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# MEETING THE NEEDS OF JOB SEEKERS AND EMPLOYERS

## A Synthesis of Findings on Sector Strategies

Over the past decade, the workforce development field has increasingly adopted sector strategies as a way to meet the needs of both job seekers and employers. Sector strategies train job seekers for high-quality employment in specific industries and occupational clusters that demonstrate strong local demand and the opportunity for career advancement. Programs using this strategy go beyond more traditional programs that offer training in a specific sector. Sector programs also have strong employer relationships, seek to improve the economic mobility of low-income individuals, and provide supports to help participants complete the program.

A few community-based organizations pioneered the sectoral approach in the late 1980s.<sup>1</sup> Interest in the approach grew following the 2010 release of findings from the Sectoral Employment Impact Study (SEIS), which reported earnings gains over a two-year follow-up period for three mature sector programs.<sup>2</sup> Since the release of those findings, sector programs have proliferated across the country and sector strategies were a key component of the Workforce Innovation and Opportunity Act passed in 2014. Workforce development initiatives that use sector strategies to produce more skilled and employable workers have benefited from continued federal interest and investment.<sup>3</sup> The evidence base has also grown substantially in the past few years, as several rigorous studies of sector programs, including the ones discussed in this brief, have released findings on the effectiveness of the approach. Although many of these evaluations have found promising evidence, the effects have not been large or consistent across all programs.

This brief summarizes what is currently known about the sectoral approach and its effects on education and labor market outcomes, drawing on findings from seven rigorous evaluations of programs with a sector focus.<sup>4</sup> It also highlights gaps in the evidence base and suggests potential areas for future research.

### EVALUATIONS INCLUDED IN THIS SYNTHESIS

Table 1 shows the seven evaluations included in this synthesis.<sup>5</sup> While all of the evaluations include programs with a sector focus, there are differences in the designs of the studies:

- Pathways for Advancing Careers and Education (PACE), Project QUEST, SEIS, and Year Up evaluated one or more existing programs.
- WorkAdvance studied a model implemented by four providers.

**TABLE 1**  
**SECTOR PROGRAM EVALUATIONS DISCUSSED IN THIS BRIEF**

<b>EVALUATION</b>	<b>EVALUATION SITES</b>	<b>TARGET SECTORS INCLUDED IN THE EVALUATION</b>
Accelerated Training for Illinois Manufacturing (ATIM)	Pooled	Manufacturing
Health Profession Opportunity Grants (HPOG) 1.0 Impact Study	Pooled	Health care
Pathways for Advancing Careers and Education (PACE)	Bridge to Employment in the Healthcare Industry	Health care
	Carreras en Salud	Health care
	Health Careers for All	Health care
	Integrated Basic Education and Skills Training Program	Health care, manufacturing, office services, and automotive
	Pathways to Healthcare	Health care
	Patient Care Pathway Program	Health care
	Valley Initiative for Development and Advancement	Health care, IT, education and social services, business, manufacturing, and specialized trades
	Workforce Training Academy Connect	Health care, administrative support, building maintenance, and manufacturing
	Year Up	IT and financial operations
Project QUEST	Project QUEST	Health care
Sectoral Employment Impact Study (SEIS)	Wisconsin Regional Training Partnership	Health care, construction, and manufacturing
	Jewish Vocational Service – Boston	Health care and accounting
	Per Scholas	IT
WorkAdvance	Per Scholas	IT
	St. Nicks Alliance	Environmental remediation
	Madison Strategies Group	Transportation and manufacturing
	Towards Employment	Health care and manufacturing
Year Up	Year Up	IT and financial operations

SOURCES: Betesh et al. (2017), Gardiner and Juras (2019); Glosser, Martinson, Cho, and Gardiner (2018); Hamadyk and Zeidenberg (2018); Hendra et al. (2016); Maguire et al. (2010); Peck et al. (2019); Roder and Elliott (2014, 2019); Rolston, Copson, and Gardiner (2017).

- Accelerated Training for Illinois Manufacturing (ATIM) studied a model implemented in five regions across one state.
- The Health Profession Opportunity Grants (HPOG) Impact Study examined a set of diverse programs united by a common funding stream.

This variation likely contributed to some of the differences in the implementation and impact findings discussed below.

All seven evaluations used a randomized controlled trial design, meaning program applicants were assigned at random to either a group that was eligible to receive program services (the program group) or to a group that was not eligible but could seek out other services in the community (the control group). Individuals in both research groups were tracked over time and their outcomes were compared to estimate the impacts of the programs. These impacts — reflected by the differences between the program and control group outcomes — can be attributed to the program, since the two groups are statistically alike at study entry and the only difference between them is that one group received program services and the other did not.

## WHAT IS KNOWN ABOUT SECTOR PROGRAMS?

While the idea behind the sector approach — that providers will equip individuals with the specialized skills employers need — seems obvious, it is not obvious that sector programs will succeed in producing the right kind of labor supply for those jobs or that such programs will be an effective route to economic mobility for low-income individuals. This section draws on findings from the implementation and impact analyses of the evaluations covered in this brief to highlight what is currently known about sector programs and their effectiveness.

### Whom Do Sector Programs Serve?

***Sector programs meet the needs of job seekers and employers.***

Most sector programs target low-income adults who are seeking to enter or advance in the labor market. Many of the individuals who enroll in these programs do not have a college degree and are looking to obtain a postsecondary credential or certification to enhance their employment prospects. Some sector programs target more specific groups within this population, including young adults ages 18 to 24 (Year Up) and Temporary Assistance for Needy Families (TANF) recipients (HPOG).<sup>6</sup>

In addition to serving job seekers, sector programs are designed to meet the needs of employers. Programs work with local employers to identify skills gaps and in-demand occupations that offer high wages and benefits, as well as advancement opportunities. Programs then train participants to fill those jobs. For example, Madison Strategies Group, a site in the WorkAdvance evaluation, added

content to its computerized numerical control machining course after learning that local employers were looking for specific skills in potential employees.<sup>7</sup>

***Program screening determines which job seekers are served.***

While this “dual customer” approach is part of what defines a sector program, it can also limit who can participate in the program. One key — and sometimes criticized — component of some sector programs is the extensive screening of applicants that is done before enrollment. This screening is used to assess applicant motivation and readiness for training and employment, and is often designed to mimic the hiring process. Some programs and evaluations in this review had more extensive screening processes than others. Examples of such criteria include education requirements (Project QUEST applicants had to have a high school diploma or GED), reading and math assessments (the ATIM evaluation prioritized enrollment for individuals who scored at the tenth-grade level or above on a reading test and at the ninth-grade level or above on a math test), and background checks (Towards Employment, one of the WorkAdvance sites, used a drug screen for applicants to its manufacturing program). While these screening criteria are often seen as necessary, they may screen out applicants who could benefit from these programs.

## **Which Sectors and Occupations Do Programs Target?**

***Programs target more than just one sector.***

Sector programs target a variety of sectors, industries, and occupations, depending on the needs of employers in the local areas. Among the programs included in this synthesis, the most commonly targeted sectors were health care, manufacturing, and IT (as shown in Table 1).<sup>8</sup> However, some programs targeted less common sectors. For example, St. Nicks Alliance, a site in the WorkAdvance evaluation, targeted the environmental remediation sector and related occupations.

***Within the targeted sectors, programs identify high-quality, attainable sector jobs.***

Helping individuals obtain any job in a sector is not enough. Many sectors include lower-wage jobs that have fewer barriers to entry and are accessible to job seekers without the assistance of a sector program. Programs must instead identify specific subsectors and occupations within the broader sectors they target that offer quality jobs with high wages and benefits, and are attainable by participants with the training and credentials that the program provides. For example, Project QUEST enrolled individuals pursuing a range of health care jobs, and as of the six-year follow-up survey, almost one-third of individuals assigned to the control group ended up working a health care job without the assistance of the program. However, program group members were more likely than control group members to have obtained any health care job and, more important, to have obtained higher-paying health care jobs, such as nurses and health technicians.<sup>9</sup> On the other hand, most HPOG participants (84 percent) received short-term training and many of the jobs attainable with the skills obtained in those trainings offered low wages (for example, nursing assistants).<sup>10</sup> This difference in the types of health care jobs targeted may have contributed to the difference in earnings impacts between these two evaluations (discussed in the next section).

***Programs must also keep up with shifts in demand.***

It is also important for sector programs to stay ahead of, or at least on top of, shifts in demand. Several evaluations identified the ability of organizations to quickly adapt to changes in the local economy as a key factor in their success. For example, the Wisconsin Regional Training Partnership, a site in the SEIS, was able to scale back its construction training program and shift to a new hazardous waste removal training program in response to a downturn in Milwaukee's construction industry.<sup>11</sup>

## **What Services Do Programs Offer?**

***Programs offer a common set of services.***

The specific services offered by the programs in this review varied both within and across evaluations. The evaluations of ATIM and WorkAdvance both analyzed the effectiveness of a specific model implemented by several organizations or across several regions in a state. The other evaluations analyzed distinct programs that were already in existence. Most of the programs offered a similar set of services: job-readiness training (including soft or professional skills development), occupational skills training, and support services. Many programs also offered assistance with job searches or job placement, and some continued to offer services to participants after they found a job. How these services were offered, and their length and intensity, differed across programs.

***All services are linked to the targeted sector.***

More traditional training programs (those without an explicit sector focus) typically offer similar services, but one key difference between the two types of programs is that all sector program services are supposed to be tailored to the specific occupations being targeted. For example, participants at Towards Employment, a site in the WorkAdvance evaluation, could attend discussions of industry career paths with outside experts and employers.<sup>12</sup> Similarly, most of the programs involved in HPOG offered soft skills training that emphasized how to interact in health care settings, and about half of the programs offered a workshop introducing participants to health care careers.<sup>13</sup>

***All programs offer targeted occupational skills training.***

Perhaps the most valuable component of sector programs is the occupational skills training that prepares participants for target sector occupations. In most cases, this training leads to the attainment of an industry- or locally recognized credential or certification. Such training varied in terms of length, provider, and other characteristics. Almost all of the programs covered all or part of the cost of the training and those that did not helped participants apply for financial aid instead.

Many programs connected participants with already existing classes offered through community colleges or private training providers.<sup>14</sup> In a few cases, programs worked with the college or training provider to tailor the curriculum to match the needs of local employers. Other programs had more control of the curriculum used because they provided training to cohorts of participants in-house (for example, Year Up and Per Scholas, a site in the SEIS and WorkAdvance evaluation). The WorkAdvance evaluation found that training provided in-house may have had other benefits as well, such as program staff being able to have more ongoing direct contact with participants.<sup>15</sup>

***Some programs focus on career pathways and offer higher-level certification and credentials.***

Some sector programs operate within a career pathways framework and encourage participants to attend additional training to obtain higher-level certifications and credentials.<sup>16</sup> Most of the programs included in this review offered only one or two steps within a career pathway. For example, the Bridge to Employment in the Healthcare Industry program (which was part of the PACE evaluation) focused on helping participants obtain short-term credentials, and while participants could return to obtain additional credentials later, many sought employment instead.<sup>17</sup> Findings from the HPOG study showed a similar story, at least within the first three years following study enrollment. In that time, less than 10 percent of HPOG participants attended a second training program after completing initial training and finding a job.<sup>18</sup> It is not currently known whether more participants in both evaluations returned to training beyond the available follow-up period.

***Support services help with program engagement.***

Many of the evaluations in this synthesis noted the importance of support services in helping participants complete training. The types of support services offered depended on the population served by the programs. Year Up, for example, worked with young adults and provided them with personal and professional guidance and support via program staff, social workers, workplace supervisors, and mentors.<sup>19</sup> In other cases, the supports offered were mainly to help remove immediate barriers to participation in the programs. The most common support service in the ATIM evaluation, for example, was reimbursement for travel expenses incurred attending training and internships.<sup>20</sup>

## **What Are the Effects on Participation?**

***Effects include increases in training completion and attainment of credentials or certifications.***

Almost all of the sector programs in the seven evaluations led to increases in training completion or credential and certification attainment beyond the levels achieved by the control groups. (Table 2 shows impacts on credential and certification attainment by evaluation and site.) The size of the impacts, however, as well as the rate of training completion and credential attainment among program group members, varied across the programs. For example, 76 percent of program group members in the evaluation of ATIM obtained a certification, an increase of 55 percentage points over the control group average.<sup>21</sup> This finding implies that at least some individuals were unable to obtain a certification or credential without the supports provided by the program. On the other hand, some evaluations had higher rates of control group members obtaining credentials and a smaller or no impact on this outcome. It is possible in those cases that control group members were able to access the same or similar training opportunities as program group members (as suggested by findings from the HPOG and PACE evaluations).<sup>22</sup>

## **What Are the Effects on Employment and Earnings?**

***Effects include consistent increases in employment in the targeted sector.***

One important indicator of successful sector programs is their ability to place participants in target sector jobs. All of the evaluations in this review with available data saw statistically significant

**TABLE 2**

**IMPACTS ON CREDENTIAL AND CERTIFICATION ATTAINMENT,  
BY EVALUATION AND SITE**

<b>EVALUATION</b>	<b>EVALUATION SITES</b>	<b>PROGRAM GROUP</b>	<b>CONTROL GROUP</b>	<b>IMPACT (DIFFERENCE)</b>
ATIM <sup>a</sup>	Pooled	76.1	21.0	55.1 ***
HPOG <sup>b</sup>	Pooled	58.1	45.4	12.7 ***
PACE <sup>c</sup>	Bridge to Employment in the Healthcare Industry	63.6	34.2	29.4 ***
	Carreras en Salud	36.5	18.2	18.2 ***
	Health Careers for All	48.7	45.0	3.7
	Integrated Basic Education and Skills Training Program	44.2	12.0	32.1 ***
	Pathways to Healthcare	34.6	29.4	5.2 **
	Patient Care Pathway Program	50.5	48.6	2.0
	Valley Initiative for Development and Advancement	62.2	55.5	6.7 **
	Workforce Training Academy Connect	18.7	14.4	4.3 *
	Year Up	37.2	16.3	20.9 ***
Project QUEST <sup>d</sup>	Project QUEST	68.1	41.7	26.4 ***
SEIS <sup>e</sup>	Wisconsin Regional Training Partnership	NA	NA	NA
	Jewish Vocational Service – Boston	NA	NA	NA
	Per Scholas	55	10	45 ***
WorkAdvance <sup>f</sup>	Per Scholas	54.1	7.9	46.1 ***
	St. Nicks Alliance	48.3	17.6	30.7 ***
	Madison Strategies Group	32.1	6.9	25.2 ***
	Towards Employment	36.5	9.6	26.9 ***
Year Up <sup>g</sup>	Year Up	NA	NA	NA

(continued)

**TABLE 2 (continued)**

SOURCES: Betesh et al. (2017); Gardiner and Juras (2019); Hendra et al. (2016); Maguire et al. (2010); Peck et al. (2019); Roder and Elliott (2018).

NOTES: ATIM = Accelerated Training for Illinois Manufacturing. HPOG = Health Profession Opportunity Grants. PACE = Pathways for Advancing Careers and Education. SEIS = Sectoral Employment Impact Study. Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

<sup>a</sup>Outcome captures attainment of a certificate.

<sup>b</sup>Outcome captures attainment of a professional certificate, license, or credential as measured by the three-year survey.

<sup>c</sup>Outcome captures credential receipt as measured by the 18-month follow-up survey.

<sup>d</sup>Outcome captures attainment of any health care certification as measured by the six-year follow-up survey.

<sup>e</sup>Outcome for Per Scholas captures attainment of the A+ certification. Certification outcomes are not available for Jewish Vocational Service–Boston. For Wisconsin Regional Training Partnership, an outcome capturing attainment of any certification is not available.

<sup>f</sup>Outcome captures attainment of a credential in the targeted sector as measured by the two-year follow-up survey.

<sup>g</sup>Certification outcomes are not available for Year Up.

increases in target sector employment in at least some time periods.<sup>23</sup> (Statistically significant findings are unlikely to have occurred by chance alone.) For example, around half of Year Up participants obtained a job in financial operations or IT, compared with 17 percent of control group members.<sup>24</sup>

***The effects on overall employment are inconsistent.***

Not all of the programs that increased target sector employment, including Year Up, increased overall employment. At the end of the four-year study period, Year Up control group members were almost equally as likely as program group members to be employed (80 percent versus 82 percent).<sup>25</sup> Similar findings were seen in WorkAdvance (around two years after study enrollment) and HPOG (around three years after study enrollment).<sup>26</sup> This pattern suggests that many individuals who are eligible for sector programs are able to find employment on their own (regardless of the sector), and the real benefit of sector programs is connecting participants to quality sector jobs that offer high wages and benefits that they would not be able to obtain on their own.

***Earnings effects are mixed.***

In order to produce earnings impacts, these target sector jobs also have to provide higher wages than the jobs individuals could obtain on their own. Table 3 presents earnings impacts in the latest follow-up period for each evaluation and program. The length of follow-up periods ranges from two years to nine years. Overall, the findings show that sector programs can increase earnings; most of the evaluations included in this synthesis found evidence of earnings increases in the latest follow-up period for at least some programs.



Five evaluations have between two and four years of follow-up. In some cases, those evaluations produced large earnings increases. For example, ATIM increased earnings by \$5,476 (or 28 percent) in the second year after study enrollment.<sup>27</sup> Similarly, all three sites in the SEIS increased earnings by at least \$3,700 in the same follow-up period.<sup>28</sup> The HPOG evaluation, however, found no detectable impact on earnings in the twelfth and thirteenth quarters after study enrollment.<sup>29</sup> It is possible that the effects in these evaluations could start or continue to increase over time if participants are able to advance in their careers (beyond the level of advancement that control group members



**TABLE 3**

**EARNINGS IMPACTS IN LATEST FOLLOW-UP PERIOD, BY EVALUATION AND SITE**

EVALUATION AND SITE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9
<b>ATIM</b>		\$5,476							
<b>HPOG<sup>a</sup></b>			\$42						
<b>PACE<sup>a</sup></b>									
Pathways to Healthcare			\$17						
Year Up			\$7,011						
<b>Project Quest</b>									\$5,239
<b>SEIS</b>									
WRTP		\$3,735							
JVS-Boston		\$4,237							
Per Scholas		\$4,663							
<b>WorkAdvance<sup>b</sup></b>									
Per Scholas							\$6,281		
St. Nicks Alliance							\$2,849		
Madison Strategies Group							\$787		
Towards Employment							\$1,404		
<b>Year Up</b>				\$1,934					

 Impact is statistically significant at at least the 0.1 level.  Impact is not statistically significant at the 0.1 level.

(continued)

**TABLE 3 (continued)**

SOURCES: Betesh et al. (2017); Fein and Hamadyk (2018); Litwok and Gardiner (2020); Maguire et al. (2010); Peck et al. (2019); Roder and Elliott (2014, 2019); Schaberg and Greenberg (2020).

NOTES: ATIM = Accelerated Training for Illinois Manufacturing. HPOG = Health Profession Opportunity Grants. PACE = Pathways for Advancing Careers and Education. SEIS = Sectoral Employment Impact Study. WRTP = Wisconsin Regional Training Partnership. JVS = Jewish Vocational Service. Earnings impacts are not available for all of the sites in the PACE evaluation.

<sup>a</sup>The impacts for the HPOG and PACE Pathways to Healthcare evaluations cover Quarters 12 and 13 only.

<sup>b</sup>The WorkAdvance evaluation impacts cover a one-year period occurring between six and eight years after study enrollment, depending on when individuals entered the study.

achieve). However, it is also possible that the earnings effects will fade. This was the case for two of the sites in the WorkAdvance evaluation; both Madison Strategies Group and Towards Employment produced earnings impacts in Year 2 but those impacts faded by Year 3 (not shown in Table 3).<sup>30</sup>

There is some evidence available on the longer-term effects of sector programs — from the WorkAdvance and Project QUEST evaluations — that suggests the approach can lead to continued earnings increases over time. Project QUEST increased earnings by a statistically significant amount in Years 4, 5, 6, and 9. In Year 9, program group members earned \$5,239 (or 18 percent) more on average than control group members.<sup>31</sup> The impacts from the latest follow-up period in the WorkAdvance evaluation — covering a one-year period occurring between six and eight years after random assignment — showed a large earnings increase for one site (Per Scholas) and impacts on high earnings for three of four sites (not shown in Table 3).<sup>32</sup>

## **WHAT STILL NEEDS TO BE LEARNED?**

While there is a sizable body of evidence on the characteristics and effectiveness of sector programs, much still needs to be learned. This section highlights a few open questions that additional research could answer.

### ***Why do some sector programs achieve better outcomes and lead to larger economic impacts than others?***

As shown in Table 3, some programs produced larger earnings impacts than others. Understanding what is driving this variation — for example, certain program characteristics or the target population — is important for both policymakers and practitioners to consider as they develop current and future sector programs. An analysis done as part of the HPOG evaluation found that certain program characteristics were associated with the size of short-term impacts. For instance, having access to employment supports and social services was associated with larger impacts on target sector employment.<sup>33</sup> Implementation analyses done in other evaluations, including the SEIS, identified key organizational features of strong sector programs. These included having a stringent screening and intake process, developing strong employer connections, and providing individually tailored services.<sup>34</sup> Future research could further explore which participant and program characteristics are associated with better participant outcomes.

***How can sector programs be strengthened to produce larger and more consistent earnings impacts?***

Sector strategies are widely accepted as a way to increase participants' earnings. Yet even the programs that have the most promising evidence to date still have room for improvement. For example, Per Scholas — a site in both the SEIS and WorkAdvance — produced large earnings impacts in two evaluations. But the WorkAdvance evaluation found that only 79 percent of program group members completed Per Scholas's IT training and only 61 percent obtained an IT job.<sup>35</sup> Similarly, Project QUEST produced a large earnings impact in Year 9, yet only 66 percent of program group members completed health care training and 40 percent obtained a health care credential.<sup>36</sup> Figuring out why some participants fail to meet key program milestones will help programs better refine the services they offer. Additionally, identifying participants who are more or less likely to encounter challenges completing programs or obtaining jobs can provide insights into who is best served by sector programs, and who may need additional supports to be successful.

***What services should be provided to individuals who do not meet the screening criteria used by sector programs?***

As discussed, many sector programs use an extensive screening process to identify suitable participants. But as a result, many individuals who could potentially benefit from the services are screened out. Several of the programs in the PACE evaluation offered a bridge type program to individuals who did not meet the initial skill requirements. The idea behind these bridge programs was to have participants learn some basic skills before moving on to higher-level training.<sup>37</sup> Future research could look at whether bridge programs are effective at preparing individuals for participation in sector programs, and whether individuals who attend both the bridge and the sector programs achieve success in the labor market. Additionally, it is important to understand whether the same or a different provider should offer the basic skills instruction.

***What are the long-term impacts of sector programs?***

Most of the current evidence about sector strategies is in the short or medium term. As shown in Table 3 and discussed above, not much evidence is available yet on the long-term economic impacts (beyond Year 4) of this approach. It is unclear whether the short- to medium-term impacts seen in some of the evaluations discussed here will continue to grow or fade over time.<sup>38</sup> Understanding the long-term effects of these programs will shed light on whether they are an effective route to continued economic mobility for low-income people.

***Are individuals advancing into higher-paying jobs — either in or outside of the target sector — over time? How can programs help participants continue along a career path?***

Findings from some evaluations showed that not all participants continued to work in the target sector over time, even after obtaining an initial job in the target sector. The Project QUEST evaluation found the rate of program group members working in health care jobs increased from Years 1 to 5, and then decreased slightly through Year 9.<sup>39</sup> Similarly, the Year Up evaluation found that only 53 percent of graduates who ever worked in financial operations or IT were still working in the field at the end of the four-year study period.<sup>40</sup> Yet at the same time, both programs increased earnings at the end of the

follow-up period. Learning why some individuals continue to work in the target sector and why others lose those jobs or transition to jobs in other sectors will provide insights into how programs should work with participants after job placement. This information can also highlight whether the skills that participants obtain in these programs are transferrable to other sectors, and whether the impacts seen in some programs are associated with continued target sector employment or not.

## CONCLUSION

Sector strategies have been implemented widely and evaluations of several programs using this approach have found some promising evidence of their effectiveness. Sector strategies have been shown to be effective at helping participants complete occupational skills training, obtain credentials, and find initial target sector jobs. The available evidence on longer-term labor market impacts is more mixed, but the findings from several evaluations indicate sector strategies can lead to sustained earnings gains. Going forward, it would be valuable to conduct research in this area that focuses on how sector strategies can be more effectively and consistently implemented across a range of providers.

## NOTES

- 1 Mangat (2007).
- 2 Maguire et al. (2010).
- 3 For example, in 2016 the U.S. Department of Labor awarded over \$111 million in grants to various regional workforce partnerships to support industry-specific training programs.
- 4 Some of the evaluations identified the participating programs as career pathways programs, rather than sector programs. However, all of the programs targeted specific sectors and occupations and served low-income populations with the goal of economic mobility.
- 5 Several of the evaluations include multiple sites or programs. In some cases, impacts are pooled across all sites, and in other cases, impacts are presented separately for each site. Two programs were included in two different evaluations. Per Scholas was a site in both the SEIS and the WorkAdvance evaluation. Year Up was evaluated both individually and as a site in the PACE evaluation.
- 6 The HPOG study enrolled other low-income populations, in addition to TANF recipients.
- 7 Hendra et al. (2016).
- 8 A synthesis of career pathways programs — which share many of the same features as sector programs — also found health care was the most common sector targeted by programs, followed by manufacturing, IT, construction, and shipping/logistics/transportation. Sarna and Strawn (2018).
- 9 Roder and Elliott (2019).
- 10 Peck et al. (2019).
- 11 Maguire et al. (2010).
- 12 Hendra et al. (2016).
- 13 Peck et al. (2018).

- 14** A few sites in the PACE and HPOG evaluations were community colleges, and most of these sites slotted participants into already offered college courses.
- 15** Hendra et al. (2016).
- 16** Career pathways programs offer a series of interconnected steps that are designed to enable individuals to obtain certifications and employment within a targeted sector or occupation, and to advance into higher-level education and employment opportunities in that area. Participants are also offered a variety of support services to help them overcome barriers to achieving their employment and education goals.
- 17** Gardiner and Juras (2019).
- 18** Peck et al. (2019).
- 19** Roder and Elliot (2014).
- 20** Betesh et al. (2015).
- 21** Betesh et al. (2017).
- 22** Gardiner and Juras (2019) and Peck et al. (2019).
- 23** Data on target sector employment are not currently available for the PACE evaluation and the SEIS. Additionally, the ATIM evaluation only reported target sector employment among program group members. Around 44 percent of ATIM program group members obtained a job related to their manufacturing training. Betesh et al. (2017).
- 24** Roder and Elliot (2014).
- 25** Roder and Elliot (2014).
- 26** Hendra et al. (2016) and Peck et al. (2019).
- 27** Betesh et al. (2017).
- 28** Maguire et al. (2010).
- 29** Peck et al. (2019).
- 30** Schaberg and Greenberg (2020).
- 31** Roder and Elliott (2019).
- 32** Schaberg and Greenberg (2020).
- 33** Walton, Harvill, and Peck (2019).
- 34** Maguire et al. (2010).
- 35** Hendra et al. (2016).
- 36** Roder and Elliott (2019).
- 37** Gardiner and Juras (2019).
- 38** At least two of the evaluations, HPOG and PACE, are planning to release longer-term economic impact findings in the future.
- 39** Roder and Elliott (2019).
- 40** Roder and Elliot (2014).

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