STATE SECTOR STRATEGIES
COMING OF AGE:
Implications for State Workforce Policymakers

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State Sector Strategies Coming of Age:
Implications for State Workforce Policymakers

ACKNOWLEDGEMENTS

This paper was written by Lindsey Woolsey of the Woolsey Group, LLC, and Garrett Groves of the National Governors Association with editing by Martin Simon of the National Governors Association, in cooperation with Larry Good of the Corporation for a Skilled Workforce and Eric Seleznow of the National Skills Coalition. It is a joint product of Corporation for a Skilled Workforce, National Skills Coalition, and the National Governors Association Center for Best Practices. Funding to support its development was provided by the Charles Stewart Mott Foundation. Special thanks to David Moore, Lauren Stewart, and Mary Jo Waits of the National Governors Association Center for Best Practices, and Taryn MacFarlane and Nancy Laprade of the Corporation for a Skilled Workforce for their input.

Cover graphic and all graphics in this paper designed by Lindsey Woolsey of the Woolsey Group, LLC, with support from Garrett Groves of the National Governors Association, and produced by Axie Breen Graphic Designs. Thank you to the National Governors Association, Corporation for a Skilled Workforce, and the National Skills Coalition for their input and support.

TABLE OF CONTENTS

Executive Summary **2**

Introduction **4**

Better Connections with Industry's and Workers' Needs Yield Better Outcomes 4

Sector Strategies Address Persistent State Workforce Policy Challenges 5

Sector Strategies in Practice **6**

Addressing Emerging Skill Gaps: Connecting Employers with the Workers They Need 6

Engaging Directly with Industry: Working Across Boundaries to Identify and Address Specific Workforce Needs 7

Aligning State and Local Public Programs: Coordinating State Efforts and Braiding Disparate Funding Streams 8

A State Policy Framework **11**

Eight Areas for State Action – A State Sector Strategy Framework 12

How Colorado Implemented the State Sector Strategy Framework 13

Sector Strategies in the Next Decade **14**

Integrating Career Pathway Programs, Sector Strategies and Industry Clusters 14

Conclusion **18**

BOXES

Box 1. Eight Areas for State Action – A State Sector Strategy Framework (p.12)

Box 2. How Colorado Implemented the State Sector Strategy Framework (p.13)

Box 3. The Private Industry Council of Westmoreland-Fayette (p.15)

Box 4. A Short History of Sector Strategies (p.19)

EXECUTIVE SUMMARY

Today more than half the nation's states are exploring or implementing sector strategies, making the model the most consistently adopted approach to meeting businesses' need for skilled workers and workers' need for good jobs. Sector strategies are among the few workforce interventions that statistical evidence shows to improve employment opportunities for workers and to increase their wages once on the job.[1] Employers report increases in productivity, reductions in customer complaints, and declines in staff turnover, all of which reduce costs and improve the competitiveness of their companies.[2] This is likely why an estimated 1,000 sector partnerships are operating across the country.[3]

Sector strategies are partnerships of employers within one industry that bring government, education, training, economic development, labor, and community organizations together to focus on the workforce needs of an industry within a regional labor market. At the state level, they are policies and investments that support the development of local sector partnerships. They are welcomed by governors, who are increasingly focused on the needs of critical industries and workers. Amid the challenges of the slowly recovering national economy, sector strategies can do the following:

- **Address current and emerging skill gaps.** Sector strategies offer a mechanism to focus scarce resources on industries that are major job providers in an area, as well as to focus comprehensively on the workforce skills, from entry level to advanced, required in a regional economy.

- **Provide a means to engage directly with industry across traditional boundaries.** Businesses operate in economic regions that may cross city, county, and state lines and education and economic development areas. Sector strategies work across the boundaries to identify and address specific workforce needs in almost every industry.

- **Better align state programs and resources serving employers and workers.** Intense demand for balancing budgets at the state level threaten initiatives in education, training, economic development, and other essential state services. Sector strategies help to reduce inefficiencies and streamline state efforts by coordinating various programs and braiding disparate funding streams intended for the same purpose.

This paper offers a snapshot of sector strategies today, an overview of what makes them different from traditional workforce and economic development programs, and a description of actions that state administrators and policymakers can take as part of a policy framework to support their creation and effective operation. It shows how sector strategies are evolving to integrate potentially powerful supply-side and demand-side activities, providing a means to integrate career pathway initiatives focused on the education and skills development of workers with the kind of high-growth industry clusters that have been the focus of economic development initiatives for decades.

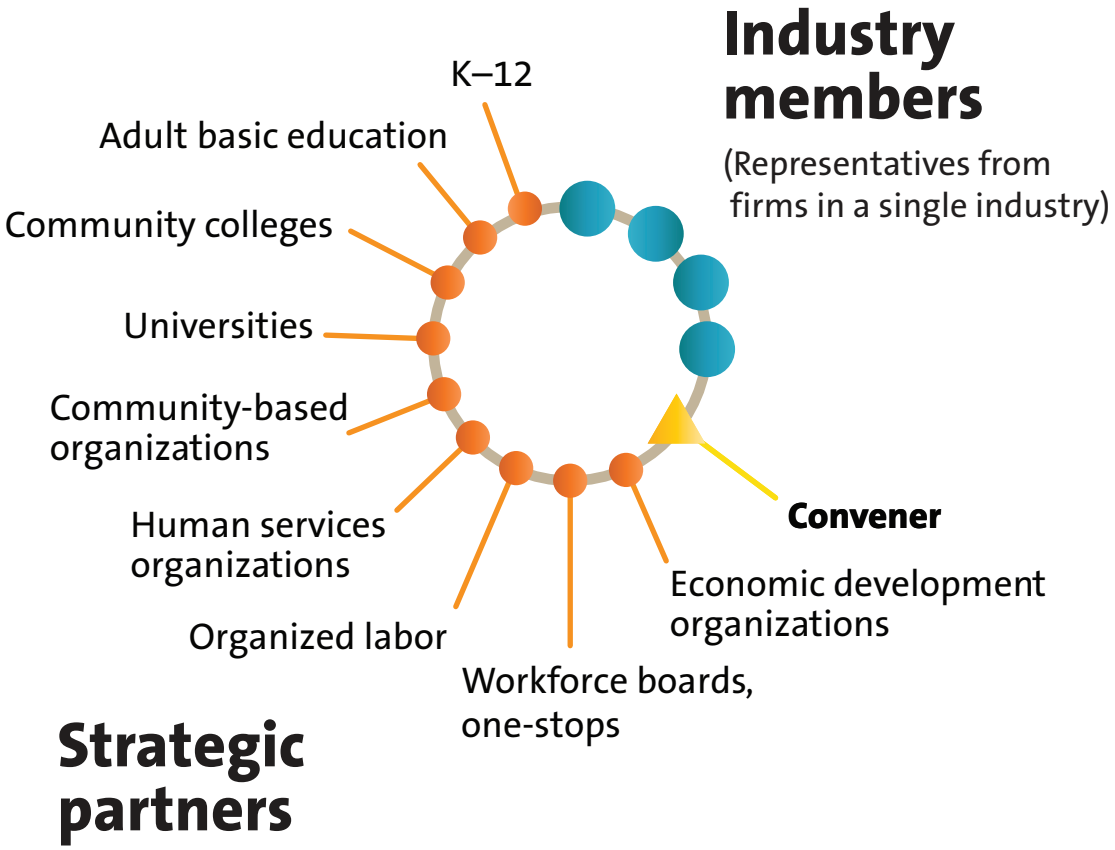
1 S. Maguire, J. Freely, C. Clymer, M. Conway, and D. Schwartz, Tuning in to Local Labor Markets: Findings from the Sectoral Employment Study, Public/Private Ventures, July 2010, http://www.ppv.org/ppv/publications/assets/325_publication.pdf.

2 L. Cathryn, "BEST Benefits: Employer Perspectives Research and Evaluation Brief, Commonwealth Corporation, October 2004, http://www.insightcced.org/uploads/nnsp/BEST%20Benefits%20-%20Employer%20Perspectives.pdf; Industry Partnerships in Pennsylvania, booklet, Pennsylvania Workforce Development, April 2009, http://www.portal.state.pa.us/portal/server.pt?open=514&objID=575072&mode=2.

3 R. Mangat, Sector Snapshot: A Profile of Sector Initiatives, National Network of Sector Partnerships, Insight Center for Community Economic Development, 2010, http://www.insightcced.org/uploads/publications/wd/Sector-Snapshots.pdf.

Sector Partnership

The partnership addresses common needs of employers and generates coordinated solutions that benefit workers.



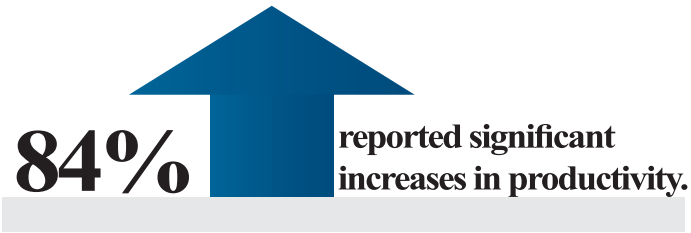
INTRODUCTION

State policymakers and administrators of agencies concerned with economic growth and prosperity face two critical tasks: adding and expanding businesses in a down economy, and meeting the needs of business for a skilled workforce. They need to ensure that residents have the education, training, and skills to obtain good jobs. At the core of these challenges is a national skills gap. The United States currently is falling far short of supplying enough appropriately skilled workers to meet industry needs current and future. By 2020, the U.S. economy will have an estimated shortfall of 1.5 million to 3 million workers with college degrees.[4] It will require another 4.7 million workers with postsecondary certificates to meet economic demands.[5] The country's education and training systems must remain, and in some cases become, the core of the solution. Those systems will be required to better coordinate their activities and to align strongly and consistently with the needs of industries.

The costs of not addressing these skills shortages are high. States and regional labor markets cannot rely solely on attracting talent from beyond their borders. Nor can job seekers risk spending time and resources on training or education programs that do not lead to a good job. Therefore, all states and regions must consider and implement workforce strategies that make the connections between industry's need for skilled labor and workers' needs for job-relevant education and training. Sector strategies are among the few interventions with a growing body of evidence showing improved employment opportunities and wages for workers and increased productivity and other positive outcomes for employers.[6]

Better Connections with Industry's and Workers' Needs Yield Better Outcomes

The U.S. workforce system[8] is often criticized as a sum of disconnected parts, with worker training poorly matched to industry demand, a lack of focus on industries that are the most important to local economies, and duplicative business outreach and workforce training services. Sector strategies respond to those criticisms. At the regional labor market level, they are partnerships of employers in one industry that bring together government, education, training, economic development, labor, and community organizations to focus on the workforce needs of their industry. At the state level, they are policies and investments that support the development of local sector partnerships. A growing body of evidence demonstrates their effectiveness for employers and workers.



In 2009 in Pennsylvania, 84 percent of surveyed employers participating in industry partnerships reported significant increases in productivity.[7]

When employers find effective ways to work together with the public education and training systems—particularly the small and midsized firms that are increasingly responsible for U.S. job creation—they can improve their profitability.

4 J. Manyika, S. Lund, B. Auguste, and S. Ramaswamy, Help Wanted: The Future of Work in Advanced Economies, McKinsey Global Institute, March 2012, http://mckinseyonsociety.com/downloads/reports/Economic-Development/Help_wanted_The_future_of_work_in_advanced_economies_full_report.pdf ; A. Carnevale, Help Wanted: Projections of Jobs and Education Requirements through 2018, Center on Education and the Workforce, Georgetown University, June 15, 2010, http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/fullreport.pdf.

5 Carnevale, Help Wanted: Projections of Jobs; A. Carnevale, S. Rose, and A. R. Hanson, Certificates: Gateway to Gainful Employment and College Degrees, Center on Education and the Workforce, Georgetown University, June 2012, http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Certificates.FullReport.061812.pdf.

6 Maguire et al., Tuning in to Local Labor Markets.

7 Industry Partnerships in Pennsylvania, booklet, Pennsylvania Workforce Development, April 2009, http://www.portal.state.pa.us/portal/server.pt?open=514&objID=575072&mode=2.

8 Defined here as publicly funded workforce investment programs including the Workforce Investment Act for youth, adults, and dislocated workers; federal and state adult education programs; state-funded incumbent worker training programs; Employment Services and WIA One-Stop Centers; community and technical college workforce training programs; and apprenticeship programs.

In a survey of employers participating in sector partnerships in Massachusetts, 41 percent reported reduced turnover; 19 percent reported less rework on the job; 23 percent reported fewer customer complaints; and 100 percent of the companies said that participation in a sector partnership was valuable.[9]

48% EXIT POVERTY

The Aspen Institute found that 48 percent of participants in sector-based programs exited poverty, based on earnings alone.[10]

Workers also benefit from involvement in a sector partnership. Navigating the education market to secure the knowledge-based skills required in today's economy is as daunting as navigating the labor market. Thousands of credentials exist, including full degrees, short-term certificates, and professional licenses. Which ones do employers accept? Which education and training programs are flexible enough to allow working adults to complete them and obtain their credential? Public sector programs serving industry and job seekers through a sector partnership are better able to align the needs of employers with the career paths of workers, and the results for employees are higher wages and better jobs. A 2009 random-assignment evaluation of three sector partnerships showed that worker participants earned significantly more (18 percent more, or $4,500 over 24 months) than the control group[11] The reason was that they were more likely to work, worked more consistently, and worked in jobs with higher wages. They also had higher-quality jobs, as measured by benefits such as health insurance, paid vacation, and paid sick leave.[12]

Such outcomes help explain why an estimated 1,000 regional sector partnerships are operating across the country, and more than 25 states are exploring or implementing sector strategies as a way to address industry needs through education and training programs.[13] They are known by different names in different states: Industry Partnerships in Pennsylvania, Skill Alliances in Illinois, and Clusters of Opportunity in California. Massachusetts has been using a sector strategy approach for almost three decades, funding hundreds of local partnerships through the Workforce Competitiveness Trust Fund. Pennsylvania's investment has seeded more than 90 industry partnerships since 2005, more than 40 of which are still active. Washington State launched its first Skill Panels in 2000 and since then has funded more than 100 public-private partnerships among business, labor, and education. State policymakers in these states and others implementing sector strategies see them as an effective way to address the challenges they face as the economy recovers from the recession.

Sector Strategies Address Persistent State Workforce Policy Challenges

Amid the challenges of the slowly recovering national economy, sector strategies can help policymakers address a set of challenges that almost every state faces:

- **Current and emerging skill gaps.** Sector strategies offer a mechanism to focus scarce resources on the industries that provide high proportions of jobs for residents and on the role of a skilled workforce—from entry level to advanced—in a regional economy.

9 Cathryn, "BEST Benefits"; Industry Partnerships in Pennsylvania.

10 S. Maguire, J. Freely, C. Clymer, M. Conway, D. Schwartz,Tuning in to Local Labor Markets: Findings from the Sectoral Employment Study, Public/Private Ventures, July 2010, http://www.ppv.org/ppv/publications/assets/325_publication.pdf.

11 Maguire et al., Tuning in to Local Labor Markets.

12 Ibid.

13 Mangat, Sector Snapshot; Sector Strategies at a Tipping Point: A Fact Sheet, Corporation for a Skilled Workforce, October 2010, http://www.sectorstrategies.org/library/2010/snapshot-state-sector-activity.

- **Traditional geopolitical and program boundaries that prevent consistent, seamless engagement with industry.** Businesses operate in economic regions that may cross city, county, and state lines, as well as workforce, education, and economic development areas. Sector strategies work across the boundaries to identify and address specific workforce needs in almost every industry.
- **Misaligned state programs and resources serving businesses and workers.** Intense demand for budget balancing at the state level threatens initiatives in education, training, economic development, and other essential state services. Sector strategies help to reduce inefficiencies and streamline state efforts by coordinating programs and braiding disparate funding streams intended for the same purpose.

These challenges are large and complex, and in a slowly recovering economy, no single public system, employer, or job seeker can address them alone. Sector strategies provide states an approach to workforce, education, and economic development that brings stakeholders together effectively.

Statewide Power Generation Skill Panel

*In **Washington**, the Pacific Northwest Center of Excellence for Clean Energy convenes a statewide Power Generation Skill Panel that involves major power generation plants (coal, hydro, and wind), public utilities, organized labor, workforce boards, and community colleges. One of the most valuable contributions of the Skill Panel is its ongoing development of skills standards manuals for critical middle-skill occupations in the energy industry, including substation operators, power plant electricians, combustion turbine technicians, and others. As the convener of the Skill Panel, the Center of Excellence (housed at Centralia Community College) conducts focus groups and surveys workers and their employers to identify and verify the precise skills, knowledge, competencies, and work functions of the most critical occupations in the industry. These standards are used by employers to adjust official job descriptions and advancement requirements. Educators and apprenticeship programs also use them to create training that is exactly right for the jobs available in the industry.* [16]

SECTOR STRATEGIES IN PRACTICE

Addressing Emerging Skill Gaps: Connecting Employers with the Workers They Need

Evidence is growing of emerging skill gaps across the economy as education and training systems fail to keep pace with employer demand for higher skills. In 2011, the McKinsey Global Institute found that 30 percent of U.S. companies had job vacancies that remained open for more than six months, even though national unemployment levels stood above 9 percent.[14]

Sector strategies aim to fill those types of vacancies by working in a region to align the skill needs of industry with the education and training programs in the area. These partnerships use labor market information to stay informed of shifting demands, and because they regularly convene and listen closely to employers in their industry of focus, they can inform education partners about how best to structure their curriculum offerings and guide workers to jobs.[15]

14 Manyika et al., Help Wanted: The Future of Work in Advanced Economies.

15 L. Woolsey, Moving Beyond the Count: The Story of Skills2Compete Maryland, Corporation for a Skilled Workforce, 2011, http://www.skilledwork.org/resources/moving-beyond-count; Pacific Northwest Center of Excellence for Clean Energy, http://www.centralia.edu/coe/skill.html.

16 Pacific Northwest Center of Excellence for Clean Energy. Website located at: http://www.centralia.edu/coe/skill.html.

Staying informed of shifting demand is critical in today's economy, not only because education and training programs must be able to shift on a dime to teach new technologies and skills, but also because traditional views of education and jobs outcomes are vastly outdated.

Forty years ago, nearly three of every four jobs in the country required only a high school diploma, or less. Today, just 37 percent of jobs are available to those without some form of postsecondary education.[17] Millions of Americans must pursue additional classroom instruction or training to find employment and, once they do, to gain access to better wages and upward mobility. The increasing demand from both employers and workers for at least some education after high school is the leading reason why postsecondary certificates have displaced both master's degrees and associate degrees as the second-most-common type of postsecondary credential, after the four-year bachelor's degree.[18]

In March 2010, the governor of Maryland launched Skills2Compete Maryland, an initiative to increase the number of Marylanders who attain at least two years of postsecondary education. The initiative is aligned with a priority in the 2009 Governor's Workforce Investment Board five-year strategic plan to make sector strategies a key way to connect workers to jobs. Skills2Compete Maryland is aimed at the 40 percent of jobs in the state defined as "middle-skill occupations," requiring more than a high school diploma but less than a four-year degree. On average the jobs pay above the state median income.[19] They are in health care, advanced manufacturing, skilled construction, professional services, transportation, logistics, energy, and other industries found in almost every regional economy.

Low-skilled and low-income workers can also benefit from sector strategies and gain entry to middle-skill occupations in growing regional industries if they can obtain the support they need to complete education or training that is genuinely targeted to employer needs. Because a core premise of sector strategies is strong coordination across training and support programs, they can be a powerful aid to advance low-income and low-skill workers who need comprehensive supports and case management to succeed.

Engaging Directly with Industry: Working across Boundaries to Identify and Address Specific Workforce Needs

A firm's ability to stabilize or grow depends on obtaining the right assistance at the right time for a given problem.[21]

Training Partnerships

*The BioTechnical Institute of **Maryland,** Inc. (BTI) is a sector partnership that trains low-income Baltimore residents to become entry-level technicians in the city's emerging biotechnology industry. BTI made an important discovery about high turnover in those positions: employers generally believed a bachelors degree was needed for them, but workers in the positions generally used them as temporary stepping-stones before returning to school for more advanced degrees. In fact, the position required only short-term training in the skills needed for working in a sterile environment. Getting to the bottom of what employers actually needed opened up an entirely new industry to low-skilled Baltimore residents.*[20]

17 A. Carnevale, N. Smith, J. R. Stone, P. Kotamraju, B. Steuernagel, and K. A. Green, Career Clusters: Forecasting Demand for High School Through College Jobs, Center on Education and the Workforce, Georgetown University, November 2012, http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/clusters-complete-update1.pdf.

18 Carnevale, Help Wanted: Projections of Jobs; Carnevale et al., Certificates.

19 H. Holzer and R. Lerman, America's Forgotten Middle-Skill Jobs: Education and Training Requirements in the Next Decade and Beyond, The Skills2Compete Campaign of The National Skills Coalition, formerly The Workforce Alliance, 2007, http://www.nationalskillscoalition.org/assets/reports-/americasforgottenmiddleskilljobs_2007-11.pdf.

20 M. Conway, Sector Strategies for Low-Income Workers: Lessons from the Field. 2007 (Washington, DC: Aspen Institute).

21 Cathryn, "BEST Benefits"; Industry Partnerships in Pennsylvania.

Few approaches allow public programs to be as well focused, as comprehensive, or as responsive as a sector strategy.

Every state has multiple labor markets. In fact, every county and city is part of different labor markets for different industries, which crisscross and overlap each other. A labor market is based on concentrations of firms within one industry, commuter sheds for workers in that industry, and shared supply chains. Since a sector partnership focuses on a single critical industry, it operates within that industry's labor market, across city, county, and state lines, as well as across workforce areas, school districts, and economic development regions.[22] The geography relevant for a sector partnership, therefore, varies based on how the particular industry operates.

The South Central Pennsylvania Food Manufacturers' Training Consortium is a local sector partnership that operates across two counties and within a single workforce investment area. It serves a concentration of about 40 midsize food manufacturers (including Snapple and Quaker Maid), providing training to more than 2,000 workers between 2005 and 2009.

An example of a much larger sector partnership is the Automotive Manufacturing Technical Education Collaborative (AMTEC).[23] The collaborative began as a customized training project of Toyota and the Kentucky Community and Technical College System (KCTCS). It quickly grew into an automotive sector partnership including other American, Asian, and German auto manufacturers, as well as their supply chains. Today the AMTEC partnership has expanded across numerous economic, education, and political boundaries along the I-65 and I-75 corridors from Michigan to Texas. It includes 32 community colleges and labor organizations across 13 states, all focused on the goal of making sure that a new generation of skilled, globally competitive autoworkers emerges. AMTEC uses a sector partnership to identify worker skill needs across two critical job classifications—production and maintenance. A career pathway approach is applied to make sure that coursework is modular, flexible, and contextual and produces stackable credentials. Locally, colleges and organized labor work with manufacturers in their area to customize training, but up and down the I-75 corridor, AMTEC ensures that curricula and credentials are standardized throughout the sector partnership.

Aligning State and Local Public Programs: Coordinating State Efforts and Braiding Disparate Funding Streams

For years states and local organizations have blended and braided diverse public and private funding to get sector partnerships started and to keep them going. Funding sources include the following:

- Workforce Investment Act (WIA) Title I training funds
- WIA Title II adult education funds
- Governors' WIA discretionary funding;
- State general revenue
- Incumbent worker training funds
- Temporary Assistance to Needy Families (TANF) funds
- Vocational rehabilitation funds
- State education funds
- Philanthropic contributions
- Direct employer contributions
- Fee-for-service funds
- Funds from community organizations, such as Goodwill or United Way

22 A Sharper Focus on Technical Workers: How to Educate and Train for the Global Economy (Washington, DC: National Governors Association Center for Best Practices, 2010).

23 Ibid.

Of these, federal and state sources have historically been the two largest for sector partnerships, representing 60 percent of total funding for the field.[24] In the context of severe state budget constraints and threats to key federal programs such as the Workforce Investment Act, reliance on federal and state resources is a risk. Pennsylvania watched state general funding for workforce training in industry partnerships decline over three years from $20 million to $9 million, then to $6 million, and finally to zero in 2011.

Today the state's industry partnerships are operating on a $1.6 million budget, intended to cover staff time for coordination, and they face critical challenges in providing the level of training to employer members and workers that the partnerships had provided for the past six years.

As federal and state resources shrink, leveraging diverse funding sources will be important. However, if sector strategies are to evolve into a different way of operating for workforce and education systems, then they must be supported by a strong set of integrated state policies.

Today's resource-tight environment may bring about the next leap in the evolution of sector strategies, moving the field from start-up grants and cobbling together multiple, divergent resources, to aligning multiple systems and programs by embedding sector strategies into their program and funding policies.

Consider that sector strategies should be a core way to do business for workforce and education systems. States can do the following:

1. Secure funding from state legislatures for general support of sector strategies or for targeted support of education and training programs aimed at critical industries. Support can be in the form of direct investments or can be indirect, such as industry tax credits for training programs.

AZ

Arizona *began formally promoting sector strategies in 2010. Like other states, it focuses on local area training on the sector partnership approach. Unlike other states, Arizona is unique in that they have achieved success without any additional funding for the start-up and expansion of sector partnerships across its regions. State leadership achieved this by providing customized, intensive technical assistance to local areas, and by embedding sector strategies into plans, grants, and guidance across the board, including the state workforce plan, guidance for local workforce plans, and apprenticeship and career pathway programs.*

Arizona made sector strategies a common framework for a recent joint application by its Commerce Authority and Department of Economic Security to the U.S. Department of Labor's Workforce Innovation Fund. The state also purchased access to real-time vacancy data on behalf of local areas, and plans are to integrate training on this data with training on sector strategies.

Arizona created a Sector Strategy Committee as part of the Governor's Workforce Investment Board, which includes leadership from the departments of education, economic security, and commerce. An additional group called "Friends of Sector Strategies" is made up of more than 65 representatives (and it is growing) from industry associations, community organizations, local workforce boards, economic development agencies, tribes, and others. The Friends are responsible for giving input to the state as well as building the sector strategy buzz around the state.

24 Mangat, Sector Snapshot.

2. Build policy partnerships among state agencies concerned with the success of specific industries, such as departments of energy, transportation, or health services. These agencies have choices concerning the use of their resources, including some federal program allocations, in which sector strategies could be made more explicit.

3. Embed language and requirements that support sector strategies into all relevant formula programs, grants, and new initiatives, including statewide workforce investment plans and guidance to local areas; statewide or regional economic development plans; career pathway programs and initiatives; apprenticeship programs; state incumbent worker training programs; and customized training funds from both workforce development and economic development.

4. Use sector strategies as a connecting framework across systems and programs when applying for grants from federal agencies. Many of the American Recovery and Reinvestment Act grants included strong sector partnership language and principles. The same is true for proposed federal funding in Congress and for recent grants from the U.S. Departments of Labor (such as the Workforce Innovation Funds solicitation) and Commerce (such as the Economic Development Administration's Job Accelerator grants).

5. Explore new uses of revenue sources that could directly support sector strategies, including unemployment tax offsets (historically used with individual companies but potentially available for customized training for groups of employers in one industry), sales tax reserves (some local areas have won voter approval for using sales tax revenue to support training programs), or layoff aversion funds (which usually go to individual companies but could be used to target an industry).

6. Approach industry directly. Industry associations, as well as individual companies with a large presence in a state, may have an interest in investing in sector strategies, especially if they see the value of systems' aligning to support the workforce needs of their industry as whole. A recent Government Accountability Agency study of 14 sector initiatives reported that all used employer cash and in-kind resources to support their efforts.[25]

25 Innovative Collaborations between Workforce Boards and Employers Helped Meet Urgent Local Workforce Needs (Washington, DC: Government Accountability Office, GAO-12-97, February 16, 2012), http://www.gao.gov/products/GAO-12-419T.

A STATE POLICY FRAMEWORK

With the economy showing some signs of recovery and business hiring increasing, it is more critical than ever for state policies to support a framework of employer-driven education, training, and postsecondary strategies to help ensure that residents possess the skills and credentials to secure and retain employment. Given the promising results of sector partnerships, a growing number of state policymakers are including sector strategies in statewide policy frameworks that guide local and regional efforts to address skills gaps. When done appropriately, it is a proven strategy for effectively addressing the challenges that nearly all states face.

Sector Strategies – State Policy Framework

Because sector strategies demonstrate results for employers, job seekers, and public resources, more and more states are turning to them to more effectively align and leverage public programs. More than 25 states are at various stages of implementing sector strategies. Most are championed by state workforce investment boards and implemented by state labor or workforce development departments, or their equivalents. These state initiatives vary in their scale and scope of activities.

Illinois and **Michigan** funded regional "skills alliances" across their states for more than seven years. Both focused almost exclusively on high-demand, middle-skill jobs and training across a variety of critical industries. **California, Colorado, Minnesota, New York, North Carolina, Oregon, Wyoming,** and **Wisconsin** also provided grants to local workforce boards or other regional organizations to implement sector partnerships. **Arizona, Idaho, Maryland,** and **Oklahoma** have provided sector strategy training opportunities for local stakeholders, including regional workshops and learning academies. **Arkansas, Kentucky,** and **Wisconsin** emphasized career pathways as part of their sector strategies and in some cases use colleges as key organizers.

Governors and other state leaders can play a key role in promoting the development of sector partnerships by pursuing state action in eight areas, based on the experiences of states implementing sector strategies. Taken as a whole, they create a framework for a state sector strategy. These actions are described in Box 1 and illustrated in Box 2 with the example of the evolution of Colorado's state policy framework.

Box 1. Eight Areas for State Action – A State Sector Strategy Framework

1. Create a Sector Strategy Committee that includes representatives of industries critical to the state economy; leadership from key public systems such as workforce, higher education, economic development, and employment support services; and legislative members. Sector strategy committees are forums for information sharing and joint, sector-focused policymaking. **Colorado's** committee, part of its Governor's Workforce Investment Board, meets quarterly to help guide state sector strategies.

2. Align Policies across Systems. Just as it takes practical coordination among workforce, education, and economic development programs to create a successful sector partnership, it takes policy coordination at the state level to remove barriers and align strategies so that local stakeholders can work better together. **Minnesota's** Department of Employment and Economic Development created a map of various programs serving workers and employers across multiple agencies and a common vision to bring them into alignment.

3. Cultivate Business Champions to promote the sector strategy approach with other employers, industry associations, and legislators. By bringing together employers from diverse industries and regions, **Pennsylvania** built an informal but powerful, bipartisan coalition of private sector champions who rally for industry needs and investments in training to support sector partnerships.

4. Build Legislative Support to secure funding to support sector partnerships, as **Massachusetts** and **Pennsylvania** have done, and to put sector strategies into statute, as have **Pennsylvania** and **Washington**. Other states secure funding to support education and training for specific key industries, for example, **Oklahoma's** tuition tax credit for aerospace training.

5. Provide Good Data and Industry Expertise to local stakeholders so that they can make good decisions about industries, occupations, worker populations, and regional labor markets. Nearly every state that is implementing sector strategies produces industry reports, cluster analyses, and guidebooks. For example, **Arizona** used multiple industry databases to put together regional profiles of critical industries. **Minnesota** and **Oklahoma** additionally hired former industry leaders as experts in health care, manufacturing, and aerospace to work directly with local partnerships to help with data, trends, technical assistance, and recruitment of local employers into partnerships.

6. Find and Leverage Funding to Support On-the-Ground Implementation. Sector partnerships need dedicated staff to coordinate and facilitate. Creating such a staff takes time and resources. Most states have used governor's WIA discretionary funds to seed the development of local partnerships, but with shrinking WIA budgets, they have turned to other funding sources. In **New York** and **Virginia**, for example, foundations provided seed funding for regional sector strategies. **California** used the statewide interest in green jobs to secure U.S. Department of Energy funding via their state's energy commission to provide sector partnership start-up grants.

7. Provide Training and Capacity Building for Local Programs. **Arizona, Idaho, Maryland** and **Oklahoma** convened "Sector Strategy Academies," in which local teams representing the workforce, economic development, community colleges, community-based organizations, organized labor, and other stakeholders come together to learn about the sector partnership model, including effective industry analysis, employer engagement, partnership building, and design of industry-relevant training programs. **Colorado** and **Wyoming** offer such academies every year for the growing number of participants in local sector partnerships, providing opportunities for shared learning and for making connections among partnerships that might be focused on the same industry.

8. Develop a Shared Message, Track Outcomes, and Share Success Broadly. Messaging campaigns can help various constituents and stakeholders understand that sector strategies are a "new way of doing business," not just another "program." States can be especially important in helping local partnerships measure and track their impact on workers and employers. **Massachusetts** dedicates an evaluation staff to track outcomes, create evaluation toolkits, and create reports that share the outcomes of local partnerships.

Box 2. How Colorado Implemented the State Sector Strategy Framework

CO

The State's Evolving Role

- 2007: Colorado Department of Labor and Employment (CDLE) investigates best practices, including learning from other states by participating in a Policy Academy on Sector Strategies organized by the National Governors Association, Corporation for a Skilled Workforce, and National Network of Sector partners;.
- 2008: CDLE commissions industry analyses and reports in the fields of health care, energy, and manufacturing to document how local areas create sector partnerships in these critical industries.
- 2008: The Colorado Workforce Development Council creates a Sector Strategy Committee of industry leaders and agency heads from workforce, education, and economic development to guide policies and practical development of sector partnerships (the committee is still active).
- 2008: CWDC repurposes WIA discretionary funds to create start-up grants, including guidance to local areas to establish sector partnerships. New grants are competitively provided for the next three years.
- 2008–2011: Local workforce areas and their partners in education and economic development are convened for annual Sector Strategy Academies to learn from one another and from national sector practitioners.
- 2008: An online portal is launched to allow local partnerships to share with one another on an ongoing basis.
- 2011: A train-the-trainer curriculum and tools are created to expand the concept and practice of sector partnerships to new areas and organizations.
- 2012: CDLE and CWDC proactively integrate the concept of sector strategies into new state initiatives that affect local areas and into proposals for federal funding, so that the practice remains a core way of doing business.

WHAT DOES IT ADD UP TO ON THE GROUND?

Across Colorado, 13 Active Sector Partnerships have been seeded, including the Pueblo Manufacturing Consortium

The Convener: Pueblo Workforce Council.

The Partners: 3 workforce areas, Colorado State University, Pueblo Community College, Pueblo Economic Development, Colorado Association of Manufacturing and Technology, Small Business Development Center.

The Champion Employers: Evraz Rocky Mountain Steel, Holcim Cement, Krage Manufacturing, Kurt Manufacturing, Oliver Manufacturing, and Vestas.

Outcomes: Revised machining and welding curriculum and programs; incumbent worker training focused on electrical and mechanical maintenance and quality control; mobile learning lab trailers to expose youth to careers in manufacturing; and leveraged industry funding for a Manufacturing Center of Excellence focused on R&D, technology transfer, and career pathway development. Employer members are now requesting that the partnership expand to Colorado Springs.

SECTOR STRATEGIES IN THE NEXT DECADE

Integrating Career Pathway Programs, Sector Strategies, and Industry Clusters

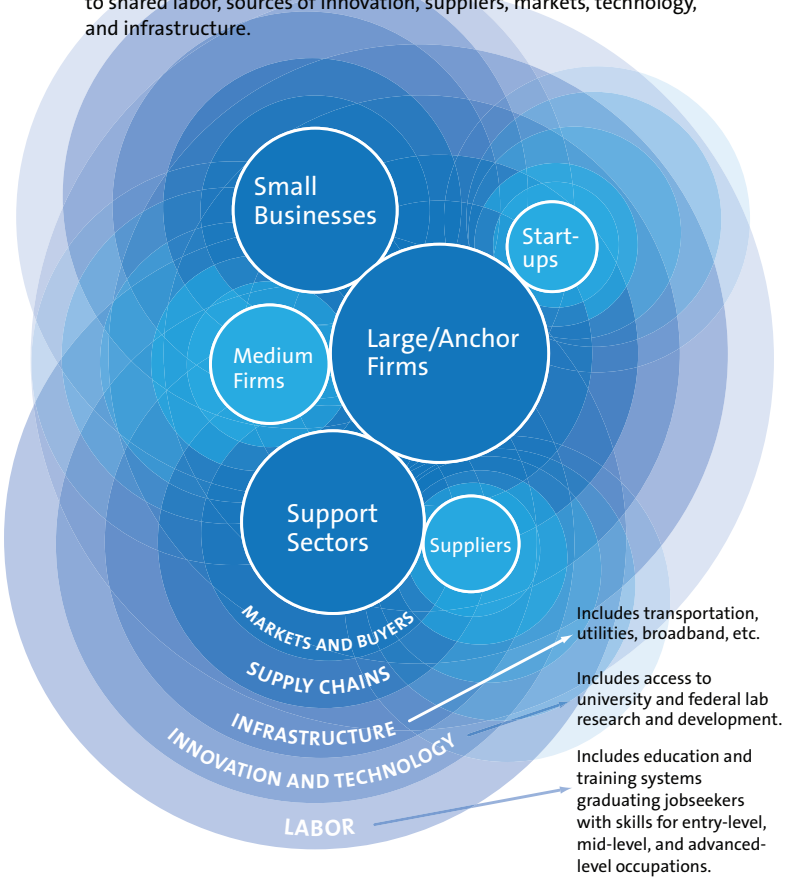
Where sector strategies are coming of age, they are increasingly being used to integrate existing supply-side strategies, such as career pathway programs, with local industry demand, specifically demand from high-growth industry clusters, which have been the focus of economic development initiatives for decades. Sector strategies intersect with both.

Policymakers interested in economic development can often find it challenging to determine which public sector interventions directly correlate to job creation and thus regional growth. Despite numerous industry surveys that show the importance of a skilled workforce to industry competitiveness, too often the goals of growing the economy and advancing workers into high-paying occupations are seen as separate ones.[26] It can be difficult to determine how best to use limited public resources.

States and local leaders can, however, learn from existing efforts in their states that demonstrate positive change in the factors that lead to growth. For firms in almost every industry, those factors are the availability of an appropriately skilled labor pool at all levels (from entry to advanced) and the presence of an industry cluster that provides access to shared resources, innovation, and markets.

Industry Cluster

An industry cluster consists of large and small firms in a single industry. Firms in industry clusters benefit from synergies of association related to shared labor, sources of innovation, suppliers, markets, technology, and infrastructure.



Businesses have naturally clustered for decades, indeed for centuries. We see, for example, the automotive industry concentrated in Detroit, film in Los Angeles, finance in New York, and high-tech companies in Silicon Valley. Industry clusters are networks of firms related by common markets, supply chains, infrastructure, innovation and technology, and labor pools.

Sector partnerships, by definition, engage employers within a single industry to address their common workforce needs. In the best cases, sector partnership coordinators do more. They understand that by simply bringing employers in the same industry together, they trigger informal and formal industry cluster activity, including firm-to-firm networking that results in growth of existing firms, attracting new ones, and job creation (for a detailed example, see Box 3).

26 L. Woolsey, The Policy Intersection between Sector Strategies and Low-Income Workers: The State Responsibility to Make the Connection, Seattle Foundation, Corporation for a Skilled Workforce, 2007, http://www.sectorstrategies.org/sites/all/files/Integrating%20Sector%20and%20Low-Income%20Policies.pdf.

Box 3. The Private Industry Council of Westmoreland-Fayette

In western **Pennsylvania**, the Private Industry Council of Westmoreland-Fayette convenes the Green Alliance Committee, a sector partnership focused on the energy efficiency sector. The partnership began with eight employers focused on the immediate training needs of solar, wind, and geothermal component parts manufacturing, as well as a growing commercial and residential retrofitting sector. Within a year, employer members brought other employers to the table, and the number of companies involved grew to more than 40. It is now an active sector partnership including elected officials, economic development entities from four counties, and local community colleges. Its primary focus is training for new and incumbent workers, but the alliance also directly supports the growth and expansion of the region's energy cluster.

Private sector members report that the committee's value is its networking power. It is a forum for sharing, joint policy creation, and practical problem solving related to common issues of competitiveness. Participating companies have entered into shared purchasing agreements that reduce costs for local materials, significantly increasing the market for local suppliers. Retrofitting companies have added new positions based on their ability to secure contracts for retrofitting schools and hospitals because of their newly trained workers. A small commercial HVAC company quadrupled its workforce as a result of expanded connections to residential retrofitting needs. A manufacturer of vermiculite, a material used to insulate batteries, discovered through the alliance that the material could be used in retrofitting insulation, as well as in green soil for potted plants and gardens. A steel fabricator discovered an expanded market in windmill towers, based on new connections with wind power parts suppliers. A small woodstove pellet manufacturer connected with oil and gas drilling companies via the alliance and proceeded to research uses of wood pellets as an absorber of waste products, thereby creating an entirely new product line in a significant market. That firm expanded from five employees to almost 30 and now purchases sawdust from sawmills in three counties. Another member makes Pyrex glass for solar panels. Via the alliance he added an entirely new production line to meet regional demand, creating 60 new jobs.

Of all the factors that motivate and grow industry clusters, however, none is more universally important than human resources.[27] And for that reason, several education and training programs and many states are increasingly meeting the demands of specific industries—whether for entry-level, mid-level, or advanced skills—by building career pathway programs.

Career pathways offer a clear sequence of coursework and credentials aligned with the natural paths of advancement in an industry, and often across similar occupations in related industries, for students, job seekers, and incumbent workers returning to school. When done right, career pathway programs engage regularly with employers in their target industry so as to constantly and accurately assess the skills and knowledge they need and re-calibrate curricula, programs, and credentials. They also coordinate among multiple education and training providers to build a complex of courses and credentials that impart and demonstrate qualifications from work readiness to advanced-level skills.

No single education institution can do this alone. In reality, effective career pathways are therefore not programs; they are systems. They rely on the same key principles as effective sector partnerships: convening a core group of employers in the target industry to drive curriculum and credential development along career pathways and across occupations in their industry.

27 Stuart Rosenfeld, Governors Guide: Cluster-Based Strategies for Growing State Economies. Innovation Series. (Washington, DC: National Governors Association Center for Best Practices and Council on Competitiveness, 2006), http://www.nga.org/files/live/sites/NGA/files/pdf/0702INNOVATIONCLUSTERS.PDF.

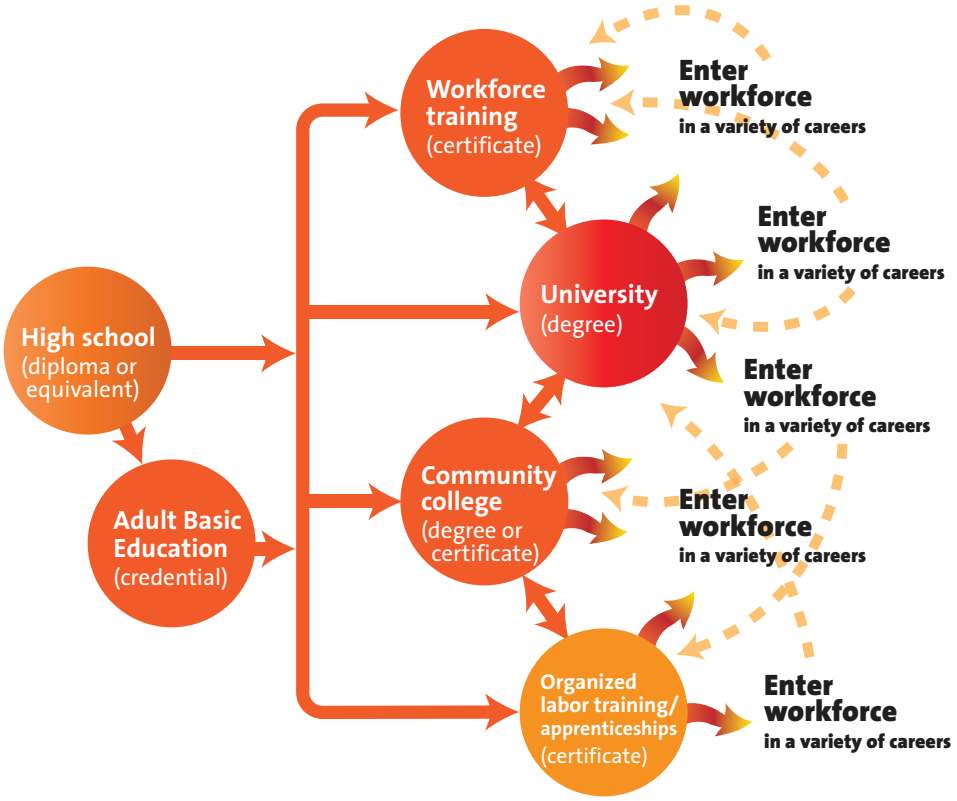
They tightly coordinate divergent training, education, and support programs, so that individuals access the right program at the right time to advance into a job.

Often a sector partnership focuses on a subsector (such as precision manufacturing or allied health care) of a larger cluster (manufacturing or health care broadly). They do so simply because a subsector may be of a more manageable size, with a more feasible scope of occupations for which to address workforce needs.

In the **Virginia** Peninsula, a regional Career Pathways initiative is meeting manufacturers' workforce needs by engaging 14 major employers in a consortium, along with the local workforce investment board, the community college and six school districts, among other partners. Through a foundation grant awarded to the Virginia Foundation for Community College Education, the Virginia Peninsula consortium conducts research and development and implements career pathways in manufacturing that are specifically tailored to the more than 11,000 jobs in advanced manufacturing and green technologies that are projected to be available on the peninsula in the next five years.

Career Pathways

Effective career pathways rely on coordination across education and training programs in order to offer a clear sequence of industry-relevant coursework and credentials to job seekers. Today's education and training programs include online and in-person opportunities.



After being in the workforce, a person may choose to go back for more credentials to make an upward or lateral career move.

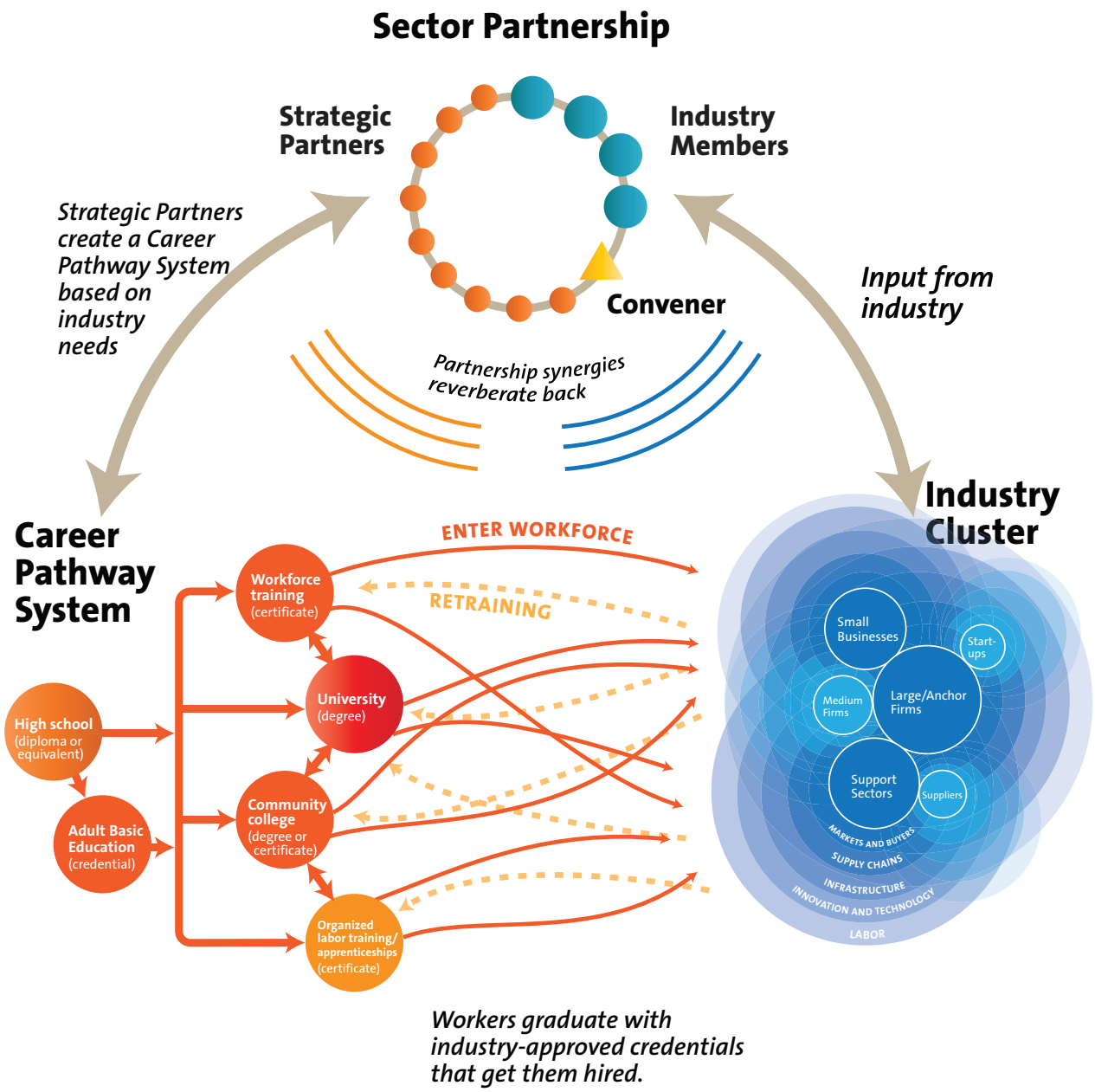
The consortium conducted a comprehensive, 18-month review of the skill sets needed by its manufacturing partners, published the results, and is now working to align those skill sets with available training and education, from high school through university level, and including apprenticeships and workforce training. A website was developed that matches local education and training options with the skill sets, so that users can quickly see where and how they can gain the skills needed to obtain these emerging jobs.

Mature sector partnerships additionally address the transferability of skills across industry subsectors, thus expanding the potential types of training interventions and their usefulness to employers in related sectors or across the broader industry cluster. Where sector strategies are coming of age they are becoming effective structures for aligning employers in a growing industry cluster or subsector and helping them

develop an advanced career pathway. The approach brings together the interests of employers and educators by communicating employer needs to public systems. It provides a coordinator to organize programs into systems that meet those needs. Advanced sector strategies create career pathway systems to meet an industry's workforce needs, and for workers they establish clear paths to good jobs and careers.

Sector Partnerships: The Keystone to Connecting Career Pathways to Industry Cluster Growth

Sector Partnerships align education and training programs with industry needs to produce readily employable workers.



CONCLUSION

Based on more than a decade of knowledge gained, lessons learned, and evidence that sector strategies work, it is clear that they will continue to grow and evolve, especially in states and localities that have already adopted the approach. States are finding sector strategies key to addressing skills gaps, engaging directly with industry and streamlining state programs and resources. No other strategy appears to compare in terms of:

- Using public resources efficiently, effectively, and collectively;
- Showing tangible results, such as improved business productivity and increased earnings for workers; or
- Acknowledging regional differences and strengths and actively encouraging local flexibility and action by local programs.

Governors and regional leaders therefore have good reasons to make sector strategies part of a comprehensive economic competitiveness agenda. Drawing upon the solid efforts of others, states can start immediately with the following steps:

1. Creating a sector strategy committee that includes public and private sector leadership;
2. Aligning state policies across systems, including workforce development, education, and economic development;
3. Cultivating business champions to promote sector strategies across critical industries;
4. Building legislative support to make sector strategies the "way to do business";
5. Providing good data and industry knowledge to local program leaders;
6. Finding and leveraging funding to support the implementation of sector partnerships, including exploring ways to:
    - Secure funding from state legislatures to broadly support sector strategies;
    - Build policy partnerships among key state agencies that have a stake in the success of specific industries;
    - Embed language and requirements that support sector strategies into all relevant formula programs, grants, and new initiatives;
    - Use sector strategies as a connecting framework across systems and programs when applying for federal or private grants;
    - Explore new uses of revenue sources that could directly support sector strategies; and
    - Approach industry directly to support statewide and local sector strategies;
7. Providing training and capacity building for local programs to design, convene, and implement sector partnerships; and
8. Developing a shared message and tracking outcomes.

Beyond simply replicating the model, however, the real opportunity may lie in how states and local policymakers use sector strategies to integrate with other potentially powerful supply-side and demand-side strategies, specifically career pathway programs and regional industry clusters. It is here that sector strategies can present a tangible strategy for finally integrating the talent agenda with goals of regional economic competitiveness.

Box 4. A Short History of Sector Strategies

The examples of local and state sector strategies provided in this paper represent growing adoption of the sector strategy model as a way to connect education, workforce development, and economic development. But they are part of a longer history. Since the 1980s community-based organizations have used grassroots efforts to connect workers to jobs in local industries, starting what was to become the model for sector partnerships.

Massachusetts began its sector work in 1981 by creating the Bay State Skills Corporation, funding local initiatives across the state in almost every critical industry and requiring 50 percent matching contributions from employers. By the early 2000s other states, such as **Illinois, Michigan, Pennsylvania** and **Washington** were following Massachusetts' lead. By the end in 2010 of a four-year state sector strategy project, conducted by the National Governors Association, Corporation for a Skilled Workforce, and the National Network of Sector Partners, more than 25 states were at various stages of implementing sector strategies and funding local initiatives. Their strategies, including key lessons learned, are catalogued at **www.sectorstrategies.org,** the most comprehensive clearinghouse for state-level sector strategy information available today.

During the past 10 years, the Department of Labor has funded a succession of initiatives that reflect sector strategy principles, including the Sectoral Demonstration Project, the High Growth Training Initiative, the Community Based Job Training Initiative, WIRED, and most recently American Recovery and Reinvestment Act grants, such as State Energy Sector Partnerships, Energy Training Partnerships, Pathways out of Poverty, and other High Growth and Emerging Industry grants.

Over the same decade, local and national foundations were supporting uptake of the model, best represented by 22 regional workforce funder collaboratives, more than 80 associated workforce partnerships, and 200 funders that are part of the National Fund for Workforce Solutions initiative. Along the way, the National Network of Sector Partners has provided a way for partnerships across the country to connect and learn from each other by serving as their national association.

Several organizations, including the Aspen Institute, Public/Private Ventures, and the Ray Marshall Center for the Study of Human Resources, have evaluated the model's impact on workers and employers.

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