Promoting the Adoption of Sector Strategies by Workforce Development Boards Under the Workforce Innovation and Opportunity Act

Prepared for the Annie E. Casey Foundation

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ABOUT THIS REPORT

The Ray Marshall Center, with support from the Annie E. Casey Foundation, sought to contribute to the literature regarding sector strategies by identifying five Workforce Development Boards that have successfully implemented sector strategies, interviewing individuals involved with each effort, and documenting each effort via a case study. The aim of this research was to document the processes by which these workforce boards have adopted a sector-based approach and the roles they have taken on in doing so. Ultimately, this collection is intended to provide guidance for workforce boards nationally as they adapt to the requirements of the Workforce Innovation and Opportunity Act.

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INTRODUCTION AND OVERVIEW

Sector-based approaches to employment and training began to emerge in the United States in the late 1980s and early 1990s, explicitly focusing on employer-driven workforce development. In the past few years, more rigorous research has been conducted documenting their outcomes, impacts and returns (Glover and King 2010; Maguire et al., 2010; Smith, King & Schroeder, 2012; King, 2014). At present, several foundations (e.g., Annie E. Casey, Ford, Hitachi, JPMorgan Chase), the National Fund for Workforce Solutions, National Governors Association (NGA) and, more recently, the United states Department of Labor (USDOL) have been fostering the spread of this approach on a wider basis, including via its explicit inclusion in the recently-passed (2014) Workforce Investment and Opportunity Act (WIOA).

Over the past decade, and especially in the last several years, sector-based strategies have greatly accelerated in both their adoption as an effective solution to many of the problems inherent in the workforce development system, and in their innovative variations on what had been a fairly rudimentary set of themes. Numerous examples point to evidence of evolution in this sector, including those that firm up early assumptions about what works, as well as entirely new developments that have only emerged with time and the expansion of the practice. The following short list is necessarily incomplete, but it speaks to the larger trends that distinguish sector strategies today from sector strategies of thirty-plus years ago:

- Sector strategies are industry-driven, as distinct from including industry as a primary customer;
- What it means to operate a sector strategy is communicated down to the service delivery level;

What is a Sector Strategy?

A sector strategy is a partnership of employers within a critical industry that brings together education, economic development, workforce systems, and community organizations to identify and collaboratively meet the workforce needs of that industry within a regional labor market.

How Do Sector Strategies Affect What a Workforce Board Does?

Sector strategies represent a new way for workforce boards to conduct business: moving from a program administration and oversight focus to a more strategic role building regional talent pipelines, addressing skill gaps, and creating meaningful career pathways for a range of workers in important regional industries.

- Sector strategies are effective means for workers to attain meaningful industryrecognized credentials;
- Career pathways and apprenticeships are incorporated into sector partnerships;
- New and creative funding models have been developed; and

 Sector strategies are proving to be the most effective vehicle for transforming what it means to be a meaningful, regional collaboration among local partners.

New partners have been recruited, including economic development agencies, postsecondary education institutions, and federal agencies in addition to the Department of Labor, and there is a growing emphasis on moving beyond outcomes to measuring impact. This paper begins by briefly touching on the evolution of these strategies, followed by a discussion of the roles that the public workforce system – and particularly local Workforce Development Boards (workforce boards) - can play in advancing sector strategies within the context of WIOA. Next, we discuss several elements, identified in the literature and through observation that we determine to be critical to the success of sector strategies, including:

- The rigorous use of data to inform decision-making at the sector partnership level;
- A high level of industry engagement in the operations of the partnership;
- The delivery of services that are specific to sector-based partnerships;
- Close attention paid to sustainability and continuous-improvement; and
- Significant investments in building the capacity of partnership staff to manage the partnership.

Each of these elements are illustrated by examples extant in the field and documented through interviews conducted both for this analysis as well as for prior research. Our list is by no means meant to be exhaustive, but we believe that it is a representative list of the innovation taking place in this rapidly evolving field.

Finally, the paper concludes with brief case studies that illustrate the sector strategies experiences of six workforce investment boards that represent a diverse range of geographies, industry interests, and experience: Hampton Roads, Virginia; Harrisburg, Pennsylvania; Kingman, Arizona; Larimer, Colorado; New York City, New York; and Portland, Oregon.

THE RISE OF SECTORAL STRATEGIES: A BRIEF HISTORY

While the evidence is still emerging, it is clear from the handful of rigorous studies that have been conducted to date that sectoral strategies have been effective in increasing the employability, employment, earnings, and other outcomes for jobseekers (see Appendix III). And there is strong anecdotal evidence that these strategies lead to positive economic results for employers as well. They also yield lasting net benefits for taxpayers and society as a whole. The question, then, is how can local Workforce Development Boards ("workforce boards") support the implementation and expansion of sector strategies in their regions?

While there have been significant and encouraging improvements in terms of support for sectoral strategies in recent years, it is important to note at the outset that sustaining and

scaling these strategies has historically faced a steep uphill battle, in no small part due to the legacy of decades emphasizing doing things "on the cheap." Whether from 1990s welfare reform efforts that stressed "work-first" labor force attachment models or from the early "sequence-of-services" approach embedded in the Workforce Investment Act (WIA) of 1998, which offered skills training only as a last resort after core and intensive services had failed to produce the desired result (i.e., a job, any job), strategies that both give employers a lead role and that stress real investments in skill development leading to jobs paying wages offering economic self-sufficiency simply were not part of the policy and program landscape. It is this legacy that recent improvements in policy and programming have begun to overcome.

Emergence

The family of strategies designed to help low-income, low-skilled individuals succeed in the labor market and, simultaneously, to help employers meet their needs for workers with the right mix of skills began to emerge in the 1980s and 1990s. Initially, these sector-based strategies were designed to respond to the needs of key industry groups in various sectors by aggregating employer demand for common skills. It was assumed that this would introduce an efficiency and rationality missing from the existing workforce development system. While some of these programs focused on the low-skilled population, many more tended to help employers find and improve the skills of a more highly skilled and educated segment of the workforce.

With time, as it became clear that sectoral strategies were effectively meeting the skill needs of employers and the advancement needs of workers, these strategies began to evolve into broader approaches involving provider institutions -- especially community colleges -- as well as employers. In some cases, this has meant the integration of "career pathways" into the array of sector-based offerings.

Finally, given the desire to address the particular needs of jobseekers pursuing sector-based training opportunities -- including many who had basic skills deficits that impeded their progress in for-credit as well as noncredit course sequences -- so-called "bridge programs"— programs that aim to provide occupationally contextualized basic education in order to simultaneously prepare participants for in-demand occupations while also equipping them with the skills needed to enter and succeed in more formal postsecondary programs—were developed. Some of these programs (e.g., Integrated Basic Education Skills Training, or "I-BEST") are now seen as national models for helping low-skilled adults move into high-growth industry sectors and build basic *and* occupational skills at the same time.

Early Adopters

An organizing principle of sector-based strategies is the assumption that there are efficiencies to be gained from collectively addressing the common skills needs of similar employers within an industry sector. For example, paper manufacturers in Western Massachusetts can, in theory, identify skill needs common across their companies, work with a local training provider to create training curricula, and hire from a common pool of workers trained in the skills needed.

In addition, they may also collaborate to upgrade the skills of incumbent workers to meet the new skill demands required from rapid technological changes. This approach is seen as a departure from past practice in which multiple training providers, to degrees varying between "hardly at all" and "effectively," identified the skills in demand, created curricula they felt would meet this demand, and then competed among each other to have their trainees hired. Duplication of effort, inconsistency in training standards, and the occasional fly-by-night training provider all contributed to employers' suspicion of this "second chance system," not to mention the sometimes very poor services delivered to participants. Additionally, education and training institutions had little incentive to engage employers because their funding was (and largely still is) based on enrollment in, and sometimes completion of, classes rather than on job placement and successfully addressing employer skill gaps.

Sectoral strategies have expanded considerably since the first partnerships emerged in the early 1980s. Early programs have included the following, among others:

- The **Bay State Skills Corporation** was established in Boston in 1981 as an economic development tool that built education and industry partnerships to produce skilled workers for high-tech companies (initially) in Massachusetts. It subsequently merged with the Industrial Service Program to become the Corporation for Business, Work and Learning, doing business as the Commonwealth Corporation. This may be one of the earliest examples of a concerted sectoral strategy in action. Commonwealth Corporation has continued playing a key role in fostering these strategies.
- San Antonio's **Project QUEST** was designed in 1990–1991 and enrolled its first participants in 1992. Its numerous offspring—Valley Initiative for Development and Advancement, or VIDA (Weslaco, TX, 1995), Capital IDEA (Austin, TX, 1998), Advanced Retraining & Redevelopment Initiatives in Border Areas, or ARRIBA (El Paso, TX, 1999) and several others—now span the South and Southwest, from Arkansas and Louisiana to Arizona and New Mexico. The Southwest Industrial Areas Foundation and its local interfaith affiliates develop and sponsor these projects. Project QUEST was explicitly designed to be driven by employers in key sectors of the economy (e.g., health care). These efforts provide intensive longer-term skills training, typically offer stipends to offset the costs of training and foregone earnings, and ensure broad-based community support (Campbell 1994; Deaton and McPherson 1991).
- The Wisconsin Regional Training Partnership (WRTP) was established in 1992 as part of an effort to "renew the industrial base of Milwaukee." It relied on a model of preemployment training for job seekers, helping them to qualify for family-sustaining jobs in the industrial sector. With the creation of Wisconsin Works (W-2) by Governor Tommy Thompson, WRTP provided opportunities for former welfare recipients and other low-income central city residents to acquire the skills they needed to qualify for family-sustaining jobs. Since 2001, when the organization began expanding into the

- construction sector as part of a USDOL/ETA grant, WRTP has been known as WRTP/BIG Step.
- Washington State Skills Panels, regionally-based, industry-driven partnerships of employers, public systems, and other stakeholders, began operating in 2000 and have expanded statewide in a number of key sectors, including the wine industry in the Walla Walla area in the southeastern part of the state. They now appear firmly embedded in the state's approach to workforce and economic development.

Building on each of these efforts, and with major support and leadership from the Annie E. Casey, Ford, and Rockefeller Foundations, sectoral strategies began adopting "workforce intermediary" approaches in 2003 and 2004.¹ This activity centers around the convening function of third parties, typically some sort of community based organization (CBO), but occasionally labor/management partnerships, community colleges, workforce boards, employer associations, etc., to mediate between groups of employers and training providers to meet skill demands. The *National Fund for Workforce Solutions*, which was launched in 2007, led to further expansion of sector strategies fostered by workforce intermediaries with a mix of support from major foundations like the Ford Foundation, Annie E. Casey Foundation, Hitachi Foundation, and Joyce Foundation, as well as early funding from the U.S. Department of Labor's Employment and Training Administration (USDOL/ETA).

PRESENT DAY PRACTICE: THE WORKFORCE INNOVATION AND OPPORTUNITY ACT

Largely influenced by the successes of sector strategies over the past two decades, the Workforce Innovation and Opportunities Act (WIOA) (which, encouragingly, passed both houses of Congress with bi-partisan support and near unanimity and was then signed into law by President Obama on July 22, 2014) has raised the profile and standing of sectoral and career pathway strategies further still. The Department of Labor has contracted with several organizations to provide technical assistance to states and local boards to foster more widespread adoption of sector strategies.^v

In addition to the explicit promotion of sectoral strategies and career pathways in the language of the legislation, key provisions of WIOA that will significantly benefit the strengthening and expansion of sectoral and career pathway strategies include the following:

• The requirement that state plans include a description of states' vision for meeting the skilled workforce needs of employers and, similarly, a requirement that local boards' plans address "how they will better coordinate workforce development programs and

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¹ See Workforce Intermediaries for the Twenty-first Century. Edited by Robert P. Giloth. Philadelphia: Temple University Press, 2003.

economic development."2

- Expansion of the allowable uses of Governor's 15 percent funds "to support and encourage innovative and evidence-based approaches to workforce development," including providing support to local areas "by providing information on and support for the effective development, convening, and implementation of industry or sector partnerships."³
- Elimination of WIA's sequence of services, combining the formerly core and intensive services into a career services category, in which career pathways and sector-based training programs are encouraged;
- The requirement that workforce boards promote proven promising practices, including the establishment of industry or sector partnerships;
- Promotion of enhanced integrated planning across partners; and
- Promotion of integrated or contextualized Adult Basic Education, English as a Second Language, and occupational training.

A CRITICAL NEXT STEP: REFINING OUR COMMON DEFINITION

Common threads connect the successes from the early adopters to effective sector strategies that have more recently begun operations. According to Conway et al. (2007), sector strategies:

- Target specific industries and/or clusters of occupations;
- Intervene through credible organizations (often "workforce intermediaries");
- Support workers competing for quality job opportunities as measured by wages, benefits and advancement opportunities;
- Address employer needs and industry competitiveness; and
- Create lasting change in labor market systems helping workers and employers.

In sum, they aim to improve the economic situation of workers through increased employment, wages, benefits, and earnings over time while they also seek to improve employers' access to workers with the necessary skills, to increase business productivity, and to boost regional competitiveness.

Further, sectoral strategies continue to act as *integrators* (Glover and King 2010, p. 231) of regional economic and workforce development activities. At their best, sector strategies complement cluster-based economic development in states and regions that are actively

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² https://doleta.gov/wioa/Docs/WIOA FAQs Acc.pdf

³ ibid; https://www.congress.gov/113/plaws/publ128/PLAW-113publ128.pdf

pursuing such strategies by articulating career pathways and career advancement opportunities, developing standardized industry training, establishing standards for job quality and working conditions, assisting with market coordination, brokering business networks, and helping to develop strategic plans (NGA Center for Best Practices 2002, p. 32).

A key element in the evolution of the definition of sector strategies, however, has been a greater emphasis on designing sector strategies in such a way that they are clearly employer-led and demand-driven. As the strategy has moved into the next phase of its development, the role of employers has become more clearly articulated, which has, in many cases, also meant that a clearer division of labor among employers, the public workforce development system, and the postsecondary education system has been established.

EXPANDING OPPORTUNITIES FOR WORKFORCE BOARD ENGAGEMENT

Many workforce boards are not yet fully aware of sector strategies' potential. A point of departure from business as usual is that sector strategies are neither add-on programs, nor individual training initiatives in a particular sector. Rather, they represent a new way for workforce boards to organize their operations and activities: moving from a program administration and oversight focus to a more strategic role in building regional talent pipelines, addressing skill gaps, and creating meaningful career pathways for a range of workers in important regional industries.

The role of the workforce development system, principally as represented by the Workforce Investment Act's (1998 to 2014) and Workforce Innovation and Opportunity Act's (2014 forward) workforce development boards and American Job Centers ("One-Stops"), has developed from one that has been, at times, add odds with fledgling sector strategies, to one that now not only plays multiple, critical roles, but is also the primary vehicle for long-awaited federal support for sector strategies.

Among the key roles workforce boards, in particular, can play in advancing sector strategies are:

- Conveners. Many workforce boards have come to understand that sometimes the best
 way to lead is from behind, and so have limited their involvement in sector strategies to
 something of a bare minimum of roles, namely simply convening and providing meeting
 space for industry representatives and sector partners to gather.
- **Fiscal agents.** Other workforce boards, however, capitalize on their fiscal functions in the workforce development arena to serve as fiscal agents for sector strategies, including managing funding streams and pursuing grants, among other duties.
- **Systems Change Drivers.** Some boards leverage their long-standing relationships with education, training, and supportive services providers to drive new approaches to service delivery and cultivate systems change.

• **Data Brokers.** Less common (but soon to be more so with the implementation of WIOA), some workforce boards have taken advantage of their access to data, particularly administrative records, to enable the data-driven decision making essential to sustainability and continuous improvement of sector strategies.

Some workforce boards, typically those that initiated sector strategies in their regions, operate as true **intermediaries**, performing some mix, or all, of these roles in support of sector strategies. With the implementation of WIOA, there is considerable opportunity for more local boards to take on some version of an expanded intermediary role. The examples that follow illustrate how several leading boards have embraced these roles.

Facilitating Industry Engagement

Sector strategies are industry-driven, as distinct from including industry as a primary customer. Without a high level of industry engagement, there can be no real sector partnership. The level of industry engagement or employer engagement in the public workforce system ranges along a spectrum from, at one end, Business Service Representatives who are tasked with maintaining relationships with individual employers for the purposes of placing workers trained through the public system, to, at the opposite end of the spectrum, employer-led partnerships that meet on a regular basis, coalesce around a common set of skill needs, take the lead in working with the public workforce development and postsecondary education systems, and are committed to making the sector partnership the vehicle with which they hire.

It appears that, as roles between the public workforce development system and industry have begun to more clearly sort themselves out, sector strategies are most effective when employers drive the sector strategy agenda. This is rather different than past practice in which employers were said to be first among equals with participants receiving training. This emphasis on equity with regards to customers of the system stemmed, rightfully so, from a concern that putting industry in the lead would undermine the system's ability to serve the neediest through the publicly-funded workforce development system. As sector strategies have matured, and as illustrated by the examples below, permitting industry to "steer" while the public system "rows" has been shown to effectively serve both populations well.

For example, **Worksystems, Inc.**, Portland, Oregon and surrounding areas' workforce board, begins its employer engagement process with an examination of 12-13 data elements, focused primarily on the number of jobs (both absolute and relative share), current and projected openings, growth rate, demographics of labor force, and wages. LMI analysts at Worksystems, Inc. then review this data with employers with which it has long-standing, sector-based relationships. The departure from this essentially traditional approach to engaging employers comes in the following steps: Worksystems, Inc. provides a venue for employer champions to meet, but then *leaves to the employers the work of determining the best approach to meeting common skill needs*. In addition, this initial core group of employers is charged with recruiting additional employers, rather than this role being taken on by Business Service Representatives at Worksystems, Inc. Moreover, at least at the initial meeting, additional sector partners may

attend, but the agenda and the discussion are determined and led by employers.

The Lancaster County Workforce Investment Board (Lancaster WIB) in Pennsylvania breaks with the traditional approach to employer engagement, as well. In addition to relying on employer champions to validate LMI like Worksystems, Inc., the Lancaster WIB hires subject matter experts as part-time project managers to consult on the development and implementation of new manufacturing sector programs. The Lancaster WIB also finds that incumbent worker training is an effective method for quickly engaging new employers. The training enables quick outcomes and can be useful in building relationships. As trust in the system builds, employers tend to be more willing to look to a workforce board to meet other needs, as well.

Entrepreneurial Financing

The current level of public funding still lags far behind the level needed to create a workforce development system that can ensure that all who want to advance in the labor market have the skills to do so. However, most successful sector strategies have demonstrated notable innovation in piecing together funding to support their work, and a key value workforce boards can offer to sector partnerships is their thorough understanding of the range of funding streams that can be creatively leveraged. For example, a number of boards have played a key role in leveraging state resources to support local sector partnerships (see next page, *Sample State Investments to Support Sectoral Strategies*), including South Central Pennsylvania Works (**SCPa Works**), which capitalized on major Industry Partnership funding made available through the State of Pennsylvania in the mid-to-late 2000s to build robust sector partnerships in transportation/logistics, healthcare, and advanced manufacturing

Many partnerships have looked outside of traditional public funding sources to bring in investments from private philanthropy, which boards might help to facilitate. For example, **New York City's** efforts have been advanced by the work of the New York City Workforce Funders, a collaborative of more than sixty funders that includes the New York Community Trust, Rockefeller Foundation, the J.P. Morgan Chase Foundation, the Taconic Foundation, the W.T. Grant Foundation, and the United Way of New York City, among others.⁴ Since it began in 2001, the Workforce Funders have raised almost \$10M to support workforce initiatives in New York City over and above federal and state funding. Support from the Workforce Funders allows the City to leverage additional resources and to engage in intermediary activities that would be hard to fund under traditional public workforce funding streams.

Finally, a growing number of partnerships are documenting their "value proposition" for industry, making the case that the service that they provide merits investment from industry. Boards play a key role in providing access to the data needed to calculate return on investment (ROI) and other measures of value.

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⁴ For more information, visit the New York City Workforce Funders website at: http://www.nycommunitytrust.org/AboutTheTrust/CollaborativeFunds/NYCWorkforceDevelopmentFund/Aboutth eNewYorkCityWorkforceFunders/tabid/661/Default.aspx.

Sample State Investments to Support Sectoral Strategies

Commonwealth Corporation: The Commonwealth Corporation in Massachusetts may well be the earliest of sectoral strategy initiatives, having gotten into the field in the early 1980s. As a quasi-public entity, they provide an excellent example of consistent bipartisan state support for sector strategies that could be replicated in other states.

Washington State Skills Panels: Washington embedded support for sectoral strategies in state policy starting in 1990 and has continued to foster sectorally based skills panels in regions across the state to the present.vi Washington's skills panels encompass a wide variety of industry sectors, ranging from the wine industry in Walla Walla in the southwestern corner of the state to interactive media in Seattle to advanced manufacturing and clean energy in a multistate region. The second generation of its skills panels was launched as the High Skills, High Wages Fund in 2008.vii

Pennsylvania: Drawing upon resources in its General Fund, the State of Pennsylvania has invested in over 90 industry partnerships since 2005.5 In addition, state law has codified industry partnerships as a core element of the state's workforce development strategy. While funding levels have varied from year to year, Pennsylvania provided \$1.7 million in grants to 20 sector partnerships in 2014.6 The State of Pennsylvania reports that industry itself has contributed more than \$9 million in private funds and over \$30 million in-kind contributions to support training and other initiatives launched under the auspices of state-sponsored industry partnerships.7

Texas Initiatives: Texas has supported sectoral and broader cluster-based strategies through a series of executive and legislative initiatives for over a decade, only in part due to the urging of the IAF and its affiliates. The Texas workforce system has emphasized training for jobs in growth occupations and industry sectors, at least since passage of state workforce reform legislation in mid-1995, but it has also continued such a focus with the governor's 2005 Texas Industry Cluster Initiative stressing support for economic and workforce development in Advanced Technologies and Manufacturing, Aerospace and Defense, Biotechnology and Life Sciences, Information and Computer Technology, Petroleum Refining and Chemical Products, and Energy. It is also noteworthy that the Texas Association of Workforce Boards recently put forth a set of recommendations supporting career pathways models for education and workforce development in the state (Texas Association of Workforce Boards 2014).

In addition, many states have training funds that have been created from Unemployment Insurance (UI) tax diversions or in some cases state general revenues. These may provide a mechanism for scaling sectoral strategies as well.

⁵ http://www.nationalskillscoalition.org/resources/publications/file/state-sector-strategies-coming-of-age.pdf

⁶ Sector Partnership Policy: 50-State Scan (De Renzis, Brooke, and Bryan Wilson. August 2015. Washington, DC: National Skills Coalition). http://www.nationalskillscoalition.org/resources/publications/file/Final-Revised-50-State-Scan-Sector-Partnerships-1.pdf

⁷ http://www.pawork.org/about-us/industry-partnership/

Driving New Approaches to Service Delivery and Cultivating Systems Change

As sector strategies have expanded and matured, many of the more successful ones have come to view their work less as an innovative approach to a long-standing problem, but more as an opportunity to think holistically about how the workforce system might be entirely remodeled to fit the needs of the 21st century labor market. The phrase "not business as usual" was mentioned often in stakeholder interviews. Instead of a focus on placement, the focus is on training to meet skills in high-demand; instead of relationships between individual business services representatives and employers, groups of employers in a given industry identify common skill needs and communicate these to the system; instead of relationships with postsecondary education institutions that were somewhat disconnected and typically ad hoc, postsecondary education is generally a key partner in the sector partnership; and instead of operating in parallel siloes, they have worked to incorporate economic development agencies and actors into their partnerships. For each of the themes included in this list, sector strategies represent a significant change in the way the public system operates.

Workforce boards have the unique ability to drive how publicly-funded workforce services are administered so that they better align with sector partnerships' strategies. For example, the **New York City Workforce Development Board's** early success with a sectors-focus drove the establishment of sector-specific one-stop career centers. The effort started with a focus on transportation, manufacturing, and healthcare, with the ultimate merger of transportation and manufacturing into the Industrial and Transportation Career Center. The centers focus on 2-3 sectors each and the staff develops expertise in those areas. Most staff work as account managers who are assigned sales territory to prevent duplicative calls on employers. While there is limited provision of traditional case management services, the industry partnerships focus on serving job-seekers by forging connections with local support service organizations to provide the wrap-around services required to ensure job seekers are work-ready.

Leveraging Data to Inform Strategy, Drive Performance, Ensure Sustainability

Workforce boards have access to a broad range of economic and administrative data that can be leveraged to help sector partnerships: 1) Clarify where and how to direct their focus and resources; 2) Manage performance and drive continuous improvement; and 3) Establish the base of evidence needed to justify further investments and sustain successful efforts.

Where in the past decisions as to which occupational skills were in highest demand tended to rely solely on conversations with employers -- which are still vital activities -- innovative programs add to these conversations a careful study of labor market information, the inclusion of input from regional economic development agencies, and other strategies. For example, SCPa Works (previously the South Central Workforce Investment Board), representing a broad swath of southern Pennsylvania, including Harrisburg, employs a multi-faceted approach to collect, analyze and use critical data to make decisions around employer engagement, as well as service design and delivery. SCPa Works operates several sector-based programs, including those in Advanced Materials and Diversified Manufacturing, Healthcare, Information and

Communication Services, and Logistics and Transportation. For quantitative data, SCPa Works looks at traditional Labor Market Information (LMI) from the State of Pennsylvania regarding indemand occupations, wages, market penetration and other key factors. SCPa Works also collects some economic development data derived from a proprietary tool, *Implan*©. This information is verified with qualitative data collected through direct engagement with employers at industry partnership meetings, and through input from Business Service Representatives.

The move towards identifying evidence of effectiveness based on rigorous evaluation of data has become part of standard operating procedures within the Department of Labor and among many major philanthropic funders over the past decade, and for good reason. Greater capacity to collect and report program data, improved methods for analyzing quantitative data, and the desire to scale-up effective programs have placed a premium on the use of data to inform decision making and investments.

This is not lost on most of the more effective sector-based programs operating today. **SCPa Works** is continuously looking for additional methods of collecting quality data. Future efforts will likely include surveys (both a survey of general business trends as well as a detailed inquiry by sector), engagement with a contracting firm to do an in-depth analysis of the key jobs in each sector and the tie between those jobs and regional economic impact, and a potential partnership with other workforce boards in the state to build up research and analysis expertise through the use of proprietary data products such as *EMSI*© or *Burning Glass*©. Other boards have looked to university partners to expand their research and analytic capacity. For example, the **Three Rivers Workforce Investment Board** in Pittsburgh partners with Carnegie Mellon University, for the LMI and economic development analysis used to justify its investments in *Made Right Here*, the workforce board's Registered Apprenticeship program.

The **New York City Workforce Development Board's** leadership places a strong emphasis on both achieving annual performance goals and improving performance year over year. NYCWDB sets targets for service providers beyond federal performance measures to prioritize mid-wage placements and services to veterans. They have also added employer measures that include commitments from employers regarding job openings to fill within a certain period of time. The goals are high, and meeting them requires forging connections with hiring directors and building a deep knowledge of job requirements. The pay-off, however, is evident through a Westat-developed outcome report demonstrating that wages and hours worked are higher and the time required to get a job is shorter under the sectors-based approach.

CHALLENGES TO SUSTAINING, EXPANDING, AND REPLICATING SECTOR STRATEGIES

Advancing the adoption of sectoral strategies by local workforce boards is fraught with challenges. Those interested in sustaining, expanding, and/or replicating sector strategies will need to clear several hurdles on their way to displacing business-as-usual in the workforce development field. These include:

Scarcity of Resources

To be sure, the biggest of these is simply the lack of adequate resources. Because sector strategies are such a departure from business as usual, funding their operation has not been easy and, as previously note, often requires creativity and innovation. Federal, state, and local funding for workforce development programs has seen steady erosion over the past few decades. With the exception of American Recovery and Reinvestment Act (ARRA) investments in 2009 and the expansion of Pell Grants, federal funding for employment and training programs has remained essentially flat, and, since 2000, has even seen modest declines from already poorly funded levels (see Eberts and Wandner [2013]). Until very recently, state and local funding has fared little better than federal support for workforce development programs.

Limitations Imposed by Program Requirements and Funding Silos

Related to the overall level of funding is the persistence of funding silos among programs created to serve very similar, if not the same, populations, despite ongoing and strenuous efforts to bring them into closer alignment. Many of the key components, activities, or services that undergird effective models may simply not be permitted under particular programs or funding streams, or may be difficult to support and implement across funding streams and platforms. Perhaps most obvious in this regard is continuing difficulty faced by those implementing sector strategies to align funding and coordinate activity between the workforce development and postsecondary education systems. Long considered one of several venues for skills training, including apprenticeships and on-the-job training, postsecondary institutions have become the venues of choice for workforce development practice in general and, more recently, sector-based programs and career pathways in particular.

Similarly, while more intensive, longer-term training is a component of sector strategies, Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program Employment & Training (SNAP E&T) programs may not readily allow them, despite the presence of a large population in need and growing evidence of the strategies' effectiveness.

In addition, the metrics by which a career pathways or sector-based program may measure success—such as completion of industry-recognized credential, advancement in the labor market, or earnings gains—often work at cross-purposes with the metrics by which workforce boards measure success—traditionally limited to placement, earnings gains, and retention. Where a workforce board is funded to implement a sector-based program, effectively implementing the program must include some method for taking these more comprehensive metrics into account (see *Evaluation Framework* below).

Competing State and Local Priorities

Third, state or local policy and political priorities may also inhibit expansion of these models, federal provisions notwithstanding. For example, a continuing preference for work-first, labor force attachment approaches can be a particular challenge. The impact of state and local policymaker influence can be seen in the wide variation from state to state and workforce

board to workforce board in the share of WIA expenditures on skills training (Barnow and King 2005; Mikelson and Nightingale 2004).

Even among policymakers who are generally supportive of demand-driven, skill development-centered approaches, pressure from key constituencies to demonstrate rapid progress in addressing local unemployment issues, economic inequalities, and/or employer skill needs can lead agency officials and other appointees to attempt to closely control sector partnership priorities and activities, thus undermining the employer-driven approach that undergirds the success of leading sector strategies.

Variance in Community and Technical College Priorities

Community and technical colleges also exhibit a large range of priorities and focus. Some college leaders are eager partners in workforce training initiatives and have strong connections with employers and industry associations, while others are largely focused on performing the academic transfer function to four-year institutions of higher education. Expanding sectoral training in such communities could be daunting.

Remaining Relevant to Employers and Industries

Sector strategies are effective only when there is significant employer engagement. As noted above, employer engagement can take many forms, including providing input on training curricula, donating machinery on which to train, providing subject matter experts to assist with instruction, funding worker training, hiring, or some combination of these, among others.

However, gaining and maintaining employer engagement is subject to a number of sometimes uncontrollable factors, not least of which is demand for skills in the targeted industry. The tight labor markets of the late 1990s and early 2000s made for relatively high levels of employer engagement and led to the creation of a number of particularly innovative workforce development programs (see, for example, Barnow and Hobbie [2013]). With the onset of the Great Recession in 2008 and the sharply increasing unemployment rates across the board, many sector strategies began to experience difficulties in maintaining employer interest. Larger numbers of skilled workers looking for employment, coupled with the contraction of the overall economy, led to a waning interest in sector-based programs among employers—it made better economic sense to simply place an ad, to which a number of already-skilled workers would apply, or to hold off on hiring altogether until the economy rebounded.

The cyclical nature of employer engagement has been, and will continue to be, a limiting factor in sector strategies' ability to significantly influence the larger workforce development system, unless—and WIOA presents a great deal of promise in this regard— the approach is systematically adopted as the organizing framework for public investment in workforce development.

Poor Participant Supports

Even when sector partnerships are appropriately funded, implementing support services can be

difficult. Integrating the provision of services into a sector-based education and training requires coordination between staff who understand the needs brought by the population being served and a postsecondary faculty who may object to the interruption to routine that the provision of these services can represent. Serving a low-skilled population, or the long-term unemployed, or workers with limited English proficiency, for example, underscores the importance of bringing the right mix of partners to the partnership, particularly CBOs and agencies with experience with these populations.

Implementation Barriers

Finally, and somewhat more granular in nature, the following challenges are specific to the day-to-day mechanics of scaling up sector strategies:

- Despite the emerging clarity around a definition of sector strategies, there is still wide variance across the workforce system in the levels of <u>understanding of the basic</u> concepts;
- Even when the concept underpinning a sector approach is reasonably well understood, the <u>skills and capacity to implement</u> often lag. For example, questions often arise around identifying employer champions, facilitating and sustaining a partnerships, and using data effectively.
- Integrating sector strategies into a <u>still evolving WIOA system</u> and existing state and local strategies also raises questions. Work will need to be done to make clear that sector strategies are not, simply, one more program to manage at the local level.
- <u>Hitting the "sweet spot"</u> by identifying skills and occupations that address both employer needs and the needs of the target populations of workers (i.e., those that the public system is funded to serve) represents a significant challenge, and is often seen as a deterrent for replicating sector strategies;
- Workforce boards are currently rewarded for job placement, while, at the same time,
 DOL expects stronger engagement with employers. In a sector strategy context, these
 priorities can conflict, particularly when the education and training required by
 employers is longer-term, and placement is contingent on satisfactory completion of,
 often, rigorous training programs.
- There is still a great deal to be learned from best practices regarding <u>roles of key players</u> and <u>effective divisions of labor</u> in sector strategies. The probability that more workforce boards will effectively adopt these strategies would likely increase with a clearer understanding of the potential roles to be played by workforce boards, including their relationship to (or even role as) the workforce intermediary.

RECOMMENDATIONS AND CONCLUDING OBSERVATIONS

There is clearly a significant and growing body of solid practice in the sector-based field and numerous recommendations for scaling up the field and improving practice can be drawn from this study. These recommendations are categorized according to four themes outlined above, including engaging industry, entrepreneurial financing, new approaches to service delivery, and leveraging data for decision making, performance management, and sustainability.

Industry Engagement

The term "industry engagement" has evolved considerably over the past two decades, and has now come to mean something much more than simply irregular contact with employers around skill needs. Successful sector strategies now not only engage industry, but place core groups of industry employers at the head of their efforts to hit the intersection of the Venn Diagram between industry need for skills and workers' need for opportunities to earn a family-supporting income. There are several lessons to be learned from their experience, including:

- Initially engaging a core group of sector strategies champions and allowing them to set the agenda for the partnership and, crucially, to recruit additional employers themselves. Several of the workforce boards cited in this brief do this effectively, including particularly Worksystems, Inc. in Portland, Oregon and the Lancaster County workforce board.
- Involving employer representatives with deep understanding of the occupation on which training will focus, as well as senior level management, and on a continuous rather than ad hoc basis is critical to keeping employers effectively engaged in the partnerships. The New York Alliance for Careers in Healthcare – an effort jointly sponsored by the NYC Department of Small Business Services and the NYC Workforce Funders - is a good example of this practice.
- □ Link high performing sector leaders with employers new to the strategy through peerto-peer mentoring and coaching.

Financing

Successful sector strategies have demonstrated notable innovation in piecing together funding to support their work, and a key value workforce boards can offer to sector partnerships is their thorough understanding of the range of funding streams that can be creatively leveraged. Examples of promising strategies include:

- □ Blending resources from a variety of funding streams, including local, state, and federal (e.g., WIOA, TANF, and SNAP Employment and Training) programs.
- □ Leveraging public and business investments to secure flexible, aligned funding from philanthropic partners.
- Documenting impact to build the case for industry investment.

Systems Change

Delivering services within the context of a sector strategy involves a somewhat different set of skills than administering a traditional employment and training program. Because employer commitment to an effective sector partnership is, by definition, central to the effort, and because, in the more successful sector partnerships, workers benefit from participation education and training that is part of a career pathway, services provided through a sector strategy are necessarily more involved than programs focused primarily on placement or short-term training. Designing a service delivery for a sector strategy that serves both workers, at multiple education and skill levels, and industry partners could be aided by the following:

- Generating support and funding from state level agencies, particularly given the tendency for many of the more successful sector programs to develop in the context of a supportive state policy and funding environment.
- Cultivating strong relationships with agencies that can provide the types of support services most likely to be required by participants while engaged in the training, including assistance with childcare, transportation, utilities, counseling, etc.
- Explicitly incorporating career pathways as the vehicle for delivering training at multiple levels. Doing so may help to ensure employers that there is a workforce being trained to meet short- and long-term skill needs, as well as to assist workers build skills, add to experience gained on the job, and advance in their careers.
- □ Taking advantage of WIOA and the substantial change that it represents to provide more guidance on what comprehensive sector strategies are and do.
- Supporting additional research that drills down into the mechanics behind the success experienced by the sector strategies highlighted in this guide.

One of the more frequently noted difficulties faced by sector partnerships is developing an organizational culture that is supportive of a sector approach. Breaking from business as usual involves learning an entirely new lexicon for, and perspective on, the actual work of preparing a workforce to meet the skill needs of employers. Where sector strategies have been successful, they have also:

- □ Invested in capacity development for staff through providing them with opportunities to attend industry-related professional development events.
- Provided training to help workforce board directors and board chairs in particular understand what sector strategies are how they should be implemented at workforce board/career center level.
- Incorporated an economic development perspective into their activities, including continuous efforts to anticipate industry needs and potential areas for regional economic growth.

Utilizing Data

A strong case has been made by the Department of Labor, the funding community, and, increasingly, industry, for the better use of data for the purposes of improving outcomes. However, the practice often falls short at the implementation level for a number of reasons, not least of which is the capacity to collect, report and analyze data in a way that is useful for sector strategies. This could be at least partially addressed through:

- Including among the sector partnerships partners an organization, academic or otherwise qualified, for which the primary role is to collect and analyze LMI, economic development data, postsecondary education data, and all other data relevant to the success of the partnership. The Three Rivers workforce board's relationship with Carnegie Mellon University is a prime example of this relationship.
- Ensure the collection of data in such a way that it can be analyzed as part of a rigorous experimental or quasi-experimental evaluation.
- WIOA provides significant openings for strengthening the role that data plays in sector strategies. Sector partnerships should take advantage of the opportunity afforded by workforce boards and their ability, among other vital roles, to access UI wage data for the purposes of following sector strategy participants into the labor market.

Achieving long-term sustainability has typically involved, at a minimum, the following:

- Consistently collecting and reporting data on outcomes and implementation, measuring program impact, and using these findings to make the value proposition to investors.
- □ Leveraging the experience and guidance of existing national networks, such as the NFWS, NNSP, and the Aspen Institute.
- □ Dedicating staff to staying abreast of emerging industry needs, as well as emerging industry sectors, and positioning the partnership to meet these needs.

In conclusion, sector strategies represent a new way for workforce boards to organize their operations and activities. As boards move forward with implementation of the Workforce Innovation and Opportunity Act, sector partnerships offer them important opportunities to move from program administration and oversight to more strategic roles in building regional talent pipelines, addressing skill gaps, and creating meaningful career pathways for a range of workers in important regional industries. Continued efforts to replicate promising practices across more boards and to develop evidence of the important roles boards can play will be critical to sustaining public financing and workforce policies that are supportive of board engagement in support of sector strategies.

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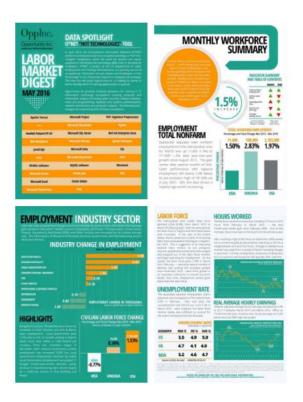
APPENDIX I: CASE STUDIES

Hampton Roads, Virginia

Opportunity, Inc., (OI) the workforce board for the Hampton Roads, Virginia region, has been working to align workforce development and economic development for the past 15 years, but its sector work has only recently been revived. IT, Advanced Manufacturing, Parts and Logistics, and Healthcare are the primary sectors on which OI is focusing, and it has built out strands of work that include outreach to youth, improved coordination with economic development, and a strengthened focus on serving incumbent workers.

In 2000, OI made a decision to move beyond a "program mentality" toward becoming a more economic development-oriented WIB. This move involved, in part, adopting a sector strategy with the Health Care, Advanced Manufacturing, Parts and Logistics, and IT industries. However, these initial efforts slowed considerably in the late 2000s with the onset of the recession.

More recently, OI has created a Vice President for Workforce Innovation position to work directly with employers and to serve as the coordinator between OI and the city's Economic Development Department. Business Services representatives from OI meet with individual



employers to determine their needs and how best to meet them. OI meets one-on-one with representatives from Economic Development, and with community college stakeholders, rather than convening these stakeholders in larger, multi-party meetings, believing that these one-on-one meetings provide better opportunities for strategically planning how OI will best serve them and the workforce.

OI has moved away from the role of convener and, instead, sought out employer associations and other organizations that already regularly convene their members then worked to get onto their agendas. OI views its participation in these meetings as opportunities to sell what it can offer (e.g., layoff aversion strategies or sector-based training for incumbent workers). Participation in

these meetings is simplified by virtue of the fact that many of these employers are already members of the workforce board, so have existing working relationships with OI.

Data-informed Decision Making

LMI is used to focus the board's training investments, but OI staff also take into consideration program completions and outcomes data to inform program design. OI views LMI as not only a planning tool, but also a service that it offers to business and the community (see Figure X). For example, the OI website invites the public to view their LMI researchers as a resource, ("Don't see something you need? Opportunity Inc. can prepare custom labor market analyses.")

Industry Engagement

In recent years, however, OI's sector work has been revived with an "industry-focused" ethos. This re-engagement with sector work began with the Advanced Manufacturing industry, which was a driving force behind OI's work with local community colleges and K-12 systems to create mechatronics training programs, as well as manufacturing-oriented dual-credit programs in high schools. OI credits industry champions and the considerable time and attention they devote to the partnerships between industry and education for its early successes in getting traction.

At present, OI estimates that there are "hundreds" of employers engaged in its various sector strategies, with engagement ranging from simply "understanding that OI is there to help," to, at the upper end of the engagement scale, providing OI-supported on-the-job training (OJT) to incumbent workers. In addition, when OI is unable to meet an employer's need, it typically is able to refer the employer to other organizations that can assist, considering this service an essential part of its sector work.

Sustainability and Continuous Improvement

Sustainability, at this early stage of reviving the sector approach, is focused primarily on ensuring that industry partners' needs are met. OI notes that a key to its success is adopting a more distributive model that makes strategic use of existing resources in the community (e.g., industry associations) and avoids attempting to be all things to all employers.

Harrisburg, Pennsylvania⁸

History

South Central Pennsylvania Works (SCPa Works) is the workforce development board for an eight county region with about 1.4 million people and 700,000 workers. SCPa Works has a history of strong sectors-based business engagement and service delivery. The Board

⁸ This profile is based on interviews conducted by the authors with former board director Scott Sheely in May 2015 and current director Kevin Perkey in May 2015 and April 2016.

capitalized on major Industry Partnership funding made available through the State of Pennsylvania in the mid-to-late 2000s to build robust sector partnerships in transportation/logistics, healthcare, and advanced manufacturing, which includes major area employers like Hershey's. Those partnerships continue to thrive and provide training essential to the industries' growth. However, changes in capacity, state funding⁹ and focus over the last few years, have limited SCPa Works' continuous expansion and innovation in sector partnerships. Nevertheless, new leadership and a sharper focus have brought a renewed commitment to engage, partner, and serve the employer community in a way that makes more sense to business and will help the regional economy grow.

Key Partners/Industries

Twelve key industries employ 83 percent of Pennsylvania's workforce. The region covered by the South Central Workforce Board includes the industries noted above (transportation/logistics, healthcare, and advanced manufacturing), as well as food processing and wood product development. Manufacturing, in particular, is strongly embedded in the region's economy, history, and culture. SCPa Works is in the process of re-structuring its board to ensure maximum input and engagement from those key industries.

Partner Roles

SCPa Works is focused on collaboration with its strategic partners to advance sector partnerships. SCWIB participates in a regional economic development consortium and leadership from local economic development is currently on the workforce board. In fact, SCPa Works and its partners have a shared focus on being "networked" organizations, which means they intentionally strive to share board members and fully engage as partners in key efforts in their region. For example, SCPa Works has identified key human services representatives for their Board who will help to support the development of cross-organization strategies that streamline employer engagement while leveraging capacity and organizational strengths.

Data-Informed Decision Making

Use of data to make decisions about target industries and education and training investments: SCPa Works employs a multi-faceted approach to collect, analyze, and use critical data to make decisions around employer engagement, as well as service design and delivery. For quantitative data, SCWIB looks at traditional labor market information (LMI) from the State of Pennsylvania regarding in-demand occupations, wages, market penetration, and other key

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⁹ State support for industry partnerships has been reduced from a high of \$15M to just \$1-1.5M annually, although Governor Wolfe wants to restore it to around \$10M.

factors. It also collects some economic development data derived from a tool called Implan. This information is verified with qualitative data collected through direct engagement with employers at industry partnership meetings and input from Business Service Representatives who also interface directly with employers.

SCPa Works is continuously looking for additional methods of collecting quality data. Future efforts will likely include surveys (both a survey of general business trends as well as a detailed inquiry by sector), engagement with a contracting firm to do an in-depth analysis of the key jobs in each sector and the tie between those jobs and regional economic impact, and a potential partnership with other workforce boards in the state to build up research and analysis expertise through the use of data products such as EMSI or Burning Glass.

SCPa Works has created a Director of Strategic Partnerships position to work with an enhanced state team developing employer engagement and sector penetration measures and is using data to drive its allocation of resources. It is also analyzing data on the numbers of jobseekers "touched" daily in its system (ranging from 30,000-40,000 each day) in order to segment them into meaningful "buckets" both for young and older adults to ensure they are getting both quick successes as well as meeting their longer-term needs. This type of hard, data-driven conversation about service strategy has not happened at SCPa Works before. Economic development data, including industry location quotients, are part of their data analysis as well.

Process for sharing data across partners: SCPa Works produces various products to share data with employers and other partners, but never does so without first asking employers what data they need and how to package it for maximum usability. Currently, the key SCPa Works data sharing product is a one-page document outlining top skills and job prospects.

SCPa Works also develops a one-page information sheet for its strategic plan that outlines the agency's targets for each of the top 4-5 key industries. This document is shared with partners to advise them of SCPa Works' focus and priorities for the coming year.

Industry Engagement

Employer engagement characteristics: SCPa Works is using WIOA to bring partners to the table, but Director Kevin Perkey acknowledges that it is going to take time to further expand their existing sector partnerships and build new ones. SCPa Works pushes a key message that employers across industries are all part of an interdependent talent ecosystem that depends on peer firms to develop talent that will move up and across career pathways and employers over time. As a result, employers are encouraged to partner, by sector, through skill development to build a pipeline of talent that benefits all.

The main role SCPa Works envisions for its employer industry partners is clearly articulating

their needs to help focus the implementation process. If employers can identify their "pain points", SCPa Works can consult with them to relieve them through an array of supply- and demand-side workforce strategies. Such efforts also contribute to building trust relationships over time and further reinforces employer engagement.

Peer discussions among employers about staffing and related human resources issues are key to this approach. For example, in a healthcare roundtable conversation it became clear that employers did not want more training for RNs, but instead needed better training for RN supervisors. SCPa Works had been training RNs then sending them into a challenging work environment in which supervisors were undoing much of their training and running them off, a process described as "lateral violence."

Sector-based Service Delivery

Filling near-term workforce needs: SCPa Works is in the process of realigning its business services to reflect the following key priorities:

- Operating the workforce system at the speed of business;
- Using information from sector partnerships to drive how funding is allocated and services are delivered; and
- Capturing and articulating the workforce system's impact on business.

To support these priorities, SCPa Works plans to have a business services representative for each identified key sector, with a goal of hiring many of those representatives either out of the sector they will serve or by recruiting individuals who have past experience working directly in the identified industry. SCPa Works will also likely organize case managers by industry to ensure that staff working directly with job seekers have a strong understanding of industry-specific needs. It is hoped that this approach will facilitate an effective working relationship between the workforce system staff, fostering critical alignment between supply and demand.

Organizational Capacity and Alignment: SCPa Works' new organizational structure is driven by knowledge of sectors and solution development based on identified employer needs. SCPa Works also counts a strong financial and administrative team as a key component of its strategy for serving employers. Developing highly competent staff in those areas ensures compliance issues are adequately addressed, which then frees leadership and service delivery staff up to focus on strategic, sector-based priorities. SCPa Works also addresses program and financial compliance on the back-end, which leaves those complex and potentially off-putting elements out of the conversation with business.

Responding to non-workforce needs: By building peer groups of employers across sectors, SCPa

Works has established a forum for peer problem solving which often runs into areas other than workforce development, including infrastructure, tax credits, and immigration issues. SCPa Works then shares the information back to its partners to identify solutions for the identified challenges. This resource for business helps to build trust, which is critical to gathering the input needed to devise effective training and other services provided by the workforce system and its partners.

Sustainability and Continuous Improvement

Measuring outcomes: SCPa Works recognizes meaningful outcome measurement as a critical management tool to drive continuous improvement and is interested in adopting new business services measures. It has adopted market penetration as a key measure, growth in wages over time, and measures that answer the question of how the workforce system is addressing industry workforce needs (e.g., retention, upskilling to fill voids through retirement, attrition, business expansion, etc.).

Kingman, Arizona

Sector work in Kingman began in 2008, when the Arizona Commerce Authority, which serves as the state's economic development agency, convened a "Sector Academy" to determine how the state's workforce boards could develop and sustain sector partnerships. The Sector Academy identified industry champions, established common objectives, and selected industries that were vital to each workforce board's region (using location quotients) on which to focus their efforts. In addition, teams comprised of representatives from the workforce boards, economic development, and education were formed.

The Mohave and LaPaz County workforce development staff, serving Kingman and the surrounding region, selected Manufacturing as a priority sector, and members from the regional workforce investment board, Arizona@Work, were selected from the targeted industries. Manufacturing industry partners were convened by a staffer from Mohave County Workforce Development who was tasked with creating an internal sector-strategies team, as well as serving as lead advocate and the primary point of contact between regional manufacturing employers and the County. Also critical to the successful launch of the manufacturing sector initiative in Kingman was the role played by Collaborative Economics, a consulting firm with a deep understanding of sector strategies, which enabled them to also to firms to the partnership.

Mohave Workforce Connections held the inaugural convening of regional manufacturing employers and other stakeholders in Fall of 2011, and, after a series of monthly meetings

among these partners, the Kingman and Mohave Manufacturing Association (KAMMA) Sector Partnership was formed. According to those we interviewed, the initial conversations among the partners were less about discussing workforce development issues, and more about how to become a manufacturing and logistics mecca for Northwest Arizona.

Monthly meetings, the distribution of meeting minutes, agenda-setting, marketing and communication were essential components to getting the sector strategy off the ground. Once a working relationship between Mohave Workforce Connections staff and the employer partners was established, work toward creating new curricula and recruiting and training workers began in earnest.

Mohave Workforce Connections (now Arizona@Work for Mohave and LaPaz Counties) provided administrative support to KAMMA, while KAMMA staff worked directly with employers. KAMMA is now an independent 501(c)6 employer association with over 50 paying employer members in addition to the Mohave County workforce development, economic development, and social services offices. Moreover, KAMMA is now able to act as an advocate locally and at the state level in the interests of manufacturers, including, for example, advocating for the construction of an interchange on Interstate 40 to connect to an industrial park, as well as for the establishment of a foreign trade sub-zone in the region.

Sector advocates in the region attempted to replicate the approach used to establish KAMMA among healthcare employers, but with little success. Collaborative Economics was brought in here, too, to convene and organize a healthcare sector partnership. In the initial convening, senior representatives from five regional hospitals, along with representatives from postsecondary education, economic development, and workforce development attended. They were able to identify Health Information Technicians as an occupation that was common across each of the employers and consistently in high-demand, and each agreed on the importance of reaching out to area youth to recruit them to the industry. In the end, however, the partnership was unable to maintain momentum. Nevertheless, the membership did merge into the regional Community Health Partnership, thus sector advocates are hopeful that some of the issues identified in the initial convening will be addressed via this forum.

Early Wins

KAMMA's partnership with Mohave Community College (MCC) as its primary training provider produced early wins, including a curriculum for Manufacturing Certified Production Technicians. KAMMA and MCC have also created a "mobile lab" that travels throughout the region in order to provide as many workers as possible with training.

In addition, one of KAMMA's leading employers, Laron, Inc., has opened its apprenticeship

program up to workers from competing firms, with the understanding that workers will participate in Laron's class and lab work, and then return to their home firms for OJT. Laron, Inc. signs an agreement with the home firms, agreeing not to compete for those workers from other firms trained through its apprenticeship program for a number of years postapprenticeship.

Data

Arizona@Work Mohave/LaPaz has recently completed a regional workforce development plan, based on its review of current LMI data, with assistance from MCC, and also uses LMI to target occupations on which to focus investments. It views LMI as a cornerstone of all of its workforce development work in the region.

Employer Engagement

Employer engagement in KAMMA spans the spectrum, from occasionally engaging with KAMMA's service providers, to providing subject matter experts to assist with training, to contributing to curricula development, to, as noted above in the Laron, Inc. example, providing training on site and, of course, hiring. New sectors, including Hospitality and Tourism, are currently being explored as potential sector partnerships.

Larimer, Colorado

Colorado has long been home to a relatively integrated workforce policy framework that stresses strong state direction, business engagement, and local delivery.¹⁰ It has also been actively implementing sector partnerships and career pathways for almost a decade. After participating in the National Governors Association's Policy Academy in 2007, it moved deliberately to tailor a sector strategy for the state and implement it –complete with its own toolkits and targeted technical assistance – over several years.¹¹

Key developments include, among others:

 Creation of a Sector Strategies Steering Committee of industry leaders and representatives of workforce, education, and economic development agencies, followed by labor market analyses and state start-up grants to support local sector partnerships.

¹⁰ For more information, see: Brooke DeRenzis & Bryan Wilson (2015), *Skills in the States: Sector Partnership Policy Toolkit*, Washington, D.C.: National Skills Coalition, October, available at:

http://www.nationalskillscoalition.org/resources/publications/file/Final-Sector-Partnership-Policy-Toolkit-1.pdf; and *Colorado Workforce Investment Act Annual Reports for PY2013 & PY 2014* (n.d.), Denver, Colorado: Colorado Workforce Development Council, Colorado Department of Labor and Employment, & Colorado Workforce Centers, available at: https://www.colorado.gov/pacific/cwdc/news/colorado-workforce-investment-act-annual-report.

¹¹ This description draws on DeRenzis & Wilson (2015), pp. 14-15.

- This committee was subsequently established as a regular subcommittee of the Colorado Workforce Development Council (CWDC).
- Convening State Sector Partnership Academies (Sector Summits) in 2009, 2013, and 2014 to provide professional development and peer-learning opportunities for the local partnerships.
- Publishing the *Colorado Blueprint 1.0* in late 2011 followed by *Blueprint 2.0* in 2015 to guide the state's economic growth. Objective V of the *Blueprint* is: To Educate and Train the Workforce of the Future. The *Blueprint 1.0* was organized around fourteen key industries, while *Blueprint 2.0* continued to emphasize these industries with an increased focus on rural areas of the state.¹²

Colorado Blueprint Target Industries

- Manufacturing
- Information & Technology
- Electronics
- Energy & Natural Resources
- Bioscience
- Food & Agriculture
- Defense & Homeland Security
- Aerospace
- Health & Wellness
- Creative Industries
- Tourism & Outdoor Recreation
- Transportation & Logistics
- Infrastructure Engineering & Construction
- Financial Services

Source: Colorado WDC:

https://www.colorado.gov/pacific/cwdc/kin

- The Colorado Legislature enacted a series of bills in recent years supporting sector partnerships and career pathways:
 - House Bill 1165 (2013) created a career pathway in – and driven by – the manufacturing sector partnership.
 - Senate Bill 205 (2014) codified sector partnerships as a component of the state workforce system.
 - House Bill 1274 (2015) required Colorado to develop career pathways in construction, IT, and health care that engage employers through sector partnerships.
- In May 2014, CWDC published an online toolkit, Creating Career Pathways in Colorado, 13 to guide creation of career pathways within sector partnerships.

Colorado views sector partnerships as "the way we do business with business" in the state — as

¹² See: http://choosecolorado.com/programs-initiatives/colorado-blueprint/.

¹³ Collaborative Economics & The Woolsey Group, Ltd. (2014), *Creating Career Pathways in Colorado: A Step-by-Step Guide*, Denver, CO: CWDC, May. Available at: https://www.dol.gov/sites/default/files/documents/nationaldialogue/coloradocareerpathwaysguide.pdf

a partner, not just a customer — and has offered substantial resources and technical assistance in the form of guides, toolkits, and one-on-one coaching to make this a reality. All of these efforts over the past decade have eased Colorado's implementation of the Workforce Innovation and Opportunity Act (WIOA) with its mandate for sector partnerships and emphasis on career pathways. Colorado currently features some 21 "active or emerging" industry partnerships with more in the works.¹⁴

It is also worth noting that Colorado's workforce system not only partners actively with the Colorado Department of Economic Development and its education agencies, but that the Colorado Department of Labor and Employment (CDLE) has responsibility for funding streams ranging from WIOA, Wagner-Peyser Employment Services (ES), and Unemployment Insurance to Trade Adjustment Assistance, Veterans Employment and Training, and Migrant and Seasonal Farm Worker Programs.

Larimer County Workforce Development Board¹⁵

The Larimer County Workforce Development Board is located in far North Central Colorado and is based in Ft. Collins. The board's area spans both Larimer and Weld Counties. In 2014, the board served over 1,400 employers and 19,000 job-seekers. Given Colorado's funding model, with workforce program allocations going directly to local workforce centers, staffing at the workforce board is lean: Jacob Castillo serves as workforce board Liaison as well as Economic Development/Enterprise Zone Manager within the Larimer County Economic Development Department.

Larimer County's involvement in sector partnerships and career pathway strategies follows the path of Colorado's as a state, starting with the adoption of these strategies as far back as 2009. However, their engagement in sector partnerships began to coalesce as a result of the first Colorado Workforce Development Council (CWDC) sponsored sector summit in which they participated actively in 2013. Local leaders met with state CDLE and other officials in a two-day deep dive into labor market analysis facilitated by state consultants (Melville & Woolsey with the Woolsey Group, Ltd.) to determine which sectors offered robust growth, high wages and career advancement opportunities. They also held a prep meeting to get ready for the summit with workforce, economic development, business, academic and other groups. They ultimately selected four (4) sectors to focus their partnership efforts on:

¹⁴ 09/28/16 email exchange with Lauren E. Victor, Ph.D., Lauren E. Victor, Ph.D., Talent Development Research and Policy Analyst, Colorado Workforce Development Council and Colorado Department of Higher Education.

¹⁵ This description is based largely on a telephone interview with Mr. Jacob Castillo, Larimer County WORKFORCE BOARD Liaison, conducted by Christopher King of the University of Texas at Austin's Ray Marshall Center on April 22, 2016. It has been supplemented by document reviews and online information.

- Manufacturing
- Healthcare
- Energy & Natural Resources
- ""Creative" (e.g., IT, marketing)

They opted to drop the "Creative" sector from the outset because it seemed too vague and ill-defined to serve as the basis for a partnership effort. Energy & Natural Resources sector partnership development was also pended for economic reasons as they wait for the sector to rebound.¹⁶

In the second day of the summit, Larimer followed the state's guide and tool kit drafting letters of agreement for the three sector partnerships. Industry leaders appreciated both being actively engaged in the process as well as its alignment across the sectors with supply chain management and talent development to meet their needs. One business participant was reported to have stated: "This will help me do my job better." Colorado's early efforts to develop sector strategies and focus on industry clusters, coupled with the fact that the state (and Larimer) did not suffer as great a decline during the 2007-2009 recession, made their work that much easier.

Larimer County Sector Partnerships

At present, Larimer is focusing on their sector partnerships in Manufacturing and Healthcare, each of which enjoys \$30,000 in support from CWDC to staff and manage the partnerships, convene meetings, etc. Business leads each partnership with Larimer County workforce board in a supporting role. They have established a Committee to Coordinate the Partners featuring single points of contact and are moving forward on creating a 'portal' for partnership information sharing. CWDC announced new state funding to support and implement sector partnerships in spring 2016.

Each of the Larimer County partnerships has taken its own approach to the work in their industry, as noted below. The private sector is driving the partnership in both.

Healthcare

The Healthcare Partnership, the less formal of the two partnerships, has formed four (4) committees to carry out its work, as follows:

* Exploring the Healthcare Pipeline. This committee is particularly focused on career exposure for youth who are unaware of the broad range of career opportunities in healthcare (e.g., IT, marketing) in addition to nursing and other more traditional frontline, health-related positions.

¹⁶ Oil prices dropped below \$30/barrel just as they were preparing to launch this sector partnership.

- Curriculum Development. This committee is focused on educational curriculum in healthcare and its relevance to the 21st Century economy and labor market.
- ❖ Behavioral Health. This committee is looking at needs and talent development in behavioral health, and is even looking at putting a ¼ cent levy on the local ballot in the future to support this work.
- **Healthcare Policy.** The final committee has its eye on larger policy issues, including federal law and regulations (e.g., HIPPA, patient release to long-term care, drug policy, tax policy as it affects the healthcare pipeline, etc.).

As noted, the Healthcare Partnership operates relatively informally, without an elected board of directors, formal votes for actions, and other such trappings.

Manufacturing

From the beginning, the Manufacturing Partnership opted for a more formal approach, complete with a board of directors, a charter, regularly scheduled meetings, recorded votes, etc. Only private sector members have an official vote in their proceedings; others (e.g., workforce, education, economic development) have a "voice" but no vote. Area manufacturers range from auto and electronics assembly to aerospace, breweries, RVs (Winnebago), food and beverage distribution, and small 'job shops.' The partnership formed three (3) committees to carry out their work:

- Manufacturing Rocks. This is essentially a youth career exposure committee for manufacturing. They are striving to introduce area youth to careers in manufacturing: "See it. Touch it. Taste it. Feel it." While the board organizes and supports the manufacturing plant road trips, the business sector actually invites the youth to come along.
- Higher Education Curriculum. This committee is examining 2- and 4-year curricula for relevance and has led to greater engagement on the part of colleges' industry advisory boards. It has also led to teacher internships inside manufacturing workplaces. Ames Community College, Front Range Community College and Colorado State University (Ft. Collins) have actively participated.
- Manufacturing Networks. This committee has responded to the expressed needs of area manufacturers who wanted to learn from each other. With a special focus on supply chains, they have established peer-to-peer learning networks and built greater industry cohesion.

Lessons Learned

Some of the lessons learned to date include:

- ❖ Each sector is unique and needs to determine its own needs and its own path forward. The simplicity of focusing on job X with certification Y in manufacturing may not translate to healthcare, a highly regulated sector with strict licensing and credentialing standards
- ❖ Partnerships are more effective when employers are in the driver's seat and focus on specific actions they can take to move forward. "It has to be about implementation, not just talk" to get and keep employers engaged. In addition, these action steps can be incremental.
- Starting with an economic development rather than a more traditional workforce development focus led to early sector partnership success. More attention was being paid to "adding value" for industry. It wasn't just "another workforce initiative" but part of a larger, more holistic effort with real returns for business. All three public entities (economic development, workforce development and education) need to be at the table with industry.
- It's also important that the sector partnerships operate with appropriately shared responsibility. Larimer County workforce functions as the secretariat and provides logistical support to the partnerships, while the private sector focuses on visioning and strategy.

WIOA Effects

WIOA's implementation has had no material effects on the sector partnership approach in place in Larimer County. They are in the process of making adaptations to their Workforce Centers and trying to decide how they can measure and get credit for their work under the WIOA framework, since the success of these partnerships goes well beyond workforce development, traditionally conceived.

New York City

The New York City workforce development area spans all of New York's five boroughs and, due to its unique complexity and size, is expected to operate as a stand-alone board region under the Workforce Innovation and Opportunity Act (WIOA) as well.¹⁷ Workforce programs operate under the Office of Workforce Development (WKDEV), which was created within the Mayor Bill de Blasio's Office in 2014, replacing the Office of Human Capital Development that former Mayor Michael Bloomberg had established in 2012.

New York has been engaged in a highly collaborative effort since the early 2000s as it sought to

¹⁷ This discussion draws on numerous documents, including among others: New York City Workforce Development Board (2015), *Quarterly Meeting Minutes*, September 17. It expands upon an earlier NYC workforce board case study prepared by RMC and colleagues and an extended interview conducted with board director Chris Neale and board coordinator Reynold Graham by Christopher King on May 11, 2016.

shift from a traditional work-first, job placement approach to a sector-based career pathways model focused on ensuring employer needs are met while connecting New York residents to quality jobs with opportunities for career advancement. It served as a Workforce Intermediary Project Pilot site starting in 2003 with support from the New York City Workforce Funders, a collaborative of more than sixty funders that includes the New York Community Trust, Rockefeller Foundation, the J.P. Morgan Chase Foundation, the Taconic Foundation, the W.T. Grant Foundation, and the United Way of New York City, among others. Since it began in 2001, the Workforce Funders have raised almost \$10M to support workforce initiatives in New York City over and above federal and state funding. Support from the Workforce Funders also allows the City to leverage additional resources and to engage in intermediary activities that would be hard to fund under traditional public workforce funding streams.

In 2004, the Commissioner of Small Business Services (or "SBS", the City agency then charged with implementation of the Workforce Investment Act's Adult and Dislocated Worker programs) met with local foundations to explore strategies for moving the model forward. Out of that discussion came the first New York City sectors initiative. The pilot focused on the biotech and healthcare industries. The success of the effort spurred additional investment into sector-based service design.

New York City's commitment to a sectors-based approach was reinforced through a grant from the National Fund for Workforce Solutions managed by Boston-based Jobs For the Future to engage in capacity building to strengthen the effort among partners locally. The Sectors Strategies Practicum, led by the Aspen Institute and Public/Private Ventures, ¹⁹ resulted in a sectors collaborative that has engaged all of the City's workforce development assets to further their common mission. This effort, which emerged from the broadly representative New York City Task Force appointed by the Mayor, is now referred to as New York City's *Career Pathway* model. ²⁰ *Career Pathways* has three main "pillars":

- Building Skills Employers Seek
- Improving Job Quality
- Increasing System and Policy Coordination

¹⁸ http://www.nycommunitytrust.org/AboutTheTrust/CollaborativeFunds/NYCWorkforceDevelopmentFund/AbouttheNewYorkCityWorkforceFunders/tabid/661/Default.aspx

¹⁹ Public/Private Ventures ceased operations several years ago. P/PV's projects have been picked up by the Aspen Institute, the Corporation for a Skilled Workforce, and others.

²⁰ The following reports provide details on the Career Pathway Model effort: Jobs for New Yorkers Task Force (2014), *Career Pathways: One City Working Together*, New York: NYC; City of New York (2015), *Career Pathways: Progress Update*, New York: NCY; and Joseph Gasper & Kathryn Henderson (2014), *Sector-focused Career Centers Evaluation: Effects on Employment and Earnings After One Year*, Rockville, MD: Westat, NYC Center for Economic Opportunity Independent Evaluation.

The model features a career pathways approach situated within strong industry sector partnerships, as shown in the graphic below. They are also explicitly data driven with a data collection and measurement strategy developed for the City by the Aspen Institute. New York City WKDEV accesses quantitative labor market information (LMI) data through the state LMI office as well as a service with the City University of New York (CUNY). It also has a contract with CUNY to analyze and verify these data through the collection of qualitative data via surveys and focus groups with local employers. In addition, partners also factor in local policy changes or initiatives which, given the magnitude of the City, can drive workforce needs for a particular industry.

New York City's Sector Partnerships

The City partnered with the local National Fund for Workforce Solutions site to establish the New York Alliance for Careers in Healthcare (NYACH), an intermediary organization that works closely with local healthcare industry/trade associations and unions to identify and respond to employer and employee needs. A second industry partnership, The Tech Talent Pipeline was also announced to focus on the Information Technology (IT) sector. NYACH and Talent Tech Pipeline are housed at Small Business Services and integrated into the fabric of the agency's service design and delivery. These partnerships serve as the industry engagement arm of the agency charged with driving system change across the workforce and education systems.

- Healthcare. NYACH collaborates with the City University of New York (CUNY) to ensure
 that curricula reflect healthcare employers' most pressing needs, while also working
 with area employers to address issues, such as supervision and scheduling, which can
 negatively affect retention and movement up the career ladder. A registered nurse with
 close ties to area healthcare employers and a deep understanding of the industry leads
 NYACH.
- IT. Because IT lacks strong industry associations or unions and has few standardized certifications or career pathways, the Talent Tech Pipeline focuses on identifying specific needs around key competencies such as mobile application development and the need to find quality providers who can create employer-driven curriculum in that area. TTP is led by a former Facebook employee.

Contractor-employed Business Service Representatives (BSRs) also interface with employers, and as a result of their connections with NYACH and Talent Tech Pipeline they are more knowledgeable about the skills and competencies needed in those industries. To drive effective BSR outreach to employers, Small Business Services conducts research to identify jobs that require less than a college degree, provide a list of those employers within the defined sales territory to each BSR and the BSR then follows a business development plan which includes activities such as cold-calling, attendance at industry events, networking and relationship-

building. All activities are designed to strategically build a brand that employers will ultimately trust to save them money.

The City's early success with a sector-focus led to the establishment of sector-specific career centers, starting with a focus on transportation, manufacturing and healthcare with an ultimate merger of transportation and manufacturing into the Industrial and Transportation Career Center. These centers focus on 2-3 sectors with staff developing expertise in them. Most staff work as account managers who are assigned sales territory to prevent duplicative calls on employers. Industry partnerships focus on serving jobseekers by forging connections with local support service organizations to provide the wrap-around services required to ensure jobseekers are work-ready.

The strong emphasis on job quality pushes the NYC Workforce Board staff past the boundaries of traditional workforce development into areas that affect both employer and jobseeker outcomes. These services are also a key component of the SBS office. Industry partnerships provide a valuable forum for addressing employer needs beyond training and skill development.

Challenges & Lessons Learned

One of the biggest challenges NYC has faced in implementing this comprehensive Career Pathways model according to WKDEV staff has been an old one: every agency has its own interests, is tasked to do a particular set of activities and deliver a specific set of services to certain groups, and has program metrics it is held accountable for. Aligning these agencies, many of which answer to a different deputy mayor, around Career Pathways with all of its components and expectations is a tall order and will take time. Lessons learned to date include:

Snapshot: New York City's Career Pathways

In Spring 2014, Mayor Bill de Blasio established the Mayor's Office of Workforce Development (WKDEV) to coordinate the City's workforce initiatives and convened the Jobs for New Yorkers Task Force to establish new priorities and principles for the City's employment and training programs. The Task Force made recommendations in three key policy areas: Building skills employers seek; Improving job quality; and Increasing system and policy coordination. Progress on selected recommendations – as reflected by WKDV's 2015 report, *Career Pathways: Progress Update* - is summarized below.¹

* Recommendation 1. Launch or expand Industry Partnerships with real-time feedback loops in six sectors: healthcare, technology, industrial/manufacturing, construction, retail, foodservice.

Status: Work continues in both healthcare and IT, the longest-running partnerships, including creating performance metrics, establishing feedback loops, aligning curricula, holding numerous trainings, and designing better entry-level jobs. Three of the newly targeted industry partnerships have been launched (industrial/manufacturing, construction, and foodservice), but retail has been deferred until the right candidates can be found to lead it.

Recommendation 2. Establish Career Pathways as the framework for the City's workforce system.

The City appears to have made considerable progress on this recommendation.

Accomplishments include policy changes within the key agencies in the system. For example, the Human Resources Administration (HRA) has made the shift from a rapid-attachment model to a skills and education focus and is increasing its targeting of TANF and Alternative TANF parents. In addition, SBS established a job quality standard for employers receiving recruitment help from its workforce centers of full-time employment or \$11.50/hour. Finally, the

Department of Youth and Community Development is piloting bridge programs and investing in advanced training for youth.

HRA and SBS also have worked with NYC's Department of Education to create new High School Equivalency Diploma Career Pathways, which are contextualized in specific occupations and blend work and learning. These pathways being piloted in the Bronx with a workforce center that offers career coaching and other supports. The department is utilizing a series of requests for proposals (RFPs) to move the workforce system toward widespread adoption of contextualized diplomas, promising 3-6 year contracts to organizations. Staff indicated that philanthropic support may be needed to make this a reality in light of some programmatic barriers.

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¹ This discussion is based both on the *Progress Update* and the May 11, 2016 interview with Neale and Graham.

* Recommendation 3. Invest \$60 million annually by 2020 in bridge programs that prepare low-skill jobseekers for entry-level work and middle-skill job training.

The first year of the Mayor's initiative was spent preparing for this effort, with the agencies providing technical assistance and resources for designing and implementing programs, as well as helping the agencies with program administration. Bridge programs are relatively new to NYC, so only 10% of the goal has been reached to date.

❖ Recommendation 7. Create a standard that recognizes high-road employers who have good business practices with the goal of assessing at least 500 local businesses by the end of 2015.

NYC's Economic Development Corporation (NYCEDC) launched *Best for NYC* in 2015 with a campaign and set of tools to inspire employers to measure and improve their impact on workers, the community and the environment. Tools include the B Impact Assessment developed by DC-based B Lab. New York is the first city in the United States to adopt this tool. More than 200 businesses completed the assessment by mid-2016.

❖ Recommendation 8. Improve the conditions of low-wage work by expanding access to financial empowerment resources in partnership with at least 100 employers and pursuing legislative changes such as increasing the minimum wage.

NYC's Department of Consumer Affairs stepped up its tax filing assistance efforts by helping 150,000 families in 2015. Mayor de Blasio also signed the Fair Chance Law essentially "banning the box" for returning citizens in late October 2015 and, with the new minimum wage law recently enacted by the New York State Legislature, New York City will see the first bump in its minimum wage in January 2016 on its way to the \$15/hour target by 2018.

❖ Recommendation 10. Reimburse workforce agencies on the basis of job quality instead of the quantity of job placements by aligning service providers under a system-wide data infrastructure that measures job outcomes, such as full-time work, wage growth, and job continuity.

WKDEV has established 13 common metrics to measure workforce activities and outcomes across all NYC workforce programs². These metrics will be embedded in future RFPs, contracts and other key points. WKDEV has already issued two RFPs including most of the common metrics and is currently fleshing out the data collection strategy for the remaining ones, some of which will rely on wage records and other administrative data.

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² For the list of 13 metrics and their definitions, see: City of New York (2015), *Career Pathways: Progress Update*, pp. 48ff.

- Leadership & Messaging: Both carrots and sticks are required to reinforce Career Pathways. In NYC, Career Pathways have benefited from considerable bipartisan political leadership spanning several administrations (Bloomberg, de Blasio) since at least 2003. Mayor de Blasio serve as a vocal and visible champion for the model has helped a great deal. All of the relevant Deputy Mayors must also be on board so they can serve as the enforcers when necessary. Agencies now understand the expectation that collaboration is the norm, not operating within their silos. Messaging and well thought out communications strategy are also key to affirming the value proposition of Career Pathways to participants, to businesses/employers, to policymakers, to program leaders, and to the wider public.
- Leadership & Messaging: Both carrots and sticks are required to reinforce Career Pathways. In NYC, Career Pathways have benefited from considerable bipartisan political leadership spanning several administrations (Bloomberg, de Blasio) since at least 2003. Mayor de Blasio serve as a vocal and visible champion for the model has helped a great deal. All of the relevant Deputy Mayors must also be on board so they can serve as the enforcers when necessary. Agencies now understand the expectation that collaboration is the norm, not operating within their silos. Messaging and well thought out communications strategy are also key to affirming the value proposition of Career Pathways to participants, to businesses/employers, to policymakers, to program leaders, and to the wider public.
- **Sustained Investment:** High levels of continued investment public and private/philanthropic —with accompanying flexibility are essential to implementing and sustaining Career Pathways into the future.
- Leveraging Expertise: Career Pathways has benefited from considerable thought leadership by leading sector experts such as the Aspen Institute's Workforce Strategies Initiative and the (now defunct) Public/Private Ventures.
- **Systems Change Orientation.** The focus on both programmatic and systems change is also important. Providing more quality job training will not be sufficient in and of itself. Systems change is necessary as well.

WIOA Effects

The City of New York is working closely with the Department of Youth and Community Development (youth services), and the Department of Small Business Services (adult services) to implement WIOA. The Board engages leaders from the private sector, labor unions, community-based organizations, educational institutions, and government agencies to guide and inform the City's workforce development policies and services, including its sector partnerships and career pathway strategies. Given the work New York has done in both of

these areas, WIOA's implementation appears not to have affected New York City's sector partnership and career pathway approach very much if at all.

Portland, Oregon

The Workforce Development Board (WDB) is a public/private partnership representing the City of Portland, Multnomah and Washington counties. Among its many successes, this workforce board led development of a Community Workforce Agreement as part of Clean Energy Works Portland (CEWP) pilot, which ultimately provided the proof of concept for the statewide Clean Energy Works Oregon. CEWP had excellent outcomes due to an agreement that required workforce development programs to provide the industry recognized credentials, and required energy efficiency contractors to meet standards for job quality and diverse hiring. The Board is also engaged in regional, manufacturing sector work in a cooperative effort with the adjoining Southwest Washington Workforce Investment Council.

The Portland workforce board changed its approach to workforce development after determining that understanding industry is the key to understanding the skills needed by workers. To better serve the supply side of the labor market, they need to first understand the demand side. Portland started its close work with industry in 1998 - 1999 as part of its Career Pathways work. That initiative was rooted in trying to transmit skills more quickly than traditional degree programs, which often required workers to remove themselves from the labor market for 2-4 years. Career Pathways efforts were strategically focused on the healthcare and manufacturing industries, which made sense as they were significant in both size and pay structure within the labor market and also used well-defined, progressive credentials for hiring that worked well for career pathways. At about the same time, vocational English as a Second Language (ESL) was evolving in to better serve the two industries.

For several years, the workforce board continued investing its funds in helping redesign and refine curricula for the two industries. Over time (i.e., by 2003-2004), the industries moved from guiding the workforce discussion to becoming more advisory in nature. The Career Pathways work remained relatively expensive and still required worker disengagement from the labor market, although for less time (i.e., only six months to a year). As the Pathways initiative became more institutionalized, the workforce board became more of a funding mechanism than a driver.

The board also struggled with finding sufficient resources to impact the industry significantly. Eventually, the board and its education partners came to the realization that, in spite of their good efforts, collaboration with industry could only succeed if the employers were squarely in charge.

Data-informed Decision Making

The Portland board decided early on that sound data analysis was critical to the success of their sector efforts, and chose to support four state-funded labor market analysts in the board offices. These analysts are trained in the use of the state's multiple LMI tools, including tool that identify employers by industry and those that provide information on industry trends. Their analysis is communicated via annual "State of the Workforce" reports, which identify,

among other things, major employers and their size, earnings trends, demographic trends, and employment trends by major industry.

In their work, the board has determined that employers appreciate metrics and outcomes at least as much as workforce system funders, making it especially important that the board be as clear as possible about what the public workforce system can and cannot do. To this end, the board provides a level of specificity for both outcomes and activities so employers clearly understand what will be done and are, therefore, able to judge success. In discussions with employers, the board makes clear that it still largely relies on formula funding and commitments to industry are tempered to reflect this reality.

The board has brought in other resources to address skill needs, from the State and elsewhere, although still primarily in the form of grants. Board policy decisions helped align eligible training provider lists (reduced over time) and focus limited resources, and continuous feedback from the demand side about supply reinforces alignment and allocation.

Industry Engagement

The Portland board's industry engagement efforts begin with research. Board staff look at 12 - 13 data elements, focusing primarily on the number of jobs (both absolute and relative share), current and projected openings, growth rate, demographics of labor force, and wages. Working with supportive employers with whom they already have a relationship, board staff review the data for accuracy, and will only move forward with employer approval.

A change in past approaches to engage industry includes inviting employers to meet in a neutral setting, with no assumptions about what is needed to address employer needs. These meetings are less about inviting employers to participate in a career pathways or sector project, and more about understanding current and projected education and skill needs, identifying those employers willing to push the agenda forward. These employers are also tasked with convening additional employers. Other partners, from the education or service provider communities, are invited to attend these discussions, but typically only after a critical mass of committed employers has taken shape.

Sustainability and Continuous Improvement

Continuous improvement in, and sustainability of, its sectors-based work are priorities for the board. A key element of its sustainability and continuous improvement work has been its ongoing work to coordinate its sectors work across a three-board region, including Workforce Southwest Washington representing Clark, Cowlitz, and Wahkiakum Counties, which, along with Clackamas Workforce Partnership and the Portland WDB form the Columbia-Willamette Workforce Collaborative. The three boards have a shared committee overseeing their sector work, and each board appoints leadership to disseminate information to their respective staffs. Despite being, at times, more difficult and complex to implement, the coordination of the three boards permits the public workforce system to better serve its industry partners by recognizing that the workforce needed for these industries is drawn from throughout the region, and not simply from within their board areas. The Portland board anticipates that the WIOA regional collaboration requirements will make this current arrangement among the three boards stronger.

APPENDIX II: NATIONAL INITIATIVES

Over the past few decades, a number of national networks have grown up in support of sectoral strategies. These seem to offer sound opportunities for scaling up such strategies over time in that they are committed to these strategies, have developed specialized expertise and lasting relationships with providers and employers in key sectors, and in some cases have created political and related community networks to sustain and support them. Some of the more noteworthy of these are discussed here.

National Fund for Workforce Solutions. As noted above, the NFWS was launched in the mid-2000s by the Annie E. Casey, Ford, and Rockefeller Foundations to foster the use of workforce intermediaries and sectoral strategies led by funder collaboratives in communities across the country. The USDOL, the Hitachi Foundation, and other funders joined the effort soon after, and, nearly a decade on, NFWS-supported projects are operating in more than 30 communities. NFWS sites offer another major opportunity for scaling up sectoral and career pathway strategies for many reasons, not least of which is that they have already established critical operating relationships among funders and providers and have also gained traction with employers and industry groups in these same communities.

The NFWS has engaged over 4,500 employers in 90 sector partnerships, serving nearly 55,000 individuals, to whom over 37,000 degrees and credentials were awarded between 2008 and 2013. More than 500 regional and local funders have contributed approximately \$200 million in matching funds. The sector partnerships supported by the NFWS often include organized labor, workforce boards, CBOs, and educational institutions, with some partnerships consisting solely of a labor-management partnership.

Labor/management Partnerships. Several longstanding sector partnerships are high-performing labor/management partnerships. The American Federation of State, County and Municipal Employees (AFSCME) District 1199c's Training and Upgrading Fund in Philadelphia, works with several area employers to train over 2,000 health care workers per year. Service Employees International Union (SEIU) Local 615's Voice and Future Fund works with a range of Boston firms and universities to create career ladders for custodial workers. WRTP has, since 1997, received funding from private foundations, state agencies, USDOL, and numerous others to work with unions and employers to, among myriad other investments, create registered building trade and manufacturing apprenticeship programs in the Milwaukee area.

Southwest Industrial Areas Foundation. As noted earlier, SWIAF was one of the pioneer organizations in the sectoral arena, launching Project QUEST in the early 1990s and then seeding spinoff projects in communities all across the south and southwest, including Capital IDEA in Austin and Houston, ARRIBA in El Paso, and VIDA in the Lower Rio Grande Valley, as well as efforts in Arizona, Arkansas, Iowa, and Louisiana. Each of these efforts has a somewhat different focus and base of operations tailored to the needs and priorities of the local Industrial Areas Foundation (IAF) affiliate organizations. They also have a critically important feature: political organization and clout emanating from the local community that can mobilize strong support for their efforts from a wide base of governmental and philanthropic sources (see Glover et al. [2010]). IAF groups have also pushed state legislative initiatives that foster the

spread of sectoral strategies as they have done in Texas with state funding. For example, House Bill 437 that was advocated by the Network of Texas IAF organizations was signed into law by former Texas Governor Rick Perry and was designed to fill high-demand, high-wage jobs in Texas. VIII House Bill 437 will move the successful Jobs and Education Training Program's "Launchpad Fund" to a new college home as the Texas Innovative Adult Career Education Grant Fund. The legislature also budgeted \$5 million for the fund to invest in high-skill training over the next two years. This is a model that likely can be replicated in other states.

National Network of Sector Partners (NNSP). As noted earlier, NNSP has operated as a major support group for sectoral strategies since 1999. The fact that NNSP operates with a mix of philanthropic funding plus member dues contributes to its long-term sustainability. Member dues reflect a level of commitment to sectoral strategies that can be leveraged for other support over time. Additionally, NNSP partners are members of the sectoral strategies "choir," which reaches out to others with a credibility that is important for sustainability.

The Accelerating Adoption of State Sector Strategies Initiative. This is a joint effort of the National Governors Association, the Corporation for a Skilled Workforce and the National Network of Sector Partners, which was launched in 2006 with support from the Ford, Charles Stewart Mott, and Joyce Foundations. The initiative sparked interest in and supported the adoption of sector strategies in a dozen or more states relying on three major mechanisms: a six-state Learning Network (Arkansas, Illinois, Massachusetts, Michigan, Pennsylvania, and Washington), a five-state Policy Academy (Georgia, Minnesota, North Carolina, Oklahoma, and Oregon), and a Knowledge Exchange open to all states (NGA Center for Best Practices, National Network of Sector Partners, and Corporation for a Skilled Workforce 2008).

APPENDIX III: THE EVIDENCE BASE

The Evidence: Do these Strategies Work?

The evidence base for sectoral programs and their expansion remains thin, but it is growing, and there is much more in the evaluation research pipeline. Only a handful of highly rigorous impact evaluations have been carried out to date, though many more implementation studies have been conducted. Table x shows the more prominent impact evaluations that these programs have included.

Table 1. Evidence Base

Method	Description
Random assignment	Three sectoral training programs—Per Scholas (New York City), Jewish Vocational Services (Boston), and the Wisconsin Regional Training Partnership (Milwaukee)—conducted by Public/Private Ventures (P/PV) and the Aspen Institute (Maguire et al. 2010).
Quasi-experimental evaluation and return-on-investment (ROI) analysis	Capital IDEA, an Austin, Texas-based sectoral training program conducted by researchers at the Ray Marshall Center at the University of Texas at Austin's LBJ School of Public Affairs (Smith et al., 2012a).
Random assignment	Comprehensive Employment Training (CET) Replication initiative, a sectoral career pathway program for youth, conducted by MDRC (Miller et al. 2005).
Random assignment	Year Up, a multisite career pathway, sectoral, and bridge program for youth and young adults, conducted by Economic Mobility (Roder and Elliott 2011, 2014).
Quasi-experimental	Washington State's Integrated-Basic Education and Skills Training bridge program conducted by researchers at the Community College Research Center at Columbia University (Zeidenberg, Cho, and Jenkins 2010).

Note that these evaluations mainly estimate the impact of the intent to treat; the Capital IDEA and I-BEST evaluations also estimate the impact of the treatment on the treated. The difference between the two estimation approaches can be substantial when a large share of those assigned to a particular treatment fail to receive it.

Rigorous evaluations of sector-based programs also estimated meaningful, statistically significant impacts on key labor market outcomes of interest for participants, and these impacts tended to be longer-lasting than those of typical workforce programs.

Employment

With the exception of Year Up and I-BEST, participation in sector-based programs was associated with statistically significant increases in employment extending from two to seven and a half years post-program. Even in programs that did not boost overall employment rates (such as Year Up), program participation led to increased employment in the targeted sectors, typically in much better jobs than those held by control group members.

Earnings

Sectoral and related strategies generally produced significant increases in earnings for participants. Earnings impacts of 12–30 percent were found extending from two to seven and a half years after enrollment and stemmed from both increased duration and hours of work as well as higher wages. For example:

- WRTP participants earned 24 percent more than controls over the two-year study period, largely from both higher wages and working more hours; they were much more likely to work in jobs paying \$11 and \$13 per hour than controls. Participation in JVS-Boston and Per Scholas was associated with similar results.
- Participation in Austin's Capital IDEA led to substantial earnings increases over nearly eight years post-program and also increased participants' eligibility for Unemployment Insurance by 11–12 percentage points, allowing many of these low-income workers to become eligible for the first-tier safety net.
- Year Up participants' earnings exceeded those of controls by 32 percent three years after the program, largely as a result of trainees working in jobs that were full-rather than part-time (and paying higher wages—\$2.51 per hour more).

Finally, one of the few studies to examine ROI estimated internal rates of return (IRR) of 9 percent for taxpayers and 39 percent for society over 10 years; the estimated IRRs were 17 percent for taxpayers and 43 percent for society over 20 years (Smith and King 2011). Returns for individual participants were even higher, at 73 percent and 74 percent for 10 and 20 years, respectively.

So, while the evidence is still emerging, these studies demonstrate that sectoral programs, particularly when they include well-defined career pathways components, can be highly effective strategies for increasing the employability, employment, earnings, and other outcomes of jobseekers. While it is likely that these programs also benefit employers by improving worker productivity and enhancing their economic competitiveness and profitability, these are not impacts that have been estimated to date, either in simple outcomes studies or more rigorous evaluations. The findings also suggest that these strategies may yield lasting net benefits for taxpayers and society as a whole.

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¹ For more on the Commonwealth Corporation, see http://www.commcorp.org.

ii Information about Project QUEST can be found at http://www.questsa.org.

iii More information about WRTP/BIG Step is at http://www.wrtp.org.

^{iv} Washington State's Skills Panels are described more fully at http://www.wtb.wa.gov/IndustrySkillPanel.asp.

^v Maher and Maher, a New Jersey-based human resources consulting firm, is working with Jobs for the Future, the Ray Marshall Center and others on this effort.

vi See http://www.wtb.wa.gov/IndustrySkillPanel.asp.

vii Much more information on the latest generation of skills panels can be found at http://www.wtb.wa.gov/HSHWStrategicFund.asp.

viii For more, see http://www.ntotx.org/home/nto-applauds-governor-perry-for-5-million-investment-in-jobs.

ix See http://www.sectorstrategies.org/accelerating-state-adoption-sector-strategies.

^x This section draws, in part, on the extended discussion in King (2014).