by BGCPR, to expose youth to the concepts and realities of business generation and management. While younger participants take part in activities to develop an entrepreneurial way of thinking, older participants work with facilitators to create and present their own market plans. The entrepreneurship pillar also provides mentoring to parents who wish to develop their own businesses.

Starting in 2016, this program was the first of its kind to offer training at such an early age, and to offer it to populations living in pov-

erty in Puerto Rico. It has successfully impacted around 90 youth, and with 12 viable business ideas having been generated and on the road to implementation.

The entrepreneurship program has posed some challenges. Initially, most participants perceived entrepreneurship as a foreign concept and a goal that was out of their reach. Their perceptions often changed during the first weeks of the program as they gained confidence. In addition, BGCPR learned that parents had to be better integrated into the process, and that the program should align with school curriculum. BGCPR also recently developed a network of mentoring professionals to support young people's business plans so that ideas generated from the program could come to fruition.

**Career.** The career component simultaneously exposes youth to tourism careers and provides career development activities to parents aimed at giving them the necessary skills to obtain and maintain a job in the tourism industry.

Youth participants learn about cultural tourism, medical tourism, and ecological tourism, and they connect to internships and preemployment experiences. In addition, the Ramos Antonini Club developed a Hospitality and Tourism Training Center, which re-creates a hotel space, including a reception area, gift shop, and coffee shop. The center offers a hospitality and tourism course for parents, which consists of different workshops on the tourism industry, hotel management, and hotel services. Business volunteers teach each workshop and offer their own real-world experiences. The center is also integrated into educational programming for youth, in order to expose young people to the industry.

BGCPR also supports parents with their job searches in the tourism industry, by providing access to computer labs, assistance in résumé writing and interview preparation, and job referrals. At the end of the Hospitality and Tourism course, adult participants are expected to attend at least one job interview in the tourism industry.

Since the start of the career pillar in 2015, youth have engaged in a series of real-world experiences, including internships. As of June 2017, 62 adults from the community and the surrounding areas have completed the Hospitality and Tourism Training Center course. Sixty percent of the adults completed interviews, and 13 adults received a

job. In addition, 22 other adults, who did not take the course but are parents of children attending BGCPR's after-school programs, have been placed directly in jobs, thanks to tailored support the accompanying orientation process provided by the job placement leader.

### **Pillar no. 3: Family**

Families that live in poverty face enormous challenges to achieve economic and social stability because of chronic stress (Evans and Kim 2013) and weak social support systems (Klebanov, Brooks-Gunn, and Duncan 1994). The family pillar will address these barriers through family wellness services, which will include but not be limited to individual and group therapy, life management skills development, and intensive case management. The family strength pillar has yet to be implemented, since BGCPR is in the process of securing financing for the staff needed to deliver these high-quality services.

## **FINDINGS AND POLICY IMPLICATIONS**

### **The Benefits Cliff Is a Real Disincentive for Joining the Workforce**

One of the biggest challenges for parents who found employment through the two-generation pilot program has been the reduction in or loss of benefits, particularly housing assistance and support from the Supplemental Nutrition Assistance Program (SNAP). During anecdotal conversations, participants of the program reported that losing these supports offset any wages generated from their part-time or full-time jobs, so that their economic situations did not drastically improve. This complicated process discourages families as they enter or reenter the workforce.

As a response, the Youth Development Institute is focused on gathering all the necessary data to develop robust recommendations for reforming the social welfare system in Puerto Rico to address the benefits cliff and incentivize employment through adequate work supports.

In order to encourage such incentives, the government of Puerto Rico could increase support for workforce development programs that remove barriers to employment.



BGCPR created the two-generation pilot program as a response to the limited availability of programs to help parents develop skills and access employment. A recent children's budget analysis commissioned by the Youth Development Institute (2018) confirmed that total government expenditures on programs aimed at fostering self-sufficiency amounted to \$131 million.

According to parents served by the two-generation pilot, another barrier to employment has been the lack of child care. Public investments for child care have continued to decline over time. In 2018, the Child Care Program of the Department of Family, which provides child care vouchers to low-income households, experienced a 16 percent budget cut. The number of vouchers available for families dropped from 7,500 in 2014 to a projected 3,552 vouchers for Fiscal Year 2018 (University of Puerto Rico at Cayey 2018).

YDI's children's budget analysis also found that current programs aimed to offer pathways and remove barriers to employment for low-income parents have a limited reach that does not meet the need in Puerto Rico. For example, Temporary Assistance for Needy Families (TANF) offers employment training and opportunities for 53,000 female heads of households, while there are 272,327 single mothers living in poverty. Similarly, while there are 57,000 children under the age of six with no parent in the workforce, there are only 3,552 child-care vouchers available (Youth Development Institute 2018).

Although the Puerto Rican government created a local earned income tax credit program for low-income families in 2007, the tax credit was eliminated in 2014. This is despite evidence that earned income tax credits can be effective in increasing workforce participation and addressing child poverty (Meyer and Rosenbaum 2001).

Investments in work incentives and supports provide pathways to economic mobility for both parents and youth, and they could contribute to reductions in child poverty in Puerto Rico. A stronger workforce may also deter out-migration from the island, which could in turn strengthen a pipeline of future workers essential for Puerto Rico's economic survival.

## **The Government of Puerto Rico Could Develop a Public Policy Strategy for Youth Entrepreneurship**

During implementation of its entrepreneurship pillar, BGCPR faced various challenges and limited external support to help youth apply their ideas in the real world. As a result, the Youth Development Institute recommends that the government of Puerto Rico develop a robust public policy framework to address these issues. According to the United Nations Conference on Trade and Development (UNCTAD)'s *Policy Guide on Youth Entrepreneurship* (2015), the key areas to consider in a policy strategy include the following four: 1) Optimizing the Regulatory Environment; 2) Enhancing Entrepreneurship Education and Skills Development; 3) Facilitating Technology Exchange and Information, and 4) Improving Access to Finance and Promoting Awareness and Networking.

In terms of the second strategy area, “Enhancing Entrepreneurship Education and Skills Development,” in recent years the Puerto Rico Department of Education (PRDE) has taken on a series of initiatives to promote entrepreneurship in education (Puerto Rico Department of Education 2016). In 2016, PRDE established internal policy to require integration of entrepreneurship into the public school curriculum. Schools must develop action plans to ensure implementation. Notably, this policy was an unfunded mandate, which makes implementation challenging. A change occurred in PRDE administration in 2017, and now BGCPR and YDI recommend revision of this policy to ensure implementation and adjustments to requirements when necessary. It is also recommended that at least one full-time position be assigned to manage the crucial coordination among stakeholders involved, including higher education and the private sector.

These findings and policy implications are preliminary, given that not all components of the two-generation pilot have been implemented. As time goes on, impacts of the program on child poverty and economic security will be measured through a policy and research lab, which YDI currently is developing as part of the pilot. If it proves successful, the BGCPR program could serve as a model for two-generation approaches throughout Puerto Rico, and could support policies to increase investments in workforce development for youth and families.

## Notes

1. Extreme poverty is defined as a household earning 50 percent of the income that the government considers to be the poverty threshold.
2. Information throughout this chapter about the programmatic components of the Boys and Girls Club and the Youth Development Institute are based on internal planning documents, internal evaluation and progress reports, case statements developed by the organizations, and ongoing communication between authors and leaders of the organizations.
3. The Annie E. Casey Foundation's Kids Count serves as a partner for the Youth Development Institute.

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## 25

# Reintegrating the Formerly Incarcerated into the Workforce

Emily Engel

The United States has one of the world's highest rates of incarceration. As of 2014, approximately 1 in every 110 adults was in prison or jail, and 1 in 52 on parole or probation (Bucknor and Barber 2016). Based on year-end 2016 data, roughly 110 million people have criminal history records on file across the 50 states, Puerto Rico, and Guam (U.S. Department of Justice 2018).

High incarceration rates generate significant direct costs for society and families. Second-order effects are also substantial and include a reduction of the labor pool, difficulty obtaining employment after incarceration, and high rates of recidivism. Fewer than half of previously incarcerated individuals have full-time employment (U.S. Department of Education 2016), and more than three-quarters of formerly incarcerated individuals are rearrested within five years of being released (Durose, Cooper, and Snyder 2014). Researchers from the Center for Economic and Policy Research (CEPR) estimate that employment rates for men with felony convictions are 1.6 to 1.8 percentage points lower than the national male unemployment rate (Bucknor and Barber 2016). In 2014, unemployment among ex-offenders cost the economy roughly 1.7 to 1.9 million workers, or 0.9 to 1.0 percentage points in the overall unemployment rate. In terms of output, CEPR estimates there to be \$78 to \$87 billion of annual lost gross domestic product from this effect (Bucknor and Barber 2016).

Rigorous statistical analyses find that a history of incarceration reduces subsequent wages on average by 11 percent, annual employment by nine weeks, and yearly earnings by 40 percent (Western and Pettit 2010). Furthermore, a history of incarceration reduces earnings that would have been made through age 48 by 52 percent for white men, by 41 percent for Hispanic men, and by 44 percent for black men. This

amounts to a 2 percent total earnings loss for all white males, 6 percent for Hispanic males, and 9 percent for black males (Western and Pettit 2010). Based on the 2016 Bureau of Labor Statistics' weekly earnings statistics, earnings losses due to incarceration translate into nearly \$100 billion per year. Policies that facilitate employment for formerly incarcerated men and women, especially given the tight labor market, could reduce recidivism and provide macroeconomic benefits.

An Urban Institute report on prisoner reentry notes that “work has benefits that reach multiple levels, including the individual, family, community, and societal levels. Individual-level benefits include rehabilitation—work offers former prisoners an opportunity to develop new roles as productive members of society. Holding a job serves as an important signal that the individual is moving toward a crime-free lifestyle” (Solomon et al. 2004, p. 4). Yet high rates of unemployment tend to persist for the formerly incarcerated. Employment discrimination based on criminal history may contribute to higher rates of unemployment, particularly for black and Hispanic men (Decker et al. 2014).<sup>1</sup>

Persistent unemployment among the formerly incarcerated also stems from limited educational attainment. As of 2014, roughly 70 percent of the U.S. prison population had a high school degree or more, versus 86 percent of the U.S. household population. Likewise, only 6 percent of the U.S. prison population has a postsecondary degree of some kind, compared to 37 percent of the U.S. household population (U.S. Department of Education 2016). It stands to reason that individuals with limited education, who may have also lacked strong ties to communities and local institutions, faced fundamental barriers to (living-wage) employment prior to entering the prison system. In fact, 23 percent of incarcerated adults who have less than a high school credential were unemployed before incarceration, versus 18 percent of incarcerated adults with a high school credential and 7 percent of incarcerated adults with an associate degree (U.S. Department of Education 2016).

There are several prominent organizations around the United States that address the issue of acute, long-term unemployment among the formerly incarcerated. Programs within these organizations offer support to those who may lack strong community ties and may otherwise face challenges finding work. This article will focus on one such organization in each state within the Seventh Federal Reserve District, includ-

ing the following: Cara in Illinois; Hoosier Initiative for Re-Entry (HIRE) in Indiana; Providing Opportunities for Ex-Offenders to Succeed (POETS) in Iowa; Momentum Urban Employment Initiative in Michigan; and Milwaukee JobsWork in Wisconsin.

## **ILLINOIS: CARA**

Cara, which started in 1991, is a Chicago-based workforce development enterprise that seeks to help people overcome barriers to employment, including those who have served time in prison, while working with them to instill hope, motivation, and self-esteem. Through employment partnerships and supported job searches, Cara places hundreds of people in jobs each year. Additionally, Cara coaches work with each participant individually for a minimum of 12 months after placement, to create continuity and ongoing development. Cara also has a career advancement program and an active alumni association for graduates. The enterprise's ultimate goal is for its graduates to experience real and lasting life success, beyond just employment.

Cara has two program platforms, Cara Classic and Cara Workshops, and transitional employment opportunities through the organization's two businesses: Cleanslate Chicago and Cara Connects. To be accepted into a Cara program, prospective participants undergo a series of interviews and an orientation, during which they learn about the culture and structure of Cara. The recruitment and admissions process includes a drug test and background check. During this process, Cara staff also collect personal information about participants that will inform future coaching and job placement. This process enables staff to begin to develop relationships and build trust with potential participants.

Cara Classic simulates a traditional job through a four-day-a-week, highly structured and supportive environment. Activities throughout the program's duration promote interpersonal skills like team building and conflict management, as well as hard skills like résumé development, financial literacy, budgeting, and professional growth.

Cara Classic provides an affirming community of peers and emphasizes individual leadership, meaningful relationships, workplace competencies, and socio-emotional skill development as the foundation for



any job search or career. The daily, participant-led morning pep rally (known as “Motivations”) demonstrates the importance of community. Participants gather at 8:30 a.m. sharp and respond to provocative questions provided to them the preceding day, such as *What is the one thing you would like to improve about yourself, and how will you do this?* or *What are you afraid of, and how are you overcoming that fear?* Each person will speak to the topic for several minutes—often revealing a deeply personal story of success or adversity. The speaker then leads the group in a few bars of a song. Speakers are chosen at random during each Motivations session by the session’s leader, and no one knows if or when he or she will be selected to speak. This instills the practice of coming to Cara each morning prepared.

The second program platform, Cara Workshops, offers three-hour training seminars and individualized coaching sessions. This structure affords each participant and his or her coach the chance to reflect on daily experiences and gain insight. Cara pairs this approach with comprehensive supportive services, including professional clothing and transportation assistance, as well as financial literacy training. Cara has employer partnerships in several business sectors and leverages these partnerships for collaborative, industry-specific training opportunities. Participants in both Cara Classic and Cara Workshops (who may overlap) gain leadership development skills and work toward securing permanent or long-term jobs.

Cara’s two businesses—Cleanslate, an exterior maintenance business (litter pickup, light landscaping, snow removal), and Cara Connects, a contract staffing firm—create more than 500 transitional positions each year and generate nearly \$3 million in revenue (Cara 2016). Each business provides participants with earned income, work experience, and an opportunity to make important connections while cultivating hard and soft skills in a structured work environment that is 14 weeks long. Cara programs are funded through the revenue created by its two businesses, as well as through private donations, private and government grants, and special events revenue.

Cara’s multifaceted approach has proven effective. In Fiscal Year 2016, 538 Cara participants received permanent and long-term jobs and earned an average of \$11.34 per hour, higher than Chicago’s \$10 per hour minimum wage. In addition, more than three-quarters of Cara participants who had been placed into permanent positions the previous

year still remained with the same firm a year later—a key data point for prospective employers (Cara 2016).

Cara's calculated social return on investment (SROI) looks beyond job placement and wages and examines contributions to society (e.g., income tax, social security contributions, sales tax) and future savings to society (e.g., housing expenses, cash assistance, unemployment benefits, recidivism costs, etc.) resulting from one year of job placements. The organization estimates that every dollar invested in the program yields a return of \$5.97 (Cara 2016).

## **INDIANA: HOOSIER INITIATIVE FOR RE-ENTRY (HIRE)**

The HIRE program, collaboratively run by the Indiana Department of Workforce Development and the Indiana Department of Corrections, began in 2012 and provides employment-related services to residents across the state. To be eligible, individuals must have a felony conviction and an active résumé on IndianaCareerConnect.com.

HIRE's model is centered on three parts of the hiring process: 1) direct client services, including group and individual classes on networking, résumé preparation, conflict resolution, financial literacy and budgeting, and interviewing; 2) outreach to businesses in the community for job placement; and 3) access to organizations that provide support for housing, clothing, and transportation. A HIRE coordinator (mentor) also works with each participant for a full year after the initial job placement.

The HIRE program benefits the participants, businesses, and the state of Indiana. During 2017, HIRE connected 2,211 people to jobs; these people had an average annual hourly wage of \$10.93 and a retention rate of 97 percent after three months. These numbers represent an increase since 2014, when 1,492 people were placed in jobs that paid an average wage of \$9.59 per hour, and they had a three-month retention rate of 84 percent.<sup>2</sup> A recent study showed that, compared to other formerly incarcerated individuals, HIRE participants had lower risks of recidivism despite their more serious criminal histories (Bohmert, Hood, and Meckes 2017).

Businesses also benefit from employment of HIRE participants through the Work Opportunity Tax Credit (WOTC), which can amount to as much as \$9,600 in federal tax credits per employee hired.<sup>3</sup> Each year, the estimated economic benefits for the state of Indiana include \$416,000 in employer taxes paid on the new wages, and \$28.8 million in mitigated prospective prison costs.<sup>4</sup>

### **IOWA: PROVIDING OPPORTUNITIES FOR EX-OFFENDERS TO SUCCEED (POETS)**

POETS, a partnership between Iowa Workforce Development and the Iowa Department of Corrections, provides vocational classes inside three Iowa correctional facilities (Mitchellville, Newton, and Rockwell City) and the Des Moines Women's Work Release Center. POETS helps prisoners obtain hard skills and improve soft skills. Participants are required to attend both scheduled sessions, be punctual, actively participate, complete all assignments on time, and remain free of major disciplinary reports.

POETS classes offer assistance with job-seeking documentation like cover letters, applications and résumés, reference lists, and thank you letters; and it works with participants on best practices for networking, job fairs, interviews, and how to address the issue of one's incarceration to prospective employers. For participants, especially those who have been incarcerated and out of the labor force for an extended period, these classes minimize the stressful nature of the job application and hiring process, including answering questions about having a felony conviction during a job interview. POETS classes also raise students' awareness of various institutional resources that they can access once they leave prison.

Among the first group of 134 POETS participants who completed the program over the first few years and were released, 78 percent (104 individuals) obtained employment.<sup>5</sup> While research has yet to capture the return on investment specifically for the POETS program, in 2011, statewide, Iowa vocational education programs inside prisons generated a 43 percent rate of return on investment to Iowa taxpayers (Iowa Department of Corrections 2012).

## **MICHIGAN: URBAN ALLIANCE, MOMENTUM URBAN EMPLOYMENT INITIATIVE**

Urban Alliance began in 1999 as a relationship-building program for people with significant barriers to entry into the labor market. Based on the notion that being a productive member of the community typically includes working and living in the community, the organization created “Momentum,” a six-week intensive curriculum designed to help unemployed or underemployed individuals in Kalamazoo secure and maintain employment. Momentum’s six-week program offers a unique mix of job readiness and social, emotional, and life skills training, along with job placement assistance. The central mission of the program is to help people gain self-confidence, and in turn help participants succeed in the workforce.

Each person who enters the program faces at least two of the most common barriers to employment: incarceration, limited educational attainment, homelessness, limited (or no) reliable transportation, lack of employment experience, or substance abuse.<sup>6</sup> Approximately 88 percent of participants are formerly incarcerated, according to the participants’ responses during the screening process. Notably, Momentum does not turn away prospective participants for mental health or drug addiction issues. Instead, Momentum works with an outside organization, Urban Outreach Initiatives, to connect them with outside help before starting the Momentum program.

Momentum Urban Employment Solutions—the classroom portion of the program—helps students build key skills and competencies that lead to successful employment. Curriculum topics include basic computer skills, résumé building, mock interviews, time management, work ethic, emotional intelligence, positive self-image, personal crisis management, and conflict navigation. Classroom instruction takes place in the mornings, five days a week. Students also must complete 100 hours of community service during the last five weeks of the program. This flexible but rigorous schedule helps the students learn to manage time and adjust to a work environment.

In addition to classroom learning, Momentum finds employment for participants through the Momentum Business Network, a job placement service that consists of 55 socially conscious local businesses

and organizations. These employers provide valuable feedback on the employee's strengths and weaknesses in the workplace so Momentum staff can focus on individual needs. Momentum also pairs each student one-on-one with a mentor—typically community service volunteers. During weekly meetings that take place for a minimum of six months, mentors serve as a support network throughout the job search and hiring process and beyond.

Momentum's success rate is high for the 202 individuals who have participated in the program since 2014: 84 percent of those who start the program graduate, 92 percent of those who graduate secure employment, and 83 percent of those who were placed in employment are still employed after 90 days and earning an average wage of over \$13 an hour.<sup>7</sup>

## **WISCONSIN: MILWAUKEE JOBSWORK**

Milwaukee JobsWork was formed to break generational poverty by creating a supportive work environment for people with exceptionally high barriers to employment. Milwaukee is a city that makes some lists for being among the poorest in the United States, and over 40 percent of the city's African American male residents aged 20 to 54 have been incarcerated (Pawasarat and Quinn 2013). To address these challenges and the subsequent barriers to entry into the labor market, Milwaukee JobsWork sets a goal "to provide a comprehensive and effective pathway to self-sufficiency for motivated individuals in Milwaukee" (Milwaukee JobsWork 2010). Some 90 percent of program participants are black, 75 percent are men, and 33 percent have felony convictions (Milwaukee JobsWork 2017). This program seeks to restore the dignity, self-confidence, and self-sufficiency of these individuals before focusing on life skills.

Next, Milwaukee JobsWork pursues the following four goals: 1) teaching marketable skills to participants based on employee development (see details below); 2) locating supportive companies within the community to place participants in entry-level jobs, including landscaping and janitorial services; 3) working with larger companies within the community to create relationships and in turn drive new business to

the smaller companies; and 4) teaching small business owners skills to grow their businesses, such as creating business plans and accounting.

Partner organizations refer prospective participants to Milwaukee JobsWork. It is the responsibility of future participants to contact Milwaukee JobsWork and meet with the program director to learn about the program and its requirements. Prospective participants then must attend an orientation and go through a two-week intensive workshop, which covers three areas. In order of importance, they are as follows:

- 1) Spiritual renewal and motivation to strengthen self-confidence and self-esteem
- 2) Identifying barriers to long-term employment and how to overcome them
- 3) Life skills training (soft skills, dress code, social skills, filling out a job application, résumé writing, and interviewing skills)

Upon workshop completion, participants graduate and receive personalized advancement plans to ensure that they have the right personal and professional contacts to match their goals. Additionally, Milwaukee JobsWork carries out TABE (Test of Adult Basic Education) testing to determine literacy, trauma screening, drug testing, and background checks. These assessments help to identify additional barriers to employment to be addressed in the member's advancement plan.

Once participants receive jobs, Milwaukee JobsWork staff helps them with their goal of stability in employment, which contributes to the organization's central goal of lifting people out of poverty. Since participants have been unemployed long-term, adjusting to work comes with various difficulties. The employers that hire graduates understand that sometimes mistakes happen, and they work with Milwaukee JobsWork staff to get the workers back on track if necessary. For example, instead of immediately letting an employee go for not coming to work, employers and JobsWork staff jointly investigate the reasons the employee did not show up, and they work with him or her to find a solution. Each mistake is treated as a teachable moment, so that workers feel valued and build their self-confidence and self-esteem. Once a worker gains skills on the job and holds a job for approximately a year, Milwaukee JobsWork will work with the employee to create pathways to advanced skills acquisition through workshops and on-the-job learning to help that worker on the next step of his or her career journey.

While Milwaukee JobsWork is still new, 256 people have by now started the workshop. More than three-quarters of them became members with advanced plans. However, only 37 percent of the members remained active with the organization after the workshop, and only 8 percent of the members are self-sufficient, making at or above 200 percent of poverty-level income for at least six months.<sup>8</sup> Looking ahead, Milwaukee JobsWork staff understands that participants' securing jobs within approximately two weeks of workshop completion will largely increase the likelihood they remain in the program. Through engagement with more local businesses, along with a new volunteer one-on-one mentorship program, Milwaukee JobsWork expects more participants to stay active as members and transition to becoming self-sufficient. The volunteer mentors are people from the community who understand Milwaukee JobsWork's mission of lifting people out of poverty by helping them achieve stable employment. These community members advocate for their mentees, offer guidance, and help them maintain steady employment. Mentors check in with Milwaukee JobsWork staff on a regular basis and typically meet with participants at least once a week.

## CONCLUSION

This chapter has explored the methods of five organizations in the Midwest to address persistent unemployment for the formerly incarcerated. While some organizations work with current inmates and others focus on those recently released, there are important similarities across all of these organizations that policymakers should note. The programs all emphasize both hard and soft skills, work to create a sense of belonging to the community, distill complex processes into basic steps so that people with high barriers to entry who are unfamiliar with the job search process can understand how to recognize and act on opportunities, include mentorship programs to optimize personal growth and success, and try to integrate people into a support system. As the various programs demonstrate, it takes a multifaceted and focused approach to address the complex and related problems of chronic unemployment and recidivism. In a recent speech, Federal Reserve System Governor

Lael Brainard (2017a) addressed how important it is for the Federal Reserve System to abide by its maximum employment mandate, stating, “The recognition that maximum employment evolves over time to reflect changes in the economic landscape serves us well. . . . While the policy tools available to the Federal Reserve are not well suited to addressing the barriers that contribute to persistent disparities in the labor market outcomes of different groups, understanding these barriers and efforts to address them is vital in assessing maximum employment as well as potential growth” (Brainard 2017b). Whether through increasing formal educational attainment or addressing broader life challenges, the task of removing barriers and connecting formerly incarcerated workers with today’s jobs will not only benefit individuals and their families, but also move toward maximizing employment and strengthening the economy as a whole.

## Notes

1. “Ban the Box” legislation, which removes from employers’ hiring applications the check box that asks if applicants have a criminal record and prohibits employers from asking about an applicant’s criminal history until later in the hiring process, is one example of an attempt to level the playing field. In the 11 states where a ban-the-box measure has been passed, research has shown that callback rates are higher for people with criminal records. However, case studies have also shown that while hiring rates are generally higher for those with criminal records than in states without such legislation, there is still a reduced callback rate for young black and Latino men. Without access to information on criminal history, employers may be making hiring decisions based on stereotypes, which is counterproductive to the ultimate goal of ban-the-box initiatives (Stacy and Cohen 2017).
2. Informational sheet provided by HIRE to author, 2017.
3. For information on the Work Opportunity Tax Credit, see USDOL (2018).
4. Informational sheet provided by HIRE to author, 2017.
5. Based on data obtained from the reentry advisers within the correctional facilities.
6. Informational sheet provided by Urban Alliance to author, 2018.
7. Informational sheet provided by Urban Alliance to author, 2018.
8. Informational sheet provided by Milwaukee JobsWork to author, 2017.



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