



Literature Review on Wage Subsidies and Work Based Learning

February 2023

Non-Discrimination Statement

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

Literature Review on Wage Subsidies and Work Based Learning

February 2023

Contract Order #: 140D00421F0659

Submitted to Project Officer: Amanda Wyant

U.S. Department of Agriculture, Food and Nutrition Service

Authors:

MEF Associates

Riley Webster

Sophie Hearn

Sam Elkin

Mathematica

Sonoi Omwenga

Suggested citation: Webster, R., Hearn, S., Elkin, S., & Omwenga, S. (2022). Literature Review on Wage Subsidies and Work Based Learning. Prepared by MEF Associates, Contract No.140D00421F0659. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support.

Disclaimer: The findings and conclusions in this report are those of the authors and should not be construed to represent any official USDA or U.S. Government determination or policy.



Table of Contents

Executive Summary	i
SNAP E&T and Work Based Learning	i
Methodology	ii
Findings from the Review and Implications for Implementing Work Based Learning Models in SNAP E&T	iii
1. Introduction	1
Policy Background.....	3
Methodology	4
Roadmap	6
2. Evidence from the Literature by Activity	7
Apprenticeships	7
Pre-apprenticeships	13
Customized Training	16
On-the-Job Training	19
Transitional Jobs	21
Incumbent Worker Training	27
Internships	30
3. Integrating Work Based Learning into SNAP E&T	33
Considerations for Implementing Work Based Learning Models in SNAP E&T	35
Areas for Future Research	43
Appendix A: Research Methodology	45
Appendix B: Additional References	50
Appendix C: Annotated Bibliography	51

Executive Summary

The Agriculture Improvement Act of 2018 (the Farm Bill) allows Supplemental Nutrition Assistance Program (SNAP) Employment and Training (E&T) funds to be used for wage subsidies, which was not previously an allowable use of E&T funds. Additionally, although work based learning has always been allowed as a SNAP E&T activity, the final rule implementing the 2018 Farm Bill changes restructured the work experience component to make work based learning an explicit part of the component. With these changes, SNAP E&T services are better aligned with other Federal programs that have more commonly offered work based learning such as the Temporary Assistance for Needy Families program (TANF), the Workforce Innovation and Opportunity Act (WIOA), and registered apprenticeships.

To ensure that SNAP E&T programs can benefit from extensive previous research on work based learning, the United States Department of Agriculture's Food and Nutrition Service (FNS) funded a review of the research literature on the effectiveness of work based strategies. The study's objective is to provide information on which wage subsidy and work based learning models succeed in improving employment outcomes, how government programs can develop strong connections with employers for the purpose of implementing such models, and the implications of findings from past research for implementing effective strategies within SNAP E&T.

SNAP E&T and Work Based Learning

The Food and Nutrition Act of 2008 requires SNAP participants ages 16 to 59 to meet certain work requirements unless they are exempt or show good cause for being unable to work. Individuals who do not meet these work requirements can be sanctioned and prohibited from receiving SNAP benefits for a certain number of months. In addition to these work requirements, a subset of work registrants—adults ages 18 to 49 who are not disabled and live in households without dependents, referred to as “able-bodied adults without dependents” (ABAWD)—are subject to a time limit of 3 months of SNAP eligibility in a 36-month period unless they work or participate in employment and training activities for 80 hours per month.¹

The Farm Bill mandates that each State agency operate an E&T program for the purpose of assisting members of households that receive SNAP in skill acquisition, training, work activities, or experience that will increase their ability to obtain gainful employment that meets the respective State and local workforce demands. In addition to helping SNAP participants gain skills and improve their employability, E&T can also help work registrants and ABAWDs meet their work requirement.

The final rule implementing the E&T provisions in the Farm Bill, “[Employment and Training Opportunities in the Supplemental Nutrition Assistance Program](#),” made several changes to SNAP E&T that aimed to improve the program's integrity. The changes included restructuring the program's work experience component, expanding work based learning activities that can be funded through the program, and allowing E&T to fund subsidized wages for individuals participating in

¹ States can request waivers from this time limit for the entire State or for areas within the State based on unemployment rates above 10 percent or lack of sufficient jobs. In addition, the Families First Coronavirus Response Act partially suspended the time limit until the month after the month when the public health emergency declaration for COVID-19 expires. (At the time of writing, the emergency declaration is still in place.)

work based learning or other work experience activities. However, compensation earned must count as income for the purpose of SNAP eligibility.

Methodology

To understand how the existing evidence on work based learning activities can inform their implementation in the SNAP E&T context, the study team conducted a literature review. The study team took a series of structured steps to ensure the review would capture the most important findings from recent research in the employment and training field on work based learning approaches. The study team conducted searches on academic databases; reviewed relevant evidence clearinghouse websites; reviewed the websites of research firms, research centers, and government agencies; and supplemented search results with studies they were aware of from their other work in the employment and training research field. Parameters for the search largely centered on each activity FNS had identified as work based learning as well as a limited number of terms more generally associated with employment and training research. To keep the review manageable, it focused only on literature from 2004 and later and sought to identify 150 studies.

The study team compiled studies identified through the review and classified them by activities included, study type, quality rating as assigned by a clearinghouse, outcomes, and target population. The study team used this information to determine what to include based on rigor of the study, level of evidence, and relevance to this literature review. To prioritize studies most relevant to this literature review, the study team focused on including studies that featured relevant work based learning activities, that targeted populations with low incomes or those with barriers to employment, that included outcomes most relevant to SNAP E&T, and that provided other useful contextual information about SNAP E&T. The set of studies selected includes impact studies, implementation studies, research reviews, meta-analyses, and policy briefs. The study team made decisions to include descriptive outcome studies based on their relevance to the literature review and the extent of available studies containing more rigorous or systematic evidence.

The review of literature included 144 studies. It covered seven types of work based learning activities:

- Apprenticeships,
- Pre-apprenticeships,
- Customized training,
- On-the-job training,
- Transitional jobs,
- Incumbent worker training, and
- Internships.

The number of studies reviewed by work based learning activity ranged from 8 for customized training to 45 for transitional jobs. (Some studies covered more than one activity.)

Findings from the Review and Implications for Implementing Work Based Learning Models in SNAP E&T

The review revealed clear themes emerging from the literature, many of which have implications for States looking at implementing work based learning activities within their SNAP E&T programs.

Many work based models have strong short-term impacts on earnings and employment outcomes during a placement in a work based learning position; a smaller set of models provide promising evidence for longer-term impacts. It is typical of studies of transitional jobs programs to find strong evidence of positive impacts on earnings and employment during the transitional job itself, and some studies of other activities, including internships, had similar findings. Many studies that found short-term impacts that occurred during a subsidized work based learning placement did not show longer-term impacts after the subsidy period ended. However, for all activities, one or more reviewed studies found some type of positive impact on earnings or employment beyond a work based placement. Further, the longer-term findings for apprenticeships and customized training were more promising than for other types of work based learning. Most impact studies of such programs that looked at longer-term employment outcomes found positive impacts; however, the number of impact studies identified for those categories was smaller than for some other categories. (Not all of these studies focused on programs serving groups with low incomes comparable to the populations served by SNAP E&T programs, however.)

SNAP E&T funds can support various strategies to facilitate the unsubsidized employment of participants after the work based placement ends. One way is to ensure programs have dedicated job developers to engage employers who may hire participants into unsubsidized jobs. States may opt to use 100 percent or 50 percent reimbursement funds to pay for job development services. However, States can also explore leveraging partnerships with programs and providers that already have expertise, staff, and infrastructure to collaborate with employers effectively, rather than using SNAP E&T funds to develop such capacity themselves. Programs may also be able to use 100 percent or 50 percent reimbursement funds to give bonus awards to providers of work based learning activities for each successful unsubsidized placement; such payments can be considered administrative costs so long as they are not used to provide bonuses or incentives to the participants themselves.

The literature contains themes that can help inform programs' strategies when considering each activity type. Some of these themes include the following.

- Although most transitional jobs programs did not lead to impacts that persisted after the subsidy period, some did persist. A subset of studies of transitional jobs programs reviewed found impacts on earnings or employment in the medium- to long-term, but no consistent features explain what factors led these programs to succeed more than others. Nonetheless, they suggest potential lessons for future programs. Programs that emphasize matching placements to participants' interests may face challenges in placing participants but may achieve better longer-term impacts.
- Apprenticeships have shown positive impacts in quasi-experimental design studies but typically do not serve individuals facing the highest barriers to employment. However, some initiatives are currently exploring ways to expand the successes of apprenticeships to more individuals facing higher challenges in the labor market through strategies such as increasing establishment of pre-apprenticeship programs, recruiting more broadly, incorporating training in basic skills and soft skills, and providing supportive services such as child care and transportation assistance.

- Some customized training programs—work based learning designed to meet the education and training needs of an employer or a group of employers—have demonstrated successes in improving long-term earnings and employment outcomes for participants with barriers to employment but may involve thorough screening processes to ensure participants were an appropriate match for the program, both in interest and ability, which means they may be promising for only a subset of SNAP E&T participants.

Activities differed in their target populations. The extent to which the research reviewed focused on programs specifically targeting populations with low incomes, similar to those populations served by SNAP E&T, differed by activity. For example, transitional jobs programs often aim to give work experience to individuals facing barriers to employment to help prepare them for unsubsidized employment. SNAP E&T programs focusing on serving individuals facing significant barriers to employment may choose such models. Further, findings from the transitional jobs literature provide particular lessons on what strategies may be best for engaging these participants. For example, transitional jobs programs that operate their own worksites often place more participants into transitional jobs than other programs. SNAP E&T programs considering transitional jobs models may want to explore whether there are existing organizations that they can partner with that operate these types of worksites.

Although apprenticeship programs have not traditionally focused on individuals facing the highest barriers to employment or individuals with low incomes, agencies can learn from recent efforts to expand the universe of clients they serve and can consider strategies such as pre-apprenticeships, basic skills and soft skills training, and supportive services to help SNAP E&T participants succeed.

Programs of all activity types included a variety of services beyond work based learning. In all of the work based learning activities, most programs that were the subjects of studies reviewed offered other activities and services beyond the work based learning itself. These programs included supportive services, such as transportation assistance, child care assistance, or items needed for the workplace; education activities, including classroom instruction, occupational or vocational training, GED preparation, and basic skills training in literacy, math, or soft skills; case management; and, in programs that did not intend for work based learning placements to transition into permanent positions, job readiness and job search activities as well as job development. Many of these services can be supported with 50 percent reimbursement funds. States may also wish to consider whether there are opportunities to leverage partnerships with third parties already providing work based learning opportunities by offering to use 50 percent reimbursement funds to pay for supportive services such as child care and transportation or other allowable services for SNAP E&T participants taking part in the work based learning activities.

Challenges engaging with employers, and strategies to overcome those challenges, cut across the different activities. Some of these challenges include costs to employers from paperwork, meeting program requirements, and time involved in mentoring, overseeing, or training the worker, as well as employer concerns about timeliness of payments to reimburse for wages paid, quality of candidates placed with them, or investment in individuals who leave once they have the new skills. To overcome these barriers, programs can emphasize the benefits to employers, which can include the wage subsidies employers receive, candidate screening by the program, supportive services participants receive, and where placements are temporary, tryout periods with hires. As noted earlier, States can prioritize employer outreach by using SNAP E&T to hire dedicated job developers or through partnerships leveraging the capacity of organizations that already have such capacity. To reduce employer concerns about paperwork burdens and timely reimbursement

payments, States can explore electronic tools or other modern options for submitting paperwork and for remitting the subsidies, such as third party payment providers. To avoid the need to engage outside employers for work based learning activities, SNAP E&T programs can also consider partnering with existing programs that operate their own worksites.

Few studies reviewed provided information about how income from work based learning activities affects participant program eligibility. Income from subsidized job placements may raise participants' incomes above eligibility thresholds for some programs. Only a few studies addressed this issue, and none of them focused on SNAP. A need exists for new and innovative approaches to avoid situations where income from work based learning activities makes participants ineligible for SNAP. Resolving this difficulty will require changes to law, to establish, for example, pilot projects or waivers to allow States to disregard countable wages earned during a subsidized work based learning activity. In the absence of such changes, SNAP E&T programs could have case managers prioritize helping participants understand how earnings from work based learning placements affect their benefits. States may also wish to consider whether there are strategic ways to use the job retention component, potentially allowing allow programs to continue providing supportive services to participants who stay in work based learning placements operated by partners or that are supported through other funding sources after their SNAP benefits end.

Future research can address significant gaps around work based learning approaches. Studies could explore how to adapt strategies that have demonstrated effectiveness for “job-ready” participants to serve other populations. Further impact studies could focus on activities where few previous impact studies exist, such as pre-apprenticeships, incumbent worker approaches, and apprenticeships focused on populations with higher barriers to employment. New studies could also investigate work based learning delivered in the SNAP E&T program context. In addition, further research could attempt to isolate the effectiveness of particular activities and services to measure the impacts of different combinations of them, or both.

1. Introduction

The Supplemental Nutrition Assistance Program (SNAP) is a cornerstone of the nation's safety net. It provides nutrition assistance benefits to households with low incomes in an effort to reduce hunger and improve health and wellbeing. In addition to nutrition assistance benefits, SNAP offers Employment and Training (E&T) programs that aim to help SNAP participants increase their skills and experience needed to obtain and succeed in employment. The Federal SNAP program provides funding to State SNAP E&T programs, and Federal law defines a set of employment and training activities that these funds can support.

Recent changes included in the Agriculture Improvement Act of 2018 (the Farm Bill) have provided SNAP E&T programs with the opportunity to use SNAP E&T funds to subsidize wages and to provide work based learning as an activity under the work experience component, which the rules did not previously allow. With these changes, SNAP E&T programs can now offer a range of activities that they previously did not offer but that have been commonly available through other programs, such as the Temporary Assistance for Needy Families (TANF) program, workforce programs, and “registered apprenticeships.”

Extensive research has been conducted on employment and training programs that include work based learning. Themes have emerged from this literature about the effectiveness, or ineffectiveness, of different work based approaches in improving the employment outcomes of individuals with low incomes. To ensure that SNAP E&T programs can benefit from extensive previous research on work based learning, the United States Department of Agriculture's Food and Nutrition Service (FNS) funded a review of the research literature on the effectiveness of work based strategies. The study's objectives are to provide information on 1) which wage subsidy and work based learning models succeed in improving employment outcomes, 2) how Federal and State government programs can develop strong connections with employers for the purpose of implementing such models, and 3) what the implications of findings from past research are for implementing effective strategies within SNAP E&T. **Figure 1: Study Objectives** lists research questions by objective.

This chapter discusses additional background on SNAP policy, summarizes the study's methodology, and provides a roadmap for the rest of the report.

Figure 1: Study Objectives

Research Questions by Objective
Objective 1: Identify which wage subsidy and work based learning models assist participants in gaining skills, obtaining stable, good jobs, and increasing earnings after participating in such programs.
What types of wage subsidy and work based learning models have the best outcomes – including skill gains, certificate or credential attainment, obtaining or improving employment, and earnings gains – for low-income and low-skilled individuals?
Is there any evidence to support long-term outcome gains for wage subsidy programs? Are there ways wage subsidy programs could be designed to promote better long-term outcomes?
Are there ways to design work based learning and wage subsidy programs for low- and very low-skilled individuals, and people with high or multiple barriers to employment?
Are there program models that are more likely to lead to permanent employment, particularly for low- and very low-skilled individuals or individuals with high or multiple barriers to employment?
What wraparound services provide the best outcomes for participants? (Job coaching, case management, transportation, child care, etc.)
Are there certain subgroups that need additional supports to be successful? What does that support need to include?
What length of participation in work based learning and wage subsidy programs provide the best post-training outcomes in terms of employment and earnings?
What type of intermediary organizations provide the most support to work based learning and wage subsidy programs?
Objective 2: Identify which wage subsidy and work based learning models create strong connections between government programs and employers.
What type of program designs attract employers to participate?
What are the best methods for recruiting employers to participate?
What type of employers (i.e., community-based organizations, non-profit organizations, government, for-profit) provide the best outcomes?
Are there work based learning or wage subsidy programs that offset employer costs such as workers’ compensation, unemployment insurance, or payroll taxes? Is there a benefit to employers (other than the subsidy itself) or participants?
Are there program models that target employers who provide benefits such as (but not limited to) paid sick leave, paid time off, child care or transportation subsidies, or retirement benefits? Do any programs help offset such costs for employers? Are there better outcomes for participants in such programs?
What are the best ways to choose employers who will appropriately participate in work based learning and wage subsidy programs?
What are the best ways to hold employers who participate accountable to the programs?
Objective 3: Develop specific recommendations based on the literature on how work based learning and wage subsidy programs could be integrated into the SNAP E&T program.
What are the recommendations based on the literature to best implement work based learning and wage subsidies within SNAP E&T, particularly considering the barriers to employment some SNAP participants face?
What practices in work based learning and wage subsidies through SNAP E&T would best serve clients?
How can work based learning and subsidy programs be implemented without raising the participants’ income level above eligibility for SNAP?
What recommendations regarding employers would best fit with the SNAP E&T program?
Are there ways the SNAP E&T 50 percent reimbursement funds could be used to strengthen work based learning and wage subsidy programs in SNAP E&T?

Policy Background

Households interested in receiving SNAP benefits must have income below a certain threshold, which is determined by their household size. SNAP allows for certain deductions, presented in the textbox to the right, when considering a household's income.

As part of determining whether households are eligible based on their income, eligibility workers also determine whether they are subject to work requirements. The Food and Nutrition Act of 2008 requires SNAP participants ages 16 to 59 to meet certain work requirements unless they are exempt or show good cause for being unable to work.² Participants who are not exempt from work requirements (referred to as work registrants) must provide employment history information, participate in work activities if assigned, accept offers of employment, and not voluntarily quit a job or reduce their hours. Individuals who do not meet these work requirements can be sanctioned (i.e., prohibited from receiving SNAP benefits for a certain number of months). In addition to these work requirements, a subset of work registrants—adults ages 18 to 49 who are not disabled and live in households without dependents, referred to as “able-bodied adults without dependents” (ABAWD)—are subject to a time limit of 3 months of SNAP eligibility in a 36-month period unless they work or participate in a work program for 80 hours per month.³ Participating in the State's SNAP E&T program is one way work registrants and ABAWDs can meet the work requirements. Depending on State policy and availability, SNAP participants can volunteer to participate in an E&T program offered in their State. Some work registrants and ABAWDs are required to participate according to their State's policy.

Allowable Income Deductions

- 20 percent deduction for earned income
- A standard deduction
- A dependent care deduction for work, training, or education
- Medical expenses for some elderly or disabled members
- Child support payments*
- Shelter deduction for homeless individuals
- Excess shelter deduction

Source: 7 § CFR 273.10 (e)

*Only in some States

The Food and Nutrition Act of 2008 mandates that each State agency operate an E&T program for the purpose of assisting members of households who receive SNAP in skill acquisition through training, work activities, or experiences that will increase their ability to obtain gainful employment that meets the respective State and local workforce demands. States' SNAP E&T programs are generally funded through three Federal sources.

1. **100 percent funds:** A formula-based Federal grant that can be used to cover administrative expenditures to plan, implement, and operate an E&T program
2. **50 percent reimbursement funds:** Reimbursements of 50 percent of administrative expenditures for costs exceeding the 100 percent funds or for support services provided to participants (e.g., transportation, dependent care, other costs directly related to participation in the program)

² Exemptions include the following: already working at least 30 hours per week; caring for a child younger than 6 or an incapacitated person; participating in a substance use treatment program; subject to work requirements in Unemployment Insurance (UI) or Temporary Assistance for Needy Families (TANF); studying in school or a training program at least half-time; or unable to work because of physical or mental limitations.

³ States can request waivers from this time limit for the entire State or for areas within the State based on unemployment rates above 10 percent or lack of sufficient jobs. In addition, the Families First Coronavirus Response Act partially suspended the time limit until the month after the month when the public health emergency declaration for COVID-19 expires. (At the time of writing, the emergency declaration is still in place.)

3. **ABAWD pledge funds:** A total of \$20 million annually in unmatched grant funds available to States that pledge to provide a qualifying work activity for ABAWDs at risk of losing SNAP because of the time limits

Some States may also receive funds from special grants or as part of pilot projects.

As mentioned in the Introduction, the Farm Bill made several changes to SNAP E&T, and these changes were implemented in the “Employment and Training Opportunities in the Supplemental Nutrition Assistance Program” final rule.⁴ These changes aimed to improve the program’s integrity, support SNAP participants in meeting their work requirements, and modify the work requirements for ABAWDs.

The changes made in the final rule highlighted case management as an important aspect to improve participant engagement in the program. All States must now incorporate, in their respective SNAP E&T programs, case management and one or more training components, such as supervised job search, job search training, workfare, work experience, educational programs, self-employment activities, job retention, and other appropriate programs or other projects or pilots as approved by FNS’s Office of Employment and Training.

In addition, the final rule restructured the work experience component into two subparts: work activities and work based learning. Both work activities and work based learning activities must involve a planned, structured experience for participants in the components but differ slightly.

- Work activities are work performed in exchange for SNAP benefits to improve employability by providing opportunities for individuals to acquire skills necessary to obtain and retain employment long-term.
- Work based learning activities are continuous interactions with the business sector or an industry partner or simulated environments at an educational institution. They promote in-depth, onsite engagement with a set of tasks required in a particular career track or field of study that are conducted in close alignment with a set curriculum of instruction. Work based learning activities emphasize employer engagement, include specific training objectives, and are meant to lead to regular employment.

The Farm Bill also added pre-apprenticeships and apprenticeships as allowable work experience activities. Other allowable activities include internships, customized training, transitional jobs, incumbent worker training, and on-the-job training as defined under the Workforce Innovation Opportunity Act of 2014 (WIOA). The Farm Bill and subsequent final rule also specified that work based learning models can be subsidized and that E&T grants may be used to subsidize wages for participants in a work experience component. However, compensation earned must count as income for the purpose of SNAP eligibility.

Methodology

To understand how the existing evidence on work based learning activities can inform their implementation in SNAP E&T, the study team conducted a literature review. The study team took a series of structured steps to ensure the review would capture the most important findings from recent research in the employment and training research field on work based learning approaches.

⁴ <https://www.fns.usda.gov/snap/fr-01042021>

This section describes the process for identifying and selecting studies, with additional detail included in Appendix A: Research Methodology.

Identification and Selection of Literature

The study team conducted searches on several academic databases as well as relevant evidence clearinghouse websites and organizational websites. Parameters for the search largely centered on each activity FNS had identified as work based learning as well as a limited number of terms more generally associated with employment and training research. To keep the review manageable, the study team focused only on literature from 2004 and later and sought to identify 150 studies.

To prioritize studies most relevant to this literature review, the study team focused on including studies that featured relevant work based learning activities, that targeted populations with low incomes and limited work experience, that included outcomes most relevant to SNAP E&T, and that provided other useful contextual information about SNAP E&T.

For work based learning activities with less available research, the study team focused on including studies that featured those activities even if they did not meet other selection criteria.

For research questions related to outcomes, the study team prioritized well-conducted randomized controlled trials (RCT) and quasi-experimental design studies (QED) that have received a “high” or “moderate” rating from a clearinghouse. The study team included certain RCT and QED studies that did not receive a high or moderate rating when they contained relevant implementation findings or if there were a limited number of “high” or “moderate” rated studies for a given activity. For studies not reviewed by a clearinghouse, the team made a high-level judgment about the rigor of the evidence based on the methodology used and other information in the study.

In addition to impact studies, the study team included implementation studies that featured detailed information about the process in which a work based learning activity was implemented or other valuable contextual information relevant to this review, such as benefits eligibility, engaging employers in work based learning activities, and the SNAP E&T context. The team also included research reviews, meta-analyses, and policy briefs. The team decided to include descriptive outcomes studies based on their relevance to the literature review and on the extent of more rigorous or systematic evidence.

Analysis Framework

After selecting studies for the literature review, the study team analyzed the literature using Dedoose software. Dedoose is a qualitative data analysis software that facilitates rigorous mixed methods research. Dedoose allows users to create and apply codes to data and to filter coded excerpts.

In analyzing and reporting on outcome findings, short-term outcomes are defined as outcomes measured 18 months or fewer after program enrollment, medium-term outcomes are defined as outcomes measured more than 18 months and up to 3 years after program enrollment, and long-term outcomes are defined as outcomes measured 3 years or more after program enrollment.

Limitations

One limitation to the selection process was the limited number of relevant studies available in academic databases. Given this constraint, the study team largely relied on studies in the Pathways and CLEAR clearinghouses and the grey literature.

Certain work based learning activities, including on-the-job training, customized training, incumbent worker training, and pre-apprenticeship, had fewer available studies that met all the desired criteria; consequently, the study team included more studies that did not contain analysis of outcomes, (e.g., implementation studies, case studies, research reviews, meta-analyses, policy briefs). Activities also varied in the type and methods of studies available, which affected the comparability of the level of rigor of the evidence from activity to activity. For example, searches on certain activities yielded a limited number of RCTs. In addition, the strength of the studies varied by work based learning activity: some activities had many studies with high-quality ratings from a clearinghouse, while others had none. See Appendix A: Research Methodology for more information.

Roadmap

This report is organized as follows. Chapter 2 reports on the findings from the analysis of the literature on seven work based learning activities, providing a description of the activity, target populations typically served, policy context, findings related to key outcomes, and strategies for successful program implementation. Chapter 3 presents considerations and recommendations for implementing work based learning models in the SNAP E&T context and identifies areas for future research.

2. Evidence from the Literature by Activity

This chapter presents findings from the literature review on seven work based learning activities: 1) apprenticeships, 2) pre-apprenticeships, 3) customized training, 4) on-the-job training, 5) transitional jobs, 6) incumbent worker training, and 7) internships. Each section defines the activity and describes key attributes of the activity, target populations typically served, policy context, impacts on key outcomes, and lessons for program implementation.

Apprenticeships

What is an apprenticeship?

Apprenticeship is an earn-and-learn model that combines on-the-job learning (OJL) provided by an employer with classroom instruction, referred to as Related Technical Instruction (RTI) (Boren et al., 2021; Gardiner et al., 2021; Hollenbeck & Huang, 2014; Rosen et al., 2018; Sattar et al., 2020). Much of the literature reviewed on the apprenticeship model focuses on registered apprenticeships, which are apprenticeships registered with either the Office of Apprenticeship at the Department of Labor (DOL) or with a Federally recognized State Apprenticeship Agency (SAA) (Gardiner et al., 2021). These programs meet national standards for registration as defined by DOL (Decker, 2021; Sattar et al., 2020).

Key features of registered apprenticeship programs include the following (Gardiner et al., 2021).

- **Sponsorship** by an entity that oversees the program (which may be an individual employer, group of employers, union, community college, State or local workforce agency, or nonprofit organization)
- **Standards of Apprenticeship document** maintained by the program sponsor that formally describes the skill standards, RTI, OJL, and wage structure for the program
- **Written apprenticeship agreement** between an apprentice and the sponsor (or less commonly the apprenticeship committee acting as the agent for the program sponsor)

Entry requirements for participants vary across apprenticeship programs and may include a high school diploma, technical exams, and phone interviews (Altstadt, 2011; Lerman et al., 2008; Mollica, 2020). Some programs give admission priority to individuals who have completed a pre-apprenticeship program affiliated with the sponsor (Altstadt, 2011; Gardiner et al., 2021; Holdbrook et al., 2021; Lerman & Kuehn, 2020).

The employer that hires the apprentice provides OJL (Decker, 2021; Gardiner et al., 2021). Apprentices receive hands-on training from an experienced mentor at the job site (Gardiner et al., 2021). Instruction covers the occupation, the company's practices and culture, and job-specific skills (Boren et al., 2021). OJL typically lasts at least 1 year (Gardiner et al., 2021). Employers usually bear the training costs, which includes wages of apprentices, mentors, and other program staff as well as costs associated with using materials and equipment (Dimeny et al., 2019; Gardiner et al., 2021). Although employers sometimes receive funding for OJL, receiving financial assistance for RTI is more common for employers (Gardiner et al., 2021; Sattar et al., 2020).

Apprentices receive wages from their employer during their training (Boren et al., 2021; Decker, 2021; Gardiner et al., 2021; Prince, 2004). For registered apprenticeships, Federal regulation requires that the entry minimum wage must be not less than the minimum wage prescribed by the Fair Labor Standards Act, unless a higher wage is required by other applicable Federal law, State law, respective regulations, or collective bargaining agreement (Apprenticeship Programs, Labor Standards for

Registration, 2008). In registered apprenticeships, wage increases occur over the course of the program. The wage progression is predetermined and varies in amount and frequency depending on the occupation and starting wage (Gardiner et al., 2021). Apprentices' advancement through the wage progression is often based on the achievement of specific competencies, though it also may be based on time in the program (Gardiner et al., 2021).

A community college, technical school, apprenticeship training school, high school, online provider, or employer may provide RTI, which covers technical concepts and workforce and academic skills to allow participants to succeed in the occupation (Boren et al., 2021; Gardiner et al., 2021). Employers typically collaborate with education partners when designing the curricula, which may be tied to national skills standards (Decker, 2021; Gardiner et al., 2021). Apprenticeship programs use a variety of methods to assess a participant's proficiency in material covered in classroom instruction, including hands-on skills demonstrations, written tests, and presentations (Gardiner et al., 2021).

Registered apprenticeships typically last 2 to 5 years (Gardiner et al., 2021). Apprenticeships vary in duration by industry and occupation. With construction and other building trades, apprenticeships often last several years, although apprenticeships in industries such as health care and information technology are often significantly shorter (Gardiner et al., 2021; Hollenbeck & Huang, 2014). According to Federal regulation, the completion of a registered apprenticeship may be achieved through completion of at least 2,000 hours of OJL (a "time-based approach"), attainment of skills and knowledge (a "competency-based approach"), or both completion of a specified number of hours as well as demonstration of competency (a "hybrid approach") (Apprenticeship Programs, Labor Standards for Registration, 2008). Additionally, Federal regulation recommends a minimum of 144 hours of RTI for each year of a registered apprenticeship.

Apprentices who complete a registered apprenticeship receive a certificate of program completion awarded by DOL or an SAA, which is industry-recognized and demonstrates proficiency in an occupation (Boren et al., 2021; Bucci et al., 2018; Decker, 2021; Gardiner et al., 2021; Lerman et al., 2014). Apprentices may also receive a State credential or license, non-degree college certificate, or college degree (Arabandi et al., 2021; Decker, 2021; Gardiner et al., 2021).

Apprenticeship programs identified in this literature review targeted incumbent workers, dislocated workers, youth, and students at community and public technical schools (Boren et al., 2021; Bucci et al., 2018; Dunham et al., 2020; Eyster et al., 2010; Heinrich & Holzer, 2011; Hollenbeck & Huang, 2014; Lerman et al., 2009; Takyi-Laryea et al., 2017; U.S. Department of Labor, 2017). In addition, many apprenticeship programs seek to target populations that in the past have been underrepresented in apprenticeships, namely women, communities of color, people with disabilities, veterans, and youth (Boren et al., 2021; Cheney, 2019; Gardiner et al., 2021; Glover & Bilginsoy, 2005; Hague & Baddour, 2020; Heinrich & Holzer, 2011; Fishman et al., 2020; Kuehn, 2017; Lerman & Kuehn, 2020; Mastracci, 2005; Nanda et al., 2018a; Nanda et al., 2018b; Rosen et al., 2018; Sattar et al., 2020).

Apprenticeships are most common in construction trades (Deutsch et al., 2021). However, in recent years, DOL and State apprenticeship offices have worked to expand apprenticeship programs in sectors with high demand for skilled workers, such as health care, information technology, and advanced manufacturing (Anderson et al., 2010; Deutsch et al., 2021; Lerman et al., 2014).

Federal policies and programs have promoted apprenticeships. The 1937 National Apprenticeship Act modernized and formalized the apprenticeship model by creating new requirements around classroom instruction, wage increases, specific skills and knowledge areas, and written agreements between apprentices and employers (Lerman et al., 2008). The Act also established a national system for registering apprentices and programs, which is managed by the Office of Apprenticeship at

DOL within the Employment and Training Administration (Lerman et al., 2008). Since the early 2000s, DOL has introduced initiatives to expand apprenticeships, develop opportunities in new industries, and diversify populations served, including the High Growth Job Training Initiative, the Trade Adjustment Assistance for Community Colleges and Career Training grant program, the American Apprenticeship Initiative, the State Apprenticeship Expansion grant program, the Women in Apprenticeships in Nontraditional Occupations program, and the Nontraditional Employment for Women program (Bucci et al., 2018; Eyster et al., 2010; Gardiner et al., 2021; Hague & Baddour, 2020; Lerman & Kuehn, 2020; Lerman et al., 2008; Mastracci, 2005; Nanda et al., 2018a; Rosenberg & Dunn, 2020; Sattar et al., 2020; Takyi-Laryea et al., 2017; Trutko et al., 2007; U.S. Department of Labor, 2017). In addition to Federal programs, States have launched efforts to expand apprenticeships, such as South Carolina's Apprenticeship Carolina initiative of 2007 (Kuehn, 2017).

Can apprenticeships improve outcomes?

The study team identified three QED studies of apprenticeship programs, two of which found positive impacts on earnings and employment sustained in the long-term, while the third found only a short-term earnings increase.⁵

One of the QED studies assessed impacts of apprenticeship programs across multiple industries in Washington State on individuals who completed the program using a propensity score matching design (Hollenbeck & Huang, 2014). The study found that programs increased employment by 7.8 percentage points and average quarterly earnings by more than 80 percent, or \$3,243, in the 3 quarters after program exit. The study also found long-term impacts: the program increased employment by 9.8 percentage points and average quarterly earnings by \$3,511 in the 9 to 12 quarters after program exit.

Another QED study assessed the impacts of registered apprenticeships across multiple industries in 10 States using a dosage model, which estimated models of earnings and employment as a function of the share of the registered apprenticeship program completed (Reed et al., 2012). The study found that participation in a registered apprenticeship was associated with an increase in long-term average annual earnings of \$5,839. Additionally, the study found that apprenticeship participation was associated with a long-term increase of 8.6 percentage points in average annual employment. Both this study and the previous study found employment and earnings impacts to be even higher for individuals who completed the apprenticeship program. Through a cost-benefit analysis, the study found registered apprenticeship participation to be associated with an estimated average increase in earnings of \$98,718 over an individual's career.

A third QED study assessed impacts of the Lower Rio Grande Valley Workforce Development Board/South Texas College's (STC) Advanced Manufacturing Apprenticeship Program, which provided 3- to 4-year registered apprenticeship training in advanced manufacturing occupations to incumbent workers (Eyster et al., 2010). The study used various matching strategies to establish a comparison group and found an increase in quarterly earnings in the short-term of \$2,086.40.

⁵ The study team identified several other impact studies not included in this section because they either did not assess key outcomes relevant to this review or did not feature apprenticeships as a core component of the program services. However, these studies are referenced in the section below on important considerations for designing apprenticeship programs. None of the impact studies discussed in this section were rated as high quality by a clearinghouse

What are important considerations for designing apprenticeship programs?

Engaging Participants. Attrition has been a challenge in apprenticeship programs, with high rates of noncompletion among participants (Anderson et al., 2010; Eyster et al., 2010; Glover & Bilginsoy, 2005; Lerman et al., 2009). One solution may be to create accelerated versions of apprenticeship curricula. A descriptive study assessed outcomes of a 10-week accelerated postsecondary apprenticeship program in the naval ship construction sector relative to the traditional 15-week curriculum (Adams, 2013). The study found that participants in the accelerated program had a higher rate of program completion and improved academic performance. Another way to reduce attrition is to provide participants with services to remove barriers to completing the program, such as transportation and child care assistance. These services are discussed in more detail below.

Engaging Employers. Employer partnerships are an essential component of apprenticeship programs given that employers provide OJL to apprentices. Apprenticeships can benefit employers by providing a strong pipeline of qualified and better-skilled workers, reducing turnover, and reducing costs associated with recruitment and retraining (Arabandi et al., 2021; Dimeny et al., 2019; Gunn & De Silva, 2008; Hague & Braddour, 2020; Lerman et al., 2009; Lerman et al., 2014).

Program costs associated with establishing and running apprenticeship programs can often be a barrier to employers' engagement (Gardiner et al., 2021; Lerman et al., 2014; Rosenberg & Dunn, 2020; Sattar et al., 2020). Offering employers financial incentives, tax credits, and tax breaks to support program development, registration, and delivery can help alleviate the cost burden on employers (Altstadt, 2011; Dunham et al., 2020; Gardiner et al., 2021; Rosenberg & Dunn, 2020; Sattar et al., 2020). Employer sponsors identified that financial incentives can be particularly important to engage smaller companies with more limited funds (Gunn & De Silva, 2008). In addition to incentives, States working to expand registered apprenticeships emphasized that highlighting the positive return on investment of apprenticeships for employers when conducting outreach was effective in encouraging employers' sustained involvement (Sattar et al., 2020).

Employers' concerns and misconceptions around apprenticeships may also be a barrier to their engagement in apprenticeship programs. These concerns and misconceptions include apprehension that program graduates will be hired by other firms, associating apprenticeships mistakenly with unions, misunderstanding which industries are appropriate for apprenticeships, being unaware of funding sources, and having difficulty in finding high-quality RTI (Dunham et al., 2020; Gardiner et al., 2021; Gunn & De Silva, 2008; Rosenberg & Dunn, 2020; Sattar et al., 2020). Employers are also often concerned about the significant time commitment of apprenticeships. For example, employers involved in the STC Advanced Manufacturing Apprenticeship Program discussed previously favored customized training over apprenticeship given the shorter time commitment (Eyster et al., 2010).⁶ Another concern is apprentices' lack of work experience: one evaluation found that programs struggled to convince employers to provide apprenticeships for participants because employers wanted to hire individuals with more experience rather than recent graduates of a training program (Tessler et al., 2021).

Employers are also often concerned about the registration process being onerous (Dunham et al., 2020). To address this concern, one partnership streamlined the registration process by creating registration workshop events that convene stakeholders to assist employers with registering

⁶ Customized training refers to training designed to meet the needs of an employer or group of employers. In contrast, apprenticeships often are required to meet national standards for registration as defined by the U.S. Department of Labor, contributing to their typically longer duration relative to customized training programs.

programs (Hague & Baddour, 2020). Beyond facilitating the registration processes, programs have developed other processes to make engaging in apprenticeships easier for employers, including assisting with monitoring program compliance and with tracking apprentices' progress (Hague & Baddour, 2020).

Partnerships with various stakeholders can be another effective strategy to overcome employers' hesitance and engage them in implementation of apprenticeship programs. Partners may include employers, colleges, industry associations, nonprofit organizations, and labor unions (Arabandi et al., 2021; Glover & Bilginsoy, 2005; Mikelson & Nightingale, 2014). Partners such as intermediaries, community colleges, and other employers can be effective in conducting outreach to employers (Gardiner et al., 2021; Lerman & Kuehn, 2020; Sattar et al., 2020). In addition to recruitment of employers, partners can help engage employers in program design and delivery. Joint sponsorship—also referred to as apprenticeship consortium—is a collaboration of various stakeholders on the implementation of registered apprenticeships (Arabandi et al., 2021; Glover & Bilginsoy, 2005). These partnerships allow all stakeholders to share the benefits and costs associated with apprenticeship programs (Glover & Bilginsoy, 2005). In convening various employers, joint sponsorships allow employers to combine resources, creating greater efficiency and reducing costs (Boren et al., 2021).

Employers' involvement in program design and delivery is key to ensuring that apprenticeship programs meet employer needs, thereby ensuring positive employment outcomes for participants (Bucci et al., 2018; Eyster et al., 2010; U.S. Department of Labor, 2017). Employers can be engaged in multiple aspects of program design and delivery, including creating the program curricula and developing required occupational competencies and frameworks (Bucci et al., 2018; Lerman & Kuehn, 2020; Trutko et al., 2007). One study found that many apprenticeship programs had regular feedback loops with employers to measure their satisfaction and ensure the program aligned with their expectations (Hague & Baddour, 2020).

Promoting Diversity and Inclusion. A significant portion of the literature included in this review focused on improving the representation of groups that have traditionally been underrepresented in apprenticeships, primarily focusing on women and people from racial and ethnic minority groups. Apprenticeships can serve as a tool for upward mobility because they offer an alternative career advancement path often more financially accessible than attending college (Decker, 2021). However, apprenticeship programs have struggled with diversity and inclusion, particularly around the representation of women and people from racial and ethnic minority groups (Kuehn, 2017; Lerman & Kuehn, 2020; Nanda et al., 2018b; Reed et al., 2012).

Certain barriers limit underrepresented groups' access to apprenticeship programs, including insular recruitment streams that do not reach underrepresented groups, recruitment materials that communicate bias, and underrepresented groups' negative perceptions of the occupations that apprenticeships target (Altstadt, 2011; Nanda et al., 2018b). To address these barriers, apprenticeship programs have shifted recruitment processes to target underrepresented populations to increase these groups' interest and enrollment in apprenticeships (Lerman & Kuehn, 2020; Nanda et al., 2018a; Reed et al., 2012). A related strategy is connecting potential participants with pre-employment training such as pre-apprenticeships, which are discussed in more detail in the Pre-apprenticeships section in this chapter. These programs support equitable recruitment efforts through preparing participants for apprenticeship programs (Cheney, 2019; Johnson & Spiker, 2018). To improve equity in selection processes, one study found that several apprenticeship programs worked to ease language-related entry requirements that excluded English language learners (Mollica, 2020).

In addition to barriers around access, barriers to the success of underrepresented groups in apprenticeships include lack of academic readiness, challenges around child care and transportation, and programs' cultural issues contributing to a non-inclusive work environment (Altstadt, 2011; Nanda et al., 2018b). Efforts to understand and address these populations' needs can help advance equity efforts. For instance, apprenticeship programs used a variety of tools to assess student needs, including career interest inventories, interviews, and focus groups, and then tailored training curricula to address those needs (Mollica, 2020).

Examples of Additional Support for Underrepresented Groups:

- Basic skills instruction
- Soft skills development
- Child care assistance
- Transportation support
- Financial aid
- Bilingual support
- Support with paperwork

Both program staff and participants have identified that training in basic skills and soft skills may be particularly useful to underrepresented populations (Mollica, 2020; Reed et al., 2012). Other program supports, including child care and transportation assistance, financial aid, bilingual support, and support with apprenticeship paperwork, highlighted in the textbox above, can help improve success for underrepresented groups as well as for workers with low incomes and limited work experience (Dunham et al., 2020; Hague & Baddour, 2020; Johnson & Spiker, 2018; Mollica, 2020; Nanda et al., 2018a; Sattar et al., 2020). In addition, intermediaries can be valuable partners in helping employers support participants by providing these additional services (Cheney, 2019).

Beyond addressing participant needs, another important practice is fostering an inclusive culture within apprenticeship programs. Strategies include providing mentorship opportunities with mentors from similar backgrounds and creating peer support opportunities for underrepresented populations (Altstadt, 2011; Nanda et al., 2018b; Reed et al., 2012; Sattar et al., 2020). Programs can also address non-inclusive aspects of programs by training staff on cultural competency (Nanda et al., 2018b; Reed et al., 2012).

Partnerships with community colleges, the workforce development system, industry groups, and community-based organizations (CBO) can help enhance strategies to improve outcomes for women, people from racial and ethnic minority groups, and workers with low incomes and limited work experience in apprenticeship programs. These partners can help determine jobs in which populations with barriers to employment can succeed, reduce training costs, and provide services to support participants (Altstadt, 2011; Mollica, 2020; Nanda et al., 2018b). In one study, program staff identified that organizations with robust community connections that have a strong understanding of community needs can play an important role in recruiting underrepresented participants and providing wraparound supports (Mollica, 2020). Partnerships between employers and unions can be particularly effective in advancing equity. One descriptive outcomes study compared registered apprenticeship programs in the construction industry sponsored jointly by labor unions and employers with programs sponsored solely by employers (Glover & Bilginsoy, 2005). The study found that the jointly sponsored programs had higher enrollment and participation of women and people from racial and ethnic minority groups and higher rates of completion across all groups. This finding supports the idea that partnerships across organizations enable programs to more effectively advance equity in apprenticeships.

Pre-apprenticeships

What is a pre-apprenticeship?

Pre-apprenticeship is a training model that prepares individuals to enter and succeed in apprenticeship programs (Gardiner et al., 2021; Johnson & Spiker, 2018). Pre-apprenticeship programs are usually short, generally lasting 2 to 3 months (Johnson & Spiker, 2020; Sattar et al., 2020). Programs typically involve the following features.

- **Entry requirements** that include a written application and assessment of basic academic skills to determine training needs (Eyster et al., 2010; Gardiner et al., 2021)
- **Program content** that usually includes an introduction to the industry or occupation, occupational skills training to prepare participants for apprenticeships, exposure to worksites and opportunities for hands-on experience, and basic skills training in reading, math, and soft skills (Gardiner et al., 2021; Johnson & Spiker, 2018)
- **Supportive services** to meet participants' needs associated with attending training (Gardiner et al., 2021; Johnson & Spiker, 2018) (however, participants in pre-apprenticeship programs typically receive no wages and may have to pay for classes not covered by other funding sources [Johnson & Spiker, 2018])

Programs are delivered in a variety of settings, including CBOs, faith-based organizations, community colleges, high schools, and training centers (Altstadt, 2011; Johnson & Spiker, 2018; Lerman & Kuehn, 2020). Pre-apprenticeship programs partner with at least one apprenticeship program sponsor and may channel participants into apprenticeship programs (Gardiner et al., 2021; Holdbrook et al., 2021; Lerman & Kuehn, 2020). Pre-apprenticeship programs may provide credit for completion of classroom instruction and OJL that may be counted toward apprenticeship program requirements (Gardiner et al., 2021). Participants may also receive certificates of program completion, occupation-specific credentials, OSHA-10 certification, CPR or First Aid certification, and occasionally college certificates (Gardiner et al., 2021).

Although DOL provides guidance around quality of pre-apprenticeship programs, there are no regulations around pre-apprenticeship programs (Gardiner et al., 2021). As a result, pre-apprenticeships vary in quality and often lack structure and funding and, consequently, can be difficult to monitor (Lerman & Kuehn, 2020). Typical funding sources include Federal, State, and local governments (Altstadt, 2011).

Can pre-apprenticeships improve outcomes?

The study team identified two QED studies. One found that pre-apprenticeship increased short-term earnings. The other study assessed three programs featuring pre-apprenticeships (among other services) and found that all three programs increased short-term employment and earnings and that two of the programs increased short-term job retention.⁷

One of the studies assessed Chicago Women in Trades' (CWIT) pre-apprenticeship program in the construction industry that targeted women with low incomes (Eyster et al., 2010). The program's goal was to provide women with the basic skills necessary to succeed in traditionally male-dominated apprenticeship programs in construction. The 12-week program included instruction in math, job

⁷ None of the impact studies was given a high quality rating by a clearinghouse.

readiness, and physical conditioning, and experiential learning at construction sites. The program required participants to complete the Test of Adult Basic Education, which assessed basic math and reading skills, complete a physical agility test, and participate in an in-person interview. The study used propensity score matching and found a short-term quarterly earnings impact of \$989.92.

The second QED study assessed six employment programs in Ohio and Wisconsin, three of which featured pre-apprenticeship programs (Michaelides et al., 2016). That all three of these programs featured other services in addition to pre-apprenticeships is important to note, so these impact findings cannot necessarily be attributed to the pre-apprenticeships themselves. The study used propensity score matching to establish matched comparison groups.

One of the programs the study assessed was the Partners for a Competitive Workforce's Construction Sector Partnership, an Ohio-based career pathways program targeting workers with low incomes that featured pre-apprenticeships. The study found an increase of 14.0 percent in employment rates of program group members in the short-term, with an average of 45.9 percent employed in the program group and 40.2 percent employed in the matched comparison group. However, impacts were not sustained. The program had a short-term positive effect on average quarterly earnings of 6 percent (with average quarterly earnings of \$1,518 for treatment group members and \$1,434 for control group members), but this effect was also not sustained. The program did not have statistically significant effects on job retention.

The same study also assessed impacts of the Wisconsin Regional Training Partnership's (WRTP) Construction Pathways and Manufacturing Pathways, two career pathways programs targeting workers with low incomes, both of which featured pre-apprenticeships among other services. In its assessment of the WRTP Construction Pathways, the study found that the entire program taken together (i.e., not just the pre-apprenticeship) increased the likelihood of being employed by 18.0 percent in the short-term, with 70.7 percent of program group members employed and 60.0 percent of matched comparison group members employed. WRTP Construction Pathways also increased job retention in the short-term, with 44.5 percent of program group members who remained employed relative to 29.4 percent of the matched comparison group members, a 51.0 percent increase. In addition, WRTP Construction Pathways increased average quarterly earnings by 58.0 percent in the short-term, with average quarterly earnings of \$5,677 for program group members and \$3,592 for comparison group members.

In its assessment of the WRTP Manufacturing Pathways, the study found that the program increased employment in the short-term by 21.0 percent, with 66.3 percent of program group members employed and 54.8 percent of the matched comparison group members employed. WRTP Manufacturing Pathways also increased job retention in the short-term by 118.0 percent, with 43.0 percent of program group members who remained employed in the short-term and 19.8 percent of comparison group members. Additionally, WRTP Manufacturing Pathways increased average quarterly earnings by 85.0 percent in the short-term, with average quarterly earnings of \$4,802 for program group members and \$2,590 for matched comparison group members.

What are important considerations for designing pre-apprenticeship programs?

Promoting Diversity and Inclusion. Pre-apprenticeship programs can play an important role in promoting diversity in apprenticeship programs by increasing access to and success in apprenticeship programs for populations with barriers to employment (Cheney, 2019; Eyster et al., 2010; Johnson & Spiker, 2018; Lerman & Kuehn, 2020; Lerman et al., 2008; Sattar et al., 2020). Pre-apprenticeship programs often serve individuals underrepresented in apprenticeships, including women, people from racial and ethnic minority groups, and veterans as well as populations with low

incomes and limited work experience (Cheney, 2019; Eyster et al., 2010; Gardiner et al., 2021; Johnson & Spiker, 2018; Lerman et al., 2008; Michaelides et al., 2016).

Pre-apprenticeships prepare participants for success in apprenticeships by providing training on necessary technical and soft skills and on-the-job training as well as on industry- or company-specific information around industry norms, job expectations, and workplace culture (Cheney, 2019; Mollica, 2020; Nanda et al., 2018b). This training can be especially important for populations with low incomes and limited work experience (Johnson & Spiker, 2018). Programs may also provide exam preparation to help participants pass entry requirements of apprenticeship programs (Mollica, 2020). For instance, the CWIT pre-apprenticeship program mentioned previously facilitated access to apprenticeship programs in the construction trades for women with low incomes: women who completed the program generally succeeded in passing apprenticeship entrance tests and securing apprenticeships, and the wages of women who entered apprenticeships increased (Eyster et al., 2010).

In addition, pre-apprenticeship programs can help remove barriers to underrepresented populations' success by providing additional services, including comprehensive case management support, remedial academic instruction, tutoring, child care support through child care centers, and support for program-related transportation costs (Johnson & Spiker, 2018; Nanda et al., 2018b). These additional services and examples of others are presented in the textbox to the right. Programs can also address financial needs by providing income during training (Mollica, 2020). Additionally, they may provide social supports, including peer support and mentorship, to foster participants' engagement in the program (Johnson & Spiker, 2018). On program completion, pre-apprenticeship programs may connect graduates directly to apprenticeship positions that they otherwise may not have been able to access (Holdbrook et al., 2021; Johnson & Spiker, 2018).

Examples of Additional Services

- Comprehensive case management
- Remedial academic instruction
- Tutoring
- Child care support
- Transportation assistance
- Financial aid
- Peer support
- Mentorship
- Career counseling
- Basic vocational training
- Transferrable skills training
- Job search assistance

Beyond apprenticeship preparation, pre-apprenticeship programs can support the career advancement of individuals who do not transition directly to apprenticeship. General workforce development services can include career counseling, basic vocational training, and training on transferrable skills as well as referral to, and placement in, advanced education, training, and work opportunities (Nanda et al., 2018b). Programs may also offer college credit and certification (Mollica, 2020). Limited program requirements may help advance equity goals: one survey found that most pre-apprenticeship providers do not favor strict program requirements because such requirements may force them to turn away individuals lacking basic skills rather than working with them for a longer period (Altstadt, 2011). Providers also suggested that strict program requirements may devalue placements into non-apprenticeship jobs despite their being a better option for some participants.

Engaging Partners. One successful strategy in implementing pre-apprenticeship programs is to engage local industry partners, including local businesses; labor representatives; and workforce, education, and human services agencies. Partners can be involved in developing curricula, contributing to program costs, and hiring program graduates (Holdbrook et al., 2021; Johnson & Spiker, 2018; Michaelides et al., 2016). These partnerships help ensure that programs meet local industry demand and fully address participants' needs (Johnson & Spiker, 2018). For example, the CWIT pre-apprenticeship program mentioned previously collaborated with numerous partners:

community colleges, local workforce investment boards, and One-Stop Career Centers actively recruited participants for the program; several State agencies provided matching funds for the program; and 30 unions assisted with outreach and sponsored hands-on instruction (Eyster et al., 2010).

Increasing State Funding and Oversight. Increasing State funding and oversight of pre-apprenticeship programs can contribute to more successful, equitable programs. Several States, including Wisconsin, Michigan, Minnesota, and New Jersey, used public infrastructure funds to pay for pre-apprenticeship programs in construction targeting adults with low incomes, people from racial and ethnic minority groups, and women (Altstadt, 2011). Indiana funded a pre-apprenticeship program to prepare and recruit underrepresented individuals for building trades, which the State marketed to apprenticeship sponsors as a source of qualified candidates as well as a way for them to comply with recruitment goals for people from racial and ethnic minority groups and women (Altstadt, 2011). Finally, several States, including Florida, Maine, and Massachusetts, created formal registration processes for pre-apprenticeship programs, setting minimum standards for entry, training content, and treatment of participants (Altstadt, 2011). The goal of these standards is to ensure program quality while also allowing programs flexibility in designing and delivering program services.

Customized Training

What is customized training?

Customized training is a work based learning model designed to meet the education and training needs of an employer or group of employers (Besharov & Cottingham, 2011; Hamilton & Chen, 2014; Maguire et al., 2010; Park, 2012). It is often referred to as “sectoral training” (Besharov & Cottingham, 2011; Maguire et al., 2010). Unlike in other training programs, employers typically commit to employing some or all participants on completion of training and to sharing the training costs (Besharov & Cottingham, 2011; Prince, 2004).

The training is usually provided through partnerships between education and training institutions and employers (Besharov & Cottingham, 2011). The content and duration of training varies by employee skills and employer needs (Hamilton & Chen, 2014). Training content may include occupation-specific content as well as training on general skills, such as business communication, professional skills, and basic skills (e.g., math, reading, English as a Second Language) (Besharov & Cottingham, 2011; Fein & Hamadyk, 2018; Fein et al., 2021; Hamilton & Chen, 2014).

Participants may receive payment during the training (Fein & Hamadyk, 2018; Fein et al., 2021; Hamilton & Chen, 2014; Prince, 2004; Roder & Elliot, 2014). The training program may provide additional support for participants, including mentorship and advising, peer learning opportunities, and connections to employment (Fein & Hamadyk, 2018; Fein et al., 2021).

The customized training programs covered in this review often served workers with low incomes and limited work experience and other individuals with barriers to employment (Hamilton & Chen, 2014; Fein & Hamadyk, 2018; Fein et al., 2021; Maguire et al., 2010; Prince, 2004; Roder & Elliot, 2014). Young adults are another common target population of these programs (Fein & Hamadyk, 2018; Fein et al., 2021; Roder & Elliot, 2014). Customized training programs may also serve dislocated workers and trade-affected workers (Dunham, 2020; Park, 2012).

Several policies have supported the use of customized training. WIOA introduced changes to the Adult and Dislocated Worker programs to encourage use of customized training and other work

based learning opportunities (Dunham et al., 2020). DOL has supported other initiatives to encourage local investments in customized training, including the Sectoral Employment Demonstration, the High Growth Training Initiative, the Community Based Training Initiative, and the Workforce Innovation in Regional Economic Development Initiative (Besharov & Cottingham, 2011).

Can customized training improve outcomes?

The study team identified four impact studies of customized training programs in total. All four studies found positive impacts on earnings: two RCTs found long-term increases; another RCT found medium-term increases; and a descriptive outcomes study found short-term increases. Three of the four studies reviewed found positive impacts on employment. All four of the studies reviewed focused on individuals with low incomes, two of which focused specifically on young adults with low incomes. However, three of the four studies reviewed featured programs that included internships, making it difficult to determine the effect of the customized training itself.⁸

The Sectoral Employment Impact Study was an RCT of three customized training programs targeting disadvantaged jobseekers with low incomes (Maguire et al., 2010). The programs provided instruction in a range of industries, including construction, manufacturing, health care, medical billing, accounting, and information technology. All three programs required that participants have 6th- to 10th-grade reading and math levels and complete an interview to determine career goals and participation challenges. Other screening criteria varied across programs and target sectors and included having a high school diploma or GED, a driver's license, and a negative drug test. The study found that the programs increased earnings in the medium-term by 18 percent, or \$4,509, with average total earnings over the 24-month study period of \$28,934 and \$24,425 for program and control group members, respectively. In addition, individuals in the program group were more likely to be employed in the medium-term, working 1.3 more months on average during the 24-month study period, with program group members employed for 14.9 months on average and control group members employed for 13.6 months on average in the study period. The study also found that participants were more likely to work consistently, to work in jobs with higher wages, and to work in jobs that offered benefits. Notably, two of the programs featured internships, so the impacts may not be distinct from impacts for internship programs (these programs are also discussed in the Internships section at the end of this chapter).

Customized training has been offered as part of broader career pathways programs.⁹ The Pathways for Advancing Careers and Education (PACE) study evaluated nine programs that provided adults with low incomes with education or training tailored to specific occupations. Only one of the nine programs led to long-term increases in earnings: Year Up (Juras & Buron, 2021).

The Year Up program provided disconnected young adults with 6 months of full-time customized training in the IT and financial services sectors, followed by 6-month internships at major firms.¹⁰ Employers paid the program for the interns, and these payments served as a major funding source for the program. As such, the program tailored the training to ensure it met those employers' needs (Juras & Buron, 2021). In addition to the eligibility requirement of having a high school credential,

⁸ One of the impact studies was given a high quality rating by a clearinghouse.

⁹ Career pathways programs provide "postsecondary education that is organized as a series of manageable steps leading to successively higher credentials and employment opportunities in growing occupations" (Gardiner & Juras, 2019).

¹⁰ This section of the report highlights Year Up because of the program's emphasis on employer involvement in training: "The training phase is tailored to the specific needs of employers and focused on real-world skills" (Juras & Buron, 2021, p. v).

Year Up staff screened individuals to identify young adults who were motivated to succeed in the program and who faced life challenges that could be managed with help from the program (Fein & Hamadyk, 2018; Fein et al., 2021).

Using an RCT design, the PACE evaluation of Year Up found it increased average annual earnings by \$7,894 in the long-term, with average annual earnings of \$31,176 and \$23,346 for the program and control group members, respectively (Fein et al., 2021). The study reported that Year Up's earnings impacts "rank among the largest reported from RCTs of training programs for low-income adults to date" (Fein et al., 2021, p. viii). Although it had little impact on the overall employment rate, Year Up increased the likelihood of individuals working full-time in the medium-term by 11.1 percent, with 57.9 percent of program group members and 46.8 percent of control group members working full-time. Additionally, Year Up increased average hourly wages among employed individuals in the medium-term by \$3.35, with an average hourly wage of \$18.55 for employed program group members and \$15.20 for employed control group members. The study found a reduction in public benefits receipt based on survey data and did not find impacts on college enrollment. These findings echoed what was found in an earlier, smaller RCT of the program (Roder & Elliott, 2014).

A descriptive outcomes study assessed customized training funded by the Trade Adjustment Assistance program (Park, 2011).¹¹ Using Ordinary Least Squares regression to compare trainees and non-trainees, the study found that customized training increased the wage replacement rates (defined as the ratio of post-participation earnings to pre-participation earnings) of dislocated workers, but only when pre-participation earnings were controlled (while participants had very high post-participation earnings, they also had high pre-participation earnings). On the other hand, the study also found that customized training lowered dislocated workers' probability of reemployment by 2.7 to 3.4 percentage points, whereas on-the-job training programs increased this probability by 11.4 to 12.6 percentage points. To explain this finding, the study authors note that skills acquired through customized training may not be applicable to other jobs if a trainee is not hired by the company that the training was tailored to, which impedes reemployment success. The increase in reemployment success for on-the-job training participants is likely due to the requirement for employers to hire participants in order to receive the benefits.

What are important considerations for designing customized training programs?

Targeting a Sector. Several factors play a role in the successful implementation of customized training programs. Making an informed decision about which sector the customized training program should target is a critical first step. Key aspects to consider are sector growth and associated skill shortages, local demand for specific skills, and presence of adequate wage levels and fringe benefits for employees (Besharov & Cottingham, 2011).

Engaging Employers. Engaging employers throughout program design and delivery is another important aspect of successful customized training programs. Involving employers in program activities, such as curricula development, helps ensure the program meets the needs of employers (Besharov & Cottingham, 2011; Fein & Hamadyk, 2018; Roder & Elliot, 2014). Engaging employers is particularly important when a program targets a new sector or teaches new skills within a given sector (Besharov & Cottingham, 2011). Partnerships among education and training institutions,

¹¹ Customized training is one of many benefits and services offered under the Trade Adjustment Assistance program. Other benefits and services include reemployment services, relocation allowance, job search allowance, classroom training, and trade readjustment allowance (TRA) (Park, 2011).

employers, and other organizations in the region that leverage preexisting institutional relationships are key to enhancing employer engagement (Besharov & Cottingham, 2011).

Establishing relationships with employers can be challenging for programs. In two studies of programs that sought to increase the use of customized training, State and local administrators reported challenges to developing new customized training programs, including significant time required to establish relationships with employers, as well as extensive paperwork, costs of establishing programs, and insufficient time, knowledge, and expertise of staff to develop and monitor contracts (D'Amico et al., 2009; Dunham et al., 2020). Further research is likely needed to determine how to address these barriers.

Recruiting and Retaining Participants. Recruitment and retention of trainees, particularly those with low incomes, is another challenge for many customized training programs (Besharov & Cottingham, 2011). To address these challenges, some programs require commitments from trainees to remain engaged throughout training, while others provide trainees with tangible incentives to enroll and participate in the program (Besharov & Cottingham, 2011). In addition, providing support to participants during training, including transportation and child care assistance, referrals to housing and legal services, supplemental instruction, mentoring, basic skills training, and job search assistance, can play an important role in ensuring participants' success in the program and in employment (Besharov & Cottingham, 2011; Fein & Hamadyk, 2018; Fein et al., 2021; Maguire et al., 2010).

On-the-Job Training

What is on-the-job training?

The Federal workforce system has offered on-the-job training as part of its major employment and training programs for decades, including under the Job Training Partnership Act (JTPA) and the Workforce Investment Act (WIA). The most recent iteration of on-the-job training is authorized by WIOA, which succeeded WIA and sought to increase the use of work based learning activities such as on-the-job training (Dunham et al., 2020). WIOA defines on-the-job training as “training by an employer that is provided to a paid participant while engaged in productive work in a job that provides knowledge or skills essential to the full and adequate performance of the job” (WIOA sec 3[44]).¹² Employers hire the participant and provide the training, for which they are reimbursed, normally up to 50 percent of the participant's wage rate (though in one study, employers were reimbursed up to 90 percent of participants' wages) (Gasper et al., 2021). The structure and content of the training is individualized, workplace based, and specific to the job. It differs from customized training in that it normally does *not* include classroom-based training (Yount, 2021).

The length of time an employer can receive wage reimbursement for on-the-job training under WIOA varies but is limited to what is appropriate given the occupation in which the individual is being trained and the individual's previous work experience (and is normally fewer than 6 months). The employer expects to retain the participant after the wage reimbursement ends. Employers enter contracts with workforce agencies that lay out these expectations and agreements, including defining the parameters of the training.

¹² The study team relied on the WIOA definition for this activity based on the guidance provided in FNS-GD-2021-0118.

The populations served by the on-the-job training programs reviewed in this study varied, and some programs specifically targeted low-wage workers or individuals without postsecondary degrees or credentials (Martinson et al., 2015). However, because individuals must meet the skill requirements of the occupation, in some cases on-the-job training ended up being reserved for individuals with previous work experience or some form of training (Betesh et al., 2017; Holzer, 2015; Martinson et al., 2015; Yount, 2021).

Can on-the-job training improve outcomes?

The study team identified five RCTs of programs that offered on-the-job training and two descriptive outcomes studies. However, because on-the-job training often represented a small part of the programs, the impacts from these studies cannot be attributed to the on-the-job training itself.¹³

While earlier impact studies evaluated JTPA-funded on-the-job training, those studies were outside the scope of this review, which focused on studies published after 2004. A more recent RCT of WIA-funded training services found that few individuals participated in on-the-job training (only 5 percent of participants that enrolled in training enrolled in on-the-job training), and the study did not find that WIA-funded training led to improvements in employment or earnings outcomes in the short-term (Fortson et al., 2017). One descriptive outcomes study looked at on-the-job training specifically, examining earnings data for individuals before and after participating in South Dakota's WIA-funded training. The study found that on-the-job training was associated with higher employment and earnings in the short-term and that women experienced more of an increase in earnings than men. However, the effectiveness of on-the-job training appeared to fade over time (McEntaffer, 2015). WIOA-funded on-the-job training has yet to be rigorously evaluated.

Some studies of other programs included on-the-job training as part of their services (Betesh et al., 2017; Card et al., 2017; Hendra et al., 2010; Mabli et al., 2021; Miller et al., 2009; Miller et al., 2012; Werner et al., 2018). Although some of these programs have produced positive impacts on earnings in the short-term, their impacts cannot be attributed to on-the-job training because so few participants actually received on-the-job training in these programs (between 7 and 20 percent). The on-the-job training model has been adopted and studied in other contexts, including transitional jobs, and findings from those studies are discussed in the Transitional Jobs section in this chapter.

What are important considerations for designing on-the-job training programs?

Engaging Employers. As mentioned above, many programs have struggled to offer on-the-job training. Fewer than 15 percent of individuals receiving training through WIOA received on-the-job training (Dunham et al., 2020; Holzer, 2015). One barrier to delivering on-the-job training is staff capacity. It takes time to understand the specific needs of individual employers and develop and monitor on-the-job training contracts (D'Amico 2009; Dunham et al., 2020). Employers may hesitate to offer on-the-job training opportunities for many of the same reasons that programs gave: paperwork, time commitment, and contract requirements can deter them (Betesh et al., 2017; D'Amico, 2009; Dunham et al., 2020).

On the other hand, some employers found that on-the-job training opportunities saved them time in the long run by reducing the time and effort spent on recruiting candidates (Betesh et al., 2017;

¹³ Three of the impact studies identified were given a high quality rating by a clearinghouse.

Copson et al., 2020; Dunham et al., 2020; Martinson et al., 2015). In some cases, on-the-job training may be preferable to other work based learning models, such as apprenticeships or internships. On-the-job training requires fewer bureaucratic hurdles to set up than apprenticeships, and they are a more tailored, longer-term training option than internships (Dunham et al., 2020). In one grant program, staff responsible for recruiting employers for on-the-job training opportunities found that smaller employers tended to be more amenable and that employers in the advanced manufacturing industry were more willing than employers in the IT industry (Martinson et al., 2015).

Transitional Jobs

What is a transitional job?

A transitional job is temporary, paid work experience designed to provide workers with barriers to employment an opportunity to gain work experience and learn the employment skills necessary to transition to permanent, unsubsidized employment.

Because transitional jobs programs often include a wage subsidy, they can be considered a type of subsidized employment (Bloom, 2010). Subsidized employment programs have a long history in the United States, and although the design of these programs has evolved over the decades, the programs have shared some common goals. One is to provide work based income support, particularly in challenging economic times. For example, the American Recovery and Reinvestment Act (ARRA) of 2009 provided funding that supported the placement of 281,000 individuals in subsidized jobs in the midst of the Great Recession. Studies of ARRA funding found that States were able to create or scale up their subsidized employment programs quickly (in fewer than 12 months) (Bloom, 2010; Farrell et al., 2011; Pavetti et al., 2011; Roder & Elliott, 2013).

Other programs have sought to provide individuals with barriers to employment a chance to learn the basic skills and behaviors necessary to succeed in unsubsidized employment (Bloom, 2010). For individuals that may need less help in developing basic skills, but nonetheless have difficulty finding employment (e.g., individuals with limited or inconsistent work histories, individuals with involvement in the criminal justice system), wage subsidies can help incentivize employers to consider hiring such employees when they might otherwise not do so (Dutta-Gupta, 2016).¹⁴

There are many different models for subsidized employment and transitional jobs programs, depending on the goals and target populations served (Cummings & Bloom, 2020).

- **Traditional transitional jobs models** place participants into fully subsidized, temporary jobs that provide a more forgiving work environment. After performing well in these environments, individuals may be more likely to be hired by other employers in unsubsidized positions.
- **Wage subsidy models** are similar to on-the-job training. They place individuals the program considers more “job-ready” into open jobs in the private sector. The subsidy amount can vary, and some models use a step-down approach, choosing to reimburse the full wages in the first few months before decreasing the reimbursement over time to reduce the employer’s reliance on the subsidy and increase the chance the employer will keep the participant on after the subsidy ends (Farrell et al., 2011; Farrell & Webster, 2019).

¹⁴ This review focuses on programs whose goal is to help individuals with barriers to employment gain skills to help them succeed in unsubsidized employment as opposed to programs meant to provide temporary income support.

- **Tiered hybrid models** offer both traditional transitional jobs for individuals deemed less job-ready and wage subsidy jobs for individuals considered more job-ready.
- **Staged hybrid models** first place individuals in traditional transitional jobs before moving them into wage subsidy positions.

Although the exact combination of services varies from program to program, transitional jobs programs generally begin with some form of job readiness training before placing participants in a temporary wage-paying job. Normally the organization that runs the transitional jobs programs remains the employer of record, although there are examples of programs that ask employers to place participants on their payroll and then reimburse them (Roder & Elliott, 2013).¹⁵

The duration of these placements varies, lasting anywhere from 3 months to 1 year. Transitional jobs programs also often offer some form of case management as well as supportive services to help individuals succeed in the placements (e.g., transportation assistance, work-related financial support). To help participants transition into unsubsidized employment at the end of their transitional placements, programs include some form of job development, placement, and retention services (Bloom, 2010; Redcross et al., 2016). Some of the transitional jobs programs included in this review offered additional services, shown in the textbox to the right.

- Examples of Additional Services Provided**
- Child support assistance
 - Literacy and soft skills workshops
 - Financial planning
 - Occupational or sectoral skills training
 - Parenting classes
 - Mental health services

Temporary placements are the key feature of all transitional jobs programs; however, the placement types vary. In the “scattered-site” model, one organization runs the transitional jobs programs and facilitates placements for participants with nonprofit organizations, government agencies, private sector employers, or social enterprises. The textbox below describes the role social enterprises play with transitional jobs. In another model, participants actually work for the transitional jobs program. In a third model, the “work-crew” model, the transitional jobs program serves as the employer of record but assigns work crews to specific sites with government agencies or private sector employers where they are contracted to perform certain tasks (Barden et al., 2018; Redcross et al., 2016).

The Role of Social Enterprises

A subset of the literature focused on transitional jobs within social enterprises, which are “mission-driven businesses focused on hiring and assisting people who face barriers to work” (Rotz et al., 2015, p. xvii). Social enterprises seek to improve what is often referred to as a “double bottom-line”: financial viability as well as social impact. Social enterprises rely on the sale of goods, services, or both to help offset the wages of individuals they employ. Some of the social enterprises reviewed as part of this report also received grant funds from public sources, and cost-sharing between social enterprises and public benefit agencies was identified as a strategy to help provide participants with a more robust set of services (Alstadt, 2007; Hamersma & Heinrich, 2007; Maxwell et al., 2019).

The transitional jobs offered within social enterprises are similar to jobs in other organizations in that they often do not require experience or specific occupational skills (Cooney, 2011; Maxwell, 2019). There were some examples of innovative placements, such as an organization that taught participants how to farm honey and sell it at farmers markets.

The impact of transitional jobs within social enterprises are similar to jobs in other organizations; they increase employment in the short-term but do not tend to have longer-term impacts (Geckler et al., 2019). Several benefit-cost analyses showed that transitional jobs in social enterprises generate a positive return on investment for society (which ranged from \$1.13 to \$2.23) (Foley et al., 2018; Glennie et al., 2021; Rotz et al., 2015).

¹⁵ The employer of record is responsible for unemployment insurance and other employment-based taxes.

Can transitional jobs improve outcomes?

The study team identified 20 RCT studies, 3 QED studies, and 1 descriptive outcomes study. The transitional jobs programs the study team reviewed, described below, tended to serve workers with barriers to employment, including individuals receiving cash assistance, individuals who were formerly incarcerated, and noncustodial parents. These programs used different designs, and most succeeded in raising earnings and employment during the period in which individuals were in the transitional job. However, only a few succeeded in sustaining those increases longer-term. The studies also describe the many different ways transitional jobs programs can be designed, although determining which aspects led to longer-term impacts is difficult.¹⁶

New Hope was a 3-year program that offered a wage-paying community service job with low-cost health insurance and subsidized child care for individuals unable to find full-time work. However, only about one-third of New Hope participants worked wage-paying community service jobs at some point in the 3-year period. An RCT evaluation found that New Hope increased employment (program group members were employed in 72.7 percent of quarters in the medium-term compared with 67.2 percent of quarters for the control group).¹⁷ It also increased total income in the medium-term, from \$13,921 for the control group to \$14,971 for the treatment group (in 2005 dollars), although it did not increase annual earnings.¹⁸ Although the employment and earnings effects did not persist for the majority of participants, the subgroup of individuals facing moderate barriers to work experienced increased employment, earnings, and income in the long-term (Miller et al., 2008).

The Enhanced Services for the Hard-to-Employ Demonstration tested eight models designed to improve employment outcomes for individuals with barriers to employment from 2004 to 2006. One of the models, the New York Center for Employment Opportunities (CEO), was an employment program for individuals who were formerly incarcerated that included a job readiness class followed by a 2- to 3-month transitional placement at a job site where participants remained on CEO's payroll and were paid minimum wage. Participants also received job coaching and job placement services. An RCT evaluation found that CEO increased employment and earnings early in the short-term (66 percent of treatment group members were employed compared with 26 percent for the control group in the first quarter after random assignment), but those effects faded over time, and the initial increase in employment was due to the temporary jobs provided by the program.

CEO also led to reductions in recidivism in the medium-term (only 58.1 percent of the treatment group had ever been arrested, convicted, or incarcerated during the follow-up period compared with 70.6 percent of the control group). Impacts on nearly all recidivism outcomes were greater for individuals more recently released from prison (Butler et al., 2012; Redcross et al., 2009; Redcross et al., 2012). The CEO model has been successfully replicated in other cities (Broadus et al., 2016). Other studies have found transitional jobs to be an effective model for individuals who were formerly incarcerated, including an RCT evaluation that found an increase in earnings during the subsidy period and reductions in arrests in the short-term (Bloom, 2006; Cook et al., 2015).

Another site, Philadelphia's Transitional Work Corporation (TWC), served individuals receiving cash assistance who were unemployed and did not have a high school diploma or equivalent. The model included a placement in a transitional job at a government or nonprofit agency where participants

¹⁶ Thirteen of the impact studies identified were given a high quality rating by a clearinghouse.

¹⁷ Individuals could participate in the program for up to 3 years, so this follow-up period coincides with when individuals may have been in the program.

¹⁸ The study defined annual earnings as the sum of UI-based earnings, New Hope earnings supplements, EITC benefits, and public assistance benefits.

earned minimum wage; placements could last up to 6 months (Redcross et al., 2009). Participants also received assistance finding unsubsidized employment after the placement ended and could receive job retention services for up to 9 months after finding unsubsidized employment, including financial incentives for retaining unsubsidized employment (Bloom et al., 2007). TWC program group members had significantly higher employment rates (80.5 percent of the program group compared with 57.7 percent of the control group) and higher annual earnings (\$4,941 for the program group compared with \$3,698 for the control group) in the short-term (Bloom et al., 2009). However, these differences between the two groups faded by the fifth quarter after random assignment (Jacobs & Bloom, 2011).

Another test of transitional jobs was the Transitional Jobs Reentry Demonstration, which was implemented in four sites and provided individuals who were formerly incarcerated with temporary jobs that paid the minimum wage for 30 to 40 hours per week. The programs also provided other services, including job readiness, job coaching, and job search and placement. In some of the sites, participants received retention bonuses if they were able to find and retain unsubsidized employment. An RCT evaluation found that although the program increased employment in the short-term while participants were in transitional jobs, these impacts faded as participants left those jobs. No impacts on recidivism occurred (Jacobs, 2012).

In an effort to understand whether transitional jobs models could lead to longer-term outcomes, the United States Department of Health and Human Services (HHS) and DOL launched two large-scale demonstrations called the Subsidized Transitional Employment Demonstration (STED) and the Enhanced Transitional Jobs Demonstration (ETJD). These two demonstrations involved tests of 13 different transitional jobs programs that went beyond what had been tested before by including enhancements designed to address barriers specific to the programs' target populations (Cummings & Bloom, 2020).

- Three programs targeted formerly incarcerated adults.
- Four programs targeted public assistance recipients.
- Four programs targeted low-income noncustodial parents.
- Two programs targeted disconnected young adults.¹⁹

Overall, the demonstrations found that if implemented well, transitional jobs programs can increase employment and earnings during the time individuals are in the transitional jobs. Average annual earnings increases ranged from \$961 to \$3,735 in the short-term (Barden et al., 2018; Bloom, 2007; Cummings & Bloom, 2020; Farrell & Webster, 2019). Some programs increased earnings for a brief period after the subsidy ended. Average annual earnings increases ranged from \$684 to \$2,412 in the medium-term (Anderson et al., 2019; Barden et al., 2018; Cummings et al., 2018; Cummings & Bloom, 2020; Farrell & Webster, 2019; Glosser et al., 2016; Redcross et al., 2016; Skemer et al., 2017; Walter et al., 2017). These earnings increases translated into increases in self-reported wellbeing in the short-term (Williams & Hendra, 2018). When compared with two other Federal RCTs of programs targeting unemployed and underemployed noncustodial parents that offered less intensive employment services (including job search, job readiness, and job development), ETJD had larger impacts on employment and earnings (Sorensen, 2020).

¹⁹ Given the target population and the goals of the programs targeting young adults, the report discusses them in the Internships section instead.

However, few were able to maintain those impacts long-term. Among the programs that did have longer-term impacts, the differences in their model types, target populations, and other characteristics make drawing firm conclusions difficult about what works best and for whom (Barden et al., 2018; Cummings & Bloom, 2020).

- RecycleForce in Indianapolis operated a traditional transitional jobs program where participants were placed at one of three social enterprises, including an electronics recycling plant. Workers who had been formerly incarcerated provided training and supervision to participants, serving as peer mentors. The program also offered occupational training, case management, job search assistance, work-related financial support, and child support–related assistance. Participants could later be hired as unsubsidized employees. RecycleForce increased annual earnings by \$3,150 in the short-term and \$914 in the long-term.
- The Los Angeles County Department of Public Social Services operated a traditional transitional jobs program called Paid Work Experience (PWE), which involved a 6-month, fully subsidized placement in a public sector or nonprofit position. Participants were paid the minimum wage by an intermediary as opposed to being placed on the employer’s payroll. PWE increased annual earnings by \$2,720 in the short-term and \$1,281 in the long-term.
- The San Francisco County Human Services Association operated a wage subsidy program called STEP Forward, which scheduled interviews with private employers for individuals determined to be job-ready (participants who needed additional training were first placed in job readiness activities). The jobs lasted 5 months and were typically subsidized up to \$1,000 per month. STEP Forward increased annual earnings by \$1,610 in the short-term and \$2,941 in the long-term.
- Goodwill Industries operated a tiered hybrid model in San Francisco called Transitions SF, which had participants first take an assessment followed by 2 weeks of job readiness training before being placed into one of three tiers of subsidized jobs depending on their readiness: 1) nonprofit, private sector jobs mainly at Goodwill; 2) public sector jobs; or 3) for-profit, private sector jobs. Some participants received modest incentives for meeting certain participation milestones as well as assistance with their child support cases. Transitions SF increased annual earnings by \$3,735 in the short-term and \$2,177 in the long-term.

Similar to what earlier reports found, the transitional jobs programs tested under STED and ETJD tended to work best for individuals who had more significant barriers to employment. Nearly all programs produced larger impacts among individuals who had been out of work for more than 1 year when they were enrolled, at higher risk of recidivism, or without high school credentials when they enrolled.

What are important considerations for designing transitional jobs programs?

Program leaders make several decisions about how to design transitional jobs programs, including type of placements, structure of the subsidy, and additional wraparound and retention services offered.

Pursuing Placements. The type of placements programs pursued affected the number of individuals they were actually able to place in transitional jobs and, thus, the program’s ability to increase employment and earnings in the short-term. Traditional transitional jobs programs, which did not expect employers to keep participants on after the subsidy ended, generally succeeded in placing participants into subsidized jobs. Two of the four STED and ETJD programs that led to

longer-lasting impacts pursued these types of placements for their participants. Programs that used the tiered hybrid or wage subsidy models, where there was more of an expectation that the placements would transition to unsubsidized jobs, struggled to find employers willing to participate and were less successful placing participants (Cummings & Bloom, 2020; Farrell & Webster, 2019). Despite their low placement rates, two STED and ETJD programs that pursued these kinds of placements led to longer-lasting impacts. Understanding the tradeoff between emphasizing the possibility of moving individuals into unsubsidized positions on the one hand and being able to recruit enough willing employers and make enough placements on the other hand is an important factor to consider when designing transitional jobs programs.

Most transitional jobs programs focused on getting participants quickly into temporary paid positions without much focus on matching participants' interests with open positions. However, some programs that focused on matching participants' interests when making placements saw positive results. Although not rigorously tested, a qualitative study of the ARRA-funded transitional jobs program found that having positions that matched participants' interests was important for retention and to ensure participants were meeting employers' needs (Farrell et al., 2011). The STEP Forward program (one of the STED and ETJD sites with lasting impacts) had case managers rank how well a participant would fit a particular job, and only individuals with the highest-ranking scores were selected to interview for those positions. Although this approach made placing participants especially difficult for the program (see earlier discussion), it may mean the smaller number of placements made were a better fit (Cummings & Bloom, 2020; Walter et al., 2017). Another qualitative study of a program targeting disconnected older youth found that matching worksites with participants' interests and goals contributed to productive work experiences that benefitted both participants and employers (Holcomb et al., 2011).

Engaging Employers. Some programs found ways to engage employers unrelated to the placements themselves. A qualitative study of four transitional jobs programs found that employers were interested in being involved at the outset of designing transitional jobs programs and participated in setting goals for the program (Taylor et al., 2016). Another program created employer advisory boards as a mechanism for employers to provide feedback or to review the training clients received before being placed in transitional jobs (Antkowiak & Bertsche, 2011).

Considering Program Length. Another aspect program designers should consider is the length of the subsidy. The transitional job placements included in this review were as short as 2 weeks or as long as 12 months (although between 3 and 6 months was typical) (Alstadt, 2007; Bloom et al., 2007; Bloom et al., 2009; Butler et al., 2012; Farrell & Webster, 2019; Miller et al., 2008; Redcross et al., 2016; Rotz et al., 2015). However, programs with longer-lasting interventions may be particularly likely to improve employment and earnings. Although no research has isolated the impact of subsidy duration within transitional jobs programs on participants' outcomes, a review of the evidence found that programs lasting longer than 14 weeks tended to have better outcomes (Dutta-Gupta, 2016; Yahner & Zeig, 2012).

Providing Additional Services. As mentioned above, many transitional jobs programs provided additional supports to help individuals succeed in their placements. Although knowing the most effective supportive services is difficult (because rigorous evaluations of programs do not test these services separately), tailoring the supportive services to the individual population was identified as a promising practice in a review of the evidence on transitional jobs (Dutta-Gupta, 2016). The availability of affordable child care has been highlighted specifically as a key factor in promoting retention and completion in other employment and training programs (Johnson & Spiker, 2018).

Another feature of many transitional jobs programs is the additional job training services offered. Combining transitional jobs with basic skills training or occupational skills training was highlighted

as a promising practice for individuals facing substantial barriers to employment, and some Tribal TANF programs offered these services as part of their transitional jobs programs (Dutta-Gupta, 2016; Fink, 2018; Glosser & Ellis, 2018; Hamilton, 2012; Johnson & Young, 2010). Ensuring that the training is relevant to the transitional placements was also cited as an area for improvement by participants of transitional jobs programs (Fink, 2018). RecycleForce, one of the ETJD and STED models with long-term impacts, offered occupational training to all its participants.

Job development, placement, and retention services were key to ensuring participants found unsubsidized employment after their transitional placements ended. These services can be logistically challenging to coordinate in models where participants work at one organization and receive case management and job development or placement services from another (Bloom, 2010). Finding a way to strengthen this connection across services and adding intensive supports to facilitate the transition from the transitional job into the unsubsidized job could be one way to improve long-term outcomes for participants (Johnson & Young, 2010). For example, participants of subsidized employment programs reported low success rates applying to jobs from a general list. Moreover, they said having a staff member at the transitional jobs program make connections with unsubsidized employers directly on their behalf was key (Fink, 2018).

Understanding Impact on Benefits. Understanding how the wages earned from a transitional job impact an individual's benefits is key to ensuring that participation in transitional jobs leaves participants better off. A study of ARRA-funded transitional jobs programs found that in most States the earnings from subsidized jobs did, in fact, render participants ineligible for TANF. Some States were able to avoid this issue by combining education activities with part-time subsidized employment (Farrell et al., 2011). The transitional jobs programs included in this review had mixed effects when it came to benefit receipt; some led to reductions in benefits that offset earnings gains, while others did not change benefit receipt at all (Anderson et al., 2019; Bloom, 2010; Farrell & Webster, 2019). One study found that individuals who participated in transitional jobs were potentially less likely to be eligible for SNAP due to their higher earnings (Barden et al., 2018). A generous earned income disregard policy can help ensure participants continue to receive the benefits they need (Altstadt, 2007; Person et al., 2008). The programs in States with higher income earnings disregard experienced less of a reduction in TANF receipt (Anderson et al., 2019; Farrell & Webster, 2019; Glosser et al., 2016). One of the STED and ETJD programs that led to longer-term impacts offered to reduce participants' child support payments if they participated in the program, which meant they were able to keep more of their increased earnings (Cummings & Bloom, 2020). Another program offered, in addition to transitional jobs, a State refundable earned income tax credit for noncustodial parents if they paid their full child support amount (Lippold et al., 2011). Although not a transitional jobs program, the Jobs Plus program also included a work incentive that allowed individuals to earn more without their rent subsidy's being reduced (Bloom et al., 2005).

Incumbent Worker Training

What is incumbent worker training?

Incumbent worker training is a training model that seeks to upgrade the skills of current employees (Loprest et al., 2017; Martinson et al., 2015; Yount, 2021). The training is designed to prevent employer layoffs, address employer skill needs, provide career advancement opportunities to employees, increase wages, and create new jobs in lower-skill positions (Deutsch et al., 2021; Holzer & Martinson, 2005; Loprest et al., 2017; Martinson et al., 2015; Negoita & Goger, 2020; Yount, 2021).

Employers may deliver training themselves, or they may partner with an educational institution, such as a community college, to provide training (Martinson et al., 2015; Schultz & Seith, 2011). Training often occurs at the employer’s workplace, though it may also be delivered online or at a training institution (Martinson, 2010; Martinson et al., 2015; Schultz & Seith, 2011). Employers may provide paid release time to employees for time spent attending training (Bergson-Shilcock, 2020; Martinson, 2010; Martinson et al., 2015; Schultz & Seith, 2011). Training content may include OJL, mentoring, and basic skills training (Deutsch et al., 2021; Schultz & Seith, 2011).

States typically operate incumbent worker training programs, providing grants to employers to partner with training providers to offer training to their employees (Holzer & Martinson, 2005; Martinson et al., 2015). Programs are often funded through employer taxes, including unemployment insurance (UI) tax offsets, UI penalty and interest funds, and separate employer taxes (Martinson, 2010; Martinson et al., 2015). In addition, WIOA provides funding to incumbent worker training programs (Yount, 2021). DOL initiatives, such as the H-1B Technical Skills Training grant program, have also implemented incumbent worker training programs (Martinson et al., 2015). Several incumbent worker training programs have been implemented in the health care sector (Loprest et al., 2017; Office of Community College Research and Leadership, 2015).

Incumbent worker training programs tend to serve mid- and high-skilled workers; consequently, low-skilled workers with low incomes may be less likely to benefit from these programs (Holzer & Martinson, 2005; Martinson, 2010; Prince, 2004; Tessler et al., 2021). However, several incumbent worker training programs have focused on increasing opportunities for low-skilled workers with low incomes (Miller et al., 2004; Office of Community College Research and Leadership, 2015; Schultz & Seith, 2011). For example, Louisiana’s Incumbent Worker Training program prioritizes employers that hire recipients of public assistance or unemployment benefits and individuals recently released from a correctional facility (Miller et al., 2004). Similarly, California’s Employment Training Panel (ETP) (discussed more below) sets aside a portion of funds to help current and former recipients of public assistance (Miller et al., 2004).

Can incumbent worker training improve outcomes?

The study team identified four outcomes studies of incumbent worker training programs. One QED study found that incumbent worker training increased workers’ short-term earnings. Two descriptive outcomes studies found that incumbent worker training was positively associated with employment outcomes for workers. Another QED study of incumbent worker training found increases in companies’ employment and sales in the medium-term, with larger impacts for older companies and small to mid-size companies.²⁰

The first nonexperimental impact study assessed impacts of the New York City Business Solutions Customized Training (CT) program, which targeted incumbent workers with low incomes in New York City (Hamilton & Chen, 2014). The study compared CT participants’ wages to wages of similar workers who received training through Workforce1 Career Centers (WF1CC). Through one-to-one nearest neighbor matching, the study found that the program increased CT participants’ hourly wages more than the WF1CC services did in the short-term, with a 10 percent increase for CT participants (or a \$1.63 increase in hourly wages, from \$16.94 to \$18.57) compared with a 1 percent increase for individuals receiving WF1CC services (or a \$0.14 increase in hourly wages, from \$16.43

²⁰ None of the impact studies identified were given a high quality rating by a clearinghouse. While the study team identified one randomized controlled trial, the study did not feature incumbent worker training as a core component of program services, and so it is not included in this section.

to \$16.57). In addition, the study compared CT participants' wages to New York City workers who received general employment services through WIA, making a series of exclusions to match the two groups. The study found that CT participants' wages increased more than wages of the matched comparison group in the short-term, with a 9 percent increase for CT participants (or a \$1.59 increase in hourly wages, from \$17.93 to \$19.52) and a 5 percent increase for the general population of New York City workers (or a \$0.85 increase in hourly wages, from \$16.22 to \$17.07).

A descriptive outcomes study analyzed organizations' formal training programs.²¹ Using multiple regression, the study found that training hours were positively related to the medium-term frequency of employees' internal promotion within the organization over a 2-year period (West, 2010). The study also found that training for employees that focused on job-specific skills was the only training type that contributed significantly to the number of hours trained by the organization.

A second descriptive study assessed the short-term employment outcomes of incumbent workers who participated in the TechHire grant program, which provided accelerated skills training to a range of individuals with barriers to employment (Gasper & Baier, 2021). Using a pre-post survey, the study found that 22 percent of incumbent workers retained their current positions and that 32 percent advanced into new positions. The study noted that some incumbent workers may have not yet completed training and that some grantees may not have been able to track incumbent workers' employment outcomes, particularly if the worker left the employer while in training.

Another study assessed the nonexperimental impacts of California's ETP, an incumbent worker training program that provided funding to reimburse companies for training their employees (Negoita & Goger, 2020). Companies were in the construction, manufacturing, high-tech and technical services, and health care industries. Using propensity score matching, the study found that ETP funding increased employees at the funding site by 21.9 percent in the medium-term. This finding indicates that ETP funding generated jobs or prevented job loss. Additionally, the study found that ETP funding increased company sales by 46.7 percent in the medium-term, indicating that it may have improved labor productivity and competitiveness, which contributed to increased revenue. In a subgroup analysis of companies, the study found stronger positive impacts on older companies (more than 10 years old) and on small- or mid-size companies (between 19 and 100 employees) and negative impacts for small businesses of fewer than 18 people and young companies under 10 years old. The findings from this study indicate that State-funded incumbent worker training programs can succeed in increasing employment at companies and that company size and age should be taken into consideration when considering impacts. Although the study demonstrated higher employment at companies, it did not measure the impact from the perspective of workers and whether individuals who had the training available to them were more likely to remain employed or to have increased earnings.

What are important considerations for designing incumbent worker training programs?

Addressing Worker Needs. Addressing workers' needs, particularly needs of workers with low incomes and limited work experience, is important to facilitating their access to and success in incumbent worker training programs. Financial supports, such as providing workers with paid release time (or "equal match") for time spent during training, can encourage workers to attend training and alleviate concerns about reduced wages due to training (Martinson, 2010; Martinson et

²¹ The study used data that was collected from 1996 to 1997.

al., 2015; Schultz & Seith, 2011). For example, the State-funded Pennsylvania Incumbent Worker Training Fund required employers to provide an equal match in the form of paid release time (Martinson, 2010). Helping cover workers' tuition and other training-related costs (such as transportation or child care expenses incurred while attending training) can help further alleviate the financial burden of training (Office of Community College Research and Leadership, 2015; Schultz & Seith, 2011).

In addition to financial support, programs can address logistical burdens around attending training by offering trainings online or at the worksite (Martinson et al., 2015). Finally, providing academic support can help groups with barriers to employment that may lack academic readiness needed for program success, such as reading, math, and other basic skills (Taylor, 2011). Integrating basic skills training into incumbent worker training programs can help address workers' deficits in basic skills and enhance their engagement in the program (Martinson, 2010). For example, a New Jersey-based incumbent worker training program offered basic skills training, which allowed it to reach a range of workers with limited work experience, including immigrants and TANF recipients (Martinson, 2010).

Engaging Employers. Engaging employers is a critical aspect in successful implementation of incumbent worker training programs, increasing the legitimacy of programs in the eyes of employees and allowing programs to adapt with agility to employers' changing needs (Loprest et al., 2017; Schultz & Seith, 2011). Several factors can make engaging employers in incumbent worker training programs challenging, including employers' inability to promote trainees given limited advancement opportunities; employers' concerns about trainees seeking employment at another company on program completion; employers' reluctance to pay for worker training or to increase workers' salaries on training completion; and extensive paperwork and reporting requirements for employers (Bergson-Shilcock, 2020; Dunham et al., 2020; Holdbrook et al., 2021; Schultz & Seith, 2011; Taylor, 2011).

One effective strategy to address employers' concerns around competition and training costs is to create partnerships that convene businesses with similar training needs, which can help reduce costs and competitive risks from investing in training (Martinson, 2010). Appealing to employers' need for skilled workers can be another effective way to engage employers. A study of Adult and Dislocated Worker programs found that allowing employers to use incumbent worker training for upskilling under WIOA helped popularize it (Dunham et al., 2020). Emphasizing other benefits to employers, such as higher productivity and lower costs, may also help engage employers (Holzer & Martinson, 2005).

Employers may be involved in various aspects of design and delivery of incumbent worker training programs, including identifying workers to participate in training, designing curricula based on their skill development needs, selecting providers, and delivering training (Martinson et al., 2015). To enhance employers' engagement in program delivery, programs can provide employers with career coaches or retention specialists or can identify employer staff to serve in these roles (Taylor, 2011).

Internships

What is an internship?

An internship is a planned, structured learning experience that takes place in a workplace for a limited period of time, which provides individuals an opportunity to learn more about a job or a career. Internships, which can be paid or unpaid, typically last around 3 months (Sattar, 2010). Although they share many features of transitional jobs, they tend to serve younger individuals

(usually between ages 18 and 24) and have a broader set of goals beyond simply moving individuals into unsubsidized employment, such as encouraging young adults to enter and complete education (Fink, 2018; Wilmer & Bloom, 2014). The programs reviewed in this study tended to serve disadvantaged young adults and offered job readiness workshops and classes to prepare individuals for their internships. Some programs combined internships with occupational or sectoral training.

Can internships improve outcomes?

The study team identified 10 impact studies of internships: 9 used RCTs and 1 used a QED. The studies found that six programs increased employment or earnings in the short-term, three programs increased earnings in the medium-term, and only one of the programs sustained impacts in the long-term. However, three of these programs also included sectoral, occupational, or customized training, making determining the effect of internships on their own difficult.²²

The New York City Justice Corps was a 6-month program for young adults (ages 18 to 24) with criminal justice involvement that included three phases: 1) job readiness training, 2) participation in community service, and 3) internships in public and private sector organizations. Paid internships lasted a minimum of 6 weeks and were with public and private sector employers. An RCT found that the program increased participants' employment rates and earnings in the short-term. However, the study was unable to identify impacts on outcomes related to education and recidivism (Bauer et al., 2014).

The Young Adult Internship Program (YAIP) provided similar services for youth (ages 16 to 24) who were neither working nor in school and had at least a sixth grade reading level.²³ The program comprised three phases: 1) job readiness workshops and activities, 2) temporary (10 to 12 weeks) paid internships, and 3) placement and retention in unsubsidized employment, education, training, or the military. YAIP increased participants' employment rates and earnings in the short-term but was unable to sustain those impacts longer-term, and the program apparently did not influence enrollment in education. The study authors hypothesized that a 3-month intervention may be too short to lead to long-term gains in employment and earnings or that YAIP did not provide sufficient job search development and placement assistance (Cummings et al., 2018; Skemer et al., 2017). A QED study of the STEP-UP program in Minneapolis, which provided youth ages 14 to 21 with training and internship placements, also failed to find evidence of positive program effects on most school-related outcomes (Reich, 2018).

A small-scale RCT of the Bridges to Pathways program found similar results. The program offered a 12-week subsidized internship to formerly incarcerated male youth in Chicago in addition to classes to help individuals earn their GED or High School Equivalency credential, employability skills training, cognitive-behavioral therapy, and intensive case management. The focus of the internship was to provide soft skills training for youth. The study found that the program reduced felony arrests in the short-term (34.2 percent of the treatment group was arrested for a felony compared with 41.2 percent of the control group). It also found increased employment in the short-term (68.2 percent of the treatment group was ever employed compared with 50.1 percent of the control group), but this outcome was likely due to participation in the subsidized internships (Wasserman et al., 2019).

²² Five of the impact studies were given a high quality rating by a clearinghouse.

²³ We discuss the YAIP program (which was included in the STED evaluation) in the Internships section in this chapter, as opposed to the Transitional Jobs section, because of the program's target population and goals.

Some programs combine internships with customized, sectoral, or occupational training. Discussed in the earlier Customized Training section in this chapter, an RCT of Per Scholas and JVS-Boston (the two programs in the Sectoral Employment Impact Study that featured internships) found increases in earnings in the medium-term, and RCTs of Year Up found long-term earnings increases (Fein et al., 2018; Fein et al., 2021; Maguire, 2010; Roder & Elliott, 2014).

What is an important consideration for designing internship programs?

Recruiting Employers. Like all work based learning activities, recruiting employers is key to successfully implementing internship programs. Several studies cited the importance of accurately understanding and assessing employers' needs and relying on existing employer relationships to develop internship placements (Manno et al., 2015; Rutschow & Taketa, 2019; Wasserman et al., 2019). One program used "asset-based marketing techniques," focusing on how its participants could help meet the needs of the employer and on the value they could add to the company. Year Up program staff used a similar strategy, highlighting how the internship could help address employers' hiring needs (Fein, 2018). Programs also presented internships as a way for employers to give back to the community, which appealed to employers.

However, some employers hesitate to provide placements to individuals they perceive as having limited experience or professionalism (Takyi-Laryea et al., 2017; U.S. Department of Labor, 2019). Employers may also hesitate to provide internship placements because they prefer to hire individuals with more experience rather than recent graduates of a training program (Tessler et al., 2021). The relatively short duration of internships was also cited as a deterrent by employers: if they were going to go through the administrative hurdles of offering work based learning, they would rather invest in activities, such as apprenticeships or on-the-job training, that would likely lead to longer-term placements (Takyi-Laryea et al., 2017). Some employers were concerned about the legal liability of offering internships (Bucci, 2016).

One way programs convinced employers to provide internship placements was to provide the training necessary for the positions and to closely align that training with employers' needs. One program worked with a hospital to create an administrative assistant course that covered the skills necessary for several positions at the hospital. Once participants had completed the course, they were placed in a 4-month paid internship at the hospital (Rutschow et al., 2019). Year Up program staff actively sought feedback on their curricula from employers using online surveys, revising the curricula to ensure the training individuals received before being placed in internships was responsive to employers' needs (Fein & Hamadyk, 2018). However, creating training tailored to a single employer can be challenging if that employer's needs change quickly (Cooney, 2010).

Internships may lead to full-time employment after the training period. To ensure successful placements, taking into account both employer and participant needs is important. One study found that an employer integrated job shadowing into its internship program to provide interns the opportunity to better understand what a job entails and to determine whether they would want a job at the company (Gasper et al., 2021). The study also found that employers appreciated having the opportunity to screen potential hires.

3. Integrating Work Based Learning into SNAP E&T

The previous chapter provides a detailed overview of the literature on work based learning approaches through a review of 144 studies. This chapter presents implications from that literature for States considering implementing work based learning approaches as part of their SNAP E&T program services.

The review of the literature provided a great deal of information on the best understanding of each activity's effectiveness based on the available evidence, the experiences of programs in implementing the activities, and other considerations about work based learning approaches, that has implications for SNAP E&T programs. This chapter summarizes some of the most relevant findings.

That the review does not definitively identify a single work based learning activity as the most effective for helping SNAP E&T participants improve their economic wellbeing over time is important to note—for several reasons. First, few impact studies were available for some of the activities, and where such studies existed, their rigor was often too low to be definitive.²⁴ Second, given that work based learning is a new area of focus for SNAP E&T programs, the literature largely did not come from a SNAP E&T context.²⁵ Features of the programs studied may differ in key ways from how such activities will be implemented by SNAP E&T programs.

Most notably, as discussed further below, the target populations of the studied programs often differed from the populations served by SNAP E&T and, therefore, findings from those studies may not directly apply to programs serving SNAP E&T participants. Finally, the programs studied involve combinations of services beyond the work based learning itself, and the impact studies do not isolate the features of the programs responsible for positive impacts.

In discussing the implications of the findings for SNAP E&T programs, this report is informed by the November 2021 FNS memorandum, which provided guidance to States on implementing work based learning activities (Food and Nutrition Service, 2021a). That memorandum described requirements arising from the amended Federal rules for SNAP E&T and recommended implementation strategies for consideration by States planning to establish work based learning activities. The textbox below presents the requirements and recommendations that the memorandum described.

²⁴ See a more thorough discussion of the extent and rigor of evidence found for each activity in Appendix A: Research Methodology.

²⁵ One exception is the study of ten SNAP E&T pilots authorized and funded by the Agricultural Act of 2014, which tested innovative strategies including work based learning and which provides some important lessons for implementing work based learning in a SNAP E&T context. We highlight relevant findings from this study here in Chapter 3 as opposed to Chapter 2 due to the fact that the study did not separate out findings by specific work based learning activity.

This chapter summarizes overall themes arising from the review’s findings that have particular implications for implementing work based learning models in SNAP E&T, and in the context of each theme, discusses considerations for States regarding the design and implementation of those models. A final section, Areas for Future Research, discusses potential areas for additional research to fill gaps about the effectiveness of work based learning models.

***Federal Requirements and Recommendations for
Subsidized Work Based Learning Activities***

Subsidized work based learning activities must meet the following requirements.

- Improve employability and enable participants to move promptly into regular public or private employment
- Be a planned, structured learning experience that takes place in a workplace or simulated environment
- Include sustained interactions with industry or community professionals in a real world or simulated environment
- Foster in-depth firsthand engagement with the tasks required in a given career field
- Be aligned with a curriculum (i.e., an instructor’s plan for providing training and skill development) and instruction
- Emphasize employer engagement in the development and/or execution of the training.
- Have specific training objectives (i.e., goals for what a participant is expected to learn and be able to do by the completion of the training)
- Follow an articulated and documented path that leads to regular, unsubsidized employment
- Pay the individual a wage at least equal to the State or Federal minimum wage, whichever is higher. Note this refers to the wage including the subsidy
- Operate in compliance with all applicable labor laws
- Not displace or replace existing employment of individuals not participating in E&T
- Provide the same benefits and working conditions as non-E&T participants doing comparable work for comparable hours

Subsidized work based learning activities should strive to adhere to the following recommendations.

- Follow an evidence-based training plan with a clearly defined skills element that aligns with the participant’s training plan
- Be limited to six months (with exceptions for registered apprenticeships and other compelling programs)
- Permit individuals to participate only once per twelve-month period with some exceptions as described in the memo
- Not constitute more than three percent of the workforce for private, for-profit employers and E&T providers

Source: Food and Nutrition Service, “SNAP Employment and Training Subsidized Work Based Learning Activities” (November 17, 2021).

Considerations for Implementing Work Based Learning Models in SNAP E&T

Some clear themes emerged from the review of the literature. This section summarizes several that are most relevant to the study goals and discusses their implications for States looking at implementing work based learning activities within their SNAP E&T programs.

Many work based models have strong short-term impacts on earnings and employment outcomes during a placement in a work based learning position; a smaller set of models provide promising evidence for longer-term impacts. Studies of transitional jobs programs typically find strong evidence of their positive impacts on earnings and employment during the transitional job itself. This finding is not just a self-evident consequence of the jobs and earnings the placements provide; the positive impacts demonstrate that the programs are successful in targeting and placing into transitional jobs individuals who would not have found other employment during this period without the program. Although this finding is clearest for transitional jobs programs, some studies of other activities, including internships, had similar findings.

Many of the studies that found short-term impacts that occurred during a subsidized work based learning placement did not show longer-term impacts after the subsidy period ended. However, for all activities except OJT, one or more reviewed studies found some type of positive impact on earnings or employment beyond the timeframe of a work based placement.²⁶ Further, the longer-term findings for apprenticeships and customized training were more promising than for other types of work based learning. Most impact studies of such programs that looked at longer-term employment outcomes found positive impacts; however, the number of impact studies identified for those activities was smaller than for some other activities.

Given that few studies found that programs demonstrated longer-term employment and earnings outcomes, programs should focus attention on the strategies they have to facilitate the unsubsidized employment of participants after the work based placement ends. SNAP E&T funds can support various strategies. One hundred percent or 50 percent reimbursement funds can pay for a variety of services for that stage, such as job development. (More detail about services that can accompany work based learning activities appears later in the chapter.) Further, programs may be able to use 100 percent or 50 percent reimbursement funds as incentives for contracted partners delivering work based learning activities to focus on unsubsidized employment (e.g., through bonus awards to providers for each successful unsubsidized placement). Such payments can be considered administrative costs so long as they are not used to provide bonuses or incentives to the participants themselves (which under SNAP E&T rules cannot be supported through administrative funds). Providers can also be strategic about employers they select for subsidized placements by identifying employers that have unsubsidized positions to fill that present an opportunity for placements to become permanent jobs. States could further support this transition to unsubsidized employment through use of the job retention component by continuing to provide case management and participant reimbursements. Such services could help participants address potential barriers to succeeding in the early months of unsubsidized employment, such as problems with child care or transportation, which may make employers more willing to hire them in an unsubsidized capacity.

²⁶ Although this report primarily focuses on employment and earnings outcomes, that several programs demonstrated impacts on outcomes other than earnings and employment should also be noted. For example, some transitional jobs programs serving people who had been released from incarceration led to a reduction in recidivism. A study of incumbent worker training programs found that they can help increase employment at the companies in which they operate.

The literature contains themes that can help inform programs' considerations of each activity type. As noted earlier, the studies reviewed do not definitively demonstrate that any work based learning activities will be consistently effective in improving outcomes for SNAP E&T clients. Nonetheless, some notable conclusions occur for some of the activity types that arise from the discussion in Chapter 2.

- **Transitional Jobs.** Although most transitional jobs programs did not lead to impacts that persisted after the subsidy period, some did; the reasons for their success are unclear, but they suggest potential lessons for future programs. Several of the transitional jobs programs discussed in Chapter 2 demonstrated impacts on earnings or employment in the medium- to long-term, including 4 of 13 interventions studied as part of the recent DOL and HHS initiatives. However, no consistent features explain what factors led these programs to succeed more than others. Nonetheless, the body of research suggests potential lessons for SNAP E&T programs that choose to implement transitional job activities. For example, programs that offer transitional jobs expected to become permanent and that try to place participants in jobs matching their interests face higher challenges placing participants in transitional jobs but may achieve better longer-term impacts because of the improved outcomes among participants they succeed in placing. Well-targeted supportive services, such as child care for custodial parents or occupational skills training, may help individuals succeed in the placements. Robust job development following the transitional job is particularly important for models that do not expect the transitional job to become permanent.
- **Apprenticeships.** Apprenticeships have shown impacts in QED studies. Chapter 2 discussed three QED studies that found earnings impacts from apprenticeship programs at various periods ranging from a few quarters after program entry up to 9 years after program exit. As discussed more below, these programs typically have not served individuals facing the highest barriers to employment, but newer programs have been making efforts to expand the populations they serve. To the extent such efforts are successful, the findings from the QED studies suggest that apprenticeship programs may be a promising training model for some SNAP E&T participants.
- **Customized Training.** Chapter 2 reported that several impact studies of customized training programs found that the programs increased earnings and employment outcomes in the short- and medium- term for participants with lower incomes, limited work experience, and other barriers to employment. A set of youth-focused customized training programs (that overlap with the internship activity) also found strong impacts into the long-term. These findings are well-known among the employment and training research community, and sectoral training approaches are seen as among the most successful in recent generations of employment and training programs. (The impact evaluations, however, are unclear on the extent to which the success of the programs is related to the work based learning activities versus other factors.) As discussed earlier, factors seen as contributing to the success of these programs include determining and targeting growing sectors with adequate wages and the presence of local demand for employees with specific skills; engaging employers throughout program design and delivery; and providing supports to participants during training. Further, many of the programs demonstrating successful impacts had screening processes to ensure participants were an appropriate match for the program, both in interest

and ability. So these programs did not serve participants with particularly high barriers or with limited basic skills and may be promising for only a subset of SNAP E&T participants.

- **OJT and Incumbent Worker Training Programs.** The review found little evidence to support use of WIOA-style OJT or incumbent worker training; SNAP E&T programs may want to deprioritize these models. Alternatively, programs interested in these approaches may have to be creative in adapting them. WIOA-style OJT opportunities typically have not targeted entry- or lower-level positions in the labor market. To serve SNAP E&T participants, OJT opportunities may have to shift to broader application in the labor market and also be supported through other trainings or services beyond what is typical in WIOA-funded OJT programs. Similarly, incumbent worker training programs traditionally have not targeted entry-level positions, so programs considering supporting incumbent worker training may have to consider how to provide additional supports to participants to make these programs feasible for SNAP E&T participants.

The extent to which the research reviewed focused on programs specifically targeting populations with low incomes similar to those served by SNAP E&T differed by activity. For example, transitional jobs programs are often explicitly designed to give individuals facing barriers to entering employment an opportunity to gain work experience to help prepare them for unsubsidized employment. The research reviewed regarding such programs focused on interventions serving individuals with lower incomes, many of which had income thresholds for participation or served individuals enrolled in public benefits programs such as TANF. Similarly, many of the internship programs studied focused on youth with lower incomes or disadvantages in the labor market, and most of the customized training programs reviewed also focused on individuals with lower incomes. In some cases, these programs screen applicants and do not serve the ones who have more significant barriers to employment but, nonetheless, serve a population likely to overlap with SNAP E&T clients.

In contrast, apprenticeship programs have not traditionally focused on individuals facing the highest barriers to employment or specifically targeted individuals with low incomes. Many newer apprenticeship programs have focused on engaging workers from groups underrepresented in their industries, including groups with lower incomes. Similarly, incumbent worker training programs serve already-employed individuals who have a higher degree of work experience and skills in demand by their employers than SNAP E&T clients typically possess. On the other hand, although the impact studies of such programs did not focus on individuals with lower incomes, other types of studies reviewed discussed strategies the programs have taken, or could take, to serve them.

SNAP E&T programs may choose to focus on activities that historically have served individuals facing significant barriers to employment and have shown some indication of success or promise in serving them, given that many SNAP E&T clients have limited work experience and other barriers to employment (Codd, 2018; Rowe et al., 2017). A survey of SNAP work registrants and SNAP E&T participants found that more than a quarter reported having three or more barriers to employment, and the most commonly cited barriers included health issues, transportation challenges, lack of education, and caring for a family member with health issues (Rowe et al., 2017).

Based on the review, transitional jobs programs and programs involving internships serving youth with lower incomes may be the most promising strategies for programs wanting to target their most disadvantaged subpopulations with their services (Codd, 2018). Further, findings from the transitional jobs literature provide particular lessons on the strategies that may be best for engaging these participants. For example, the literature found that transitional jobs programs that operate their own worksites often place more participants into transitional jobs than programs that place

participants with outside employers or organizations. SNAP E&T programs may want to explore whether there are existing organizations they can partner with that operate these types of worksites. (That said, other designs offering jobs expected to become permanent may lead to better long-term impacts; programs should consider the tradeoff implied between focusing services on the most disadvantaged individuals and achieving a more lasting impact with a somewhat less-disadvantaged group.) As noted, these programs should include supportive services and robust job development.

Apprenticeships and customized training programs may be promising alternatives to college or other post-secondary programs for States wishing to prioritize services to further participants' educations. As discussed previously, the literature review found promising evidence regarding these activity types, but apprenticeships have not typically targeted individuals with low incomes. State SNAP E&T agencies should consider how best to make these activity types most useful for SNAP E&T participants. Programs should consider lessons from the newer apprenticeship programs that have explored ways to expand services to more individuals facing higher challenges in the labor market. Policymakers and program administrators have been implementing, and researchers have been studying, strategies to expand apprenticeships to become more successful in serving groups historically underrepresented in the industries in which apprenticeship programs are situated. Although the focus is typically on women, people from racial and ethnic minority groups, and people with disabilities, some efforts also focus on individuals with lower incomes or lacking relevant experience or skills. An increased establishment of pre-apprenticeship programs is one approach. Other approaches include broader recruitment strategies, training in basic skills and soft skills, provision of supportive services such as child care and transportation assistance, bilingual support, and support with apprenticeship paperwork. Agencies can also consider supporting development of registered apprenticeships in industries that provide career pathways viable for a larger segment of the SNAP E&T population.

Programs of all activity types included a variety of services beyond work based learning. In all of the work based learning activities, most of the programs that were the subjects of studies reviewed offered other activities and services beyond the work based learning itself. Several types of services are part of programs studied in more than one of the work based learning activities. Many of them can be supported with 50 percent reimbursement funds, depending on the components included with the State plan.

- Supportive services such as assistance with transportation, child care support, or provision of items needed for the workplace are a common strategy aimed at ensuring participants can stay engaged with program services or the work based placements (Miller et al., 2018). The broader workforce training literature has also found supportive services to be an effective tool to encourage participants' sustained engagement and completion of workforce training programs (Tessler et al., 2008). States already provide supportive services to SNAP E&T participants (to the extent consistent with their State plans and budgets) through the participant reimbursements required to be part of the program.
- Many programs had education activities of various types that would be coverable under the SNAP E&T education component. Classroom instruction is a key part of apprenticeship models, some customized training models, and some programs that include internships. Classroom instruction may be offered directly by programs or through partners, and participants may receive support through financial aid. Some transitional jobs, OJT, and pre-apprenticeship programs as well as programs involving internships incorporated or offered occupational or vocational training (Martinson et al., 2018; Miller et al., 2018). As discussed in Chapter 2, some analyses identified combining transitional jobs with basic skills training or

occupational skills training as a promising practice for individuals facing substantial barriers to employment (Dutta-Gupta, 2016; Fink, 2018; Glosser & Ellis, 2018; Hamilton, 2012; Johnson & Young, 2010), and one of the few transitional jobs programs that demonstrated long-term impacts, RecycleForce, offered occupational training to all of its participants. Similarly, Year Up—which included both an internship and elements of customized training and which demonstrated positive long-term impacts provided occupational training to individuals before placing them in a related internship (Fein & Hamadyk, 2018).

- Programs in several of the activity types—particularly programs targeting individuals facing higher barriers to employment—included basic skills training in literacy, math, or soft skills and GED preparation (Martinson et al., 2018). This component is included in many of the transitional jobs programs studied. Similarly, pre-apprenticeship programs regularly provide soft skills training and basic skills training in reading and math as part of preparing individuals for apprenticeships (Cheney, 2019; Gardiner et al., 2021; Johnson & Spiker, 2018; Mollica, 2020; Nanda et al., 2018b).
- Case management is central to many transitional jobs, pre-apprenticeship, and internship programs. SNAP E&T program rules require program participants—including participants involved in work based learning activities—to receive case management.
- Programs that did not intend for work based learning placements to transition into permanent positions emphasized job readiness and job search activities as well as job development. Various SNAP E&T components could cover these activities. For example, job readiness activities fit within the education component, while job search activities fit within the supervised job search or job search training components.

Other services have included mentorship (particularly as a key component of apprenticeship models), peer support, financial planning, mental health services (e.g., cognitive behavioral therapy), and substance use disorder treatment (Fishman et al., 2020; Lacoë & Betesh, 2019). Several of the transitional jobs programs studied focused on noncustodial parents and included services specific to that population (e.g., child support assistance, parenting classes). These services may be less straightforward to support with 50 percent reimbursement funds: some are unallowable (e.g., mental health services), and others may depend on the details of how the services are designed.

Although the impact studies do not include separate impact measurements for different program features, the qualitative research presented in the studies reviewed allows several conclusions about the importance of additional program services beyond the work based learning experience. For example, supportive services clearly are important components in making work based learning programs more accessible to more disadvantaged populations (Codd, 2018). A study of ten innovative SNAP E&T pilots (which included work based learning strategies) found that robust supportive services that go beyond what is typically offered through SNAP helped support participation in the pilot activities (Rowe et al., 2022). The review also identified case management as an important service to support engagement in work based learning activities. As noted, both supportive services and case management are required services under SNAP E&T program rules (Codd, 2018).

More generally, SNAP E&T programs should be strategic in pairing work based learning activities with other components and services. The services described above can help prepare participants for work based placements, help support their ongoing engagement in the activity, or help them achieve longer-term employment. Programs can partner with community organizations that provide support to individuals with barriers to employment to help them become job-ready (Hossain & Kazis, 2015).

Similarly, work based learning activities in SNAP E&T programs should occur in combination with other SNAP E&T components and services, such as job readiness activities, basic education, occupational training, and child care assistance. SNAP E&T programs should pay particular attention to how they can leverage such services to support the accessibility and continued engagement of participants who may face higher barriers to entry or success in work based approaches.

Given the usefulness of many of the services listed above, States may wish to consider whether opportunities exist to leverage partnerships with third parties already offering work based learning opportunities by developing a “50-50 partnership.” (See Kaz, 2016, for a discussion of these partnerships.) Under such an arrangement, the SNAP E&T program can leverage nonfederal investments organizations have already made to provide work based learning activities to serve SNAP E&T participants; the organizations can receive a 50 percent reimbursement for services provided through the arrangement. Such an approach could expand the range of work based learning opportunities available to participants without the SNAP E&T program’s having to create a new program itself. Further, the SNAP E&T program can provide case management and other additional allowable services to SNAP E&T participants in other organizations’ work based learning activities—either under a 50-50 partnership or a different arrangement—to support their success, including job readiness services and participant reimbursements for supportive services such as child care and transportation.

Some themes emerged about the strategies programs have used to engage employers as well as about the challenges. Challenges engaging with employers and strategies to overcome those challenges cut across the different activities and suggest a set of general considerations that apply to all activities. First, it is clear from the literature that there are costs to employers associated with becoming involved with the programs. These costs include paperwork; burdens of meeting requirements imposed by the programs on participating employers; and time for mentoring, overseeing, or training the worker. Although these challenges apply generally across the different activities, the activities vary in the extent of the burden placed on employers. Apprenticeship programs, in particular, require a high amount of investment by employers, and both apprenticeships and incumbent worker training essentially require the employers’ involvement in creating and launching the programs. Some apprenticeship programs offer employers financial incentives to offset those costs.

Employers also have concerns about participating in work based learning programs that include worries about timeliness of payments to reimburse for wages paid, quality of candidates placed with them, and investment in individuals who leave once they have new skills. The last may be a particular barrier to engaging employers in programs even when the costs to them of participating in the program are low. Programs may also face challenges in capturing and sustaining the attention of employers long enough to establish placements, especially with organizational leaders who make the decisions about whether to participate in the program.

SNAP E&T programs can use various strategies to conduct effective outreach campaigns to recruit and engage employers. For example, the literature highlights several strategies that were developed by the programs studied to overcome barriers to engaging employers.

Programs can emphasize the benefits of the programs to employers, including benefits beyond just the wage subsidies employers receive. Some benefits highlighted in the studies included providing a mechanism to screen candidates, providing a tryout period for potential hires (in situations where the placements are temporary), and providing supports to participants such as transportation and child care, especially in areas where resources are limited (Holcomb et al., 2011) Some employers cite screening candidates in particular as one of the main benefits of participating in work based learning

programs. However, heavier screening creates certain tradeoffs: programs that screen more tend to place fewer people in work based positions, and programs that screen heavily may enroll fewer disadvantaged participants.

Other benefits for employers identified in the broader workforce training literature that programs could also emphasize include providing qualified applicants for open positions, reducing employers' training and recruitment costs by leveraging public funding, addressing training and service needs that employers do not have the capacity to meet (e.g., basic skills training, supportive services), and helping employers meet goals around diversity and social responsibility (Spaulding & Martin-Caughey, 2015). Note that the same factors may not appeal in the same ways to all industries or employers, and SNAP E&T agencies should develop targeted approaches or outreach materials addressing specific workforce needs of employers.

Many studies cited the importance of understanding employer needs and engaging employers in the design and delivery of the program, including participant screening, curriculum development, career readiness services, occupational skills training, and job development and placement services (Fein, 2012; Kobes, 2016; Schaberg & Greenberg, 2020; Spaulding & Blount, 2018; Tessler et al., 2014). Making strong job placements that address the needs of both jobseekers and employers and providing ongoing support to ensure successful placements helps build trust with employers, which is crucial to long-term partnerships (Spaulding & Blount, 2018). Further, employers' trust in programs can create more opportunities to serve populations with particularly high barriers to employment that employers may not otherwise consider (Spaulding & Blount, 2018). Many programs have job developer positions dedicated to recruiting, engaging, and supporting employer partners in work based learning programs. Some programs partner with the workforce system to leverage the system's existing connections to employers.

To prioritize employer outreach, States may opt to use 100 percent or 50 percent reimbursement funds to hire staff as job developers. However, it can be more cost-efficient for SNAP E&T agencies to leverage partnerships with programs and providers that already have expertise, staff, and infrastructure to collaborate with employers effectively, rather than using SNAP E&T funds to develop such capacity themselves. One example of such a partnership is Worksystems Inc., a nonprofit organization based in Portland, Oregon, that provides workforce development opportunities for SNAP recipients and other clients by integrating WIOA funds, SNAP E&T funds, and other funding streams. The organization has partnered with employers, as well as with CBOs and American Job Centers, to enhance their programming (Strawn, 2018). Another example is Michigan's Food Assistance Employment and Training Plus program, which has worked to expand and enhance SNAP E&T services through third-party partnerships that expand services that meet employer demand (Strawn, 2018). As part of a test of innovative strategies for improving the employment outcomes for SNAP participants, two pilot sites most successful in placing participants in work based learning activities relied on local workforce agencies to provide activities and connections with employers (Rowe et al., 2022). Some transitional jobs programs have reduced burdens for employers by fully covering the wages of the participants and by keeping the participants on their own payrolls rather than requiring employers to hire the participants onto their payrolls. A tradeoff of these strategies is that fewer such programs have had success in obtaining longer-term impacts.

To reduce employer concerns about paperwork and timely reimbursement payments, States may want to explore the possibility of using third-party payment processors (services that allow businesses to receive payments electronically or through credit cards without setting up special bank accounts) or other electronic systems to remit the subsidy for wages to employers. SNAP E&T

programs can research whether such arrangements are the right fit for providing wage subsidies to employers as part of the work based learning programs they are implementing.

Employers may hold negative associations around certain populations that experience barriers to employment, which may impede their involvement in work based learning programs that target these populations (Spaulding & Blount, 2018). To overcome this stigma, programs can emphasize participants' strengths and the value they would add to a company and can provide opportunities for employers to interact and build relationships with participants in non-hiring settings (e.g., mock interviews, workshops) (Spaulding & Blount, 2018). Transitional jobs and internships can be particularly effective in addressing stigma by providing employers an opportunity to try out workers, whom they might otherwise overlook, before hiring them (Spaulding & Blount, 2018).

Some transitional jobs programs avoid the need to engage outside employers for work based learning activities by operating their own worksites. In areas where such programs already exist, SNAP E&T programs can consider contracting with them to deliver work based learning to SNAP E&T participants and can use 100 percent or 50 percent reimbursement funds to pay the program for allowable purposes (e.g., instructor wages, orientation, curriculum development, facility rentals, administrative fees, overhead expenses, equipment, participant wages). States may particularly want to explore the potential for entering into 50-50 partnerships with social enterprises (see the textbox on *The Role of Social Enterprises* in Chapter 2).

Limited options exist to help participants prepare for the impact of earnings on their benefits. Few of the studies reviewed provided information about how the income earned during work based learning placements could affect participants' public benefits eligibility. A discussion of the subsidized jobs programs implemented under ARRA showed that placements could raise participants' income above TANF eligibility thresholds in most States. Only a few studies noted strategies for how to avoid reducing public benefits eligibility. The ARRA study noted that some programs used part-time subsidized employment to allow participants enrolled in education programs while receiving TANF benefits to meet TANF work requirements. Studies of transitional jobs programs found that participants receiving TANF were able to keep more of their TANF benefits in States with more generous earned income disregards. In another study, the program created a calculator that career coaches used to discuss with participants the impacts of employment on their public benefits eligibility. Some programs were able to implement work incentives, allowing participants to have higher earnings before losing benefits. For example, the Jobs Plus housing program reduced rent increases as participants' earnings increased (Bloom et al., 2005). Programs serving noncustodial parents arranged incentives allowing participants to keep more earned income through reductions in child support payments. Another RCT assessed the impacts of providing cash work incentives to families receiving Housing Choice Vouchers in addition to the other program features of case management focused on job and training services and a savings account (Verma et al., 2017). The study found the program reduced long-term TANF receipt but did not significantly reduce housing voucher receipt or housing subsidy amounts. None of these studies focused on SNAP.

Because the literature review uncovered little information that can help with this issue, a need exists for new and innovative approaches to avoid situations where income from work based learning activities makes participants ineligible for SNAP and, therefore, for the work based activity itself. States may have to develop creative approaches, some of which will require changes to law or policy. For example, building on the finding that more generous earned income disregards helped participants keep more of their TANF benefits, some States may want to change the SNAP eligibility or benefits calculations for participants in work based learning activities. Policymakers may

consider including pilot projects or creating waivers to allow States to disregard countable wages earned during a subsidized work based learning activity in a future reauthorization of the Farm Bill.

In the absence of policy changes or waivers, States may consider ways to help participants minimize the loss of benefits while in work based learning activities under current rules. SNAP E&T programs could have case managers prioritize helping participants understand how their earnings from work based learning activities will affect their benefits and potentially support development of tools (e.g., benefit calculators) that case managers can use when talking to participants about their benefits.

States may also wish to consider whether strategic ways exist to use the job retention component, which participants can continue to receive for up to 90 days after starting a job even if their benefits end.²⁷ SNAP E&T programs cannot use the job retention component to continue to provide a wage subsidy after a household is no longer eligible for SNAP, but they can use the component to ensure a participant temporarily continues to receive essential supportive services, such as child care and transportation, if they remain in the work based learning placement. Programs may explore partnership arrangements in which the partner may continue the wage subsidy through other funding sources while the SNAP E&T program provides the supportive services through the job retention component.

Considering the broader economic context is also important for States when implementing work based learning programs. One study found that interventions involving work and work based learning improved employment and earnings outcomes of people with low incomes during recoveries and recessions (Stanczyk et al., 2021). Further, the study found that during recoveries, work and work based learning interventions performed particularly well relative to other intervention types (including employment services, case management, incentives and sanctions, and employment retention services). During recessions, work and work based learning interventions also performed well compared with other intervention types, though less well than case management and employment services.

Areas for Future Research

Although the literature review has yielded several lessons for the SNAP E&T field, it has also made clear that significant gaps remain in the body of knowledge around work based learning approaches. Additional research on several potential topics could contribute to understanding what strategies are effective. Some of these topics include the following.

²⁷ More precisely, participants can continue to receive job retention services after benefits end if they were receiving benefits in either the month in which they started receiving the job retention services or the month before that (as long as they did not leave because of program violations or failing to comply with the general work requirement) (Food and Nutrition Service, 2021b).

- **Exploring the potential to adapt strategies that have demonstrated effectiveness among groups considered more job-ready to serve other groups effectively.** The recommendations above suggest that SNAP E&T should consider how to make some activities (e.g., apprenticeships) effective in engaging and serving participants with more barriers to employment and how to be creative with adaptations. Future research could document such efforts by SNAP E&T programs as well as the experiences of their participants and partners. Future studies also could potentially measure the effectiveness of different strategies through experimental studies or QEDs. This approach would build on existing literature regarding strategies apprenticeship programs have used to broaden the populations they serve but could extend to other types of work based learning activities.
- **Measuring the impacts of more activities.** Few impact studies were found for some of the work based learning activities considered, and future research could fill these gaps. For example, new studies of pre-apprenticeships could assess their impacts on employment and credential attainment outcomes. Similarly, impact studies on incumbent worker training approaches, particularly for individuals with lower incomes, would make valuable contributions to the employment and training field.
- **Studying work based learning in SNAP E&T program contexts.** Given that many of the work based learning activities were not emphasized within SNAP E&T until the recent policy changes, few studies have been conducted on how these approaches operate within a SNAP E&T context. (As mentioned earlier, one exception is the study of ten SNAP E&T pilots authorized and funded by the Agricultural Act of 2014.) Additional implementation and impact studies of new initiatives by SNAP E&T programs have the potential to produce valuable knowledge that can help shape and improve SNAP E&T activities over time. Prioritizing formative evaluations and implementation studies for the earliest efforts may be important until programs have worked through initial issues of implementing a novel approach in a new regulatory environment.
- **Isolating the impacts of particular activities and services and exploring different combinations.** As emphasized throughout this report, most of the impact studies reviewed could not isolate the impact of work based learning when delivered as part of a larger program model that included other services. Future studies could try to isolate the contributions of different parts of the model—either by isolating the impacts of the work based learning itself or by looking at the contributions of other services to any overall impacts. Future research could also explore new models that involve different combinations of services.

Appendix A: Research Methodology

In addition to a summary of the evidence available, this section provides additional detail on the study team's approaches to 1) identifying literature on the effectiveness of work based learning approaches, 2) selecting the studies for inclusion, and 3) devising the framework for analyzing the studies.

Identification of Literature

The study team's overall approach to identifying relevant studies began with a structured search of academic databases supplemented with searches of relevant clearinghouses focused on employment and training research as well as other common sources of publications on employment and training research. The study team sought to identify studies that met the two criteria for inclusion: 1) the study directly addressed at least one research question, and 2) the study examined at least one of the work based learning activities. The search was limited to studies published after 2004, a period that primarily focused on literature on interventions implemented after the enactment of the Welfare Reform Act of 1996. This date range also covered periods with a variety of economic conditions, including literature covering interventions in place before, during, and after the Great Recession. The search also prioritized studies that focused on populations with low incomes and examined interventions delivered in the United States.

Librarian's Review of Academic Databases. To identify relevant studies, the study team collaborated with a librarian from Mathematica who conducted a structured, comprehensive search of scholarly subscription databases. To conduct the literature search, the librarian broke the research questions down into the following high-level concepts and created additional search keywords for each concept: Supplemental Nutrition Assistance Program (SNAP) and Employment & Training Programs (E&T), low-income families, acquiring knowledge, program evaluation, and geography (limiting to studies about the United States). The concepts were combined and translated into search strings. Each search was restricted to searching only in the title and abstract of articles published from 2004 to 2021. The search returned a total of 160 results from the databases. The librarian compiled all search strings and the resulting citations and abstracts by database to an Excel document for review by the study team. The review of the academic databases by the librarian yielded a limited number of relevant articles. (Searches of grey literature identified more relevant studies.)

Review of Clearinghouses. To supplement the librarian's search, the study team conducted a review of two clearinghouses: Pathways to Work Evidence Clearinghouse (Pathways) and the Clearinghouse for Labor Evaluation and Research (CLEAR). Pathways includes systematic reviews of evidence on effective employment and training strategies to help improve employment outcomes and self-sufficiency among low-income populations. CLEAR provides practitioners, policymakers, researchers, and the general public with a central source of evidence on labor market interventions and innovations relevant to the Department of Labor's work.

Both clearinghouses allow users to filter by different categories. In their review of Pathways, the study team applied the "work and work based learning" filter, which includes the following sub-topics: "apprenticeships," "Individual Placement and Support," "on-the-job training," "subsidized employment," "transitional jobs," "unpaid work experience," and "work experience." CLEAR has a keyword search feature, which the study team used to conduct the following keyword searches: "work based training," "internship," "apprenticeship," "customized training," "transitional job," "pre-apprenticeship," "incumbent worker training," "on-the-job training," and "subsidized wage."

The study team also used CLEAR’s “low-income” tag. Both clearinghouses also allow users to filter by year, which the study team used to limit its review to studies published after 2004.²⁸

Review of Research Firms, Research Centers, and Government Agency Websites. In addition to reviewing the two clearinghouses, the study team conducted a review of the websites of research firms, research centers, and government agencies that are common sources of publications of employment and training research. This approach helped ensure full coverage in the search by including more recent studies not yet included in clearinghouses or databases.

All of the websites reviewed allow users to filter by different categories, including focus area, intervention type, topic, and publication year. The study team focused on studies published after 2004. Filters the study team applied include “work and income security,” “asset building,” “career and technical education,” “dual-enrollment/bridge programs,” “employment services,” “job training,” “reemployment programs,” “sectoral training,” “transitional jobs/subsidized employment,” “welfare-to-work,” “job market and labor force,” “low wage workers,” “public service/subsidized employment programs,” “subsidized employment,” “wage and nonwage compensation,” “workforce development, training, and opportunity,” “training and reemployment,” and “employment and training.”

Several of the websites also allow users to conduct keyword searches. Keyword searches that the study team used include “subsidized wage,” “work based training,” “internship,” “apprenticeship,” “customized training,” “transitional job,” “pre-apprenticeship,” “incumbent worker training,” and “on-the-job training.”

Additional Review. The study team also reviewed the ERIC online library of education research and information and cross-referenced the findings from their review of the grey literature to identify potential gaps. In addition, the study team supplemented search results with studies of which they were aware from their other work in the employment and training research field.

Selection Process

The study team compiled studies identified through the review and classified them by activities covered, study type, quality rating as assigned by a clearinghouse, outcomes, and target population. The specific outcomes prioritized in the review are shown in the textbox to the right. The study team used this information to determine what to include based on rigor of the study, level of evidence, and relevance to this literature review.

<i>Priority Outcomes</i>
• Entered employment
• Earnings
• Job retention
• Job advancement
• Job skills and knowledge acquisition
• Public benefits receipt
• Degree and credential attainment

For research questions related to outcomes, the study team prioritized impact studies that received a “high” or “moderate” rating from a clearinghouse. The study team included impact studies that did not receive a “high” or “moderate” rating when they contained relevant implementation findings or if there were a limited number of “high” or “moderate” rated studies for a given activity. In cases where there were few rigorous impact studies, the study team included descriptive outcomes studies that report on participant outcomes without measuring impacts. The study team also included

²⁸ Because of the time involved in conducting evidence reviews, the clearinghouses did not include studies from the most recent years before this literature review took place. The literature review captured more recent studies through the other search methods and through the study team’s existing knowledge of the body of research.

studies that contained no original analyses of outcomes, such as implementation studies, research reviews, briefs, and case studies. These study types are described in greater detail below.

Impact Studies. Researchers primarily use two methods to quantitatively assess the degree to which program outcomes are related to the program itself.

- **Randomized Controlled Trials (RCT).** The “gold standard” for program evaluation, these studies involve randomizing participants, groups of participants, or sites into one or more treatment groups that receive an intervention and a control group that receives the status quo—either no services or the existing level of services available in lieu of the intervention. Random assignment allows researchers to control for potential effects of unobservable participant characteristics, enabling the calculation of impact estimates.
- **Quasi-Experimental Design Studies (QED).** Absent a randomly assigned control group, there are approaches researchers can take to identify a comparable population who did not receive the treatment in question. An array of statistical techniques allow researchers to attempt to control for observable differences to these populations while calculating the association between program participation and outcomes of interest. Common QED approaches include *propensity score matching*, where a comparison group is selected on the basis of observable characteristics (e.g., similar demographic characteristics, academic experience, work history) using multivariate regression; *difference-in-differences* methods that compare the change in outcomes between two time periods for program participants to the change in outcomes for an appropriate group of nonparticipants; and *instrumental variables regression*, a statistical method that identifies program impacts by using one or more “instruments”—observable characteristics correlated with the probability of receiving services but that do not directly affect the outcomes of interest (e.g., random assignment to case workers who differ in how they assign services to individuals). Another example is *regression discontinuity designs*, where programs select participants using a well-defined scoring method (e.g., individuals with a certain number of months of receiving unemployment benefits) and researchers compare outcomes for individuals just above the selection threshold to those just below.

Descriptive Outcomes Studies. These studies include quantitative approaches or statistical techniques to report on participant outcomes but are unable to attribute the degree to which the outcomes are related to the program itself.

Studies without Original Analysis of Outcomes. The study team paid particular attention to studies that include detailed implementation findings or process studies that describe the context (e.g., economic, political, geographic) in which a given activity was implemented, even if it did not include outcome findings. The study team included briefs, research reviews, and case studies when relevant.

Analysis Framework

After selecting studies for the literature review, the study team uploaded the studies into Dedoose, a qualitative data analysis software that facilitates rigorous mixed methods research.

Dedoose allows users to create and apply codes to data and to filter coded excerpts. The study team conducted two rounds of coding. For the first round, the study team coded text necessary to fully describe the characteristics of the study, focusing on descriptions of the work based learning intervention, the evaluation design, the sample and data, and the target population.

For the second round, the study team focused on coding text that helped inform one of the three research objectives.

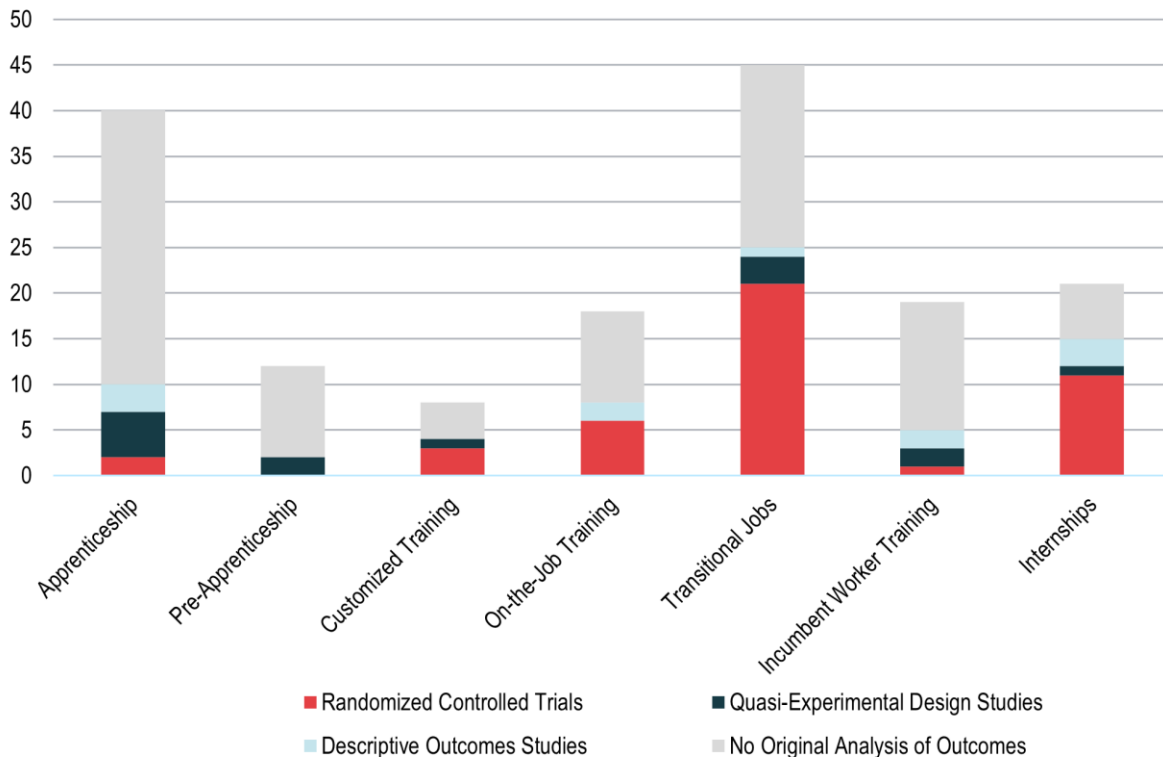
1. Which wage subsidy and work based learning models help participants gain skills; obtain stable, good jobs; and increase earnings after participating in such programs?
2. Which wage subsidy and work based learning models create strong connections between government programs and employers?
3. How can work based learning and wage subsidy programs be integrated into the SNAP E&T program?

The study team then exported the excerpts and analyzed them by the characteristics of the study coded in the first round. In analyzing and reporting on outcome findings, short-term outcomes were defined as outcomes measured 18 months or fewer after program enrollment, medium-term outcomes as outcomes measured more than 18 months and up to 3 years after program enrollment, and long-term outcomes as outcomes measured 3 years or more after program enrollment.

Summary of Selected Studies

The availability and rigor of evidence identified and reviewed as part of this project differed by work based learning activity, as shown in **Figure A-1**. Rigorous impact studies provide the most straightforward evidence of effectiveness, or ineffectiveness, of employment and training interventions. The study selection process identified different numbers of impact studies for each activity. The highest number of studies that measured impacts were for transitional jobs programs and programs that offered internships; 24 impact studies were identified for transitional jobs, and 12 were identified for internships. The selection process identified smaller numbers of impact studies for apprenticeships, on-the-job training, and customized training interventions (7, 6, and 4 studies, respectively). Only 2 impact studies of programs featured a pre-apprenticeship and 3 of incumbent worker training programs. Even among activities where the selection process identified several

Figure A-1: Type of Evidence by Activity



impact studies, the type of those evaluations varied. For example, among the 24 impact studies of transitional jobs, 21 used an RCT methodology—often referred to as the gold standard for program evaluation due to its ability to control for potential effects of unobservable participant characteristics. In contrast, of the 2 impact studies discussed in the Pre-apprenticeship section of Chapter 2, none used an RCT methodology. All used one or another QED—principally propensity score matching.

Both the designs and other factors in the study (e.g., sample size, completeness of data) can affect the level of rigor of such evaluations, which also varied by work based learning activity. Because RCTs are considered the gold standard, the work based learning activities that had the highest number of RCTs (transitional jobs and internships) also had the highest number of high quality studies, as defined by the Pathways and CLEAR clearinghouses.²⁹

²⁹ For more information on how these ratings were determined, go to <https://pathwaystowork.acf.hhs.gov/publication/ProtocolPathways> and <https://clear.dol.gov/Reference-Documents/Causal-Evidence-Guidelines-Version-22>

Appendix B: Additional References

Apprenticeship Programs, Labor Standards for Registration, Amendment of Regulations, 29

CFR § 29 (2008).

<https://www.dol.gov/sites/dolgov/files/ETA/apprenticeship/pdfs/FinalRule29CFRPart29.pdf>

Employment and Training Opportunities in the Supplemental Nutrition Assistance Program, 7

CFR § 271 and 273 (2021). <https://www.govinfo.gov/content/pkg/FR-2021-01-05/pdf/2020-28610.pdf>

Food and Nutrition Service/Supplemental Nutrition Assistance Program. (2021a). SNAP

Employment and Training Subsidized Work-Based Learning Activities (FNS-GD-2021-0118). United States Department of Agriculture. <https://fns-prod.azureedge.us/sites/default/files/resource-files/ET-SWBL-508.pdf>

Food and Nutrition Service/Supplemental Nutrition Assistance Program. (2021b). SNAP E&T

Program Toolkit (FNS-GD-2021-0067). United States Department of Agriculture. <https://fns-prod.azureedge.us/sites/default/files/resource-files/SNAPemployment-training-toolkit-june-2021.pdf>

Kaz, D. (2016). SNAP E&T: Opportunities for Alignment with WIOA. Seattle Jobs Initiative.

http://www.seattle.gov/documents/Departments/economicDevelopment/workforce/SNAP_ET_WIOA_Alignment.pdf

Appendix C: Annotated Bibliography

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Adams, G. L. (2013). A Comparison of Student Outcomes and Overall Retention between a 10-Week Accelerated and a 15-Week Traditional Curriculum in a Postsecondary Apprenticeship Training Program. ProQuest LLC.	https://eric.ed.gov/?id=ED556066	Apprenticeship	Descriptive (Outcomes)	Students	This study examined the impact of an accelerated postsecondary apprenticeship program in the naval ship construction sector on academic performance and program completion. The study compared the traditional 75-week program (with five 15-month terms) to an accelerated 40-week program (with four 10-week terms). In both programs, students take academic courses and do on-the-job training, both of which they are paid for. Using nonexperimental methods, the study found that the accelerated program increased participants' program completion and academic performance. We include this study as an example of how to reduce attrition and better engage participants in apprenticeship programs.
Altstadt, D. (2007). Making Social Enterprises Work for Welfare: The Value of Funding Transitional Jobs Through Profits. 116.	https://staging.community-wealth.org/sites/clone.community-wealth.org/files/downloads/book-alstadt.pdf	Transitional Job	No Original Analysis of Outcomes	Individuals receiving cash assistance	This thesis discusses how social enterprise businesses can serve as an alternative model for providing transitional jobs to individuals receiving cash assistance and whether this model can improve the employment outcomes of those individuals while reducing government costs. It discusses the feasibility of creating partnerships between social enterprises and government systems, including how to share costs. The thesis highlights some programs that were able to achieve high rates of unsubsidized employment for their participants after the program as well as outlines different options for implementing transitional jobs within the constraints of federal welfare requirements.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Altstadt, David. (2011). Improving Access to Apprenticeship: Strengthening State Policies and Practices.	http://www.workingpoorfamilies.org/pdfs/WPFP_PolicyBrief_Summer2011.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	Low-wage adults	This brief provides an overview of apprenticeship models in the United States and the government standards guiding apprenticeships, the challenges of expanding apprenticeship in the United States, and a summary of federal and state efforts to expand and improve apprenticeships. The brief's discussion of apprenticeship entry requirements, ways to alleviate the cost burden of apprenticeship programs for employers, and examples of increasing state funding and oversight of pre-apprenticeship programs provided useful context on how to design successful apprenticeship and pre-apprenticeship programs.
Anderson, C., Farrell, M., Glosser, A., & Barden, B. (2019). Testing Two Subsidized Employment Models for TANF Recipients: Final Impacts and Costs of the Los Angeles County Transitional Subsidized Employment Program. OPRE Report 2019-71. Washington, DC: Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/stedla_final_2019_508.pdf	Transitional Job	RCT	TANF recipients in Los Angeles County	This report presents final impact findings of two approaches to subsidized employment in Los Angeles County: Paid Work Experience (PWE) and On-the-Job Training (OJT). Part of the Subsidized and Transitional Employment Demonstration (STED), this random assignment study assessed the impacts of the two approaches on education and training, employment and earnings, TANF receipt, combined income, and well-being 30 months after random assignment. The study also estimates the cost of the two approaches. They found that although both models increased employment during the period that individuals were in the subsidized placements, only individuals placed in PWE had small increases in employment at the end of the follow-up period.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Anderson, W., Khatutsky, G., Weiner, J., Lerman, R., & Kuehn, D. (2010). A Descriptive Analysis of the U.S. Department of Labor's Long-Term Care Registered Apprenticeship Programs. Washington, DC: Office of Disability, Aging and Long-Term Care Policy Office of the Assistant Secretary for Planning and Evaluation U.S. Department of Health and Human Services.	https://www.urban.org/sites/default/files/publication/77931/2000617-A-Descriptive-Analysis-of-the-US-Department-of-Labor%27s-Long-Term-Care-Registered-Apprenticeship-Programs.pdf	Apprenticeship	No Original Analysis of Outcomes	Individuals with a high school degree or GED	This report describes how the registered apprenticeship model has been implemented in the long-term care industry, which is facing high demand for trained workers. It provides descriptive analyses on the demographic characteristics of apprentices and features findings from interviews conducted with private employers that sponsored apprenticeships. The report discusses the challenge of attrition in these apprenticeship programs.
Antkowiak, B., & Bertsche, A. L. (2011). Process evaluation and outcomes analysis: Twin Cities RISE! Performance-Based Training and Education Demonstration Project. Washington, DC: U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_05.pdf	Transitional Job	Descriptive (Outcomes)	Low-income individuals, the majority of whom had criminal backgrounds and were transitioning from prison to communities	This report presents implementation and outcomes findings from three grants awarded to the Twin Cities Rise! (TRC!) program, an employment initiative aiming to train underemployed and unemployed adults for well-paying jobs. One of the programs in the project, the Awali Place program, offered transitional employment and additional training opportunities to low-income individuals, many with criminal backgrounds. The majority of transitional job placements were in the nonprofit sector, some of which led to jobs. The report describes the program's engagement with employers, including an Employer Advisory Committee that reviewed the program's curriculum quarterly and Employer Services staff that marketed participants to employers and responded to employers' requests for assistance in the event of a workplace issue with a program graduate.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Arabandi, B., Boren, Z., & Campbell, A. (2021). Building Sustainable Apprenticeships: The Case of Apprenticeship 2000. Washington DC: The Urban Institute.	https://www.urban.org/sites/default/files/publication/103591/building-sustainable-apprenticeships-the-case-of-apprenticeship-2000_0.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This brief describes how the consortium model can improve the sustainability and quality of apprenticeship programs. The consortium model examined in this brief, Apprenticeship 2000, is a partnership of employers whose goal is to address their unmet need for skilled workers. It describes common traits of the consortium model, how apprenticeship consortia are formed, and innovations that helped Apprenticeship 2000 improve its quality and longevity. The report's discussion of the consortium model provided relevant information on how partnerships can better engage employers in apprenticeships.
Barden, B., Juras, R., Redcross, C., Farrell, M., & Bloom, D. (2018). The Enhanced Transitional Jobs Demonstration: New perspectives on creating jobs. Final impacts of the next generation of subsidized employment programs. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/ETJD_STED_Final_Impact_Report_2018_508Compliant_v2.pdf	Transitional Job	RCT	Noncustodial parents or individuals returning to the community from prison	This report examines the final 30-month impact results and net costs from the Enhanced Transitional Jobs Demonstration (ETJD), which included two sites that are part of ACP's Subsidized and Transitional Employment Demonstration (STED). ETJD assessed seven transitional jobs programs that targeted people recently released from prison or unemployed parents who did not have custody of their children, providing them with temporary subsidized jobs. ETJD used a rigorous random assignment design. The study found that the ETJD programs increased participants' employment and earnings in the final year of the study period, and that longer-term impacts on employment outcomes were better than in previous evaluations. The study found that the programs targeting former prisoners reduced incarceration in prison among those with the highest risk of reoffending, and that programs targeting noncustodial parents did not increase the amount of child support paid in the last year of the follow-up. The study also found that results varied somewhat across programs and noted that it is unclear what these differences can be attributed to.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Bauer, E. L., Crosse, S., McPherson, K., Friedman, J., Zacharia, J., Tapper, D., & Clarke, R. (2014). Evaluation of the New York City Justice Corps: Final outcome report. Rockville, MD: Westat.	https://www1.nyc.gov/assets/opportunity/pdf/Westat-Justice-Corps-Evaluation.pdf	Internship	RCT	Young adults with criminal justice involvement	This report discusses impact findings from an evaluation of the New York City (NYC) Justice Corps program, a six-month employment-centered program targeting young adults ages 18 to 24 with criminal justice involvement. Based on a civic justice corps model, the program aimed to improve employment and education outcomes, reduce recidivism, and promote community development. Program services included subsidized internships in public and private sector organizations lasting a minimum of six weeks, as well as job readiness activities and community service experience. The evaluation included a randomized controlled trial on the program and a qualitative assessment focused on participant and community perceptions of the program, including those of internship providers. The evaluation found that the program successfully recruited participants, though it experienced challenges around retention. The study found that the program increased participants' employment rates and earnings. However, the study was not able to identify impacts on participants' education and recidivism outcomes.
Bergson-Shilcock, A. (2020). Funding Resilience: How public policies can support businesses in upskilling workers for a changing economy. Washington, DC: National Skills Coalition.	https://files.eric.ed.gov/fulltext/ED607393.pdf	Incumbent Worker Training	No Original Analysis of Outcomes	NA	This brief provides an overview of businesses' upskilling policies and highlights the challenges businesses face in replicating practices known to be effective. The brief identifies barriers to employers implementing incumbent worker training, including inadequate funding, restrictive eligibility requirements, and over-reliance on business and worker cash outlays. Additionally, the brief discusses the importance of businesses' investment in upskilling for workers without bachelor's degrees and how upskilling can be used to improve racial equity. The brief also provides recommendations for overcoming policy barriers, including clarifying for employers how incumbent worker training funds can be used and eliminating restrictions that make it difficult for businesses to access incumbent worker training funds.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Besharov, D. J. & Cottingham, D. H. (Eds.). 2011. The Workforce Investment Act: Implementation experiences and evaluation findings. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.	https://doi.org/10.17848/9780880994026	Customized Training	No Original Analysis of Outcomes	NA	This evidence summary describes the existing research on the Workforce Investment Act (WIA) and related programs, and summarizes key findings. It includes a chapter on customized training (CT) and the rationale behind it, the role of CT in WIA (including several initiatives of the Department of Labor to encourage local investments in CT), and research on the delivery and effectiveness of CT. The report discusses factors that contribute to the success of customized training programs, including informed sector choice, productive partnerships, effective recruitment and engagement of trainees, strategic curriculum development and use, and strong supports for participants during and after training. In addition, the report summarizes the impacts of customized training on employees and employers, finding that it improves earnings and employment of employees and also offers benefits to employers like increased output and a better pipeline of skilled workers.
Betesh, H., Kim, H., Kogan, D., Lindy, R., & Paprocki, A. (2017). Evaluation of Accelerated Training for Illinois Manufacturing (ATIM): Impact Report. Oakland, CA: Social Policy Research Associates.	https://www.spra.com/wordpress/wp-content/uploads/2017/05/ATIM-Impact-Report-Final.pdf	On-the-job training	RCT	Those with at least a high school diploma or GED	This evaluation discusses impact findings from a randomized controlled trial of the Accelerated Training for Illinois Manufacturing (ATIM) program. ATIM intended to offer work based training opportunities such as internships and on-the-job training along with assessments, accelerated training schedules, and career counseling. Comparison group members could access other services in the community, such as Workforce Investment Act (WIA) services. ATIM had a positive and statistically significant impact on enrollment in and completion of training, as well as positive impacts on earnings and, in select quarters, employment, during the second year following random assignment. The program had challenges convincing employers to offer their participants work-based training opportunities, and thus take-up of the work-based training opportunities were low.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Bloom, D. (2006). Employment-focused programs for ex-prisoners: What have we learned, what are we learning, and where should we go from here? New York, NY: MDRC.	https://files.eric.ed.gov/fulltext/ED493008.pdf	Transitional Job	No Original Analysis of Outcomes	Individuals that were formerly incarcerated	This paper summarizes research on employment-focused prisoner reentry programs. It discusses the rationale for these programs, explores previous research and current studies (including ones focused on transitional jobs) and their effectiveness at improving employment and recidivism outcomes, and makes recommendations around approaches to try in the future, including earnings supplements and work incentives and employer-focused strategies. While the report does not include more recent research, the discussion of the challenges and opportunities around employment-focused prisoner reentry programs is still relevant.
Bloom, D. (2010). Transitional Jobs: Background, Program Models, and Evaluation Evidence. Washington, DC: Office of the Assistant Planning Secretary for Planning and Evaluation, U.S. Department of Health and Human Services.	https://www.acl.hhs.gov/sites/default/files/documents/opre/tj_09_paper_embed.pdf	Transitional Job	No Original Analysis of Outcomes	NA	This paper provides a summary of the history and origins of transitional jobs in the United States, describing the goals of transitional jobs program and how those programs have evolved over time. It outlines variation in how transitional jobs programs can be structured and the implementation experiences of programs that provide transitional jobs. Lastly, it summarizes the existing evidence on transitional jobs and concludes with ideas for how programs can change to improve long-term outcomes for participants.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
<p>Bloom, D., Redcross, C., Hsueh, J., Rich, S., & Martin, V. (2007). Four strategies to overcome barriers to employment: An introduction to the Enhanced Services for the Hard-to-Employ Demonstration and Evaluation Project. New York, NY: MDRC.</p>	<p>https://www.mdrc.org/sites/default/files/full_375.pdf</p>	<p>Transitional Job</p>	<p>RCT</p>	<p>New York CEO: individuals that were formerly incarcerated, Philadelphia: Individuals receiving TANF</p>	<p>This report describes the origin and rationale for the Enhanced Services for the Hard-to-Employ (HtE) Demonstration and Evaluation Project, which used random assignment designs to evaluate four strategies to improve employment and other outcomes for low-income parents and others who face serious barriers to employment. For each program, it provides a description of the program and discusses research design, the characteristics of the participants, and the findings from the early assessments. Two of the program models (the Center for Employment Opportunities (CEO) program and the Transitional Work Corporation (TWC) program) included work-based learning components. CEO and TWC were transitional jobs programs offering temporary subsidized employment opportunities for former prisoners in New York City and long-term welfare recipients in Philadelphia, respectively. Early assessments showed that for CEO, nearly two-third of participants worked in a transitional job. The CEO program also added enhancements to address participant needs, which included new employee work sites that were more intensive than other sites for those that needed specialized individual attention. Philadelphia's TWC program struggled with low-enrollment due to a lengthy orientation period.</p>

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Bloom, D., Rich, S., Redcross, C., Jacobs, E., Yahner, J., & Pindus, N. (2009). <i>Alternative Welfare-to-Work Strategies for the Hard-to-Employ: Testing Transitional Jobs and Pre-Employment Services in Philadelphia</i> . New York, NY: MDRC.	https://www.acf.hhs.gov/sites/default/files/documents/operation/alternative-welfare.pdf	Transitional Job	RCT	Individuals receiving TANF	This study presents early 18-month impact findings from an evaluation of two different welfare-to-work strategies for hard-to-employ of Temporary Assistance for Needy Families (TANF) in Philadelphia. This evaluation is one of four sites in the Enhanced Services for the Hard-to-Employ (HtE) Demonstration and Evaluation Project. One of the approaches in the evaluation is a transitional jobs model operated by the Transitional Work Corporation (TWC), which placed people in temporary, subsidized jobs, provided work-related supports, and helped people find permanent employment. The second model, called Success Through Employment Preparation (STEP), aimed to assess and address participants' barriers to employment before they go to work. The study used a random assignment design to assess impacts on employment and earnings. The study found that only half of the individuals assigned to TWC ended up working in a transitional job, and the average amount of time worked among those in transitional jobs was about 30 days. TWC increased participants' earnings and employment initially, but the increases faded after the first year of follow-up. It also found that reductions in public benefit receipt and earnings gains offset each other.
Bloom, H., Riccio, J., & Verma, N. (2005). <i>Promoting Work in Public Housing: The Effectiveness of Jobs-Plus</i> . New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/full_485.pdf	Financial Incentives	RCT	Residents of public housing developments	This report presents implementation and impact findings from a randomized controlled trial of the Jobs-Plus Community Revitalization Initiative for Public Housing Families (Jobs-Plus). The Jobs-Plus program provided employment-related services, rent-based work incentives, and community support for work. The program altered public housing rent rules to ensure that increases in earnings were not directly offset by an increase in rent payments, increasing the incentive to work. In some sites they specified a flat rent amount that didn't change in relation to earnings. Other sites reduced the percent of income paid in rent. They found that the program increased earnings and that in three sites there was an increase in earnings into the fourth year. Although this study does not include work-based learning or subsidized employment, its discussion of how the program treated rent-

					based work incentives helps inform Research Question 3 on how wage subsidy and work-based learning models can be implemented without raising income levels above eligibility for SNAP.
--	--	--	--	--	--

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Boren, Z., Pruitt, M., Arabandi, B., and Rayfield, J. (2021). Rural apprenticeships for young people: challenges and strategies for success. Urban Institute.	https://www.urban.org/sites/default/files/publication/104634/rural-apprenticeships-for-young-people.pdf	Apprenticeship	No Original Analysis of Outcomes	Youth ages 16 to 24	This descriptive report evaluates four rural registered apprenticeship programs for youth in Maine, Arizona, Missouri, and Mississippi. The report first defines rural apprenticeship programs and discusses their obstacles and benefits. Each case study discusses challenges that the program faced and how the program overcame them, as well as benefits that the program brought to the local community. The report highlights the need for apprenticeships to consider transportation and broadband challenges and the availability of employer sponsors when creating apprenticeships that can serve rural youth. The report provided relevant information on how apprenticeships are designed and how joint sponsorships of apprenticeships benefit employers.
Broadus, J., Muller-Ravett, S., Sherman, A., & Redcross, C. (2016). A successful prisoner reentry program expands: Lessons from the replication of the Center for Employment Opportunities (CEO). New York, NY:	https://www.mdrc.org/sites/default/files/CEO-PrisonerReentryReport.pdf	Transitional Job	No Original Analysis of Outcomes	Individuals recently released from prison	This study examines findings from an implementation analysis of five programs in New York, California, and Oklahoma that were part of the replication of the Center for Employment Opportunities (CEO). Originally implemented in New York City, CEO is a transitional jobs program offering temporary subsidized employment opportunities to former prisoners, as well as job coaching and additional services. The study found that the replication programs operated with high fidelity to the original program model, and that participants in replication programs engaged in CEO activities at similar rates as participants in the original New York City program. The study also found that replication programs were more effective in helping participants advance through the model's early stages into working with staff to obtain unsubsidized employment. Additionally, the study found that while the programs' transitional jobs offered some opportunities for skills training, their main focus was on building general professional competencies including reporting for work each day, cooperating with colleagues, and following supervisors' directions.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Bucci, P. T. (2016). Evaluation of the Illinois Network for Advanced Manufacturing: Final report. Rockville, MD: Westat.	https://www.skillscommons.org/bitstream/handle/taacct/15660/William%20Rainey%20Harper%20College%20Final%20Evaluation%20Report.pdf?sequence=1&isAllowed=y	Internship	Descriptive (Outcomes)	Veterans, Incumbent Workers, Unemployed	This study examines the implementation and outcome findings of programs offered through the Illinois Network for Advanced Manufacturing (INAM), a consortium of 21 two-year colleges from across Illinois that aimed to prepare TAA-eligible workers, veterans, incumbent workers, and the unemployed for well-paying advanced manufacturing careers. One of the key components of the INAM programs was to develop internships and on-the-job training opportunities. The implementation study found colleges successfully strengthened their academic programs, and that some of the colleges increased their partnerships with local businesses. Additionally, the study found that the programs implemented internships to a lesser extent than anticipated due to legal liability issues and a lack of positions in the local economy, which may have decreased employment prospects for participants. The study also found that participation in the INAM program was significantly associated with improved rates of credential receipt, certificate completion, and employment, though impact findings on wages were more complicated.
Bucci, P., Evans, W., Freisenborg, L., Fox, D., Bishop, K., Balraj, N., & Jang, B. (2018). Minnesota Advanced Manufacturing Project (MnAMP): Final External Evaluation Report. PTB & Associates.	https://www.skillscommons.org/bitstream/handle/taacct/18521/MnAMP%20Final%20Evaluation%20Report.pdf?sequence=1&isAllowed=y	Apprenticeship	QED	Individuals with a high school degree or GED	This report presents implementation and impact findings from a quasi-experimental evaluation of the Minnesota Advanced Manufacturing Project (MnAMP). The MnAMP project was made up of twelve community and technical colleges to implement the Learn Work Earn model, which included strategies such as sector-based career pathways, contextualized learning, and apprenticeships. Using a propensity score matching design, the evaluation found that MnAMP increased attainment of full-time employment for individuals who were unemployed at program enrollment. The report provided relevant information on how apprenticeships are designed and how employers can be involved in program design and delivery.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Butler, D., Alson, J., Bloom, D., Deitch, V., Hill, A., Hsueh, J., ... & Redcross, C. (2012). What strategies work for the hard-to-employ? Final results of the Hard-to-Employ Demonstration and Evaluation Project and selected sites from the Employment Retention and Advancement Project. OPRE Report 2012-08, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.dol.gov/sites/dolgov/files/ETA/research/pdfs/hard_to_employ_1.pdf	Transitional Job	RCT	Individuals that were formerly incarcerated; individuals receiving TANF	This study reports impact findings for eight models that were part of the Enhanced Services for the Hard-to-Employ (HtE) Demonstration and Evaluation Project, including three sites from the Employment Retention and Advancement (ERA) Project. HtE was a 10-year evaluation project that sought to improve the prospects of people with serious obstacles to employment. HtE used rigorous random assignment research designs to assess programs' impacts on participants' employment, earnings, and other outcomes. Three of the program models (the Center for Employment Opportunities (CEO) program, the Transitional Work Corporation (TWC) program, and the Personal Roads to Individual Development and Employment (PRIDE) program) included work-based learning components. CEO and TWC were transitional jobs programs offering temporary subsidized employment opportunities for former prisoners in New York City and long-term welfare recipients in Philadelphia, respectively. The study found that transitional jobs participants were often placed in positions where it was not likely they could transition to an unsubsidized job at the same location.
Card, D., Kluve, J., & Weber, A. (2017). What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations. Cambridge, MA: National Bureau of Economic Research.	https://www.nber.org/system/files/working_papers/w21431/w21431.pdf	On-the-Job Training	No Original Analysis of Outcomes	NA	This paper presents findings from a meta-analysis of over 200 studies of active labor market programs in the United States, including subsidized employment and on-the-job training. They calculate average impacts by program type as well as by participant group, and find that the longevity of outcomes varies by program type and that larger gains are seen for females and those who are entering the programs after being unemployed for a long period of time. They find that average impacts are close to zero in the short run, but become positive two to three years after program completion. They find that those that enter programs from long-term unemployment have higher impacts. They find specifically that training and private sector subsidies tend to have larger average impacts for the long term unemployed.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Cheney, Gretchen. (2019). Growing equity and diversity through apprenticeship: Business perspectives. Boston, MA: Jobs for the Future.	https://jfforg-prod-new.s3.amazonaws.com/media/documents/GrowingEquityandDiversitythroughApprenticeship-BizPerspectives-07182019-2.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	Underrepresented populations in apprenticeship	This brief describes strategies employed by private companies and industry associations to increase diversity in apprenticeships and embed equity in the different stages of apprenticeships. The authors identified these strategies through interviewing business leaders, employers, and industry associations. Strategies included pre-apprenticeship or apprenticeship-readiness training programs and partnerships with intermediaries to provide needed wrap-around services. This brief provided relevant context on how to design apprenticeship and pre-apprenticeship programs so that they promote equity and inclusion, which is an important part of the current dialogue around apprenticeships and pre-apprenticeships.
Codd, N. (2018). Responding to the Employment and Training Needs of SNAP Participants Experiencing Homelessness and Housing Instability. Alexandria, VA: Office of Employment and Training, Supplemental Nutrition Assistance Program, Food and Nutrition Service, U.S. Department of Agriculture.	https://snaptoskills.fns.usda.gov/sites/default/files/2018-08/Brief9_July2018_FINAL2_508comp.pdf	SNAP E&T	No Original Analysis of Outcomes	Individuals experiencing homelessness or housing instability	This policy brief highlights the barriers to employment that some SNAP participants face, including homelessness, housing instability, and lack of available child care. It describes ways that SNAP E&T programs can better serve these individuals and highlights successful programs models including social enterprises and transitional jobs. In addition, it describes ways in which SNAP E&T programs can partner with public housing programs and homeless assistance programs. Although it does not include work-based learning, the study's discussion of SNAP participants' barriers to employment helps inform how wage subsidy and work-based learning models could be implemented within SNAP E&T programs.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Cook, P. J., Kang, S., Braga, A. A., Ludwig, J., & O'Brien, M. E. (2015). An experimental evaluation of a comprehensive employment-oriented prisoner re-entry program. <i>Journal of Quantitative Criminology</i> , 31(3), 355-382.	https://doi.org/10.1007/s10940-014-9242-5	Transitional Job	RCT	Incarcerated men	This report presents one-year impact findings from the Milwaukee Safe Street Prisoner Release Initiative, a comprehensive prisoner re-entry program focusing on employment. Services began while participants were incarcerated and continued after their release, and included soft skills and vocational training, wraparound services, and access to the Community Corrections Employment Program, which provided job search assistance and gave job creation subsidies to employers. Through a randomized controlled trial, the study found that members of the treatment group had significantly higher employment and earnings and lower likelihood of new arrests than members of the control group, though it did not find significant differences between groups in the likelihood of reimprisonment during the follow-up period.
Cooney, K. (2010). The promise and pitfalls of employer-linked job training for disadvantaged workers. <i>Administration in Social Work</i> , 34(1), 27-48.	https://www.tandfonline.com/doi/abs/10.1080/03643100903173008	On-the-job Training	No Original Analysis of Outcomes	Individuals receiving welfare	This article explores qualitative data from a three-year case study of a welfare-to-work program at a nonprofit social service organization that incorporated employer-linked job training in job brokering (including subsidized on-the-job training) working with disadvantaged populations. The report found that employer-linked job training enhanced organizational processes by focusing training activities and boosting client morale. However, credentialing requirements and unfavorable job conditions limited the longevity of job placements. We include this study because its focus on employer-linked job training provides useful information on how government programs can develop strong relationships with employers.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Cooney, K. (2011). The business of job creation: An examination of the Social Enterprise approach to workforce development. <i>Journal of Poverty</i> , 15(1), 88-107.	https://www.tandfonline.com/doi/abs/10.1080/10875549.2011.539505	Transitional Job	No Original Analysis of Outcomes	Disadvantaged workers	This study summarizes research and data around work integration social enterprises (WISEs), business ventures that provide employment and job training to disadvantaged workers, from a pilot study of 15 WISEs. The study discusses industries where WISEs are active, the jobs associated with those industries, the employment conditions for client-workers, the strategies that WISEs take to provide valuable work experience to workers, and the promise and potential limitations of the WISE model. The study highlights ways that WISEs added value to the work experience, including by integrating work experience into a subsidized housing and services program, and developing linkages to the unsubsidized labor market.
Copson, E., Martinson, K., Elkin, S., Sarfo, B., Kappil, T., Morrison, C., & Sierks, C. (2020). Providing Employment Services to the Long-Term Unemployed: Implementation and Sustainability of the Programs in the Ready to Work Partnership Grant Evaluation. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText/Documents/ETAOP2021-19%20RTW%20Implementation%20Report_Final_508_9-18-20.pdf	On-the-Job Training	No Original Analysis of Outcomes	Long-term unemployed	This report describes the implementation of the Ready to Work (RTW) Partnership grants in four programs. The RTW grants, funded by the U.S. Department of Labor, were designed to help long-term unemployed workers find employment in high-growth industries and occupations. The grants were to be used by programs to provide job placement services, occupational training, work-based training (on-the-job training and paid work experience), and financial and behavior health counseling. The evaluation found that developing work-based training positions was challenging and took a substantial amount of time and investment to develop the positions and develop trust among employers.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Cummings, D. & Bloom, D. (2020). Can Subsidized Employment Programs Help Disadvantaged Job Seekers? A Synthesis of Findings from Evaluations of 13 Programs. OPRE Report 2020-23. Washington, DC: Office of Planning, Research, and Evaluation, the Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.mdrc.org/sites/default/files/synthesized_final_synthesis_report_feb_2020.pdf	Transitional Job	RCT	Formerly incarcerated adults, noncustodial parents, public-assistance recipients, and disconnected young people	This synthesis report summarizes findings from 13 random assignment studies of subsidized employment programs that aimed to improve labor market outcomes for individuals with barriers to employment. These programs were part of two large-scale research projects known as the Subsidized and Transitional Employment Demonstration (STED) and the Enhanced Transitional Jobs Demonstration (ETJD), funded by the U.S. Department of Health and Human Services and the U.S. Department of Labor, respectively. The studies estimated impacts on employment and earnings up to five years after random assignment. While the evaluations found that some models improved employment, earnings, and other outcomes, a clear pattern about which type of program works best did not emerge. It found that placements into transitional/subsidized employment varied widely between programs, and those that operated their own work sites tended to have higher placement rates. Those operating wage-subsidy models struggled to recruit enough willing employers. The largest impacts were among those that had been out of work for over a year.
Cummings, D., Farrel, M., & Skemer, M. (2018). Forging a Path: Final Impacts and Costs of New York City's Young Adult Internship Program. OPRE Report 2018-75. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/sted_yaip_2018_final_508_2.pdf	Internship	RCT	Disconnected youth ages 16 to 24	This report presents 30-month impact findings of the Young Adult Internship Program (YAIP), a subsidized employment program in New York City that provided the opportunity for disconnected youth ages 16-24 that were disconnected from work or school a temporary paid internship. Part of the Subsidized and Transitional Employment Demonstration (STED), this random assignment study assessed the impacts of the program on education and training, employment and earnings, and well-being 30 months after random assignment. The study also estimates the cost of the program. The study found that YAIP increased employment and earnings during the first year of follow-up, but that YAIP did not increase participants' transition to education, employment, the military, or training at the end of the 30-month follow-up period. The study also found that YAIP did not increase earnings 30 months after study enrollment. While survey data indicated that YAIP increased employment at the end of the 30-month follow-up period,

					<p>those impacts were not replicated when measured with administrative data. The study hypothesizes that a three-month intervention may not be long enough to lead to long-term gains in employment and earnings, or that YAIP did not provide sufficient job search development and placement assistance.</p>
--	--	--	--	--	--

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
D'Amico, R., Dunham, K., Goger, A., Mack, M., Kebede, R., Laco, J., & Salzman, J. (2009). Initial implementation of the Trade Act of 2002: A report prepared as part of the evaluation of the Trade Adjustment Assistance Program. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/Initial%20Implementation%20of%20the%20Trade%20Act%20of%202002%20-%20Final%20Report.pdf	Customized Training On-the-Job Training	No Original Analysis of Outcomes	Trade-affected workers	This report presents implementation findings from the implementation of the Trade Act of 2002, which significantly amended the Trade Adjustment Assistance (TAA) program in its provision of extensive training and benefits to trade-affected dislocated workers. One of the changes brought by the Trade Act of 2002 was an increased focus on promoting rapid and successful reemployment, which included loosening requirements around on-the-job training (OJT) and adding customized training (CT) as an option for TAA customers. Through site visits to 12 state agencies, the study found that usage of OJT and CT did not increase. Respondents reported several barriers to implementing OJT and CT programs, including the time required to establish relationships with employers, extensive paperwork, and insufficient time, knowledge, and expertise of staff to develop and monitor contracts.
Decker, D. (2021). Expanding college-connected apprenticeships to improve social equity and inequality. The CTE Journal, 9(1)	https://www.tectejournal.com/uploads/1/0/6/8/10686931/decker_summary_2021.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This paper explores the opportunities around expanding college-connected apprenticeships to reduce wage inequality and improve social equity. The paper provided relevant context on how apprenticeships are designed and how apprenticeship programs may promote equity and inclusion, which is an important part of the current dialogue around apprenticeships.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Deutsch, J., Allison-Clark, K., & Yañez, A. (2021). The Workforce Innovation and Opportunity Act (WIOA) research portfolio: A research evidence scan of key strategies related to WIOA. Princeton, NJ: Mathematica.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP2021-20%20WIOA%20Portfolio%20Research%20Evidence%20Scan_508.pdf	Apprenticeship Incumbent Worker Training	No Original Analysis of Outcomes	Adult and dislocated workers	This literature review summarizes existing research on key topics related to WIOA programs and services, focusing on four main topic areas: case management, integrated service delivery, training programs, and youth services. Within its discussion of research on training programs, the report examines work-based learning models (including apprenticeships), career pathways and sector-oriented training, and incumbent worker training. The report provided relevant information on common apprenticeship sectors and sectors in which apprenticeships are expanding, and how incumbent worker training programs are designed.
Dimeny, E., Williamson, D., Yate, L., & Hinson, D. (2019). Skilling Up: The Scope of Modern Apprenticeship. Washington, DC: The Urban Institute.	https://files.eric.ed.gov/fulltext/ED601793.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This report is a collection of essays that are designed to address questions for businesses, especially small- and mid-sized businesses, interested in using apprenticeships. It highlights several specific examples of successful apprenticeship models and describes the apprenticeship policy landscape. The report includes relevant information around the benefits and costs to employers of engaging in apprenticeship programs.
Dunham, K., Paprocki, A., Grey, C., Sattar, S., & Roemer, G. (2020). Change and continuity in the Adult and Dislocated Worker Programs under WIOA. Princeton, NJ: Mathematica.	https://www.dol.gov/sites/dolgov/files/OASD/evaluation/SP/evaluation/pdf/ETA_WIOAStudy_AdultDW.pdf	Apprenticeship Incumbent Worker Training On-the-Job Training Customized Training	No Original Analysis of Outcomes	Adult and dislocated workers	This report examines the implementation of changes to the Adult and Dislocated Worker programs under the Workforce Innovation and Opportunity Act (WIOA) of 2014. The changes were designed to promote the use of work-based learning (including subsidized registered apprenticeships, on-the-job training, customized training, and transitional jobs) and career pathways, increase the focus on serving individuals with barriers to employment, and improve employer services (including incumbent worker training). Primarily based on interviews with state- and local-level administrators, employer partners, and frontline staff, the study found that state and local areas reported increased efforts promoting work-based learning, through there was little change in receipt in work-based learning (respondents cited lack of employer interest as one contributing factor). The report includes relevant discussion of barriers and strategies to engaging employers

					and workers in registered apprenticeships, on-the-job training, customized training, and incumbent worker training.
--	--	--	--	--	---

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Dutta-Gupta, I., Grant, K., Eckel, M., & Edelman, P. (2016). Lessons Learned from 40 Years of Subsidized Employment Programs: A Framework, Review of Models, and Recommendations for Helping Disadvantaged Workers. Washington, DC: Georgetown Center on Poverty and Inequality.	http://www.georgetownpoverty.org/wp-content/uploads/2016/07/GCPI-Subsidized-Employment-Paper-20160413.pdf	Transitional Job	No Original Analysis of Outcomes	Disadvantaged workers	This report summarizes the evidence on subsidized employment programs from the last 40 years. It focuses on programs that served populations with barriers to employment and describes key features of the programs, findings from evaluations of the programs, and concludes with recommendations for policymakers and practitioners. They conclude that programs that have longer-lasting interventions (longer than 14 weeks) may be more likely to lead to improvements in employment and earnings, but that no research has yet to isolate the impact of the duration of a subsidy within a program. The review also found that successful strategies include strong employer engagement, wraparound services, longer post-placement retention services but that research has not yet been able to tease out the impacts of specific program features.
Eyster, L., Nightingale, D.S., Barnow, B., O'Brien, C., Trutko, J. & Kuehn, D. (2010). Implementation and early training outcomes of the High Growth Job Training Initiative: Final report. Washington, DC: Urban Institute.	https://www.urban.org/sites/default/files/publication/24971/412476-Implementation-and-Early-Training-Outcomes-of-the-High-Growth-Job-Training-Initiative-Final-Report.PDF	Apprenticeship Pre-Apprenticeship	QED	The STC apprenticeship program's target population was incumbent and dislocated workers. The CWIT pre-apprenticeship program's target population was low-income women.	This report assesses projects implemented through the High Growth Job Training Initiative national grant program. The report includes quasi-experimental designs of the Lower Rio Grande Valley Workforce Development Board/South Texas College's (STC) Advanced Manufacturing Apprenticeship Program, and Chicago Women in Trades' (CWIT) pre-apprenticeship program. Using various matching strategies, the report found that participation in STC's apprenticeship program increased quarterly earnings in the two quarters after program entry. The implementation analysis of STC's program discussed challenges of attrition and engaging employers, and success in meeting employers needs and collaborating with the South Texas Manufacturers Association (STMA). For CWIT's pre-apprenticeship program, the report used propensity score matching and found that the program increased quarterly earnings over the two quarters after program entry. The implementation analysis discusses the CWIT program's success in promoting diversity and inclusion and in leveraging partnerships.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Farrell , M., Elkin, S., Broadus, J., & Bloom, D. (2011). Subsidizing Employment Opportunities for Low-Income Families: A Review of State Employment Programs Created Through the TANF Emergency Fund. OPRE Report 2011-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/tanf_emer_fund.pdf	Transitional Job	No Original Analysis of Outcomes	Unemployed individuals	This report summarizes the experiences of 48 states, tribes, and territories that operated subsidized employment programs with support from the TANF Emergency Fund. It also highlights the perspectives of employers who participated in the subsidized employment programs and their reasons for participating. The findings are based on telephone interviews with administrators of those states, tribes, and territories as well as employers. They found states were able to implement large-scale programs in a relatively short time frame (less than a year), and that the flexibility of the TANF Emergency Funds led to a wide range of program types. However, only a few states continued to operate the subsidized employment programs after the funding ended. Most participants worked for private employers; states targeted the private sector for subsidized employment placements because individuals participating in the Emergency Fund program tended to have fewer barriers to employment.
Farrell, M., & Webster, R., (2019). Implementation and Early Impacts of the Minnesota Subsidized and Transitional Employment Demonstration. OPRE Report 2019-68. Washington, DC: Office of Planning, Research, and Evaluation, the Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/sted_mn_2019_508.pdf	Transitional Job	RCT	TANF recipients who were unable to find employment after receiving TANF for six months or more	This report presents implementation and early impact findings of the Minnesota Subsidized and Transitional Employment Demonstration (MSTED), which sought to place participants of Minnesota’s TANF program in one of two types of subsidized employment: temporary paid work experience in a nonprofit or public sector placement or subsidized jobs in the private sector. Part of the Subsidized and Transitional Employment Demonstration (STED), this random assignment study assessed the impacts of MSTED on employment and earnings, receipt of public assistance, and overall well-being 12 months after random assignment. It also describes MSTED’s intended model, how the program was implemented, participants’ experiences, and the service contrast. The study found that staff experienced challenges with placing individuals in subsidized jobs with private employers, but that the program increased employment in the

					first year after random assignment (which continued after the subsidies ended).
--	--	--	--	--	---

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Fein, D. J. (2012). Career pathways as a framework for program design and evaluation. OPRE Report 2012-30, Washington DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, US Department of Health and Human Services.	https://www.acl.hhs.gov/sites/default/files/documents/opre/cp_as_a_framework_final_508b.pdf	General Workforce Training	No Original Analysis of Outcomes	NA	This paper presents a framework for evaluating career pathways programs as part of the Pathways for Advancing Careers and Education (PACE) Evaluation, the first national evaluation of career pathways programs. Career pathways is an integrative framework for promising approaches to advancing post-secondary education and training for low-income and low-skill adults. The paper provides an overview of career pathways, describes the main intervention strategies included in career pathways models and how programs participating in PACE embody these strategies, and discusses a theory of change for career pathways. The paper discusses strategies to support individuals' employment after training, including job placement services based on strong connections to local employers and the creation of dedicated positions for program participants (such as transitional jobs or apprenticeships).
Fein, D., & Hamadyk, J. (2018). Bridging the opportunity divide for low-income youth: Implementation and early impacts of the Year Up program. OPRE Report 2018-65, Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acl.hhs.gov/sites/default/files/documents/opre/pace_8_year_up_narrative_6_1_18_508.pdf	Internship Customized Training	RCT	Young adults (18-24) disconnected from work and school	The report presents implementation and early impact findings from the Year Up program, one of the nine programs in the Pathways for Advancing Careers and Education (PACE) evaluation. Year Up used a randomized controlled trial to test a customized training and internship career pathways model for low-income young adults ages 18 to 24 in urban areas. The program consisted of six months of full-time customized training in the IT and financial service sectors, followed by six-month internships at major firms. We include this report in addition to the final impact report because it includes discussion of the screening process for candidates, how program staff solicited feedback from employers on curricula and adapted curricula to meet employers' changing needs, and how instructors supported students with lower basic skills.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Fein, D., Dastrup, S., & Burnett, K. (2021). Still bridging the opportunity divide for low-income youth: Year Up's longer-term impacts. OPRE Report 2021-56, Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acluhhs.gov/sites/default/files/documents/opre/year-up-report-april-2021.pdf	Internship Customized Training	RCT	Young adults (18-24) disconnected from work and school	The report examines findings from a final three- to five-year impact analysis and cost-benefit analysis of the Year Up program, one of the nine programs in the Pathways for Advancing Careers and Education (PACE) evaluation. Year Up used a randomized controlled trial to test a customized training and internship career pathways model for low-income young adults ages 18 to 24 in urban areas. The program consisted of six months of full-time customized training in the IT and financial service sectors, followed by six-month internships at major firms. The study found that Year Up's large positive earnings impacts persisted undiminished to the end of the five-year follow-up period. The report found the program had little impact on the overall employment rate, but it did increase the likelihood of individuals working full-time. Year Up also increased participants' average hourly wages. The study did not find an impact on college enrollment after the second follow-up year, and the program's impacts on outcomes in other life domains were mixed. It also discusses how increased earnings may have interacted with participants' public benefits eligibility and capacity to live independently. The cost-benefit analysis found that the program's benefits exceeded its costs, despite the high costs of the program.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Fink, B. (2018). Findings from In-Depth Interviews with Participants in Subsidized Employment Programs. OPRE Report 2018-120. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/sted_topics_qualitative_508.pdf	Transitional Job	No Original Analysis of Outcomes	Formerly incarcerated, noncustodial parents, TANF recipients	This report highlights the perspectives of participants in the Enhanced Transitional Jobs Demonstration (ETJD) and the Subsidized and Transitional Employment Demonstration (STED). Drawing on in-depth interviews with 80 participants, the report describes participants' reasons for taking part in a subsidized employment program, how the program helped participants find unsubsidized employment, and any barriers they still face in obtaining unsubsidized employment after participating in a subsidized job. The study found that the majority of participants were not able to turn their subsidized positions into unsubsidized jobs. The study discusses strategies to improve employment outcomes, including forming stronger programmatic connections with employers and addressing participants' transportation barriers. We include this study in addition to the other studies on ETJD and STED because of its focus on first-hand accounts participants' experiences, which can inform efforts to improve long-term employment for hard-to-employ populations.
Fishman, M., Bloom, D., & Elkin, S., (2020). Employment and Training Programs Serving Low-Income Populations: Next Steps for Research. OPRE Report 2020-72. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.mdrc.org/sites/default/files/nextstepsforresearchprog_508.pdf	General Work Based Learning	No Original Analysis of Outcomes	Low-income populations	This paper builds on discussions held with policymakers, employers, researchers, and practitioners on the status of research on programs designed to improve outcomes for low-income populations (such as apprenticeships) and highlights future areas of potential research. The brief discusses current and future research around services for vulnerable populations with complex barriers to employment, including subsidized employment, supported employment, behavioral health treatment, and substance use disorder treatment.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Foley, K., Farrell, M., Webster, R., Walter, J. (2018). Reducing Recidivism and Increasing Opportunity: Benefit and Costs of the RecycleForce Enhanced Transitional Jobs Program. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://www.mdrc.org/sites/default/files/ETJD_STED_Benefit_Cost_Brief_508.pdf	Transitional Job	No Original Analysis of Outcomes	Formerly incarcerated men and women	This brief outlines an analysis of the benefits and costs of one of the Enhanced Transitional Jobs Demonstration (ETJD) sites, RecycleForce. RecycleForce is a social enterprise that provided men and women reentering society from prison with subsidized jobs at its electronic recycling services plant. It includes an estimate of the revenue generated per program group member as part of their work, which helped offset some of the cost of the program. The brief also estimates the savings due to reduced recidivism and increased employment. The analysis finds that for every dollar invested in RecycleForce, \$1.20 was generated. We include this study because its benefits findings discuss how the revenue generated by participants help offset the costs of the program, which can help inform how government programs can develop strong relationships with employers.
Fortson, K., Rotz, D., Burkander, P., Mastri, A., Schochet, P., Rosenberg, L., McConnell, S., & D'Amico, R. (2017). Providing Public Workforce Services to Job Seekers: 30-Month Impact Findings on the WIA Adult and Dislocated Worker Programs. Washington, DC: Mathematica Policy Research	https://mathematica.org/publications/providing-public-workforce-services-to-job-seekers-30-month-impact-findings-on-the-wia-adult	On-the-Job Training	RCT	Adult and dislocated workers	This report presents 30-month impact findings from a randomized control trial of the WIA Adult and Dislocated Worker programs. It compares the effectiveness of intensive services, which include WIA-funded training, compared to "core services" which are available to anyone who comes into an American Job Center. WIA-funded training includes on-the-job training, although the study found that very few (only 5%) enrolled in on-the-job training. The study did not find increases in earnings or employment-related outcomes in the 30 months after random assignment.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Gardiner, K., Kuehn, D., Copson, E., and Clarkwest, A. (2021). Expanding Registered Apprenticeship in the United States: Description of American Apprenticeship Initiative Grantees and their Programs. Report prepared for the U.S. Department of Labor, Employment and Training Administration. Rockville, MD: Abt Associates.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP2021-23_AAI_Grant_Program_Description_Final.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	Populations underrepresented in apprenticeship	This report summarizes implementation findings from an evaluation of the American Apprenticeship Initiative (AAI) grant funded by the U.S. Department of Labor to expand registered apprenticeships in the United States. The report describes findings from an online survey of the 45 AAI grantees, site visits conducted with 10 grantees, and Quarterly Performance Report (QPR) data, and documents the design and operation of the grantee apprenticeship and pre-apprenticeship programs. The report provides information around how apprenticeship and pre-apprenticeship programs are designed and the populations typically served. Additionally, the report discusses challenges and strategies around engaging employers in apprenticeship programs, such as providing financial incentives to alleviate the cost burden for employers.
Gasper, J., & Baier, K. (2021). Early outcomes study report: Evaluation of the TechHire and Strengthening Working Families Initiative grant programs. Washington, DC: Chief Evaluation Office, Office of the Assistant Secretary for Policy, U.S. Department of Labor.	https://www.dol.gov/sites/dolgov/files/OASIP/evaluation/pdf/TechHire-SWFI-Outcomes-Report.pdf	Incumbent Worker Training	Descriptive (Outcomes)	Individuals with barriers to employment	This report presents 18-month outcome findings from 49 TechHire and Strengthening Working Families Initiative (SWFI) grant programs (funded through the H-1B skills training grants). Both grant programs were designed to make training more accessible for their target populations in order to prepare them for higher paying jobs in high-growth H-1B industries. The TechHire program provided accelerated skills training to a range of individuals with barriers to employment, while the SWFI program provided flexible training and childcare supports to low-income parents lacking childcare access to help them obtain high-tech skills. Grantees offered employment opportunities including registered apprenticeships, on-the-job training, paid internships, and additional subsidized work experiences. The study described participants' characteristics and service receipt and presented outcomes findings for both programs around training enrollment and completion, credential receipt, employment, and training-related employment. The study reports on employment outcomes for incumbent workers in the TechHire program, finding relatively modest increases. In addition, the study found that employer involvement in work-

					based learning was positively correlated with training completion or credential receipt.
--	--	--	--	--	--

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Gasper, J., Gearing, M., Giesen, L., Marrow, J., Muz, B., Dodkowitz, A. (2021). Findings from the implementation study: Evaluation of the TechHire and Strengthening Working Families Initiative grant programs. Washington, DC: Chief Evaluation Office, Office of the Assistant Secretary for Policy, U.S. Department of Labor.	https://www.dol.gov/sites/dolgov/files/OA/SP/evaluation/pdf/TechHire-Implementation-Report-v2.pdf	Internship On-the-job Training	No Original Analysis of Outcomes	Individuals with barriers to employment	This report presents implementation findings from 49 TechHire and Strengthening Working Families Initiative (SWFI) grant programs (funded through the H-1B skills training grants). Both grant programs were designed to make training more accessible for their target populations in order to prepare them for higher paying jobs in high-growth H-1B industries. The TechHire program provided accelerated skills training to a range of individuals with barriers to employment, while the SWFI program provided flexible training and childcare supports to low-income parents lacking childcare access to help them obtain high-tech skills. Grantees offered employment opportunities including registered apprenticeships, on-the-job training, paid internships, incumbent worker training, and additional subsidized work experiences. The study found that employers appreciated how internships allowed them to screen potential hires, and one employer incorporated job shadowing into their internship program to allow interns to get a better sense of what a job might look like. The report also describes employers' reimbursement for participants' wages in on-the-job training.
Geckler, C., Folsom, L., Hebbbar, L., Mallet, J., Paprock, A., & Sarver, M. (2019). The Impact of a Social Enterprise and Workforce System Operated Transitional Employment in Los Angeles: Final Report for the Impact Evaluation of the Los Angeles Regional Initiative for Social Enterprise (LA:RISE) Pilot Program. Oakland, CA: Social Policy Research Associates.	https://www.spra.com/wordpress/wp-content/uploads/2019/09/LA-RISE-Evaluation-Final-Report.pdf	Transitional Job	RCT	Individuals with barriers to employment	This report presents implementation and impact findings from a randomized controlled trial of the Los Angeles Regional Initiative for Social Enterprise (LA:RISE) which provided youth, individuals with criminal records and individuals with unstable housing with transitional employment services. The implementation study describes how organizations formed partnerships, recruited participants, and provided services. The impact study examined the program's affect on employment, earnings, arrests, convictions, and jail incarcerations. Although LA:RISE showed positive impacts on employment during the first three quarters, the impacts were not sustained at nine quarters. LA:RISE did not show positive impacts on earnings or criminal justice outcomes.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Glennie, E., Laird, J., Hong, Y., & Dunlop Velez, E. (2021). Employment Social Enterprise evaluation: Economic self-sufficiency and life stability 18 months after starting work with an Employment Social Enterprise. Berkeley, CA: RTI International.	https://central.cityconcern.org/wp-content/uploads/RTI_REDFESE_Evaluation.pdf	Transitional Job	RCT	Individuals with barriers to employment	This report examines 18-month impact, cost-benefit, and outcome findings from the RTI Employment Social Enterprise (ESEs) Evaluation, which included four ESEs that each served individuals with different types of employment barriers and prepared clients for work in different industries. ESEs provide subsidized transitional jobs to individuals facing barriers to employment, and may also provide career development activities (such as work readiness training) and other wraparound support (like transportation and healthcare). To assess impacts, two of the ESEs used a randomized controlled trial, while the other two used a quasi-experimental design. The study also included a subgroup analysis of impact findings to assess differences across race, ethnicity, and gender. The outcomes analysis assessed the perceptions of ESE workers based on survey findings. The study found that the ESE group had greater employment and income, and that participation benefitted members of all racial, ethnic, and gender groups in the same way.
Glosser, A. & Ellis, E. (2018). Tribal Solutions: Subsidized Employment Programs Serving American Indians and Alaska Natives. OPRE Report 2018-94. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/tribal_tanf_embedded_final_508.pdf	Transitional Job	No Original Analysis of Outcomes	American Indian and Alaska Native families	This report describes how eight TANF programs utilized subsidized employment. These eight TANF programs primarily served American Indian and Alaska Native families. The findings are based on site visits and phone interviews, and do not include outcome or impact estimates but instead describes the context in which the programs were implemented, how these subsidized employment programs differ from those implemented by other TANF programs, and promising practices. The report highlights the importance of taking the local and economic context of an area into account when designing subsidized employment programs and highlights the challenges when the local economy limits the number of possible transitional employment placements.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Glosser, A., Barden, B., Williams, S., & Anderson, C. (2016). Testing Two Subsidized Employment Approaches for Recipients of Temporary Assistance for Needy Families: Implementation and Early Impacts of the Los Angeles County Transitional Subsidized Employment Program. OPRE Report 2016-77. Washington, DC: Office of Planning, Research, and Evaluation, the Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.mdrc.org/sites/default/files/STED-LA_2016_FR.pdf	Transitional Job	RCT	TANF recipients	This report presents implementation and early impact findings of two approaches to subsidized employment for TANF participants in Los Angeles County: Paid Work Experience (PWE) and On-the-Job Training (OJT). Part of the Subsidized and Transitional Employment Demonstration (STED), this random assignment study assessed the impacts of the two approaches on education and training, employment and earnings, TANF receipt, combined income, and well-being 12 months after random assignment. It also describes how the two approaches were implemented. They found that the two models differed in subsidized employment placement rates and duration of placement. 80% of individuals assigned to PWE were placed in subsidized employment compared to only 52% of OJT participants; PWE placements also lasted nearly two months longer than OJT placements. They also found increases in employment and earnings one year after random assignment in both the PWE and OJT groups, but few differences in other outcomes including TANF receipt or overall well-being. We include this study in addition to the final report because it includes detailed implementation findings that might not be captured in the later report.
Glover, R. W., & Bilginsoy, C. (2005). Registered apprenticeship training in the US construction industry. <i>Education & Training</i> , 47(4-5), 337-349.	https://www.cpw.com/wp-content/uploads/publications/Bilginsoy-and-Glover.pdf	Apprenticeship	Descriptive (Outcomes)	Women and minorities	This descriptive outcome study compares registered apprenticeship programs in the United States construction industry that are sponsored jointly by labor unions and employers to those that are sponsored solely by employers. The study finds that programs sponsored by both labor unions and employers have higher enrollments and greater participation of women and racial and ethnic minorities relative to programs sponsored unilaterally by employers, and that they also have higher rates of program completion and lower rates of attrition for all groups. Additionally, the study describes how joint sponsorship allows stakeholders to share in program benefits and costs, which is relevant to understanding how to address barriers to employers' entry into apprenticeship programs.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Gunn, P. & De Silva, L. (2008). Registered Apprenticeship: Findings from Site Visits to Five States. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/Registered%20Apprenticeship%20-%20Findings%20from%20Site%20Visits%20to%20Five%20States%20Report%20-%20Final%20Report.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This paper discusses findings from site visits to five states and a survey of registered apprentices to better understand perspectives from both employers and participants of apprenticeship programs and summarizes promising practices. The paper discusses benefits of apprenticeship programs for sponsors, such as ensuring a skilled pipeline of workers, as well as drawbacks, such as the difficulty of finding high-quality related technical instruction. Employer sponsors also discussed the need for financial incentives for smaller companies in order to operate apprenticeships.
Hague, K. & Baddour, K. (2020). Registered apprenticeship reimagined: Lessons learned from the American Apprenticeship Initiative. Washington, DC: National Governors Association.	https://www.nga.org/wp-content/uploads/2020/11/NGA-AAI-Report.pdf	Apprenticeship	No Original Analysis of Outcomes	Populations traditionally underrepresented by apprenticeships	This report identifies factors that contributed to successful apprenticeship programs based on the experiences of American Apprenticeship Initiative (AAI) grantees. Through interviews and discussions with grantees and secondary data analysis, the report found that successful programs prioritized sustainability and leveraged partnerships. Successful grantees also developed strategies to make it easier for employers to engage in registered apprenticeships, including facilitating the registration process, supporting with monitoring compliance with regulation, and helping with tracking progress of apprentices. They also had flexible structures that could respond to employer feedback and industry demand. This report provides concrete recommendations and practices that are not discussed in the other report on the AAI grant included in this list.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Hamersma, S. & Heinrich, C. (2007). Temporary Help Service Firms' Use of Employer Tax Credits: Implications for Disadvantaged Workers' Labor Market Outcomes. Upjohn Institute Working Paper No. 07-135 Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.	https://doi.org/10.17848/wp07-135	Transitional Job	QED	Disadvantaged workers	This paper estimates the impact of temporary help service firms' use of Work Opportunity Tax Credit (WOTC) and Welfare-to-Work Tax Credit (WtW) subsidies. WOTC and WtW reimburse employers for the wages of workers with barriers to employment (up to 50 percent of the wage). The goal of these credits is to help individuals with barriers to employment gain work experience, improve skills, and retain employment. Using a quasi-experimental design, they find that temporary help service workers who are certified to receive these subsidies have higher earnings than those who are not, but that they have shorter job tenure and lower earnings than individuals who are eligible for these subsidies but work in non-temporary help service industries.
Hamilton, G. (2012). Improving Employment and Earnings for TANF Recipients. OPRE Report 2012-16. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.mdrc.org/sites/default/files/Improving%20Employment%20and%20Earnings%20for%20TANF%20Recipients.pdf	Transitional Job	No Original Analysis of Outcomes	TANF recipients	This brief summarizes evidence from studies of welfare-to-work interventions, highlighting strategies found to be effective in increasing employment and earnings for individuals receiving welfare. Strategies include subsidized employment, sectoral training initiatives, and incentives. Based on the evidence, the brief outlines some possible program enhancements that could lead to improved employment and earnings, including longer-term subsidized employment programs that are combined with sector-focused skills training, financial incentives, and strong employer connections.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Hamilton, J., & Chen, E. (2014). Evaluation of the New York City (NYC) Business Solutions Customized Training program. New York, NY: New York City Center for Economic Opportunity (CEO).	https://www1.nyc.gov/assets/opportunity/pdf/CEO_CT_final_report_2014.pdf	Incumbent Worker Training	QED	Low-wage workers	This evaluation presents six-month quasi-experimental impacts of the New York City Business Solutions Customized Training (CT) program, which offered funding to eligible businesses to provide training to their workers. The goals of the program were to support low-income workers (earning \$15 per hour or less) to gain new skills and increase their wages, as well as help businesses to reduce turnover and increase their productivity. Employers were required to give participating employees a raise, and invested 30-40% of their own funds in the training. Participants were also paid during the training and received instruction on basic skills like reading, math, and English as a second language. The training content and duration varied by employer needs, with training length ranging from 12 weeks to one year. The study used matched comparison groups to assess the program's impacts on participants' earnings and found that the CT program increased participants' wages more than other training programs did.
Heinrich, C. & Holzer, H. (2011). Improving Education and Employment for Disadvantaged Young Men: Proven and Promising Strategies. The Annals of the American Academy of Political and Social Science, 635(?), 163-191.	http://www.jstor.org/stable/29779417	Apprenticeship	No Original Analysis of Outcomes	Disadvantaged young men	This paper reviews the evidence on programs and policies designed to improve the circumstances of disadvantaged young men. In addition to in-school programs, the paper also reviews the evidence of programs that serve older, out-of-school youth including large, publicly funded programs such as the Center for Employment and Training and Job Corps and employment-based training programs such as YouthBuild.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Hendra, R., Dillman, K. N., Hamilton, G., Lundquist, E., Martinson, K., Wavelet, M., ... & Williams, S. (2010). How effective are different approaches aiming to increase employment retention and advancement? Final impacts for twelve models. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/full_390.pdf	General Workforce Training	RCT	TANF recipients, low-income workers	This report presents implementation and four-year impact findings from 12 programs in the national Employment Retention and Advancement (ERA) project. Using a random assignment research design, the study examined the effectiveness of 16 distinct employment retention and advancement models developed by states and localities for current and former welfare recipients and other low-wage workers (most of whom were single mothers). The goal of the project was to determine effective strategies for helping welfare recipients and other low-income individuals prepare for and find jobs. Three of the programs in this report (the Los Angeles Reach for Success (RFS) program, the Eugene ERA program, and the Medford ERA program) included work-based strategies in their approach to helping people advance in their jobs, though none of these produced positive economic impacts. In addition, the study found that that increases in participation relative to the control group were not consistent or large, which could have made it difficult for programs to achieve impacts on employment retention and advancement.
Holcomb, P. A., Ziegler, J., & Laird, E. (2011). Beyond a summer work experience: The Recovery Act 2009 Post-Summer Youth Employment Initiative: Final report. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/ET_AOP_201_03.pdf	Transitional Job	No Original Analysis of Outcomes	Youth ages 14-24	This report examines implementation findings for the Post-Summer Youth Employment Initiative (Post-SYEI), funded by the American Recovery and Reinvestment Act of 2009. Post-SYEI allowed states and local areas to provide extended paid work experiences to older disconnected youth ages 18 to 24 for up to six months beyond the summer months. The study conducted eight in-depth site visits to local sites in seven states and analyzed the findings using qualitative methods. The report describes key features of the sites' Post-SYEI initiatives and lessons to inform the design of future policies targeting older, out-of-school youth. The study found that matching worksites with participants' goals and interests contributed to productive work experiences that benefited both participants and employers. Additionally, the study found that employers benefited from having the opportunity to "try out" participants and assess their ability to complete the job successfully.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Holdbrook, J., Brown, E., Conroy, K., Fung, N., Harding, J., Roemer, G., & Rankin, M. (2021). Expanding Employer Engagement and Job Placement: Strengthening Working Families Initiative. Washington, DC: Mathematica.	https://www.mathematica.org/publications/expanding-employer-engagement-and-job-placement	Apprenticeship Pre-Apprenticeship Incumbent Worker Training	No Original Analysis of Outcomes	Working Families	This brief highlights the strategies that Strengthening Working Families Initiative grantees utilized to create partnerships with employers. The Strengthening Working Families Initiative was funded by the U.S. Department of Labor to help parents obtain jobs in high-growth industries by advancing their skills through education and training, including apprenticeships, pre-apprenticeships, and incumbent worker training. They found that developing apprenticeships programs and getting employer buy-in for apprenticeships took a long time. The brief discusses one grantee that implemented a pre-apprenticeship program in advanced manufacturing, which gave participants priority access to apprenticeship positions on completion of the program. The brief also explores grantees' challenges and successes in engaging employers in incumbent worker training.
Hollenbeck, K., & Huang, W. J. (2014). Net impact and benefit-cost estimates of the workforce development system in Washington state. Upjohn Institute Technical Report 13-029, Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.	https://doi.org/10.17848/tr13-029	Apprenticeship	QED	Adult and dislocated workers	This study examines the nonexperimental three-year impact and benefit-cost findings from 11 workforce development programs administered in Washington State, one of which focuses on apprenticeship programs. The study used a quasi-experimental research design to assess the short-term (three quarters after program exit) and long-term (three years after program exit) impacts of apprenticeship programs on employment, earnings, and receipt of unemployment insurance. The study found that apprenticeship programs increased earnings and improved employment outcomes in the short- and long-term, and also increased public benefits receipt in the long-term.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Holzer, H. (2015). Sector-Based Training Strategies: The Challenges of Matching Workers and their Skills to Well-Paying Jobs. Washington, DC: McCourt School of Public Policy, Georgetown University.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP2016-15%20Future_of_work_sector_based_training_strategies.pdf	General Workforce Training	No Original Analysis of Outcomes	NA	This research review provides a comprehensive overview of what is currently known about sector-based strategies, which can include work experience components such as apprenticeships. It describes the challenges in expanding these strategies, including a discussion of tradeoffs between short- and long-term impacts, and then presents recommendations to help address the challenges. The review finds that job-driven strategies are most effective among the working poor, but may not be an effective strategy for those that are hard-to-employ or those with barriers to employment. It also discussed the challenge in creating strong relationships with employers, which can take years to establish. For instance, the review discusses how engaging with smaller employers is more challenging than engaging with larger employers.
Holzer, H., & Martinson, K. (2005). Can We Improve Job Retention and Advancement Among Low-Income Working Parents? Washington, DC: The Urban Institute.	https://www.urban.org/sites/default/files/publication/51721/311241-Can-We-Improve-Job-Retention-and-Advancement-among-Low-Income-Working-Parents-.PDF	Incumbent Worker Training	No Original Analysis of Outcomes	Low-income parents	This report summarizes the research on strategies for improving the retention and advancement of low-income workers. It looks particularly at strategies that leverage the interests of the private sector, including employer-focused strategies such as incumbent worker training. The report identifies that incumbent worker training leads to benefits for employers (such as higher productivity and lower costs), but that few incumbent-worker training programs focus on low-wage workers. The report also provides relevant context on how incumbent worker training programs are operated and funded.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Hossain, F., & Kazis, R. (2015). Temporary staffing for the hard-to-employ: Findings from a brief study of alternative staffing organizations. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/temporary_staffing.pdf	General Workforce Training	No Original Analysis of Outcomes	Workers with barriers to employment	This study presents descriptive findings from research on the potential of alternative staffing organizations (ASOs) to employ disadvantaged workers. ASOs use the temporary staffing business model to help individuals with barriers to employment secure work, providing staffing services to employers for a fee while also emphasizing the well-being of the worker. Based on site visits to three ASOs and communication with the Alternative Staffing Alliance, the study identified that the core of the ASO model is rapid, transitional employment that brings about immediate income and work experience for disadvantaged workers, with limited focus on increasing job retention. The findings indicate that ASOs may be better able to meet the needs of employers for low-skilled workers than traditional staffing firms. The study also discusses how ASOs recruit workers from community-based organizations that help people become “job-ready.” Although this study does not discuss any particular work-based learning component, this study is still relevant given the focus of ASOs on disadvantaged workers and the findings around ASOs’ partnerships with employers and other stakeholders.
Jacobs, E. (2012). Returning to Work After Prison: Final Results from the Transitional Jobs Reentry Demonstration. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/full_626.pdf	Transitional Job	RCT	Adult men recently released from prison	This report presents final two-year impact findings of the Transitional Jobs Reentry Demonstration (TJRD), a transitional jobs program for individuals returning from prison in four midwestern cities. This random assignment study assessed the impacts of the program on employment and recidivism two years after random assignment. At the end of the follow-up period, there were no differences between the program and control group on employment or recidivism outcomes.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Jacobs, E., & Bloom, D. (2011). Alternative employment strategies for hard-to-employ TANF recipients: Final results from a test of transitional jobs and preemployment services in Philadelphia. OPRE Report 2011-19, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/final_alternative.pdf	Transitional Job	RCT	TANF recipients	This study presents final four-year impact findings from an evaluation of two different welfare-to-work strategies for hard-to-employ of Temporary Assistance for Needy Families (TANF) in Philadelphia. This evaluation is one of four sites in the Enhanced Services for the Hard-to-Employ (HtE) Demonstration and Evaluation Project. One of the approaches in the evaluation is a transitional jobs model operated by the Transitional Work Corporation (TWC), which placed people in temporary, subsidized jobs, provided work-related supports, and helped people find permanent employment. The second model, called Success Through Employment Preparation (STEP), aimed to assess and address participants' barriers to employment before they go to work. The study used a random assignment design to assess impacts on employment and earnings. The study found that TWC program group members had significantly higher employment rates and received less welfare assistance than the control group members initially, but both impacts faded over time.
Johnson, M. & Spiker, D. (2018). Broadening the apprenticeship pipeline: Pre-employment training and affordable childcare are key to access and retention in work-based learning programs. Washington, DC: National Skills Coalition.	https://nationalskillscoalition.org/wp-content/uploads/2020/12/Broadening-the-Apprenticeship-Pipeline_web.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	NA	This brief discusses how pre-employment training and affordable child care can expand access to work-based learning programs and enhance the retention and success of individuals who are underrepresented in those programs. The brief provides an overview of how pre-employment training like pre-apprenticeships can be designed, and the ways in which it can help make the apprenticeship pipeline more diverse and inclusive. In addition, the brief discusses how developing strong connections with industry partners and providing participants with supports like transportation and child care can contribute to successful pre-employment programs.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Kobes, D. (2016). Work-Based Learning in Action. Jobs for the Future.	https://files.eric.ed.gov/fulltext/ED567853.pdf	General Work Based Learning	No Original Analysis of Outcomes	Low-skilled adult incumbent workers and adult jobseekers.	This brief describes the pilot of a work-based course model in at Owensboro Community Technical College (OCTC). The brief describes the principles of a work-based course model: work-based courses are designed in partnership with employers, with a portion of the course being taught on site at the employer. Although participants are enrolled in these courses through the community college, they are also considered to be employees who earn wages paid by the employer. It describes OCTC's experience working with manufacturing employers to implement a work-based course model, the role of their employer partners, and lessons learned. The brief emphasizes the importance of the college having strong relationships with manufacturing employers and a robust understanding of the regional economy. It also discusses how work-based courses required employer involvement at multiple levels, including company leadership, training and human resources staff, and the worker's supervisor.
Kuehn, D. (2017). Diversity and inclusion in apprenticeship: Lessons from South Carolina. Urban Institute.	https://www.urban.org/sites/default/files/publication/93831/diversity-and-inclusion-in-apprenticeship-expansion.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This brief discusses Apprenticeship Carolina, a 2007 apprenticeship expansion initiative in South Carolina, focusing on the initiative's experience with racial and ethnic diversity and gender inclusivity. Though there were no significant changes in racial and ethnic diversity, the effort was associated with a substantial increase in gender equity across all apprenticeship programs due to introducing apprenticeships into industries where women are traditionally well-represented (like retail and health care). The report also discusses current federal efforts to increase equity and inclusion, and shares recommendations for policymakers based on Apprenticeship Carolina's experiences. We include this study because diversity and inclusion in apprenticeships is an important part of the current dialogue around apprenticeships

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Lacoe, J., & Betesh, H. (2019). Supporting reentry employment and success: A summary of the evidence for adults and young adults. Princeton, NJ: Mathematica.	https://www.dol.gov/sites/dolgov/files/OASP/evaluation/pdf/REOSupportingReentryEmploymentRB090319.pdf	Transitional Job	No Original Analysis of Outcomes	Justice-involved adults and young adults	This brief summarizes existing research on interventions to improve employment and recidivism outcomes for both justice-involved adults and young adults. It examines the evidence on common reentry program interventions such as employment-focused programming, cognitive-behavioral therapy, and case management. In its discussion of employment-focused programming, the brief explores career pathways and work-based learning models such as transitional jobs.
Lerman, R. I., & Kuehn, D. (2020). Assessment of national industry intermediaries' and national equity partners' efforts to expand apprenticeship opportunities. Princeton, NJ: Mathematica.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP2021-25_SAE_Study_Intermediaries.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	NA	This report examines implementation findings from State Apprenticeship Expansion (SAE) research study, which had the goals of expanding and diversifying registered apprenticeships. Through this study, 10 industry intermediaries and four national equity partners were awarded grants to advance these goals. Using interviews with partner organizations, the study assesses strategies, successes, and challenges of these organizations in implementing the grants. The study found that industry intermediaries exceeded targets for the number of apprentices registered and new apprenticeship programs developed, and that they developed programs outside of the construction sector. Additionally, the intermediaries expanded pre-apprenticeship programs to improve access to apprenticeships for underrepresented groups. The study also found that industry intermediaries engaged employers with the help of partner organizations and collaborated with employers in the creation of new occupational frameworks. The equity partners increased the inclusivity of apprenticeship programs through changing recruitment and selection processes, forming partnerships to make technical assistance broadly available to employers, and engaging employers to provide technical assistance and supportive services and to build pipelines to recruit apprentices from underrepresented populations.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Lerman, R., Eyster, L., & Chambers, K. (2009). The Benefits and Challenges of Registered Apprenticeship: The Sponsor's Perspective. Washington, DC: Urban Institute Center on Labor, Human Services, and Population.	https://wdr.doleta.gov/research/FullText_Documents/The%20Benefits%20and%20Challenges%20of%20Registered%20ApprenticeshipThe%20Sponsors%20Perspective%20-%20Final%20Report.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This study, funded by the Employment and Training Administration (ETA), discusses findings from a survey of apprenticeship sponsors. The survey asked employers about characteristics of their programs, the benefits and drawbacks of registered apprenticeships, and recommendations for ways to improve registered apprenticeships. Employers identified that a key benefit of apprenticeship programs is helping them meet the demand for skilled workers, while a drawback is the high rate of noncompletion.
Lerman, R., Eyster, L., & Kuehn, D. (2014). Can We Upgrade Low-Skill, Low-Wage Occupations? The Case of Apprenticeships in the Long-Term Care Occupations. Journal of Women, Politics and Policy, 35(2), 110-132.	https://doi.org/10.1080/1554477X.2014.890835	Apprenticeship	No Original Analysis of Outcomes	Long-term care apprentices	This report includes case studies of five registered apprenticeship programs in the long-term care (LTC) industry. The case studies found that the apprenticeship programs produced a better-skilled workforce, reduced staff turnover, and increased apprentices' sense of pride in their work. Challenges with implementing the programs included high program costs, lack of qualified staff for apprenticeships, and limited partnerships. It also includes an analysis of administrative data on registered apprenticeships in the LTC industry, which found that more LTC workers who are women and white seem to take advantage of apprenticeship opportunities.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Lerman, R., Kramer, F., Pedroza, J., & Nightingale, D. (2008). Retrospective on Registered Apprenticeship: A Review of Program Initiatives and Their Policy Implications. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/ET_AOP_2008-15.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	NA	This report provides an overview of the activities implemented by the Department of Labor's Office of Apprenticeship under the 1937 National Apprenticeship Act to expand apprenticeships and increase the number of underrepresented workers, among other objectives. The report discusses how the 1937 Act modernized and formalized the apprenticeship model by creating new standards and establishing a national system for registering apprentices and apprenticeship programs. In addition, the report discusses entry requirements in apprenticeship programs. It also discusses how pre-apprenticeship programs have been effective in reaching hard-to-serve populations like formerly incarcerated individuals and veterans.
Lippold, K., Nichols, A., & Sorensen, E. (2011). Strengthening Families Through Stronger Fathers: Final impact report for the pilot employment programs. Washington, DC: Urban Institute.	https://www.urban.org/sites/default/files/publication/26676/412442-Strengthening-Families-Through-Stronger-Fathers-Final-Impact-Report-for-the-Pilot-Employment-Programs.PDF	Transitional Job	QED	Low-income noncustodial parents ages 16 to 45 who were unemployed or underemployed	This report examines the one-year nonexperimental impacts of five New York-based pilot employment programs serving low-income parents behind in their child support payments as part of the Strengthening Families Through Stronger Fathers Initiative. The programs provided employment, case management, and child-support related services for participants. One site offered transitional jobs as part of their employment services. The initiative also included a state refundable earned income tax credit (EITC) for noncustodial parents with low earnings who paid the full amount of their current child support obligations. Using propensity score matching, the analysis found that the programs increased participants' wages, employment, and child support payments in the year after enrollment.
Loprest, P., Briggs, A., & Mikelson, K. (2017). Employer roles in building pipelines for middle-skill jobs in health care. Urban Institute.	https://www.urban.org/sites/default/files/publication/89341/employer_roles_in_building_pipelines_for_middle-	Incumbent Worker Training	No Original Analysis of Outcomes	NA	This report highlights health care employers' perspective on their role in workforce initiatives such as work-based training, internships, and incumbent worker training designed to build the pipeline for middle-skill jobs (those that require some postsecondary education but not a four-year degree). The report discusses specific incumbent worker training initiatives that highlight the importance of involving employers in program design so that they align with employers' needs.

	skill jobs in health care.pdf				
--	---	--	--	--	--

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Mabli, J., Rowe, G., Hamilton, G., Hartnack, J., & Schochet, P. (2021). Expanding Opportunities & Reducing Barriers to Work: Interim Summary Report. Alexandria, VA: Food and Nutrition Service, U.S. Department of Agriculture.	https://fns-prod.azureedge.net/sites/default/files/resource-files/SNAP-ET_Interim_Report.pdf	Internship On-the-Job Training Transitional Job	RCT	SNAP participants. Most pilots focused on work registrants who were unemployed or underemployed ; some programs focused on individuals with significant barriers to employment (like having a criminal history or substance use disorder).	This report presents implementation and 12-month interim impact findings of the SNAP Employment and Training pilot projects. Ten states received grant funding to conduct pilot projects to reduce dependency and increase employment among SNAP participants. The services offered as part of the pilot projects included assessments, case management, support services, and work-based learning opportunities. Using a randomized controlled trial design, the study examines impacts on employment, earnings, and SNAP participation 12 months after random assignment. The study found that take-up and completion of work-based learning activities were lower than staff expected. Additionally, the study found that the pilot projects in three sites led to increases in employment, but that in two pilot project sites it led to a decrease in employment. Similarly, the pilot projects increased participants' earnings at two sites but decreased earnings at one site. The study found that the pilot projects decreased the likelihood of SNAP participation at one site and increased the likelihood of SNAP participation at four sites.
Maguire, S., Freely, J., Clymer, C., Conway, M., & Schwartz, D. (2010). Tuning in to local labor markets: Findings from the Sectoral Employment impact study. Philadelphia, PA: Public/Private Ventures.	https://ppv.issuelab.org/resources/5101/5101.pdf	Internship	RCT	Target populations were broad and varied across programs, and included low-income and unemployed individuals, refugees, immigrants, and welfare recipients.	This study examines the two-year impact findings of three nonprofit-led sector-focused programs as part of the Sectoral Employment Impact Study. The goal of these programs was to connect disadvantaged job seekers and low-skilled workers to high-demand employment opportunities. The three programs were located in distinct regions of the countries and were operated by different types of nonprofits (an employer/union association, a social venture, and a human service organization). All of the programs offered sector-focused preemployment training and certification opportunities as well as additional supports, and two of the programs provided work-based learning opportunities in the form of internships. The study used a random assignment design and found that all programs improved participants' earnings and employment outcomes. The study also found that all organizations in the study implemented different strategies to forge strong connections with local employers.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Manno, M., Yang, E., & Bangser, M. (2015). Engaging Disconnected Young People in Education and Work: Findings from the Project Rise Implementation Evaluation. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/2015_Engaging_Disconnected_Young_People_FR.pdf	Internship	Descriptive (Outcomes)	Young people ages 18 to 24 who do not have a high school degree or the equivalent and have been out of school and work for at least six months.	This study describes how the Project Rise program operated at each of the five organizations that implemented the program across three states. Project Rise provided case management, classroom education, and a paid internship to individuals ages 18 to 24 who had either been out of work or out of education for at least six months and lacked a high school diploma/equivalent. The report provides detailed descriptions of how each program operated and promising practices for running these kinds of programs. The study found that participants received a large dosage of internship experience, and that internships focused more on soft skills training than on developing specific career paths. The report also describes barriers to participants' engagement in their internships. Though the report does not provide experimental impact estimates, it did find that 25 percent of participants found unsubsidized employment after the program ended.
Martinson, K. (2010). Partnering with Employers to Promote Job Advancement for Low-Skill Individuals. Washington, DC: The Urban Institute.	https://files.eric.ed.gov/fulltext/ED521235.pdf	Incumbent Worker Training	No Original Analysis of Outcomes	NA	This paper describes how partnering with employers can help improve outcomes for low-income workers. It explains the role employers can play in skill-development activities, the needs of low-income workers, the challenges of involving employers in skill-development, and promising practices. The report explores incumbent worker training as a promising strategy to improve low-income workers' outcomes, though it has not traditionally served this population given its focus on mid- and high-skilled employees. The report discusses how incumbent worker training programs are typically funded and provides examples of programs that have successfully reached low-income workers. Effective strategies that programs used to address the needs of low-skilled workers include providing basic skills instruction and encouraging employers to offer paid release time. The report concludes by discussing policy considerations for programs interested in building relationships with employers.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Martinson, K., Cho, S. W., Gardiner, K., & Glosser, A. (2018). Washington state's Integrated Basic Education and Skills Training (I-BEST) program in three colleges: Implementation and early impact report. OPRE Report 2018-87, Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, US Department of Health and Human Services.	https://files.eric.ed.gov/fulltext/ED608003.pdf	General Workforce Training	RCT	Low-income, low-skilled adults	This study describes the implementation and early three-year impacts of the Washington State Integrated Basic Education and Skills Training (I-BEST), one of nine career pathways programs being evaluated under the Pathways for Advancing Careers and Education (PACE) study. In this study, I-BEST was implemented at three colleges in Washington State. Targeting adults with low basic skills, I-BEST aims to increase access to and completion of college-level occupational training in a variety of in-demand areas by integrating basic skills and occupational training as part of a structured career pathway, as well as other support services. Several I-BEST programs in the study also incorporated work-based learning, including internships and apprenticeships. The study found that the program was implemented as designed, and that the program provided access to college-level courses for individuals with low basic skills and education levels. Through a randomized controlled trial, the study found that I-BEST increased college course enrollment, credits earned, and credential attainment.
Martinson, K., Schneider, G., Fishman, M., Gan, Katherine., Yeane, A., Morrison, C., and Kappil, T. (2015). Implementation of the H-1B Technical Skills Training Grants: Grantee Characteristics and Experiences Providing Employer-Based Training. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://wdr.dol.gov/research/FullText_Documents/ETAOP-2017-03_TST%20Report.pdf	Incumbent Worker Training On-the-Job Training	No Original Analysis of Outcomes	Individuals who can qualify for training programs that prepare them for middle-skill positions in high-growth industries, and unemployed individuals.	This implementation study describes how programs that received H-1B Technical Skills Training (TST) grants operated their training programs. The TST grant program is funded by fees paid by employers seeking to hire foreign individuals requiring an H-1B visa. This study focuses on TST training that is provided by employers as on-the-job training or incumbent worker training. The study discusses how on-the-job training can benefit employers by reducing resources spent on recruitment, and that certain types of employers were more amenable to implementing on-the-job training than others. With incumbent worker training, the report discusses how these programs are designed, operated, and funded, and how employers can design programs to meet needs of employees, like providing paid release time or offering training at the worksite or online.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Mastracci, C. (2005). Persistent Problems Demand Consistent Solutions: Evaluating Policies to Mitigate Occupational Segregation by Gender. <i>Review of Radical Political Economics</i> , 37(1), 23-38.	https://doi.org/10.1177/0486613404272326	Apprenticeship	QED	Women	This study examines two grants from the U.S. Department of Labor's Women's Bureau designed to increase the representation of women in occupations in which they are underrepresented: the Non-Traditional Employment for Women (NEW) program and Women in Apprenticeships in Non-Traditional Occupations (WANTO). The study found that NEW and WANTO increased the likelihood that a woman obtained employment in those occupations. We include this study because the way in which apprenticeships may increase inclusion of groups that are underrepresented in some industries is an important part of the current dialogue around apprenticeships.
Maxwell, N. L., Dunn, A., Rotz, D., & Shoji, M. (2019). Doing good while doing business: Using financial viability to enhance employability for the disadvantaged. <i>Nonprofit Management and Leadership</i> , 29(4), 589-600.	https://online.library.wiley.com/doi/abs/10.1002/nml.21350	Transitional Job	No Original Analysis of Outcomes	Parolees, people with mental illness, people with low-income, homeless, disconnected young adults, formerly incarcerated.	This study examines eight employment social enterprises (ESEs), an employment model for businesses that help individuals with employment barriers improve their employment prospects in a way that is financially viable for the business. The study's findings suggest that social enterprises can provide participants with valuable work experience while offsetting program costs. The study identified four promising practices for ESEs, including provide soft skills training and social services to participants and having few occupational skill requirements.
McEntaffer, M. J. (2015). The promise of worker training: New insights into the effects of government funded training programs. [Doctoral Dissertation, University of Nebraska-Lincoln]. DigitalCommons.	https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1055&context=businessdiss	On-the-Job Training	Descriptive (Outcomes)	Unemployed adults in South Dakota	This doctoral dissertation examines the first- and third-quarter descriptive outcomes of participation in a South Dakota-based Workforce Investment Act (WIA) occupational skills training (OST) and on-the-job training (OJT) programs. OST builds skills for specific occupations and includes participation in seminars, certification programs, or degree programs, while OJT includes temporary employment at a job site, after which the employer may elect to hire the individual. The study found that both OST and OJT increased participants' employment and incomes in the first and third quarters after exiting the program, but that the effectiveness of OST grew over time, while the effectiveness of OJT faded over time. Additionally, the study found that OJT had larger impacts on employment relative to OST, while OST had larger impacts on earnings relative to OJT.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Michaelides, M., Mueser, P., Davis, S., & Mbwana, K. (2016). Evidence on the Effectiveness of Workforce Partnership Programs in Ohio and Wisconsin: Final Report. Columbia, MD: Impaq International.	https://americorps.gov/sites/default/files/evidenceexchange/IEF_Final%20Report_3.10.17_1.pdf	Pre-Apprenticeship	QED	Target populations varied across programs, and included low-skilled workers, unemployed workers, entry-level incumbent workers. Some programs focused specifically on recruiting women and racial and ethnic minorities.	This evaluation discusses impact findings from a quasi-experimental impact study of six Social Innovation-funded programs: Healthcare Careers Collaborative, Advanced Manufacturing Partnership, Construction Sector Partnership, Wisconsin Regional Training Partnership Manufacturing Pathway, Wisconsin Regional Training Partnership Construction Pathway, and Milwaukee Area Health Alliance. The programs offered a wide range of services to help promote employment of low-income individuals. three of which included pre-apprenticeships (the Ohio-based Partners for a Competitive Workforce's Construction Sector Partnership, the Wisconsin Regional Training Partnership's (WRTP) Construction Pathways, and WRTP's Manufacturing Pathways). The study used propensity-score matching to estimate program impacts on employment, job retention, and earnings. The study found that all three programs increased short-term employment, and that two of the programs also increased short-term job retention and earnings.
Mikelson, K. & Nightingale, D. (2004). Estimating Public and Private Expenditures on Occupational Training in the United States. Washington, DC: Employment and Training Administrator, U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/Estimating%20Public%20and%20Private%20Expenditures%20on%20Occupational%20Training%20in%20the%20United%20States.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This report provides an overview of spending on job training in the United States by both private and public entities from the late 1990s through 2003. Funding sources discussed in the report include the federal government (primarily the Department of Labor), state and local governments, private employers, and philanthropic foundations. The types of programs considered in this report include on-the-job training, classroom training, work experience, internships, work-based training, and apprenticeships. The report discusses how unions often collaborate with businesses on apprenticeship programs.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Miller, C., Cummings, D., Millenky, M., Wiegand, A., & Long, D. (2018). Laying a foundation: Four-year results from the national YouthBuild evaluation. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/YouthBuild_Financial_508%20compliant.pdf	General Work Based Learning	RCT	Out-of-school youth ages 16 to 24	This study examines the four-year impact and cost-benefit findings from 75 programs that use the YouthBuild model, which seeks to improve prospects for low-income youth ages 16 to 24 who did not complete high school. Program services included hands-on vocational training in construction and other sectors, as well as educational services, youth development opportunities, and supportive and transitional services. Using a randomized controlled trial, the study found that YouthBuild improved participants' educational outcomes and civic engagement. The program increased survey-reported employment rates and earnings, but when measured with employer-provided administrative records, the study did not find any increase in employment.
Miller, C., Huston, A. C., Duncan, G. J., McLoyd, V. C., & Weisner, T. S. (2008). New hope for the working poor: Effects after eight years for families and children. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/full_458.pdf	Transitional Job	RCT	Low-income adults from one of the target inner-city, high-poverty neighborhoods	This study examines the implementation and eight-year impact findings of the New Hope program, which aimed to address problems in the low-wage labor market. New Hope provided full-time workers with an earnings supplement to raise their income above poverty, low-cost health insurance, and subsidized child care. In addition, New Hope provided individuals unable to find full-time work with help in finding a job and, when necessary, a referral to a wage-paying community service job (CSJ). The CSJs were full-time or part-time positions, paid minimum wage, and lasted up to 6 months. Employers were non-profit, community-based organizations. These benefits were available for up to three years. The study found that recruiting employers to be CSJ sponsors was not difficult given the program's connections and strong reputation in the community, and because the program did not require employers to provide permanent positions to participants. The study also found that employers were pleased with participants assigned to them. Through a large-scale random assignment design, the study found that the program initially increased participants' employment and income, though impacts did not last beyond the three years that the program operated.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
<p>Miller, C., Tessler, B. L., Van Dok, M. (2009). Strategies to help low-wage workers advance: Implementation and early impacts of the Work Advancement and Support Center (WASC) demonstration.</p>	<p>https://www.mdrc.org/sites/default/files/full_516.pdf</p>	<p>On-the-Job Training</p>	<p>RCT</p>	<p>Low-income, low-wage workers and low-income reemployed dislocated workers</p>	<p>This report presents implementation and early one-year impact findings from three sites involved in the Work Advancement and Support Center (WASC) demonstration, an employment program designed to increase the incomes of low-wage workers. The three sites were Dayton, Ohio; San Diego, California; and Bridgeport, Connecticut. The program offered intensive employment retention and advancement services, including career coaching, classroom-based training, on-the-job training, and paid work experiences, as well as easier access to financial work supports. Services are provided in one location (One-Stop Career Centers) and are provided by workforce development and welfare staff in one unit. Using a randomized controlled trial, the study found that the program increased workers' receipt of work supports, and that the program did not increase employment or earnings (and led to a reduction in employment in one of the sites). At one of the sites, the program increased skill acquisition, participation in education and training activities, and receipt of credentials and licenses. However, take-up of on-the-job training was low (at 18%). The report also discusses successes and challenges around implementation, including difficulties with delivering services and recruiting low-wage workers. We include this study in addition to the final impact report because it includes detailed implementation findings that might not be captured in the later report.</p>

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Miller, C., Van Dok, M., Tessler, B. L., & Pennington, A. (2012). Strategies to help low-wage workers advance: Implementation and final impacts of the Work Advancement and Support Center (WASC) demonstration.	https://www.mdrc.org/sites/default/files/full_627.pdf	On-the-Job Training	RCT	Low-income, low-wage workers and low-income reemployed dislocated workers	This report presents implementation and final three- to four-year impact findings from three sites involved in the Work Advancement and Support Center (WASC) demonstration, an employment program designed to increase the incomes of low-wage workers. The three sites were Dayton, Ohio; San Diego, California; and Bridgeport, Connecticut. The program offered intensive employment retention and advancement services, including career coaching, classroom-based training, on-the-job training, and paid work experiences, as well as easier access to financial work supports. Services are provided in one location (One-Stop Career Centers) and are provided by workforce development and welfare staff in one unit. Using a random assignment design, the study found that the program increased workers' receipt of work supports but had mixed findings around employment and earnings impacts. However, take-up of on-the-job training was low (at 18%). The study also found that the two programs that offered eased access to training funds increased workers' participation in education and training activities and increased Year 3 earnings (though the earnings impacts at one of the sites faded by Year 4).
Miller, J., Molina, F., Grossman, L., & Golonka, S. (2004). Building bridges to self-sufficiency: Improving services for low-income working families. New York, NY: MRDC.	https://www.mdrc.org/sites/default/files/full_35.pdf	Incumbent Worker Training	No Original Analysis of Outcomes	Low-income workers	This report summarizes promising practices around serving the low-income working population. It identifies two broad approaches that many practices take: 1) increasing job stability and career advancement; and 2) improving access to a range of work supports (including food stamps, subsidized health care and child care, and the Earned Income Tax Credit). The report also discusses state-level policies and suggests principles to guide the development and delivery of services to low-wage workers. In particular, this report describes practices around creating career advancement opportunities for incumbent workers, and highlights state workforce development policies to expand opportunities to use incumbent worker training funds for low-skilled, entry-level workers by adopting incentives, targets, or set-asides.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Mollica, J. (2020). Opening doors to apprenticeship for English language learners. <i>Journal of Research and Practice for Adult Literacy</i> , 9(1), 13-24.	https://coabe.org/wp-content/uploads/2021/01/COABE-Journal-Spring-2020.pdf#page=15	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	English language learners	Based on interviews with ESL instructors and program staff, this article discusses the extent to which English language learners participate in apprenticeships, key elements needed to serve English language learners, and the role that adult education can play in ensuring English language learners' success in apprenticeships. This brief provides recommendations on how to structure apprenticeships to best serve English language learners, a population underrepresented by apprenticeships. Recommendations including easing language-based entry requirements, assessing students' learning needs, tailoring training to meet students' learning needs (like providing basic skills and soft skills instruction). The article also recommends working with partners in the community that can help with recruiting English language learners and providing them with wraparound services. Additionally, the article discusses how pre-apprenticeship programs can help increase English language learners' access to apprenticeships.
Nanda, N., Corea, C., Roy, M., & Patterson, L. (2018). Feasibility study and evaluation of non-traditional occupation demonstrations: Final Evaluation Report. Washington, DC: U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2019-04_NTO_Study_Final_Report.pdf	Apprenticeship	RCT	Low- to medium-skilled women	This report presents impact findings from two American Apprenticeship Initiative (AAI) grantees providing entry-level training in Non-Traditional Occupations (NTOs). One grantee was located in South Seattle and focused on construction and advanced manufacturing, while the other grantee was located in Central New Mexico and focused on information technology. The intervention involved a recruitment campaign to reduce misconceptions around NTOs for women and encourage women to enter traditionally male occupations and related training programs. The study used a random assignment design as well as propensity score matching. The study's findings indicate that evidence-based outreach methods can be effective at encouraging women to participate in NTOs. Training providers also recommended combining targeted outreach efforts with financial supports and support services like child care and transportation assistance.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Nanda, N., Corea, C., Roy, M., & Patterson, L. (2018). Feasibility study and evaluation of non-traditional occupation demonstrations: Literature Review Report. Washington, DC: U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2019-04_NTO_Study_Literature_Review.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	Women; racial and ethnic minorities	This literature review summarizes findings from prior research that identifies barriers to women and racial and ethnic minorities entering Non-Traditional Occupations (NTOs) and evidence-based strategies and programs to address those barriers. The report discusses strategies involving workplace and career opportunities related to NTOs to address barriers to entry, including apprenticeships and pre-apprenticeships. The report finds that apprenticeship and pre-apprenticeship programs can help address skills deficits among minority workers. Strategies to address women's barriers to apprenticeship programs identified in the review include offering peer support groups and formal mentorship and providing training to staff to make a more inclusive workplace for women. The report also identified that pre-apprenticeships can help prepare women for apprenticeships or other career advancement opportunities. We include this study because the ways in which apprenticeships may increase inclusion of groups that are underrepresented in some industries is an important part of the current dialogue around apprenticeships.
Negoita, M. & Goger, A. (2020). State-level policies to incentivize workplace learning: Impacts of California's incumbent worker training program. Washington, DC: The Brookings Institution.	https://www.brookings.edu/wp-content/uploads/2020/07/Negoita-Goger-final.pdf	Incumbent Worker Training	QED	NA	This study explores how employers benefited from the California's Employment Training Panel (ETP), a program that reimburses employers for their investments in training for their employees. The findings are based on interviews with and a survey of employers that participated in the program, as well as a quasi-experimental analysis. The study found that ETP funding positively impacted company sales and employment, but that the impacts varied across employers, with stronger positive impacts for older companies and small- and mid-sized companies and negative impacts for very small companies. Although the study does not include impacts on employees, the findings around impacts on employers helped inform Research Question 2 on engaging employers in wage subsidy and work-based learning programs.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Office of Community College Research and Leadership. (2015). Third-party evaluation of implementation of the Health Professions Pathways (H2P) Consortium. Champaign, IL: Office of Community College Research and Leadership.	https://occr.lillinois.edu/docs/librariesprovider2/h2p/implementation.pdf	Incumbent Worker Training	No Original Analysis of Outcomes	Low-skilled dislocated workers	This implementation study describes nine community colleges that were part of a Health Professions Pathways (H2P) Consortium funded by the Trade Adjustment Assistance Community College and Career Training (TAACCT) grant. As part of the H2P Consortium the participating community colleges implemented eight strategies to “produce a highly skilled healthcare workforce,” one of which included incumbent worker training. One of the grantees discussed in the report, the Cincinnati State Technical and Community College (CSTCC), implemented several successful strategies to retain participants in incumbent worker training, including offering flexible working hours and financial support with tuition payments.
Park, J. (2012). Does occupational training by the trade adjustment assistance program really help reemployment? Success measured as occupation matching. <i>Review of International Economics</i> , 20(5), 999-1016.	https://doi.org/10.1111/roic.12009	Customized Training	QED	Dislocated workers	This descriptive report discusses the employment outcomes of dislocated workers who participated in training funded by Trade Adjustment Assistance (TAA). TAA funds can be used to support various forms of training, including customized training. Using regression analysis, the study found that customized training funded by TAA increased dislocated workers’ wage replacement rates (defined as the ratio of post-participation earnings to pre-participation earnings), but only when pre-participation earnings were controlled. The report also found that TAA-funded customized training increased dislocated workers’ probability of reemployment, though the increase was less than that of on-the-job training programs. We include this report because customized training is one of the work-based learning activities defined by the Workforce Innovation and Opportunity Act, and so it helped inform Research Question 1 on which work-based learning models work to improve employment outcomes.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Pavetti, L., Schott, L., & Lower-Basch, E. (2011). Creating subsidized employment opportunities for low-income parents: The legacy of the TANF Emergency Fund. Washington, DC: Center on Budget and Policy Priorities	https://www.cbpp.org/research/creating-subsidized-employment-opportunities-for-low-income-parents	Transitional Job	No Original Analysis of Outcomes	Low-income parents	This report summarizes the experiences of 33 states that operated employment programs that served adults funded either wholly or in part by the TANF Emergency Fund. It describes the purpose of the programs, the target populations served, how the subsidies were structured, the types of jobs provided, and administrative structure. The findings are based on telephone interviews with administrators of those states. They found states were able to implement large-scale programs in a relatively short time frame (less than a year), and that the flexibility of the TANF Emergency Funds led to the programs success in many different environments.
Person, A., Pavetti, L., & Max, J. (2008). Providing paid employment opportunities for TANF participants engaged in vocational education programs: Examples from Denver, Colorado; Kentucky; and California. Brief 1, Princeton, NJ: Mathematica.	https://files.eric.ed.gov/fulltext/ED507505.pdf	Transitional Job	No Original Analysis of Outcomes	Unemployed or underemployed individuals	This report presents case studies of three programs that provide work opportunities to Temporary Assistance for Needy Families (TANF) recipients who are participating in vocational education program. The study authors selected programs that combine vocational education and paid work. One of the programs (the Essential Skills Program in Denver, Colorado) included a subsidized paid internship component in participants' field of study (for which employers do not incur any costs), which employers had the option of converting to an on-the-job position and receiving a 50 percent wage subsidy. This brief discusses how states treated the earned income from the paid placements.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Prince, H. (2004). Earning While Learning: Maintaining Income While Upgrading Skills. Jobs for the Future.	https://files.eric.ed.gov/fulltext/ED497807.pdf	Apprenticeship Customized Training Incumbent Worker Training	No Original Analysis of Outcomes	Low-income workers	This report describes programs and practices that help low-wage workers maintain an income while learning new skills. Highlighted approaches include apprenticeships, incumbent worker training, and customized training. It provides a brief summary on the evidence of the effectiveness of the different approaches as well as examples of programs that utilize the approach. The report provides relevant information on how these work-based learning models are structured and what populations they tend to serve.
Redcross, C., Barden, B., Bloom, D., Broadus, J., Thompson, J., Williams, S., ... & Muller-Ravett, S. (2016). The Enhanced Transitional Jobs Demonstration: Implementation and early impacts of the next generation of subsidized employment programs. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/etjd_sted_7_site_report_508_2.pdf	Transitional Job	RCT	Three programs targeted people recently released from prison; four programs targeted unemployed noncustodial parents.	This report presents implementation and early one-year impact findings from the Enhanced Transitional Jobs Demonstration (ETJD), which included two sites that are part of ACF's Subsidized and Transitional Employment Demonstration (STED). ETJD assessed seven transitional jobs programs that targeted people recently released from prison or unemployed parents who did not have custody of their children, providing them with temporary subsidized jobs. The study found that all of the programs were relatively well-implemented, with all programs meeting recruitment goals. The study also found that all but one of the seven programs generated large increases in employment in the early months of follow-up, but that the increases were mostly or entirely due to the transitional jobs and faded when individuals left these positions. Two of the three programs targeting people recently released from prison seemed to have reduced recidivism, and most programs increased child support payments.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Redcross, C., Bloom, D., Azurdia, G., Zweig, J., & Pindus, N. (2009). Transitional jobs for ex-prisoners: Implementation, two-year impacts, and costs of the Center for Employment Opportunities (CEO) Prisoner Reentry Program. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/full_592.pdf	Transitional Job	RCT	Former prisoners	This study examines implementation and two-year impact results for the Center for Employment Opportunities (CEO) program, one of four sites in the Enhanced Services for the Hard-to-Employ (HtE) Demonstration and Evaluation Project. CEO is a transitional jobs program offering temporary subsidized employment opportunities to former prisoners, as well as job coaching and additional services. The study used a rigorous random assignment design to assess the impacts of the CEO program services on participants' employment, earnings, and recidivism. The study found that the program operated smoothly during the study period and that most program group members received core services. The study found that the program generated a large but short-lived increase in employment (due to CEO's transitional jobs), and that it reduced recidivism during the first and second years.
Redcross, C., Millenky, M., Rudd, T., & Levshin, V. (2012). More than a job: Final results from the evaluation of the Center for Employment Opportunities (CEO) transitional jobs program. OPRE Report 2011-18, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/more_than_job.pdf	Transitional Job	RCT	Former prisoners	This study presents final three-year impact findings and a benefit-cost analysis for the Center for Employment Opportunities (CEO) program, one of four sites in the Enhanced Services for the Hard-to-Employ (HtE) Demonstration and Evaluation Project. CEO is a transitional jobs program based in New York City offering temporary subsidized employment opportunities to former prisoners, as well as job coaching and additional services. The study used a rigorous random assignment design to assess the impacts of the CEO program services on participants' employment, earnings, and recidivism. The study found that CEO substantially increased employment and earnings early in the follow-up period but that effects faded over time, and that the initial increase in employment was due to the temporary jobs provided by the program. CEO significantly reduced recidivism, particularly among former prisoners who enrolled in the program shortly after release from prison. CEO's impacts were generally stronger for those who were more disadvantaged or at higher risk of recidivism. The benefit-cost analysis found that the program's social benefits outweighed the costs of the program.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Reed, D., Yung-Hsu Liu, A., Kleinman, R., Mastri, A., Reed, D., Sattar, S., Ziegler, J. (2012). An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States. Washington, DC: Employment and Training Administration, U.S. Department of Labor.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf	Apprenticeship	QED	Apprentices	This report presents findings from an impact and cost-benefit analysis of Registered Apprenticeships in ten states. Using quasi-experimental methods, the study found Registered Apprenticeships increased participants' employment and earnings through the ninth year after enrollment, and that the benefits of the program appear to outweigh the costs. It also discusses strategies for promoting the success of women in registered apprenticeships, including targeted outreach, basic skills instruction, child care assistance, peer support, and efforts to combat harassment.
Reich, C. (2018). STEP-UP Program, Social Innovation Fund, year 4 final impact and implementation evaluation report. Saint Paul, MN: University of Minnesota, College of Education and Human Development, Center for Applied Research and Educational Improvement.	https://americorps.gov/sites/default/files/evidenceexchange/GTCUW%20Achieve%20Mpls%20Step%20Up_STEP_UP_Final_Report_082818_5081.pdf	Internship	QED	Youth ages 14 to 21 facing barriers to employment (including low-income youth, youth from immigrant families, and youth with disabilities).	This report examines nonexperimental impacts, descriptive outcomes, and implementation findings from an evaluation of the STEP-UP program in Minneapolis, which provides youth ages 14 to 21 with training and internship placements. The STEP-UP program has two levels of programming: STEP-UP Discover (focused on youth ages 14 to 15) and STEP-UP Achieve (focused on youth ages 16 to 21). The study examined the program's impacts on school outcomes, postsecondary enrollment, and employability outcomes. The quasi-experimental impact study did not find that there was evidence of positive program effects on most school outcomes. The descriptive outcomes study found that interns improved in job-related skills. The implementation study found high levels of satisfaction with the internships among youth participants and supervisors.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Roder, A. & Elliott, M. (2013). Stimulating Opportunity: An Evaluation of ARRA-Funded Subsidized Employment Programs. New York, NY: Economic Mobility.	https://www.rockefellerfoundation.org/wp-content/uploads/stimulating-opportunity-full-report.pdf	Transitional Job	No Original Analysis of Outcomes	Low-income unemployed individuals	This retrospective study summarizes how TANF Emergency Fund-supported subsidized employment programs in five locations were implemented and provides descriptive information on the participants' outcomes. Based on a survey of participating employers as well as analysis of data on pre- and post-program employment and earnings, they found the largest gains in employment and earnings in the long-term unemployed. The report also highlights features of programs that made it more likely that employers would keep subsidized workers on in unsubsidized positions. They found that employers who placed subsidized workers on their payrolls from the beginning were more likely to retain those workers in unsubsidized positions after the subsidies ended.
Roder, A., & Elliott, M. (2014). Sustained gains: Year Up's continued impacts on young adults' earnings. New York, NY: Economic Mobility Corporation.	https://economicmobilitycorp.org/wp-content/uploads/2018/01/Sustained-Gains-Summary.pdf	Customized Training Internship	RCT	Low-income young adults ages 18 to 24 from urban communities	This report presents the three-year impact findings from a small-scale evaluation of Year Up, a Boston-based non-profit founded to provide a year of training and work experience to urban young adults ages 18 to 24. The program included six months of full-time customized training in the IT and financial service sectors, followed by six-month internships at major firms. The program sites were located in three distinct cities (Boston, New York City, and Providence, Rhode Island). Using a randomized controlled trial, the study found that Year Up significantly increased participants' earnings, and that these earnings gains were driven primarily by the higher wages paid to Year Up participants. Additionally, Year Up participants working in IT and financial services sectors (the program's target occupations) had the highest earnings. The study also found that Year Up participants were somewhat less likely to be attending college toward the end of the study period. However, among the individuals attending college from both the Year Up and control groups, a higher share of Year Up participants were attending full-time and receiving financial aid. The report discusses how program staff designed the curricula to meet the needs of local employers and focused on providing opportunities in strong sectors in the local economy.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Rosen, R., Visher, M., & Beal, K. (2018). Career and Technical Education: Current Policy, Prominent Programs, and Evidence. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/CTE%20Paper-Final.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This paper provides an overview of how current issues in both the educational system and labor market led to the current renewed interest in Career and Technical Education (CTE), a description of how various policies have encouraged a growth in CTE and the types of CTE programs, and a literature review of the existing evidence on each of the CTE program types. They conclude that CTE can be an effective strategy for improving economic mobility and assisting students in getting higher paying jobs.
Rosenberg, L., & Dunn, R. (2020). Registered apprenticeship: A descriptive study of states' systems and growth. Princeton, NJ: Mathematica.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP2021-24_Study_of_state_RA_systems.pdf	Apprenticeship	No Original Analysis of Outcomes	NA	This report examines descriptive findings from the State Apprenticeship Expansion (SAE) research study, which had the goals of expanding and diversifying registered apprenticeships. This study analyzes findings from a survey administered to states to document their efforts to expand apprenticeship programs, share challenges they faced, and identify needs for technical assistance to further support the expansion of apprenticeships. The study found that states have made efforts to expand registered apprenticeships in recent years, including increasing the number of staff working on apprenticeships, implementing policy changes to support apprenticeships, and introducing employer incentives to sponsor registered apprenticeship programs. Additionally, states reported several challenges to engaging employers in apprenticeship, including high costs, employers' concerns about trained workers being hired by other companies, and employers' misconception that apprenticeships require union involvement.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Rotz, D., Maxwell, N., & Dunn, A. (2015). Economic Self-Sufficiency and Life Stability One Year after Starting a Social Enterprise Job. Oakland, CA: Mathematica Policy Research.	https://www.mathematica.org/publications/economic-selfsufficiency-and-life-stability-one-year-after-starting-a-social-enterprise-job	Transitional Job	QED	Individuals with barriers to employment, including individuals with mental health disabilities, individuals experiencing homeless, parolees or those who were formerly incarcerated, and disconnected young adults	This report presents one-year findings from an outcomes study, a quasi-experimental impact study, and a cost-benefit analysis study of seven programs from the Mathematica Jobs Study (MJS), which examined how social enterprises promote the economic self-sufficiency and life stability for individuals with barriers to employment. The programs offered participants subsidized work experience opportunities, including transitional jobs. The initiative's goals were to expand social enterprise employment in California and help at-risk youth and adults transition into the workplace. The outcomes study included all seven social enterprise programs, while the impact study only included one social enterprise organization (Chrysalis). The study found that workers in the programs experienced improved employment, income, and housing stability outcomes after leaving the program. The impact study's findings indicated that the increases in employment were due to the participant's experience at the social enterprise.
Rowe, G., Brown, E., & Estes, B. (2017). SNAP Employment and Training (E&T) Characteristics Study: Final Report. Alexandria, VA: Office of Policy Support, Food and Nutrition Service, United States Department of Agriculture.	https://fns-prod.azureedge.net/sites/default/files/ops/SNAPEandTCharacteristics.pdf	SNAP E&T	No Original Analysis of Outcomes	SNAP work registrants and SNAP E&T participants	This study describes the characteristics of SNAP work registrants and SNAP E&T participants, the challenges they face, and the services that are offered to them. Relying on a nationally representative sample of work registrants and E&T participants, it found that 10 percent of respondents had never been employed and that more than a quarter of both work registrants and E&T participants reported having three or more barriers to employment. The most common employment barriers that respondents reported were health issues, transportation challenges, lack of education, and caring for a family member with health issues.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Rowe, G., Mabli, J., Hartnack, J., & Monzella, K. (2022). Expanding opportunities and reducing barriers to work: Final summary report. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support.	https://www.ams.usda.gov/snaps/evaluations/evaluations-and-reducing-barriers-work-final-summary-report-evaluation-usdas	Internship On-the-job training Transitional Job	RCT	SNAP Participants	This report presents implementation and 36-month interim impact findings of the SNAP Employment and Training pilot projects. Ten states received grant funding to conduct pilot projects to reduce dependency and increase employment among SNAP participants. The services offered as part of the pilot projects included assessments, case management, support services, and work-based learning opportunities. Using a randomized controlled trial design, the study examines impacts on employment, earnings, and SNAP participation 36 months after random assignment. The study found that take-up and completion of work-based learning activities were lower than staff expected. Additionally, the study found that the pilot projects in five sites led to increases in employment, but earnings only increased in three pilots. The study found that the pilot projects generally did not decrease SNAP participation or improve food security.
Rutschow, E. Z., & Taketa, J. (2019). College to work: Findings from a study of the Career Readiness Internship program. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/CRI_Final_2019.pdf	Internship	No Original Analysis of Outcomes	Low-income college students	This study presents implementation findings from the Career Readiness Internship (CRI) program, which provided funding and support to 33 colleges in the development of quality paid internships for low-income students. The study found that colleges were successful at recruiting large numbers of low-income and traditionally underserved students into the program and providing them valuable career-focused internship experiences. The study also found that employers tended to have high regard for the program. However, colleges had difficulty with sustaining the internship program after the grant period, highlighting common challenges with maintaining work-based experience programs for low-income students. The report provides recommendations on how to address these challenges.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Rutschow, E. Z., Beal, K., & Johnson, C. (2019). Beyond the basics: Integrating workforce and college-readiness training into California's adult basic skills programs. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/ABE_Irvine_Scan_Full_Report.pdf	Internship	No Original Analysis of Outcomes	Low-skilled adults	This descriptive report examines the need for adult basic skills programming across the state of California to promote the educational and career outcomes of low-skilled adults. The report also identifies promising models that integrate workforce and college-readiness training with adult basic skills education, including programs that included a paid work experience such as internships. It also discusses challenges to integrating paid work experience into adult basic skills programming, including state regulations preventing paid internships from being part of non-credit community college programs, and that non-high school graduates may be underserved by these programs.
Sattar, S. (2010). Evidence scan of work experience programs. Oakland, CA: Mathematica Policy Research.	https://www.mathematica.org/publications/evidence-scan-of-work-experience-programs	Internship On-the-Job Training Transitional Jobs	No Original Analysis of Outcomes	Populations with barriers to employment	This study summarizes the evidence on interventions' effectiveness in improving employment outcomes for those with barriers to employment. It specifically looks at interventions that include work experience as a component. It reviews 27 evaluations and finds the strongest evidence for paid and unpaid work models that last at least 6 months for adults, but that most studies did not examine the impact of the work experience component separately from the other components of the intervention.
Sattar, S., Kauff, J., Kuehn, D., Munoz, V. S., Reiter, A., & Wolff, K. (2020). State experiences expanding registered apprenticeship: Findings from a federal grant program. Princeton, NJ: Mathematica.	https://wdr.doleta.gov/research/FullText_Documents/ETAOP2021-26 ETA SAE Final Report 2020.pdf	Apprenticeship Pre-Apprenticeship	No Original Analysis of Outcomes	NA	This report examines implementation findings from the State Apprenticeship Expansion (SAE) research study. As part of this study, 36 states and 1 territory were awarded grants to further these goals. Based on interviews with grantee representatives, grant applications, and quarterly performance reports of grantees, this report identifies strategies that states used to expand Registered Apprenticeship (RA) programs, and discusses promising practices, implementation challenges, and lessons learned. States reported several strategies to engage employers in RA programs, including providing funding support, emphasizing the positive return on investment of apprenticeship, and involving intermediaries in employer outreach. States also described strategies to increase diversity in RA programs, including offering career readiness programs like pre-apprenticeships and providing participants with supports like transportation and child care.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Schaberg, K. & Greenberg, D. H. (2020). Long-term effects of a sectorial advancement strategy: Costs, benefits, and impacts from the WorkAdvance demonstration. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/WorkAdvance_5-Year_Report-Final.pdf	General Workforce Training	RCT	Low-income individuals	This report summarizes five-year impact and cost-benefit findings from four programs that used the WorkAdvance program model, which seeks to meet the needs of both job seekers and employers. The program model integrates sectoral strategies (which prepare individuals for quality jobs in specific high-demand industries) and job retention and career advancement strategies (which work to improve workers' prospects for sustained employment and upward mobility). Program services include preemployment and career readiness services, occupational skills training, job development and placement, and postemployment retention and advancement services (including coaching). Occupational skills training is sector-specific and aligned with employer needs, and job development and placement services are based on strong relationships with employers.
Schultz, C., & Seith, D. (2011). Career advancement and work support services on the job: Implementing the Fort Worth Work Advancement and Support Center program. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/full_51.pdf	Incumbent Worker Training	No Original Analysis of Outcomes	Low-wage workers	This study presents implementation findings from the Fort Worth site of the Work Advancement and Support Center (WASC) demonstration, an employment program designed to increase the incomes of low-wage workers. The Fort Worth program targeted employed low-wage workers, and unlike other sites in the WASC demonstration, program services were delivered within employers' workplaces rather than in a public agency setting. Workers received paid release time for participating in the training. The program offered skills training, job and career coaching, as well as easier access to financial work supports (such as support with training-related costs like transportation and child care). The study identified that employers' endorsement of the program gave it legitimacy among employees. The study also discusses challenges the program faced to engaging employers, including employers' concerns about their ability to promote participants and the possibility of participants seeking jobs elsewhere. We include this study in addition to the other reports on the WASC demonstration because of its focus on how the Fort Worth program services were delivered within employer workplaces.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Skemer, M., Sherman, A., Williams, S., & Cummings, D. (2017). Reengaging New York City's Disconnected Youth Through Work: Implementation and Early Impacts of the Young Adult Internship Program. OPRE Report 2017-22. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.mdrc.org/sites/default/files/STED_YAIP_Final_FR_Web.pdf	Internship	RCT	Youth ages 16 to 24 who were disconnected from work or school	This report presents early impact and implementation findings of the Young Adult Internship Program (YAIP), a subsidized employment program in New York City that provided the opportunity for youth ages 16 to 24 who were disconnected from work or school with a temporary paid internship. Part of the Subsidized and Transitional Employment Demonstration (STED), this random assignment study assessed the impacts of the program on education and training, employment and earnings, and well-being 12 months after random assignment. The study also describes YAIP's intended model and how the program was implemented. The study found that that YAIP was well implemented, with nearly 90 percent of participants completing their internships. The study also found that participants were more likely to receive employment support, advice, and mentorship from staff members. YAIP increased participants' employment rates and earnings in the year after enrollment, and while program group members' employment rates converged with those of the control group by the end of the 12-month follow-up period, earnings increases persisted.
Sorensen, E. (2020). What we learned about programs serving disadvantaged noncustodial parents. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/OPRE%20NCP%20Employment%20Brief_508.pdf	Transitional Job	No Original Analysis of Outcomes	Disadvantaged noncustodial parents	This brief summarizes the findings from three federal demonstrations of programs offering employment and other support services to unemployed and underemployed noncustodial parents, all of which used a random assignment evaluation design. The Enhanced Transitional Jobs Demonstration (ETJD) offered up to four months of subsidized employment, while Parents and Children Together (PACT) and Child Support Noncustodial Parent Employment Demonstration (CSPED) offered less intensive employment services, including job search, job readiness, and job development. The brief summarizes the demonstrations and compares impacts of the demonstrations (including employment, earnings, child support payments, and parenting outcomes). The brief discusses how ETJD had the largest impacts on employment and earnings, which persisted through the final year of the 30-month follow-up period.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Spaulding, S. & Martin-Caughey, A. (2015). The Goals and Dimensions of Employer Engagement in Workforce Development Programs. Washington DC: The Urban Institute.	https://www.urban.org/sites/default/files/publication/76286/2000552-the-goals-and-dimensions-of-employer-engagement-in-workforce-development-programs.pdf	General Workforce Training	No Original Analysis of Outcomes	NA	This brief explores employers' engagement in workforce development programs. It discusses challenges to engaging employers in these programs, such as program costs and wariness of working with government partners, nonprofits, and other employers. The brief highlights the need for an understanding of employer's goals for partnering with workforce development programs and creating partnerships tailored to those goals. The brief also identifies benefits for employers from engaging in workforce development programs, as well as benefits for programs from engaging employers. Benefits for employers include providing qualified applicants for open positions, reducing employers' training and recruitment costs by leveraging public funding, addressing training and service needs that employers do not have the capacity to meet (like basic skills training or supportive services), and helping employers meet goals around diversity and social responsibility. Additionally, it identifies several areas in which employers may be involved in these programs, including oversight, program design and delivery, and recruitment and hiring.
Spaulding, S., & Blount, D. C. (2018). Employer engagement by community-based organizations: Meeting the needs of job seekers with barriers to success in the labor market. Washington, DC: The Urban Institute.	https://www.urban.org/sites/default/files/publication/98480/employer_engagement_by_community-based_organizations_1.pdf	General Workforce Training	No Original Analysis of Outcomes	NA	This report discusses promising approaches that community-based organizations (CBOs) can use to engage with employers in order to help people with significant barriers gain employment, based on the experiences of three CBOs. Key strategies highlighted in the report include ensuring that service delivery reflects the needs of employers and job seekers, building trusting relationships with employers through high-quality service delivery and making strong placements, and helping employers get beyond stigma around job seekers with barriers to employment. While this study does not specifically discuss work-based learning or subsidized employment, the findings around CBOs engaging with employers around employment initiatives for disadvantaged populations can help inform how SNAP E&T programs can develop strong relationships with employers.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Stanczyk, A., Rotz, D., Welch, E., & Streke, A. (2021). Synthesis Report: What Works During Economic Recessions and Recoveries? Evidence from the Pathways Clearinghouse. OPRE Report 2021-229, Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/operation-pathways-recession-report.pdf	General Work Based Learning	No Original Analysis of Outcomes	Low-income individuals	This report synthesizes results from a literature review and meta-analysis of studies that examine the effectiveness of interventions in improving employment and earning for individuals with low incomes during recessions and recoveries relative to stable economic periods. They find that education and training and work-based learning interventions show larger effects during recoveries compared to other types of interventions.
Strawn, J. (2018). SNAP E&T and WIOA: Partnering to raise skills and employment. Policy brief 8, Washington, DC: Supplemental Nutrition Assistance Program, Office of Employment and Training, Food and Nutrition Service, U.S. Department of Agriculture.	https://snaptoskills.fns.usda.gov/sites/default/files/2018-06/Brief_June2018_508comp.pdf	Internship	No Original Analysis of Outcomes	NA	This brief summarizes the respective priorities, requirements, and strengths of the Workforce Innovation and Opportunity Act (WIOA) and Supplemental Nutrition Assistance Program Employment and Training (SNAP E&T), examines how to use SNAP E&T funds and WIOA resources strategically to further the goals of SNAP E&T, and discusses partnerships between state SNAP E&T agencies and WIOA. The report also provides recommendations on how state SNAP E&T agencies should be integrated into state and regional workforce strategies. Although it does not include work-based learning, the brief's discussion of using SNAP E&T funds and integrating SNAP E&T efforts into local- and state-level workforce development can help inform how wage subsidy and work-based learning models can be implemented within SNAP E&T programs.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Takyi-Laryea, A., Passa, K., & Gall, A. (2017). University of the District of Columbia – Community College Final Evaluation Report, Trade Adjustment Assistance Community College and Career Training (TAACCT) Grant Program, Round 3. Fairfax, VA: ICF.	https://www.skillscommons.org/bitstream/handle/taacct/15691/UDC-CC%20TAACCT%20R3%20Final%20Evaluation%20Report%20ICF%209.29.17.pdf?sequence=1&isAllowed=y	Apprenticeship Internship	No Original Analysis of Outcomes	Community college students	This report describes the implementation and quasi-experimental outcomes findings of two enhanced programs at the University of the District of Columbia-Community College (UDC-CC) that were funded by the Trade Adjustment Assistance Community College and Career Training (TAACCT) grant program. UDC-CC's programs included the DC Construction Academy (DCCA) and the DC Hospitality Academy (DCHA). Program enhancements included both occupational skills training and work-based learning opportunities such as internships and apprenticeships. The study used a quasi-experimental design to measure outcomes around program completion and credential attainment. The study found that the TAACCT funded programs had significant positive effects on credential attainment. Grant staff reported challenges placing students in internships due to employer concerns about the short duration and the limited experience or professionalism of students.
Taylor, C. (2011). Employer Engagement in the National Fund for Workforce Solutions. Washington, DC: National Fund for Workforce Solutions.	https://nationalfund.org/wp-content/uploads/2016/10/NFWS_Employer_Engagement_011111_0.pdf	Incumbent Worker Training	No Original Analysis of Outcomes	Low-income, low-skilled jobseekers and incumbent workers	This report discusses lessons for engaging employers in workforce solutions. Based on interviews with the coordinators of workforce partnerships, it provides insight into how coordinators identify the needs of employers, how to develop programming and strategies to meet those needs, and challenges they face in the process. The coordinators highlight challenges to implementing incumbent worker training, including workers' basic skills deficits, employer reluctance to pay for training, and limited incentives to participate. They also identify strategies to successfully engage employers, including providing employers with career coaches or retention specialists and collaborating with employers to integrate workplace and compensation incentives for training.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Taylor, S., Carnochan, S., Pascaul, G., Austin, M. (2016). Engaging Employers as Partners in Subsidized Employment Programs. <i>The Journal of Sociology and Social Welfare</i> , 43(1),	https://scholarworks.wmich.edu/jssw/vol43/iss1/9/?utm_source=scholarworks.wmich.edu%2Fjssw%2Fvol43%2Fiss1%2F9&utm_medium=PDF&utm_campaign=PDFCoverPages	Transitional Job	No Original Analysis of Outcomes	Low-income, unemployed parents and TANF recipients	This exploratory study describes the experiences of employers that participated in county subsidized employment programs that were funded by the TANF Emergency Fund of the American Reinvestment and Recovery Act (ARRA) of 2009. The programs primarily served low-income, unemployed parents and TANF recipients. The findings are based on phone interviews with 81 employers in the San Francisco Bay Area. The study describes employers' reasons for participating in subsidized employment programs, employer's overall satisfaction with the program, their preferred subsidy duration and amount, their recommendations for improving subsidized employment programs. The study concludes that there is a need for more systematic outreach to employers and for minimizing bureaucratic hurdles to participation.
Tessler, B. L., Bangser, M., Pennington, A., Schaberg, K., & Dalporto, H. (2014). Meeting the needs of workers and employers: Implementation of a sector-focused career advancement model for low-skilled adults. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/WorkAdvance_CEO_SIF_2014_FR.pdf	General Workforce Training	No Original Analysis of Outcomes	Low-income adults	This report provides implementation findings from four programs that used the WorkAdvance program model, which integrates sectoral strategies (which prepare individuals for quality jobs in specific high-demand industries) and job retention and career advancement strategies (which work to improve workers' prospects for sustained employment and upward mobility). Program services include preemployment and career readiness services, occupational skills training, job development and placement, and postemployment retention and advancement services (including coaching). The report discusses how providers incorporated employer input into various aspects of the program, including screening, career readiness services, occupational skills training, and job development and placement. The study also found that employers were pleased with services delivered by providers and with the relationships established with them. Employers noted that soft skills training taught in the career readiness classes was as important as the training on technical skills.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
<p>Tessler, B. L., Seith, D., & Rucks, Z. (2008). Moving from jobs to careers: Engaging low-wage workers in career advancement. New York, NY: MDRC.</p>	<p>https://www.mdrc.org/sites/default/files/moving_from_jobs_to_careers_fr.pdf</p>	<p>General Workforce Training</p>	<p>No Original Analysis of Outcomes</p>	<p>Low-wage workers</p>	<p>This study presents implementation findings from four sites in the Work Advancement and Support Center (WASC) demonstration, an employment program designed to increase the incomes of low-wage workers. The four sites were Dayton, Ohio; San Diego, California; Bridgeport, Connecticut; and Forth Worth, Texas. The program offered intensive employment retention and advancement services and access to financial work supports. Services are provided in one location (One-Stop Career Centers) and are provided by workforce development and welfare staff in one unit. The study found that participation incentives and supportive services payments (for services like child care and transportation) helped sustain engagement and encourage program completion by providing opportunities for discussions with career coaches about advancement.</p>

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
<p>Tessler, B., Schaberg, K. Fink, B., Gasper, J. (2021). Evaluation of the TechHire and Strengthening Working Families Initiative Grants: Implementation and Early Impacts from the TechHire and Strengthening Working Families Initiative Randomized Controlled Trial. Washington, DC: U.S. Department of Labor.</p>	<p>https://wdr.doleta.gov/research/FullText_Documents/ETAOP2021-29_TechHire-SWFI-Early-Impact-Report.pdf</p>	<p>Apprenticeship Internship Incumbent Worker Training</p>	<p>RCT</p>	<p>TechHire’s target population was primarily young adults ages 17 to 29 with barriers to training and employment; it also included individuals with disabilities, limited English proficiency, and criminal records. SWFI’s target population was low- to middle-skilled custodial parents.</p>	<p>This report presents implementation and early impact findings from five TechHire and Strengthening Working Families Initiative (SWFI) grant programs (funded through the H-1B skills training grants). Both grant programs were designed to make training more accessible for their target populations in order to prepare them for higher paying jobs in high-growth H-1B industries. The TechHire program provided accelerated skills training to a range of individuals with barriers to employment, while the SWFI program provided flexible training and childcare supports to low-income parents lacking childcare access to help them obtain high-tech skills. Grantees offered employment opportunities including registered apprenticeships, on-the-job training, paid internships, and additional subsidized work experiences. In this evaluation, five programs (three TechHire programs and two SWFI programs) participated in a randomized controlled trial to assess the programs’ impacts on service receipt, child care, employment, and earnings. The study assessed impacts captured in 7- to 14-months after random assignment. These interim findings did not show increases in employment and earnings, but did show that the program increased participation in and completion of occupational skills training. The implementation study described challenges programs faced with convincing employers to provide internships or apprenticeships. It also discussed how programs developed strong relationships with employers on incumbent worker training programs, in part because employers sought to train higher-skilled workers who could fill midlevel positions. We include this study in addition to the other studies on TechHire and SWFI because the other reports do not include an RCT impact analysis.</p>

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Trutko, J., O'Brien, C., Holcomb, P., & Nightingale, D. S. (2007). Implementation and sustainability: Emerging lessons from the Early High Growth Job Training Initiative (HGJTI) Grants. Washington, DC: The Urban Institute.	https://www.urban.org/sites/default/files/publication/46766/411556-Implementation-and-Sustainability-Emerging-Lessons-from-the-Early-High-Growth-Job-Training-Initiative-HGJTI-Grants.PDF	Apprenticeship	No Original Analysis of Outcomes	NA	This report documents the experiences of 20 of the earliest High Growth Job Training Initiative (HGJTI) grantees. HGJTI was a grant program designed to address challenges identified by private sector employers in high growth high demand industries, and encourage training solutions that meet employers' needs, which include apprenticeships and internships. The report provides detailed descriptions of how programs utilized the funds to set up and launch these new projects, how they created and sustained relationships with employers, and programs' plans for sustaining the activities after the grant funding ended. With respect to employer partnerships, the report discusses how grant programs collaborated with employers around the development of occupational competencies, and employers' hesitancy around partnering with government programs.
U.S. Department of Labor. (2017). Southwest Arkansas Community College Consortium: Trade Adjustment Assistance for Community Colleges and Career Training grant: Final report. SkillsCommons.	https://www.skillscommons.org/bitstream/handle/taacct/15686/SWACC_Final_Report_9_27_2017.pdf?sequence=1&isAllowed=y	Apprenticeship Internship	Descriptive (Outcomes)	Community college students	This report presents implementation and descriptive outcomes findings from the South West Arkansas Community College Consortium (SWACCC) Round 3 Trade Adjustment Assistance for Community Colleges and Career Training (TAACCT) grant. The project involved seven community colleges across South West Arkansas. The project's goals were to establish or strengthen sector training partnerships in the manufacturing sector, strengthen relationships with employers, and incorporate new models for education and training delivery. One of the core strategies was to leverage employer relationships to integrate work-based learning opportunities into credentials. The implementation analysis found that many new partnerships were formed with employers and other partners. In addition, the report discusses challenges with engaging employers in work-based learning activities, such as employers' reluctance to provide internships to individuals that they perceive as having limited experience or professionalism. The outcomes analysis found that participation rates for participants in the grant-affected programs at the colleges were generally higher than the completion rates for individuals in the comparison programs, even after propensity score adjustments. The outcomes

					analysis also tracked participants credit hours completed, certificate or degree receipt, employment, job retention, and wages.
--	--	--	--	--	---

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Verma, N., Yang, E., Nuñez, S., & Long, D. (2017). Learning from the Work Rewards demonstration: Final results from the Family Self-Sufficiency study in New York City. New York, NY: MDRC.	https://www.mdrc.org/sites/default/files/ONYC_Work_Rewards_Final_FR.pdf	Financial Incentives	RCT	Low-income families receiving Housing Choice Vouchers	This report summarizes the final six-year impact and benefit-cost findings from two programs in the Opportunity NYC–Work Rewards demonstration. Using a randomized controlled trial design, the study tested three strategies for increasing employment and earnings of families receiving Housing Choice Vouchers. The report examined the Family Self-Sufficiency (FSS) program and an enhanced version of FSS. FSS is a federal effort that offers case management to connect participants to job and training services and helps them build their assets via an interest-bearing escrow account. The enhanced FSS program offered special cash work incentives to encourage sustained full-time employment. The study found that both programs reduced receipt of Temporary Assistance for Needy Families (TANF) in Year 5, but they did not significantly reduce housing voucher receipt or housing subsidy amounts. Neither program led to statistically significant improvements in labor market outcomes overall or for participants who were already working when they enrolled in the program, although the enhanced FSS program increased employment and earnings for participants who had not been working at the start of the study.
Walter, J., Navarro, D., Anderson, C. & Tso, A. (2017). Testing Rapid Connections to Subsidized Private Sector Jobs for Low-Income Individuals in San Francisco: Implementation and Early Impacts of the STEP Forward Program. OPRE Report 2017-103. Washington, DC: U.S. Department of Health and Human Services.	https://www.mdrc.org/sites/default/files/2017_sted_sf_FR.pdf	Transitional Job	RCT	Low-income jobseekers	This report presents implementation and early impact findings of the STEP Forward program, which tried to incentivize employers to hire individuals they might not normally by offering temporary wage subsidies. Part of the Subsidized and Transitional Employment Demonstration (STED), this random assignment study assessed the impacts of STEP Forward on employment and earnings, receipt of public assistance, and overall well-being 12 months after random assignment. It also describes the STEP Forward model and how the program was implemented. The study found program group members were more likely to have been employed (potentially in higher quality jobs) and had higher average earnings in the year after random assignment.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Wasserman, K., Walter, J., Luczywek, B., Wagner, H., & Redcross, C. (2019). Engaging Young Men Involved in Chicago's Justice System: A Feasibility Study of the Bridges to Pathways Program. OPRE Report 2019-79. Washington, DC: Administration for Children and Families, U.S. Department of Health and Human Services.	https://files.eric.ed.gov/fulltext/ED601141.pdf	Internship	RCT	Formerly incarcerated males ages 17 to 21 without a high school credential	This report presents findings of an implementation study and small-scale randomized controlled trial (referred to in the report as a feasibility evaluation) of the Bridges to Pathways (Bridges) program. Bridges offered subsidized internships to men ages 17 to 21 in the Chicago area. The report describes the program model as well as impacts on employment and training, employment and earnings, involvement with the criminal justice system, and social supports and personal well-being. Early impacts on employment (a direct result of the program internships) were not sustained.
Werner, A., Schwartz, D., & Koralek, R. (2018). National Implementation Evaluation of the first round Health Profession Opportunity Grants (HPOG 1.0). OPRE Report 2018-09, Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families.	https://www.acf.hhs.gov/sites/default/files/documents/opre/final_nie_final_report_1_1_1_18_clean_v2_b508.pdf	On-the-job Training	Descriptive (Outcomes)	TANF recipients and other low-income individuals	This report provides implementation and 12-quarter outcomes findings from the National Implementation Evaluation (NIE) of the first round of Health Profession Opportunity Grants (HPOG 1.0), which included 27 non-tribal grantees. The purpose of the HPOG Program is to provide education and training to Temporary Assistance for Needy Families (TANF) recipients and other low-income individuals for high-demand, well-paying jobs in healthcare. The report describes the training and services that HPOG offered, including the work-based learning opportunities of some HPOG programs (such as transitional jobs, on-the-job training, and paid work experience). However, take-up of work-based learning opportunities was low (7% for transitional jobs and 2% for on-the-job training). The study found that HPOG was successful in training high numbers of individuals for healthcare professions. The study also found that employment and earnings continued to increase through 12 quarters after HPOG enrollment (with steeper increases in earlier quarters).

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
West, L. S. (2010). The impact of training on the frequency of internal promotion of employees and managers. (Doctoral dissertation). University of North Texas Digital Library.	https://digital.library.unt.edu/ark:/67531/m2tadc30526/m2/1/high_res_d/dissertation.pdf	Incumbent Worker Training	Descriptive (Outcomes)	Employees and managers	This doctoral dissertation examines the relationship between incumbent worker training and employees' and managers' internal promotions in organizations. The study also assesses differences between the impacts of general and specific training topics on internal promotions. Using a descriptive analysis of data from 1996 to 1997, the study found that hours of formal training opportunities for employees significantly and positively contributed to frequency of promotion in the organizations over a two-year period.
Williams, S., & Hendra, R. (2018). The Effects of Subsidized and Transitional Employment Programs on Noneconomic Wellbeing. OPRE Report 2018-17. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.	https://www.acf.hhs.gov/sites/default/files/documents/opre/sted_well_being_b508.pdf	Transitional Job	RCT	TANF recipients, noncustodial parents, and young adults	This report examines the effects of the subsidized and transitional employment programs in the Subsidized and Transitional Employment Demonstration (STED) on participants' wellbeing. It discusses the study's approach to measuring subjective wellbeing, as well as the relationship between wellbeing and employment. It presents results from the randomized controlled trial conducted as part of STED, and shows that program group members were more likely to assess their wellbeing positively while they were in the program (due to both increased employment or earnings because of the program, as well as participation in the program itself), but that these effects diminished 12 months after random assignment. We include this study in addition to the other studies on STED because of its distinct focus on impacts on participants' subjective wellbeing (while the other studies focus on financial wellbeing), which has implications for future behavior and is linked with other social outcomes.

Citation	URL	Activities Covered	Evaluation Type	Target Population	Relevance & Significance
Yount, M. (2021). Delivering work-based learning for rural, low-income adults: Promising practices and indicators of success.	https://www.srce.org/assets/Yount%20Madeline%20Literature%20Review.pdf	Incumbent Worker Training On-the-job Training Transitional Job	No Original Analysis of Outcomes	Rural, low-income adult learners	This literature review summarizes research on work-based learning for low-income adult learners from rural backgrounds (defining adult learners as individuals ages 25 to 65 who have not taken the traditional route to postsecondary education). The review provides an overview of work-based learning opportunities (including apprenticeships, internships, on-the-job training, transitional jobs, and incumbent worker training) for low-income adult learners from rural areas. Some of the promising practices highlighted include paying learners to increase persistence and completion rates, using student-level indicators to measure success, building strong partnerships with local businesses, and implementing work-based learning programs.