

The Workforce Innovation Fund (WIF): A Synthesis Report on Evaluation Findings and Experiences

Contract # MOBIS GS-10F-0086K-DOLQ121A21884 Task Order: DOL-ETA-15-U-00030

Final

June 30, 2020

Prepared for:

U.S. Department of Labor Employment and Training Administration 200 Constitution Avenue, N.W. Washington, DC 20210

Submitted by:

Abt Associates

Eliza Kean Rachel Cook Siobhan Mills De La Rosa Julie Williams 6130 Executive Boulevard Rockville, MD 20852

Acknowledgements

The efforts of many individuals have been indispensable in the development of the Workforce Innovation Fund Evaluation Synthesis Report. We gratefully acknowledge financial support and technical guidance from the U.S. Department of Labor Employment and Training Administration (ETA). The Contracting Officer's Representative Charlotte Schifferes played a critical role in guiding the work of the National Evaluation Coordinator (NEC) and this study. We are also especially grateful to the WIF grantees and their third-party evaluators.

At Abt Associates, a large team contributed to the reviews of third-party evaluation reports, and development of this report. Eliza Kean, Rachel Cook, Siobhan Mills De La Rosa, and Julie Williams were primary authors of iterations of the report. Phomdaen Souvanna, Karen Gardiner, Michael Frye, Sarah Sahni, Adrienne Smith, Jane Herr, Randall Juras, Cris Price, Sam Dastrup, Amanda Parsad, Radha Roy, Sung-Woo Cho, and Ayesha Enver reviewed and critiqued third-party evaluation design reports, interim reports, and final reports and provided feedback and technical assistance to thirdparty evaluators. We also acknowledge useful feedback on early report drafts and ongoing project guidance from Karin Martinson, assistance from Bry Pollack in editing the report, and support in production and graphic design from Erin Miles and Audrey Hanbury.

Disclaimer

This report was prepared for the U.S. Department of Labor (DOL), Employment and Training Administration under contract number Contract # MOBIS GS-10F-0086K-DOL0121A21884 Task Order: DOL-ETA-15-U-00030. The views expressed are those of the authors and should not be attributed to DOL, nor does mention of trade names, commercial products, or organizations imply endorsement of same by the U.S. Government.

Ackı	nowled	lgements	i		
Glos	ssary o	f Evaluation Terms	1		
Exec	cutive	Summary	4		
1.	Intro	oduction	16		
	1.1	Workforce Innovation Fund Project Types	17		
		1.1.1 Context and Overview of WIF Interventions	19		
		1.1.2 WIF Evaluation Design Types	21		
		1.1.3 Overview of WIF Grantee Interventions and Evaluation Designs	23		
		1.1.4 Resources for WIF Grantees and Third-Party Evaluators	24		
	1.2	Research Questions and Methodology of This Report	24		
	1.3	Organization of This Report	25		
2.	Ove	rview of WIF Projects	27		
	2.1	Target Groups for WIF Interventions	27		
	2.2	Career Pathways Interventions	29		
	2.3	Work-Based Learning	32		
	2.4	Entrepreneurship Training	34		
	2.5	Case Management, Counseling, or Coaching	35		
	2.6	Cross-System Coordination	38		
	2.7	Management Information Systems Changes	40		
	2.8	Technological Innovation (New/Online/Remote Services)	42		
	2.9	Employer Engagement / Sector Strategies	44		
3.	•	rational Experiences and Lessons: Findings from the WIF			
	•	lementation Studies			
	3.1	Implementation Studies: An Overview			
	3.2	WIF Implementation Study Findings			
		3.2.1 Fidelity of Implementation to Design			
		3.2.2 Grantee Management and Planning			
		3.2.3 Developing and Implementing Partnerships	51		
		3.2.4 Participant Recruitment and Completion			
	3.3	Conclusion	59		
4.	Out	comes and Impacts from WIF Evaluations	60		
	4.1	Career Pathways Interventions	60		
	4.2	Work-Based Learning63			
	4.3	Entrepreneurship Training	66		

7.	Ref	erences	91
6.	Con	nclusions	89
	5.2	Considerations for Similar Future Programs	85
	5.1	Lessons Regarding Grantees' Role in the Evaluations	81
5.	Key	Findings from the WIF Projects	81
	4.9	The WIF Evaluations: Summary of Findings	80
	4.8	Employer Engagement / Sector Strategies	77
	4.7	Technological Innovation (New/Online/Remote Services)	75
	4.6	Management Information Systems Changes	74
	4.5	Cross-System Coordination	71
	4.4	Case Management, Counseling, or Coaching	67

Exhibits

Exhibit 1-1. Characteristics and Evaluation Requirements of WIF Project Types	18
Exhibit 1-2. Distribution of WIF Evaluation Design Types by Project Type	21
Exhibit 2-1. Target Populations of WIF Interventions	28
Exhibit 2-2. WIF Interventions Targeting Youth	28
Exhibit 2-3. Career Pathways Interventions	31
Exhibit 2-4. Work-Based Learning Interventions	34
Exhibit 2-5. Entrepreneurship Training Interventions	35
Exhibit 2-6. Case Management, Counseling, or Coaching Interventions	37
Exhibit 2-7. Cross-System Coordination Interventions	40
Exhibit 2-8. Management Information Systems Interventions	41
Exhibit 2-9. Technological Innovation (New/Online/Remote Services) Interventions	43
Exhibit 2-10. Employer Engagement/Sector Strategies Interventions	46
Exhibit 4-1. Evaluation Results Summaries of Career Pathways Interventions	63
Exhibit 4-2. Evaluation Results Summaries of Entrepreneurship Training Interventions	66
Exhibit 4-3. Evaluation Results Summaries of Case Management, Counseling, or Coaching Interventions	70
Exhibit 4-4. Evaluation Results Summaries of Cross-System Coordination Interventions	73
Exhibit 4-5. Evaluation Results Summaries of Management Information Systems Interventions	75
Exhibit 4-6. Evaluation Results Summaries of Technological Innovation Interventions	76
Exhibit 4-7. Evaluations of Employer Engagement / Sector Strategies Interventions	79

Glossary of Evaluation Terms

Attrition

Loss of subjects from the sample of individuals being studied, over the course of the evaluation. There can be many causes of attrition, including, for example, participants dropping out of the program or relocating. Differential attrition, which can occur in evaluations that compare two or more groups (such as in randomized control trials or, RCTs), occurs when there are different numbers of individuals or with different characteristics, who leave the treatment group versus the control or comparison group. High levels of differential attrition could raise questions about outcome or impact results, due to a lack of equivalence regarding key characteristics among the treatment or control group.

Baseline data

Information collected about study participants prior to program participation or random assignment. Baseline data can be used to describe the study sample and measure participant progress.

Comparison group

A group of study participants whose outcomes and experiences are compared to the treatment groups. In an experimental study design, the comparison group is called a control group, and is selected randomly and exposed either to a different treatment or to no treatment.

Cost allocation analysis

A management tool that involves establishing a budgeting and accounting system with which program managers can determine a unit cost (i.e., cost per unit of service). This type of analysis includes documentation on program operational costs at the per-participant or persystem level. Cost allocation analysis looks only at the costs of a program. In most cost analyses of employment and training programs, the analysis focuses on unit costs (e.g., per participant, enrollee, or FTE). Unit costs might be compared across sites or used in a regression analysis to estimate if and to what extent such things as program scale, geography, or program approach might **predict** (or affect) unit cost.

Cost analysis

A tabulation of amounts spent on participants in a program. Basic cost analysis asks about the difference in operational costs for implementing or operating an intervention compared to costs if the program were not in effect. This research question is answered by comparing total spending on the intervention to total spending prior to (or in the absence of) the intervention, with some way of distinguishing indicators of achievement (e.g., costs per participant who completed training). The fundamental starting point for costs analysis is that the costs of a program should be defined as all the "ingredients" (or resources) used by the program to deliver it to a set number of participants.

Cost-effectiveness analysis

A type of evaluation research that compares program costs to program outcomes. Costeffectiveness analysis looks at costs in terms of a single outcome. This outcome is not monetized. In the context of an employment and training program, the outcome could be placement, employment (ever employed), or employment meeting specific criteria (e.g., in terms of wages, benefits, or retention). A cost-effective program is one that delivers its key outcome at a reasonable cost per outcome (i.e., at a cost that is similar to or less than comparable programs).

Experimental

A study design in which subjects are assigned randomly to either the treatment or comparison group. Random assignment makes it more likely that observed effects are the result of the intervention and not of other factors (i.e., causality). An RCT is an experimental design; a study using a quasi-experimental design (QED) or outcomes study is not.

Generalizability

The extent to which the study's conclusions based on the study sample can be said to represent results for the entire population from which the sample was drawn.

Implementation study

A type of study that illuminates and explains "what is happening" in the design, implementation, administration, operation, services, and outcomes of social programs. An implementation study can provide context and information to impact evaluation results. Findings from implementation research can be used to inform future program development or replication.

Impact study

An impact study refers to an evaluation that attempts to estimate the effect of the program (i.e., determine causality) by comparing the outcomes of a treatment group to either a control or comparison group.

Inputs

Resources that go into a program, such as grant funds, personnel, and equipment. In the context of an employment and training program, inputs might include education, training, and support services.

Intervention

The program, project feature, or innovation being studied.

Logic model

A description of a program/process that includes a conceptual framework showing the activities and methods being used to achieve relevant outcomes. A logic model provides an overview of a program/process and identifies key components of the process, product, strategy, or practice (i.e., the active inputs and activities that are expected to be critical to achieving the relevant outcomes). The logic model also describes the relationships among the key inputs, outputs, and outcomes and can be displayed graphically and/or by textual descriptions.

Outcomes

The intended results of a process or program (might include changes in conditions, such as employment, earnings, or income; might include changes in attitudes, values, and behaviors).

Outcome study

A type of study that examines the changes in targeted conditions, attitudes, values, or behaviors between baseline measurement and subsequent points of measurement. Changes can be immediate, intermediate, or long term. An outcome study seeks to provide information on how participants fared in the program, without attributing causality.

Outputs

What is produced that can be easily described and quantified as a result of program activities (e.g., numbers of workshops held or people trained). In the context of an employment and training program, outputs might be program completion or credentials receipt.

Power

The ability of a study to detect meaningful program impacts at a given level of statistical certainty.

Power analysis

Analytic methodology used to determine the required sample sizes necessary to reach statistical conclusions (also known as **statistical significance**). Usually, the result of a power analysis is expressed as a minimum detectable impact (MDI) or minimum detectable effect (MDE). The MDI allows researchers to know the level of impact the intervention must have on a participant's outcomes of interest, such as earnings and employment, for the impact to be detected with a given sample size and specified probability of error.

Pre-post data analysis

A type of outcome study where behavior before a program or a subject's participation in it began (pre-program) is compared to behavior at a point after the participant completed the program (post-program).

Qualitative data

Non-numerical data (e.g., from interviews or focus groups) that provides detail and description.

Quantitative data

Numeric data (e.g., from surveys or administrative records) that can be analyzed using statistical methods (i.e., can be counted, scored, and categorized).

Quasi-experimental design (QED)

A research design that attempts to approximate an experimental design by using a treatment group that receives services and a comparison group which does not receive the services being tested. Unlike a control group, the comparison group is not identified through random selection, but is nonetheless similar in critical respects to the treatment group.

Random assignment

A lottery-like method of allocating study participants to either a treatment group or a control group. Random assignment is designed to make it more likely that members of the two groups are identical on key observable characteristics, thus making it likely that any differences in outcomes between the two groups are due to the intervention.

Randomized controlled trial (RCT)

A research design in which participants are randomly assigned to a treatment group that receives services (or participants can be assigned to one of two or more treatment groups) or to a control group that does not receive services. The difference between the average outcome for the treatment group(s) and for the control group is an estimate of the impact of the effectiveness of the intervention. Most social scientists consider random assignment to be the best way to ensure that observed effects (or impacts) are the result of a given intervention and not of other factors. Also called a random assignment impact evaluation.

Reliability

The degree to which a measurement or measurement instrument (e.g., a test or survey) produces consistent results over time.

Representative sample

A sample that mirrors the population from which it was selected in all the respects potentially relevant to the study and its outcomes.

Sample

A subset of a larger population that is used to study the population as a whole. A study sample is a subset of a target population of interest who are participating in the study. A subset of the study sample—for example, the men versus the women—is termed a **subgroup**.

Statistical significance

The mathematical likelihood that an observed effect is due to chance. Statistical significance is usually expressed as a p-value, with a smaller p-value meaning that the outcome is less likely to be due to chance and more likely is a true change or effect. Typically, a change or effect must have a p-value of p<.10 (a 10 percent likelihood) to be considered an impact of the program and not due to chance. .

Target population

The group larger than or different from the population sampled (the study sample) to which the researcher would like to generalize study findings.

Theory of change

A way to explain the underlying understanding of the issue the research is addressing clarifying why researchers are doing what they are doing. It is a description of a program that includes a clear identification of the population for which it is intended, as well as the theoretical basis or description of the expected causal mechanisms by which the intervention should work. Theories of change are often represented visually.

Treatment group

In an experiment, a group of study participants who receive the intervention(s) being tested. Also called the **experimental group**.

Unit of analysis

The major entity (the "what" or "who") that is being analyzed for the study. The unit of analysis can be, for example, individuals, groups, geographical units (e.g., sites, cities, states, countries), or social interactions (e.g., organizational partnerships).

Validity

There are a number of types of validity in evaluations, including, internal, external, and construct validity. Most pertinent to the WIF evaluations, is internal validity, which assesses whether a causal relationship can be found between the intervention and its intended effect that makes it possible to eliminate alternative explanations for a finding.

Executive Summary

The Workforce Innovation Fund (WIF) was an initiative to develop and test new services and strategies in the pubic workforce system. Administered by the U.S. Department of Labor's (DOL) Employment and Training Administration (ETA), using \$258 million in Congressional appropriations over multiple years, the WIF initiative supported a wide range of interventions in 43 grants. The grants were competitively awarded in three rounds (26 grants in Round 1 awarded in 2012, 11 grants in Round 2 awarded in 2014, and six grants in Round 3 awarded in 2015). The projects had varied periods of performance (of between three and five years), with the final group of grants ending on September 30, 2019.

In addition to promoting innovation, WIF also sought to build on and expand use of evaluation research in the workforce system. Using a "tiered-evidence" model, the initiative required that all prospective grantees demonstrate how their proposed innovation was supported by past research and how it would be evaluated to generate future evidence. Grantees were required to contract with an independent third-party evaluator to conduct an evaluation of their project and produce a report covering implementation of the project and the outcomes (or impacts) achieved.

The WIF grantees had varying levels of experience with evaluation. Some grantees had overseen numerous evaluations; for others, WIF was their first experience with program evaluation. To support both grantees and evaluators, ETA provided technical assistance through a WIF-funded National Evaluation Coordinator (NEC). Abt Associates was selected as the NEC, a role which also encompassed providing assistance to ETA on evaluation criteria, reviewing proposed WIF evaluation designs, providing technical guidance to evaluators, and producing a report to document what was learned from the 43 evaluations of the WIF projects.

This report then provides summary information on the WIF interventions and their evaluations as well as and successes and challenges in conducting the evaluations. The primary source for this report is the evaluation reports, produced between 2015 and 2019 by the third-party evaluators engaged by the WIF grantees. Finally, this report highlights lessons learned from the WIF experience and considers how these lessons might be applied in future grantee-funded evaluations.

Overall, WIF was a substantial accomplishment: across the three rounds of grants, 43 grantees developed and implemented a range of innovative projects, and procured external evaluators, who conducted evaluations and produced reports on the projects' interventions and outcomes. While the evaluation component was one of the more challenging aspects of WIF for some grantees, and the evaluations varied in their strength, all grantees met the evaluation requirement and many gained significant knowledge from the experience. Further, the grantees and their evaluators produced a broad and useful array of findings on the many and varied interventions, contributing important information to the evidence base.

Workforce Innovation Fund Grantees Overview

ETA awarded the 43 grants to support a diverse set of strategies, benefiting an array of target populations, evaluated through three broad types of studies—as summarized in the exhibits below.

Exhibit ES-1 shows the number of WIF projects for eight intervention categories and provides a short description of each type of intervention. (Note: some projects included multiple program components and are categorized based on the primary type of intervention).

Exhibit ES-1. WIF Projects by Type of Intervention

	Number of Projects Using the	
Intervention Category	Intervention	Intervention Description
Career Pathways	6	Education and occupational training, often organized as a series of steps leading to successively higher credentials, in related occupations or occupational categories in specific industries, generally provided to disadvantaged youth and adults
Work-Based Learning	6	Occupational training that involved hands-on, experiential learning in the workplace, including on-the-job training providing subsidies to employers and apprenticeship
Entrepreneurship Training	2	Courses and advice on business formation and planning to enable job- seekers to become self-employed or develop their own companies
Case Management, Counseling or Coaching	9	Individualized case management services, providing assessments and service coordination, and counseling and coaching to support jobseekers in finding and retaining employment
Cross-System Coordination	6	Efforts to coordinate services and improve efficiency across workforce and non-workforce service agencies, through a variety of arrangements, such as improved information-sharing or co-location of services
Management Information Systems Changes (MIS)	3	Designing and/or implementing advanced or enhanced MIS for administrative or program efficiencies or to improve service delivery
Technological Innovation (New/Online/ Remote Services)	6	Use of technology in new applications and online access for career and job information and/or training programs
Employer Engagement/ Sector Strategies	5	Outreach and partnerships with employers and industry groups to provide services, identify employer needs, and create efficiencies across businesses in related industries

Source: Analysis by WIF NEC. Note that some WIF interventions included more than one intervention focus; this table presents information on the primary intervention area of the grantees.

The WIF interventions served a range of target populations (including those groups commonly targeted by DOL's Employment and Training Administration programs) as shown on Exhibit ES-2. The exhibit also identifies the number and percentage of projects, which served each target group across the 43 grants. WIF grantees most commonly targeted disadvantaged, low-income job seekers, (53 percent); other grantees (6 percent) implemented projects that targeted all job seekers. Several WIF projects focused on youth (12 percent) or included youth within a larger target group. Another set of projects focused on employers, including workforce boards and nonprofit employment and

education services organizations. A small number of grantees (2 percent) focused their interventions on systems that support job seekers rather than individual participants. Dislocated workers and people living with disabilities were each a specific focus of 2 percent of the WIF interventions. While there were no interventions that focused exclusively on veterans as a target group, veterans were among the population served in several of the WIF interventions.

Exhibit ES-2. WIF Projects by Target Population

Target Population	Number of WIF Evaluations (%)
Disadvantaged/low-income adults	23 (53%)
All job seekers	6 (14%)
Youth	5 (12%)
Employers	5 (12%)
System changes	2 (5%)
Dislocated workers	1 (2%)
People living with disabilities	1 (2%)

Source: Analysis by WIF NEC. Note: The exhibit shows a primary target group; at least 15 interventions targeted one or more additional groups.

As specified in DOL's Solicitation for Grant Awards (SGA), the WIF grants could be used in three project types (Types A, B, and C) based on the level of innovation, existing research evidence, and the type of evaluation that could (at a minimum) be conducted. The grant amount, its period of performance, and the evaluation requirements were partially dictated by the project type (and varied over the three rounds of grants). Exhibit ES-3 describes the characteristics and evaluation requirements associated with each project type, as well as the number of grants in each category.

Exhibit ES-3. WIF Evaluations by Project Type

Project Type	Number of WIF Grants	Required <u>Minimum</u> Evaluation Method
A New and Emerging Ideas Limited Evidence of Effectiveness	25	Outcome Study – Examines the changes in outcomes (i.e., targeted conditions, attitudes, values, or behaviors) between baseline measurement (e.g., enrollment in the program) and subsequent points of measurement (e.g., 12 months after enrollment). Changes can be immediate, intermediate, or long-term. An outcome study seeks to provide information on how individuals fared in the program without attributing causality.
B Promising Ideas Some Evidence of Effectiveness	11	Quasi-Experimental Design (QED) – A research design with a comparison group that is similar to the group receiving the intervention in important respects but that does not receive the services being tested. QEDs attempt to approximate an experimental design by using a comparison group, but they do not use random assignment to create a control group that is assumed to be comparable to those in the treatment group. Evaluations using a QED can attribute the program impacts to the intervention being studied if the groups are similar on observed characteristics.
C Proven Ideas Supported by Strong Evidence	7	Randomized Controlled Trial – Considered the most rigorous research design, RCTs assign participants randomly (e.g., by lottery) to a treatment group that receives services or a control group that does not receive services (or to one of two or more treatment groups). The difference between the average outcome for the treatment group(s) and for the control group is an <u>estimate of the impact of the intervention</u> .

Source: SGA. United States Department of Labor, Employment and Training Administration. (2011). Notice of availability of funds and solicitation for grant applications for Workforce Innovation Fund grants (SGA/DFA PY-11-05); and Abt Associates analysis.

In addition to the study components concerning outcomes or impacts, as shown in **Exhibit ES-3**, the WIF evaluations also included an implementation study, in order to document the nature of the intervention, level of service participation, successes and challenges, as well as a cost study of some kind. While conducting an implementation study was not required for Round 1, all Round 1 grantees included such a study. All Round 2 grantees included implementation studies in their final reports, and all but one Round 3 grantee included an implementation study. Cost studies were included in 26 of the final evaluation reports.

Using approximately five percent of the WIF appropriations, ETA provided technical assistance for the third-party evaluation (as discussed above) and also for technical assistance in regard to implementation of the interventions (provided by Maher and Maher and Jobs for the Future).

Methodology for this Report

This report summarizes findings from the 43 final evaluation reports, which serve as the primary data source for this study. Each report was systematically reviewed by the NEC team, using a template which covered multiple dimensions of the evaluations. Based on these reviews, the evaluations were grouped and compared across several dimensions, which included: intervention type, implementation experiences, outcome or impact findings, and assessments regarding reliability.

In addition to evaluation reports, this report also relies on data from the NEC communication logs (that recorded information routinely requested from evaluators throughout the period of technical

assistance) and feedback from telephone discussions with a small set of third-party evaluators at the conclusion of their studies.

Findings from the WIF Evaluations

This section discusses common themes identified in the WIF implementation studies and then synthesizes the findings from the outcome or impact evaluations.

Key Findings from WIF Implementation Studies

The WIF evaluation reports included implementation studies, which, while varied in scope, documented the design, implementation, and operation of the WIF projects, using multiple data sources. Data sources included documents (program manuals, guidance for staff, or local economic data); interviews with and surveys of program administrators, line staff, and program partners; participant focus groups; and project data on enrollment, participation, and completion. Based on a review of the all the WIF implementation studies, key findings include:

Most grantees were able to implement major parts of their projects.

Most grantees implemented most (but not all) project components. A few grantees were able to fully implement their project as planned, and a small number were unable to fully implement key project elements. Factors that appeared to facilitate full implementation were strong partnerships and wellfunctioning communication systems, and management systems, as well as adequate staff training and involvement in program development. Projects that had difficulty in implementation faced such challenges as partners' inability to deliver services, unanticipated staffing and leadership changes, and logistical or regulatory barriers. A few also faced factors outside their control which seemed to affect implementation, such as shifting priorities within their organization and changes in local or state laws, including the implementation of the Workforce Innovation Opportunity Act (WIOA). This last factor was particularly evident in projects that attempted to create new data and information systems, since the new law altered data requirements. The grantees that appeared to face the most perceived difficulty in implementation were those offering interventions that were considerably different from their usual services or service delivery systems, thus making it difficult to operationalize the interventions.

WIF projects involved multiple partners, including employers, training providers, communitybased organizations, and social service agencies.

The WIF implementation studies documented the partnerships that were formed to develop and implement the projects. These reports suggest that such partnerships were often facilitated by a history of collaboration between grantees and their partners and by equal commitment to the project by all partners. Projects that involved efforts to forge new partnerships often necessitated time investments to become familiar with the partner's organizational structure, staffing, and services. In many cases, this process took several months. By contrast, grantees with an established history of collaboration with their partners were able to launch their projects more quickly.

WIF implementation studies described several planning activities that appeared to facilitate developing partnerships. These approaches included: regular team meetings; timelines with clearly delineated tasks, responsibilities, and deadlines; ongoing communication with partners; and

utilization of partner feedback. Some of the studies reported that plans for coordinating service delivery and funding with partners experienced issues with administrative barriers, logistical matters, and in some cases, local, state, and Federal regulations. Also, in some cases partners were unable to deliver resources that they had originally made commitments to provide.

Grantees recruited employer partners through a number of strategies, including: offers to address critical skills gaps, engaging the help of trusted partners to connect to employers, and outreach by specialized staff trained to recruit and communicate with employers. Employers were most likely to be involved in advisory councils, in creating standards for identifying eligible applicants, and in curriculum and program development. Several grantees had planned to work with employer partners to offer internships and work-based learning opportunities but were unable to address employers' concerns (expressed in interviews with employers) about liability or loss of staff productivity while supervising participants.

Of the 38 WIF interventions that enrolled participants, 15 programs struggled to recruit the planned number of participants and developed new recruitment strategies.

A number of implementation studies documented difficulties in reaching expected enrollments, the responses to recruitment challenges, and possibly promising practices to address those challenges. Some of these perceived challenges included the improving economy and a mismatch between the project design and the needs of the target population. Staff responded to these issues by adapting eligibility requirements to broaden the target population; streamlining enrollment procedures; and bolstering recruitment through non-traditional marketing strategies. One intervention altered its focus from a summer-employment only to a year-round effort in order to engage additional participants.

Key Findings from the WIF Outcome and Impact Studies

Outcome and impact studies provide evidence on the effectiveness of the WIF interventions by showing changes in participant or system outcomes over the course of the grant. Below we summarize the findings of WIF evaluations by intervention category.¹

Career Pathways: Six interventions used a career pathways model to deliver occupational training in a variety of contexts. Four of the evaluations had positive effects on a range of outcomes, with three having strong research designs (RCT).

The Accelerating Connections to Employment (ACE) project that used a RCT found positive impacts on employment and earnings for participants, and the Los Angeles Reconnections Career Academy (LARCA) project that also used a RCT found positive impacts on enrollment in secondary education or other education activities for youth participants. The New Orleans Career Pathways RCT evaluation and the Micro-credentials: Opportunity through Stackable Achievements outcome study found positive impacts on some earnings measures. The final two career pathways interventions were evaluated with an outcome design. The Gila River Indian Community GRIC Career Pathways project found that participants who received work readiness training were more likely than those who did not receive the work readiness training to complete the career pathways program and to be employed post

¹ This section also does not directly compare evaluation results due to the diversity in the interventions, the evaluation designs, and the outcomes measures.

training. The second tribally-focused project, the Southeastern Free Flowing Workforce, had limited results due to challenges in implementing the project.

Work-Based Learning: Six interventions either exclusively focused on or included a workbased learning component. Four of the projects found some level of positive effects, although the studies varied in their reliability.

The evaluation of the Los Angeles Regional Initiative for Social Enterprise (LA:RISE), the one RCT design in the category of work-based learning interventions, found that the program had a positive impact on employment during the first three quarters of the follow-up period, but no impacts in subsequent quarters. The Oh-Penn Pathways to Competitiveness (P2C) study, using both an outcome and quasi-experimental design (QED), found evidence suggesting positive impacts on employment in manufacturing, overall employment, and wages for previously unemployed men in the study. The Eastern Connecticut Manufacturing Pipeline Initiative (MPI) outcome study showed that the program helped transition job seekers with little to no manufacturing experience to manufacturing employment. The Step Up to STEM project outcome evaluation found that the program improved training participants' wages as compared to their wages prior to enrollment. Two projects, Metro-Atlanta WIA Consortium Project to Aid the Long-Term Unemployed and Made Right Here (implemented by the Three Rivers Workforce Investment Board in Pennsylvania), had inconclusive results primarily due to small sample sizes.

Entrepreneurship Training: The evaluations of the two interventions that offered entrepreneurship training both had positive findings and reliable research designs.

The RCT evaluation of the Startup Quest® program found that while there was no impact on selfemployment outcomes, there was a positive impact on wage/salary employment approximately two years after service receipt. The evaluation of the Virginia Employment through Entrepreneurship Consortium (VETEC) found that participation in the program resulted in a statistically significant impact on the likelihood of being self-employed 18 months after random assignment.

Case Management, Counseling, and Coaching: The findings from evaluations of the nine interventions in this category varied. Seven studies used RCT or OED methodologies, and five had positive impacts. Several other projects experienced issues conducting the evaluation as planned, with small sample sizes and for some, dissimilar treatment and comparison groups.

The RCT evaluation of the *Housing and Employment Navigator Program* measured program outcomes at three different time points: 9, 18 and 24 months after random assignment, and found different results at each point, with positive impacts on employment at 24 months. The QED evaluation of the Linking Innovation, Knowledge, and Employment (@LIKE) found positive and statistically significant impacts on several outcomes including employment and education/training (though there was lack of equivalence on key characteristics of the treatment and comparison group). The QED evaluation of the Wage Pathway Model found a statistically significant impact on participant earnings. The QED evaluation of the Housing Works program found that participants were 20 percentage points more likely to be employed in the first quarter after leaving the program than public housing residents who did not participate. The QED evaluation of the Rethinking Job Search found that participants had a 12 percent greater chance of being employed in the third quarter and an 8 percent greater chance of being employed in the fourth quarter compared to individuals in a matched comparison group.

The RCT evaluation of *Breaking Barriers in San Diego* found that the program did not have a statistically significant impact on any employment or earnings. Similarly, the RCT evaluation of the Bridge to Employment and Academic Marketplace (BEAM) program found that the intervention did not have a statistically significant impact on participants' educational, employment, or earnings outcomes. For Career Jump Start, 59 percent of participants completed an industry-specific occupational credential from Penn State in healthcare or manufacturing. Youth Ambassadors for Peace found a positive association between completing any program activity and receiving an incentive for obtaining employment or enrolling in college.

Cross-Agency/Organization Coordination: The six evaluations of cross-system coordination interventions found some positive, but primarily limited, results.

The RCT of Virginia Financial Success Network (VFSN) project found that VFSN did not have an impact on participants' education attainment, employment, wages, or net worth. The QED evaluation of On-Ramps to Career Pathways (ORCP) found that the ORCP achieved some notable milestones in its systems change goal, particularly related to career pathways, while other systems change activities were not fully adopted within the workforce system. The QED evaluation of Project GROW, limited by lower than anticipated sample sizes, found that the intervention did not have impacts on participants' employment and educational outcomes. The three outcome studies produced similar findings. The evaluations of the Kansas WIF project, Chelsea CONNECT and the SV ALLIES project all showed mixed results.

Coordinated Management Information Systems (MIS): The three evaluations of MIS-focused interventions found limited effects, most likely due to implementation difficulties, based on the evaluator reports.

The outcomes evaluation of CareerForceMN.com project revealed mixed findings among the three target user groups of career seekers, employers, and workforce staff. Two of the three projects, Career Connect (Cook County, IL) and Managing for Success (Newark, NJ), were unable to implement the intended MIS during the WIF grant period. The Managing for Success project was able to conduct an alternative effort in reviewing demographic data to help understand the customer base and to assess customer satisfaction with services. The evaluation reports for these two projects document the challenges encountered and discuss what the grantees were able to accomplish despite those challenges.

Technological Innovation (New/Online/Remote Services): The evaluations of the six WIF interventions in the technological innovation category found mixed results.

While the QED evaluation of the Pasco-Hernando Workforce Board, Inc. (FL) Employment Support Center (ESC) found that the use of remote services increased program staff's capacity to deliver services, collect accurate data, and follow-up on participants' outcomes, the two other experimental evaluations, Electronic Ohio Means Jobs (OMJ) and the Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative experienced challenges in both project and evaluation implementation, and study results were inconclusive. For three projects that implemented initiatives using innovative technology-based approaches, San Francisco Office of Economic and Workforce Development (CA) TechSF Workforce Innovation Partnership used an outcome design and had positive but small results. The evaluation of the Code Louisville project used a QED and found positive results while the study of the Florida Performance Funding Model used an outcome and QED and reported minimal effects.²

Employer Engagement/Sector Strategies: The evaluations of the five projects in this category had mixed results.

The one RCT in this category, Accelerated Training for Illinois Manufacturing (ATIM), found that the program had a positive and statistically significant impact on enrollment in and completion of occupational skills training and completion of certification. There were two QED evaluations in this category – one with positive findings and one with limited findings. The Skills Wisconsin project found that the Customer Relationship Management (CRM) system implementation in pilot areas led to an increase in the likelihood of employment for job seekers but had no effect on job retention or earnings. The Ohio Business Resource Network (BRN) Expansion analysis did not detect impacts on business engagement outcome measures. Two other outcome evaluations in this category had positive results: the evaluation of Southwest Michigan Employer Resource Network-Expanded (SWMERN-E) found the program provided necessary resources that employers could use to aid their workforce. The Orange County Information Technology Cluster Competitiveness Project (ITCCP) evaluation found some positive results from the pilot efforts in employment and earnings outcomes.

Observations on Implementation of the WIF Evaluations

The WIF evaluation reports and the observations of the NEC team providing technical assistance and monitoring the evaluations suggest a range of lessons in regard to grantee-funded evaluations. These concern the need for building grantees' expertise in evaluation, their role in managing a set of complex relationships, developing effective communication strategies with evaluators, addressing and overcoming common evaluation challenges, and finally, the importance of developing reporting standards.

Overall, grantees' involvement in conducting evaluations required considerable time and effort. Key evaluation-related activities included developing an initial evaluation design in their grant application: soliciting and procuring a third-party evaluator; and supporting a variety of evaluation activities, such as providing data and ensuring that evaluation reports were produced during the grant's period of performance. Key observations include the following:

- Many grantee organizations had no or minimal experience supporting program evaluations at the start of the WIF performance period, especially those in the first round of WIF grants. These grantees initially had limited understanding of the different types of evaluations in the tiered evidence model. Grantees generally reported that the technical assistance materials provided by the NEC on expected levels of rigor for the evaluations were helpful.
- Because grantees funded the evaluations, there were some instances where it was unclear if evaluator independence was maintained. Relatedly, the WIF grants involved a number of stakeholders in a range of relationships that presented challenges for both grantees and

² The evaluation of the Florida Department of Economic Opportunity Performance Funding Model found that participation in the PFM increased the probability of employment by 1.7 percent four quarters after enrollment and decreased quarterly wages by \$139 four quarters after being enrolled.

- evaluators. Communication among the stakeholders involved in WIF emerged as a key component to maintaining effective working relationships and also contributed to maintaining evaluator independence.
- Evaluators and grantees experienced challenges in evaluation execution, many of which were common in the evaluation field but some which were unique to WIF. Common challenges included for example lower than expected levels of participant recruitment and resulting issues for the evaluation sample size; challenges in accessing data (including state data and program specific data that was not collected or identified sufficiently); and survey administration and non-response. Challenges unique to WIF concerned the limited period of performance of the grant and the relatively short follow up period to assess outcomes and impact results. For outcomes related to employment or wage gains, a longer period may be necessary to realize the full effect of the intervention.
- While many final evaluation reports were logically organized, well-written and provided sufficient detail about the intervention, the evaluation design, and study results, some reports were inadequate in one or more of these areas.

Considerations for Similar Future Initiatives

Although WIF has concluded, for the benefit of other possible future programs with a similar tieredevidence, grantee-led evaluation structure, below we provide potential strategies to address some of the challenges encountered within WIF.

- Define roles clearly and increase communication and accountability across stakeholders. Given the numerous stakeholders involved in a Federally-sponsored grant program, particularly one with a major evaluation component, communication can take on a significant role. It is important to acknowledge and understand that all entities are working toward the same goal: effective execution of the intervention, full implementation of the evaluation design, with both resulting in a strong evaluation. This alignment can also be conveyed through leadership and oversight activities, which can assist in maintaining grantees' engagement in the evaluation.
- Develop clear, consistent standards and lines of authority to enforce evaluation standards. Developing a clear, consistent set of standards to be applied to workforce-related evaluations, perhaps through a separate entity (such as CLEAR at DOL), would also be beneficial. Based on the WIF experience, developing definitions for when evaluation meet established standards, or whether reservations about elements exist, is important to include in the grant solicitation or other early guidance for grantees. Establishing a set of criteria that can be explained and used by the evaluators (and grantees) in development of their evaluation design plan will assist in creating a transparent process. Finally, establishing a method for enforcing the criteria in order to ensure that standards are upheld and that recommendations are followed is important.
- Build capacity within grantee/project staff to ensure evaluation goals and methods are *understood.* One strategy to help ensure quality evaluations is to ensure that grantee organizations are better consumers and funders of evaluations. Educating and informing the

entities that procure and engage evaluators so that they have a working knowledge of evaluation concepts, terminology, and data needs will help ensure that relevant organizations have developed the skills needed to launch an evaluation.

- Ensure an adequate timeline to measure outcomes relevant to workforce interventions. Timeline requirements for the evaluation should align with the timing and expectations for outcomes measured for the intervention. When a project timeline is limited because of funding restrictions or requirements, it is important adjust evaluation outcomes to what can reasonably be achieved within the available timeframe. The evaluation design, including the research questions selected and the specific measures for answering those questions, should be tailored to the timeframe allotted under the grants.
- Ensure comparability of data measures across evaluations. If the findings or results of evaluations are meant to be aggregated or compared, specific pre-established outcome measures should be incorporated so that all interventions are gathering and reporting on the same measures, and evaluations of those interventions can also use those same measures. For a grant program like WIF, this could include categories of innovation such as those aimed at improving participant outcomes and those aimed at systems change (as evaluations for these would be assessing different outcome measures). If assessing participant employment or earnings, defining the type of measure and their timing (e.g. employment levels or increase in quarterly earnings) is important.
- Ensure that projects are ready for evaluation. Building an evaluability assessment into the process for grant applications would require potential grantees to demonstrate that a project has matured enough, or that project planning has developed to the point where an evaluation is feasible. Even with a year-long planning process, a new or evolving intervention may pose challenges for development of a meaningful and workable evaluation design.
- **Promote strategies to ensure that the evaluation is independent.** One strategy for ensuring an independent evaluation would be for the federal sponsor to procure and directly fund the evaluation. This structure would separate the evaluator and grantee relationship to ensure clear independence and a more solid line of accountability from funder to evaluator.
- Require implementation studies as a component of an outcome or impact evaluation. For WIF Rounds 2 and 3, DOL included an implementation study requirement, recognizing the important information that can be revealed through such studies. In the end, the WIF implementation studies were a useful information source of lessons learned and provided important context for the outcome and impact studies.
- Include an initial period for planning of the intervention, engagement of evaluator, evaluability assessment, and evaluation design. A recommended approach for grantee-led evaluations is to include an initial period during which the grantee can procure an evaluator, who can then conduct an evaluability assessment as a first step prior to designing an evaluation. This step will help to determine if a program is ready for evaluation, and if so, appropriately identify a project type and ensure that the appropriate level of rigor is determined. Only those grantees that meet specific standards or benchmarks in this initial

phase related to procuring the evaluator and evaluability would be eligible to move forward to a next phase of funding.

- Include detailed evaluation requirements and clear expectations for evaluation deliverables and timeline. Detailed information about specific evaluation requirements and guidance on evaluation deliverables, timing, and the review and approval process would strengthen the grant or funding announcement for grantee-led evaluations, providing more information for potential grantees to follow and use for planning.
- Provide detailed guidance on final report requirements, including the level of detail needed for the discussion of results, methodology used, and the intended audience. To help ensure quality and consistency across final reports, provide guidance on how to structure a report and the key elements of its contents, including the level of detail, the technical information to provide, and other general guidance about developing well organized, sufficiently detailed and readable reports.

Conclusions

Overall, the 43 WIF evaluations added to the evidence base on the effectiveness of different workforce strategies and generated knowledge about the demands and potential challenges of granteefunded evaluations in the workforce system. Those studies with strong evaluation designs and execution will be particularly helpful in understanding the effectiveness of different approaches and refining interventions in future programs.

The WIF evaluations show positive to mixed effects across a range of outcomes, although study limitations affect the reliability of some of the results. They also show that a diverse array of interventions can accomplish similar goals such as increasing participant employment and earnings, providing services to a population not served previously, and forming partnerships among stakeholders who might not have collaborated before. However, given the varied range of interventions implemented and the different expectations about what outcomes they were designed to improve, it is difficult to draw conclusions about particular interventions or intervention types.

Finally, the evaluations that experienced challenges can also provide useful lessons. While some evaluations did not demonstrate that the interventions had positive outcomes (or impacts), they provide important information about workforce strategies that may not be effective in a particular context. Some of the problems in the evaluations themselves (such as small sample sizes, difficulty obtaining data, unmatched comparison groups, errors in analytic methods, and problems in the final reports) can also inform planning on how to improve such third-party studies in future.

1. Introduction

The Workforce Innovation Fund (WIF) Initiative was an effort to develop and test new services and strategies in the pubic workforce system. Administered by the U.S. Department of Labor's (DOL) Employment and Training Administration (ETA), using \$258 million in Congressional appropriations over multiple years, the WIF initiative supported a wide range of interventions in 43 competitive grants.

In addition to promoting innovation, WIF also sought to build on and expand use of evaluation research in the workforce system. Using a "tiered-evidence" model, the initiative required that all prospective grantees demonstrate how their proposed innovation was supported by past research and how it would be evaluated to generate future evidence. Grantees were required to contract with an independent third-party evaluator to conduct an evaluation of their project and produce a report covering implementation of the project and the outcomes (or impacts) achieved.

As the original 2011 Solicitation for Grant Applications (SGA) noted, one of the four goals of the initiative was evaluation, which would:

Emphasize building knowledge about effective practices through rigorous evaluation and translating "lessons learned" into improved labor market outcomes, the ability to bring such practices to scale in other geographic locations and increased cost efficiency in the broader workforce system. (DOL, 2011, 3)

The focus on evaluation aligned with broader Federal effort to bring evidence-based improvements to a range of programs and to contribute to the knowledge base through rigorous evaluation of granteefunded studies.³ Examples of similar initiatives which also required grantees to fund evaluations at different levels of rigor include ETA's Trade Adjustment Assistance Community College and Career Training (TAACCCT) grants and the U.S. Department of Education's (DOE) Investing in Innovation Fund (i3) grants. For i3 grants, the DOE later applied the standards of evaluation rigor, developed under that Department's What Works Clearinghouse, to studies of local education interventions.⁴

Though many DOL-funded grants have included evaluation requirements, WIF is unique in DOL's grant portfolio in two important respects:

In the spirit of innovation, a multitude of different interventions with different elements were permitted, However, the WIF Solicitations for Grant Applications (SGAs) (DOL, 2011, 2014) and 2015) did encourage coordination between programs and funding streams, improved linkages between training services and labor market needs, and focusing on delivering services to vulnerable populations. All projects were allowed to develop their own interventions, and no strong and clearly defined model was imposed on any WIF project. Further, service designs often evolved and were refined, particularly in the early stages of the projects.

Examples are seen in several Office of Management and Budget memoranda; for example, in Next Steps in the Evidence and Innovation Agenda (OMB, 2013) and Fiscal Year 2017 Budget Guidance (OMB, 2015).

For more information on the range of tiered evidence grants and their characteristics, benefits, and challenges, see Government Accounting Office (2016).

Rather than a single federal evaluation to assess WIF projects, the initiative required the grantees to assume responsibility for an evaluation of their own projects, using grant funds. Grantees were required to procure a third-party (i.e., independent) evaluator to design and conduct a study. The types of data to be collected and measures to be used were left up to the evaluators and grantees, and there were no requirements for the evaluations to use common data elements and measures.⁵ However, some projects chose to test versions of some established models or practices, such as the career pathways or sector strategies, though each of these were very different from one another. However, to promote high-quality evaluations, technical assistance was provided to evaluators and grantees by the WIF-funded National Evaluation Coordinator (NEC).⁶ The evaluation requirements under WIF provided an opportunity to build the evaluation capacity among the grantees and to generate information on the innovations to share with the broader workforce development community.

This report identifies the interventions implemented by the 43 WIF grantees, summarizes findings from the evaluation reports produced between 2015 and 2019, and provides observations regarding the evaluations themselves. Finally, it highlights lessons learned from the experiences with evaluations under WIF and discusses how these lessons might be applied in future initiatives involving grantee-led evaluations.

The remainder of this chapter provides an overview of the WIF initiative, including a description of its funding and tiered evidence structure, and an overview of the 43 WIF interventions, the corresponding third-party

Purpose of WIF

By focusing on change at both the service delivery and the systems levels, and by requiring rigorous evaluation of each investment, ETA seeks to ensure that these investments form the basis for broader change and continuous improvement in the operation of the public workforce system.

-WIF Solicitation for Grant Applications (DOL, 2011)

evaluations, and the evaluation supports made available to grantees and evaluators. Next, the chapter discusses the research questions addressed in this report. It concludes by outlining the organization of the remaining chapters.

1.1 **Workforce Innovation Fund Project Types**

WIF grants were awarded in three rounds (26 grants in Round 1 awarded in 2012, 11 grants in Round 2 awarded in 2014, and six grants in Round 3 awarded in 2015), and had varied periods of performance from three to five years, with the final group of grants ending on September 30, 2019. Grants recipients included State Workforce Agencies, local workforce boards, and tribal entities, who either directly administered their interventions or worked through contracts or agreements with other organizations, such as social service agencies and community-based organizations. WIF grantees were also required to develop partnerships with other entities in delivering services, and these

⁵ The grantees were eventually required to collect and provide data on enrollments and outcomes, for their required quarterly reports to ETA, using the same measures as in the Workforce Investment Act (WIA), if applicable to their projects. WIA was the law authorizing the workforce system when the WIF initiative began.

⁶ Abt Associates served as the National Evaluation Coordinator under contract with ETA.

partners comprised a diverse group including community colleges, other training providers, local economic development agencies, employers, and other non-profit organizations.

The WIF initiative used a "tiered evidence" model in which there were three levels or "tiers," based on past research about the intervention and the proposed evaluation design. WIF grant applications for Rounds 1 and 2 had to identify their projects as being in one of the categories, while Round 3 projects were restricted to just one tier (Type A). Three types of projects were as follows:

- **Type A** projects were new or emerging practices that had been tried in limited circumstances, if at all, but that were supported by a strong logic model. These practices had no or limited existing evidence of their effectiveness; consequently, given the tiered evidence approach, they required the least rigorous type of evaluation—a pre-post outcome study.
- **Type B** projects were promising approaches that had been implemented and evaluated previously and had some evidence of their effectiveness. Evaluations of Type B projects had to be more rigorous than the existing evidence base, requiring at a minimum quasiexperimental design (QED).
- **Type C** projects were strategies supported by strong evidence that grantees adapted in a new setting or took to a larger scale. Evaluations of Type C projects had to use the most rigorous evaluation methodology, an RCT

Exhibit 1-1 below summarizes the WIF project types (i.e., evidence tier), including their characteristics and evaluation requirements.

Exhibit 1-1. Characteristics and Evaluation Requirements of WIF Project Types

Project Type	Characteristics	Minimum Required Evaluation
A	 The program offered a new and potentially more effective strategy for addressing widely shared challenges. The program had not been systematically studied before, but the proposed intervention was supported by a strong logic model. The proposed intervention was a departure from existing workforce strategies 	Outcome study
	(i.e., it was innovative).	
В	 The program had been implemented and evaluated before, and the evaluation results indicated some potential for positive impacts on participant or system- wide outcomes. 	Quasi-experimental design
	OR	
	 The program had been implemented but not by the grantee's organization, and the program was supported by strong evidence of positive change. The program had been evaluated before using a relevant outcomes, QED, or RCT design, and evaluation findings indicated some statistically significant positive change. Funding for this project would expand knowledge about the project's efficacy and provide more information about the feasibility of implementing proven 	
0	projects in different contexts.	D ' (
С	 The grantee's organization had implemented the program before. The program had been evaluated before using a random assignment design, and evaluation findings indicated some potential for positive impacts on participant or system-wide outcomes. 	Randomized controlled trial
	 Funding for this project would support a significant expansion of structural and/or service delivery reform ideas. 	

Source: SGA. United States Department of Labor, Employment and Training Administration. (2011). Notice of availability of funds and solicitation for grant applications for Workforce Innovation Fund grants (SGA/DFA PY-11-05).

Funding levels for the three types of projects varied, with projects that had more rigorous designs generally being eligible for larger grants (details on the grants can be found in Appendix B). The period of performance also varied, with grants using less rigorous designs (Type A) initially having shorter time periods (36 months) though many were extended through grant modifications. Grants for projects with more rigorous designs (Type B and Type C) usually started with longer periods of performance (between 48 and 60 months).

Context and Overview of WIF Interventions

The 43 WIF projects were diverse in intervention focus, target population served, and project type. WIF grantees implemented interventions addressing a wide range of workforce innovations including career pathways, industry and service partnerships, information management systems development, and technology-based innovations. WIF grantees tried new ideas and approaches, forged innovative collaborations, and addressed a range of workforce needs.

WIF grantees developed their interventions during a critical time for workforce programs. Grantees conceptualized the first round of projects while the nation's economy was struggling to move forward from the 2008 recession. As those first projects were implemented, parts of the economy were showing some degree of recovery, and the unemployment rate was decreasing. Also during the WIF initiative, the Workforce Innovation and Opportunity Act (WIOA) was enacted in July 2014. State workforce agencies, state and local workforce investment boards (WIBs) (later called workforce development boards under WIOA) and other workforce system partners began following DOL-issued guidance implementing requirements of the new law, with new regulations provided in 2016. The timing of implementation of the new law coincided with activities related to all three rounds of WIF grants, including with the initial awards and early implementation of the Rounds 2 and 3 WIF grants, and with later implementation phases of most Round 1 grants. For some states, lessons learned from a number of Round 1 of WIF were relevant to the organizational structures required by the new law, and some tested some of the soon-to-be implemented requirements of the new law.

This report organizes the grantees' interventions into eight categories, which are briefly described below. These intervention categories are described in more detail in Chapter 2, which provides an overview of the evidence base for each, and describes the WIF interventions in each category. The categories are broad, and some of the innovative interventions do not fit neatly into the definitions. Because their grant activities and services covered a variety of areas, some could be categorized in more the one grouping. However, this report categorizes grantee by the primary focus of their intervention. It should be noted that while many interventions targeted specific services to individuals needing employment or skill building, other projects were designed to improve or realign various aspects of workforce systems.

The NEC developed these intervention categories for the purpose of classification and comparison. Other entities, including the WIF grantees themselves, might have used different categories to describe the projects.

The types of interventions are as follows:

- Career Pathways. The six projects in this category provided both education and occupational training related to occupations in growing industries (such as health care) where there were opportunities to advance to successively higher-skilled occupations. The projects generally were targeted to low-skilled youth and adults.
- Work-Based Learning. Approaches used in the six projects in this category involved occupational training that involved hands-on, experiential learning in the workplace, including on-the-job training and registered apprenticeship, often combined with subsidies to employers.
- **Entrepreneurship Training.** The two projects in this category focused specifically on providing training to prepare participants for self-employment or small business ownership.
- Case Management, Counseling, or Coaching. The nine projects with interventions in this category used a special case management approach, often a single point of contact with a program staff person to provide supports such as counseling and coaching to simplify or streamline services for participants as well as to provide access to related services.
- **Cross-System Coordination.** The six projects in this category had interventions that focused on systems change, involving coordinating workforce services with other workforce and non-workforce service agencies. Approaches included, for example, improving coordination and cooperation among existing partners or improving efficiency by bundling/co-locating a range of existing services in a single place.
- Management Information Systems (MIS) Changes. The three projects with interventions in this category focused on designing and/or implementing advanced or enhanced MIS for administrative or program efficiencies that were geared towards improving service delivery.
- **Technological Innovation (New/Online/Remote Services).** Six projects had interventions in this category that included innovative approaches to technology use, technology training, and using telecommunication innovations, such as online service modules, as their service delivery strategy.
- **Employer Engagement/Sector Strategies.** The five projects with interventions in this category forged partnerships with employers, for example, between a workforce investment board or other workforce development organization and local industry associations or employers. The aim of the partnership often was to increase efficiency or relevance of workforce service delivery with the ultimate goal of improved employment outcomes for workforce program participants.

This report broadly defines "systems change" strategies as those designed to innovate daily management and operations, policies, processes, relationships, or values, often to make them more responsive to customer needs.

1.1.2 WIF Evaluation Design Types

The use of rigorous program evaluation to assess the effectiveness of Federal workforce development programs has been growing since the 1970s (Haskins & Margolis, 2014). For decades, program evaluators have used a range of research methods (both descriptive and more rigorous outcome and impact methods) to identify effective employment strategies for jobseekers, employers, and other workforce stakeholders. One of several new Federal initiatives, WIF was designed to encourage development and use of evidence of program effectiveness, particularly for innovative workforce development strategies. WIF attempted to accomplish this by requiring that proposed interventions be supported by descriptions of past evaluation evidence in grant applications, and that grantees had to fund evaluations of their projects, as a condition of the grant award. WIF also reflected the growing desire of the Federal government for accountability beyond performance monitoring by advocating for and in this case requiring, evaluation research and evidence of effects.

As noted above, the WIF initiative's tiered-evidence model identified three different types of projects, based on the level of past research evidence, and required certain types of evaluations to be conducted under the grants. More than half (25) of the 43 projects were based on "new and untested ideas" that either had not been implemented before or had been tried only in limited circumstances (Type A projects). Eleven of the grants included elements that had been previously implemented and tested, with limited evidence of success, but had not been rigorously evaluated (Type B projects). The remaining seven further developed or scaled up interventions already supported by strong evidence (Type C projects).

The WIF evaluators used the evaluation designs that met or exceeded minimal requirements for that project type, i.e., pre-post outcome study, QED, or RCT. As described further below, Round 2 and 3 grantees were also required to conduct an implementation and cost study. Exhibit 1-2 shows the evaluation designs used across the three project types by the 43 grantees. Each evaluation design type is described below.¹⁰

Exhibit 1-2. Distribution of WIF Evaluation Design Types by Project Type

	Evaluation Components and Designs ^a				
Project Type (Number of Grantees)	Implementation Study	Outcome Study	Quasi- Experimental Design	Randomized Controlled Trial	Cost Study
Type A (25)	24	20	5	1	18
Type B (11)	11	0	7	5	5
Type C (7)	7	0	0	7	3
Total (43)	42	20	12	13	26

a Categories are not mutually exclusive. Many of the WIF evaluations included multiple components (e.g., an outcome study and implementation study; an outcome study, QED, and implementation study)

Pre-Post Outcome Study

Twenty grantees used a pre-post outcome study design, the least rigorous of the evaluation methods and the minimum required for Type A projects (i.e., new and untested ideas). In pre-post outcome

A few WIF projects in Round 1 did not ultimately follow the proposed evaluation design type. A Round 3 project did not complete the implementation evaluation.

See glossary of evaluation terms.

studies, data are collected at two points in time: (1) at "baseline," before the intervention is implemented or before a participant begins the program, and (2) at "follow-up," after the intervention is implemented or after a participant has left the program. Essentially, with this design, the evaluator is taking a snapshot of selected aspects of well-being (outcomes) of participants or systems before the intervention ("pre") and after the intervention ("post") and then comparing them.

Comparing the baseline and follow-up outcomes data in this way allows the evaluator to measure changes over time observed in participants (for service-based interventions) or in systems (for systembased interventions). A limitation of outcome studies, however, is that they cannot conclusively demonstrate that the intervention alone caused a change in outcomes because factors other than the intervention (e.g., an economic downturn) might have contributed to the change. Outcome studies can be a good first step, however, in developing a descriptive evidence base for a new intervention and can help set the stage for later, more rigorous studies. Importantly, compared to randomized controlled trials (discussed below), outcome studies are less costly and time-consuming to conduct, which is appropriate for new or untested interventions.

Quasi-Experimental Design

Twelve of the WIF evaluations used a QED to estimate program impacts. Most were Type B projects, where a QED was the minimum required level of rigor, but five Type A projects also used this design type. A OED lets evaluators compare average outcomes of the treatment group to average outcomes for a comparison group, which is statistically similar to the treatment group on key observable characteristics, but does not receive the intervention. The comparison of outcomes is used to estimate the impact of the intervention on participants or systems. (An impact is an estimate of the direction – positive or negative – and magnitude of the differences in the outcomes.) Evaluations using a QED can (usually) attribute causality for impacts to the intervention, as long as the treatment and comparison group means are similar on observed characteristics, and other factors are accounted for. Further, evaluators use a variety of statistical methods to ensure that the comparison group is similar to the treatment group in important respects.

Randomized Controlled Trial

All seven Type C projects used the most rigorous design, the RCT, as did one of the Type A and five of the Type B projects, for a total of thirteen projects. The key to the rigor of an RCT is random assignment where eligible program applicants are randomly assigned, as if by lottery, either to a treatment group, which receives the intervention, or to a "control group," which does not. Random assignment increases the likelihood that the two groups are identical, on average, in both observable and unobservable characteristics. Therefore, any differences in outcomes between these groups (e.g., different rates of employment) are assumed to be directly attributed to the intervention. Because of this, RCTs are considered the "gold standard" in evaluation.

Implementation and Cost Studies

In addition to their required outcome or impact evaluation, regardless of type, the Round 2 and 3 projects were required and Round 1 had the option to include an *implementation study* (e.g., to document how the program was implemented, level of service participation, and successes and challenges of program implementation) and/or some type of cost study. Cost studies ranged from a basic examination of program costs to cost-effectiveness analyses that compared costs to program effects.

Other Evaluation Design Factors

Though project type (A, B, or C) dictated the evaluation's design type, the characteristics of the interventions also shaped the evaluation design. For example, because of the program structure, career pathways could be evaluated with multiple types of evaluation designs, such as QEDs and random assignment. Other interventions, such as those focused on systems change, were almost exclusively evaluated in outcome studies, as they generally had not been previously studied, and it was difficult to create comparison and control groups. In a few cases, the WIF grantee and evaluator changed the study design during the grant to a lower level of rigor. Such changes occurred among a handful of Round 1 Type A projects that had proposed QEDs or RCTs but struggled to create a meaningful, or any comparison, group.

Overview of WIF Grantee Interventions and Evaluation Designs

For each of the WIF grantees, Appendix B to this report lists the WIF project name, the project type, the intervention category/categories used in this report, the type/s of evaluations conducted, and a brief description of the intervention.

For each WIF project, the evaluator, in coordination with the WIF grantee, designed the evaluation to answer certain specific research questions that related to the interventions, which in turn shaped what outcomes were measured. These outcomes varied across the projects. Exhibit 1- summarizes the outcomes of interest across the WIF evaluations and lists the frequency of each.

Exhibit 1-3. Outcomes Measured and the Frequency in WIF Evaluations

Outcome	Number of WIF Evaluations Measuring the Outcome (%)
Earnings	27 (63%)
Employment ^a	40 (93%)
Participation in or Completion of Services ^b	32 (74%)
Credential Attainment	13 (30%)
Financial Stability °	12 (28%)
Self-Efficacy	4 (9%)
Reduction in Recidivism	3 (7%)
Employer Satisfaction	20 (47%)
Partner Collaboration	28 (65%)

^a Includes employment status, retention, advancement.

N=43 grants, each with multiple outcomes measured.

Almost all evaluations included either (or both) employment and earnings as primary outcomes of interest. However, each WIF grantee evaluation defined these outcomes differently reflecting the priorities of that grantee. For example, many WIF evaluations measured whether or not study participants were employed

b Includes participation, engagement, and completion in program services and other education and training activities.

^c Includes use of public benefits.

within a certain time period after their enrollment in the program. However, some evaluations also specifically captured whether participants became employed in the industry in which they were trained. A few evaluations also measured employment retention. Similarly, "earnings" were defined differently across the WIF evaluations—as annual wages, annual wages plus the value of any supplemental benefits received, hourly wages, and hourly wages above a certain threshold, including wages determined to be "self-sustaining" or "family-sustaining."

Other common outcomes that were measured included: career advancement, reduction in public benefit receipt, service receipt, partner collaboration, employer satisfaction, training and credential receipt, and efficiency. Not surprisingly, interventions in certain categories shared common outcomes of interest. For example, job advancement was a commonly measured outcome among evaluations studying industry partnerships, career pathways, or other sector-based strategies. Reducing receipt of public benefits and service receipt were common outcomes among projects implemented by community-based organizations or local and state governments. Training and credential receipt were common outcomes among career pathways, sector-based training, and education-focused projects, including those focused on youth.

1.1.4 Resources for WIF Grantees and Third-Party Evaluators

ETA played a large role in administering the WIF initiative. It conducted the competitive procurement process by which grantees were selected and provided guidance as needed on critical issues. All WIF grants were subject to ETA's normal grant monitoring requirements and tracked their own performance or that of their subcontractors on a routine basis and reported on that in quarterly reports submitted to and reviewed by Federal Project Officers (FPOs). However, monitoring and oversight by FPOs typically focused on grantees meeting the numerous service, financial, performance, and reporting commitments under the grant agreement. Grantees were required in their quarterly reports to identify any changes in their service design and also to flag anything that might require a modification of their grant agreement. FPOs also conducted periodic site visit reviews.

Because grantees were implementing innovative projects, and many were undertaking projects with evaluation research for the first time, ETA contracted to provide technical assistance for project implementation and evaluation through two external providers. One provider (Maher and Maher and Jobs for the Future) supported the implementation of the WIF interventions and as noted above, Abt Associates, as the National Evaluation Coordinator (NEC) supported the WIF evaluations. Technical assistance on evaluations was provided through a variety of means, including webinars, phone calls and written guidance, a technical handbook, and a dedicated webpage on WIF evaluations. Information on technical assistance can be found in Appendix C.

1.2 Research Questions and Methodology of This Report

The purpose of this report is to synthesize the findings from the individual WIF evaluations, present lessons learned related to the WIF third-party evaluation model, and provide conclusions and recommendations for future grantee-led evaluation efforts. Specifically, this report will address the following research questions:

- What types of interventions were tried in WIF projects?
- Which WIF projects (as per their evaluations) had the most promising results? Which ones seem worthy of further replication or testing at a more rigorous level of evaluation?

- What were the key challenges in implementing the interventions?
- What were common challenges in conducting the evaluations?
- What lessons does the WIF experience suggest for similar tiered-evidence, grantee-funded evaluations in the future?

The 43 individual WIF Final Evaluation Reports serve as the primary data source for this report. To develop this synthesis report, members of the WIF NEC team reviewed the final evaluation reports for all grants, using a common template, the WIF Final Evaluation Report Review Form (see Appendix C.3 for a summary of reviewed elements). The review form allowed the NEC to assess and critique the final report across five dimensions: (1) report organization, clarity, and readability; (2) intervention overview and context; (3) outcome study or QED/RCT impact study, including description of the study, data collection and analysis methods, discussion and handling of validity and threats, and presentation of evaluation findings; (4) implementation study description, data collection and analysis methods, and presentation of evaluation findings; and, when applicable, (5) cost study description, methods, and findings.

Based on these final report reviews, the NEC compared the evaluations across several dimensions, including intervention category, key evaluation findings, and areas of concern with the evaluation methodology or execution.

In addition to the WIF final evaluation reports, another source of data used in this report was the information recorded in the NEC's communication logs maintained throughout the period of technical assistance. Finally, this report also draws from feedback provided through information discussions with a small set of third-party evaluators at the conclusion of their evaluations.

1.3 **Organization of This Report**

The organization of the remainder of this report is as follows:

- Chapter 2 presents an overview of the evidence base that supports the various WIF interventions. The chapter presents the literature in the eight intervention categories from Section 1.1.1, and then describes the WIF interventions within each category.
- Chapter 3 summarizes common perceived lessons from the WIF evaluation reports regarding project implementation, including some of the facilitators and challenges or barriers to implementation.
- Chapter 4 presents a cross-study comparison of the WIF outcome and impact evaluation findings.
- Chapter 5 discusses lessons learned from the WIF evaluation model and then presents recommendations for future grantee-led evaluation efforts.
- **Chapter 6** concludes the report.

The accompanying report appendices volume contains a number of relevant resources.

Appendix A provides brief one-page summaries of the WIF interventions across all three rounds of funding.

- **Appendix B** includes a spreadsheet that lists information about all 43 WIF grants and evaluations. A sortable Excel spreadsheet containing this information is also part of this report.
- **Appendix C** provides additional background and context for the NEC role, including: a detailed description of the role of technical assistance in the initiative, information from the Solicitations for Grant Applications (SGAs) and the Funding Opportunity Announcement, a summary of the review forms used in the NEC review of the Evaluation Design Reports, and Final Evaluation Reports.
- **Appendix D** provides additional information on evaluation designs and an assessment of all WIF evaluations in terms of the findings and how they met key factors relating to data quality and analytical methods.

2. Overview of WIF Projects

In addition to the promotion and support of innovation, another of the goals of the WIF initiative was to build upon and expand the evidence base related to the public workforce system, from which program administrators and practitioners could eventually benefit. That goal was manifest in WIF's tiered-evidence approach, in which each project's pre-existing evidence base was linked to an evaluation type (outcomes/impact), based on the expected contribution to the larger evidence base for the field. Given this structure, in order to understand the contribution of the WIF project, it is helpful to understand the existing evidence base related to the workforce development areas addressed by the WIF projects.

In this chapter, we describe the foundation from which the WIF grantees developed their interventions and accompanying evaluations, as well as the target groups for the interventions. We organize the evidence base by the intervention categories defined in Chapter 1:

- Career Pathways
- Work-Based Learning
- Entrepreneurship Training
- Case Management/Counseling/Coaching
- Cross-System Coordination
- MIS Changes
- Technological Innovation (New/Online/Remote Services)
- Employer Engagement/Sector Strategies

This chapter first summarizes the target groups for the WIF interventions. Like the intervention approaches themselves, the target groups for WIF interventions are varied, but it is useful to understand the groups WIF grantees aimed to affect with their innovative projects. Then for each intervention category, the chapter briefly summarizes the literature at the time of the grant awards to describe the current state of the field during program development. This review of evidence is intended to provide context; it is not a comprehensive assessment of the evidence in each area. The chapter also describes the WIF interventions within each category.

2.1 Target Groups for WIF Interventions

Given the innovative nature of projects encouraged under WIF, projects were unique in the population they targeted. Exhibit 2-1 below shows the distribution of general primary target groups across the 43 interventions. Approximately 15 interventions targeted an additional group (or more than one). As shown, while more than half (53 percent) of the WIF interventions targeted disadvantaged or low-income adults, others implemented projects that targeted other special disadvantaged groups, such as people living with disabilities (2 percent) and dislocated workers (2 percent). Several WIF projects focused on youth or employers (12 percent each). In addition, a small number grantees (5 percent) focused the intervention on a system or a set of providers, rather than individual participants. Another set of interventions were aimed at all job seekers (14 percent).

Exhibit 2-1. Target Populations of WIF Interventions

Target Population	Number of WIF Evaluations (%)
Disadvantaged/low-income adults	23 (53%)
All job seekers	6 (14%)
Youth	5 (12%)
Employers	5 (12%)
System changes	2 (5%)
Dislocated workers	1 (2%)
People living with disabilities	1 (2%)

Source: Analysis by WIF NEC. Note: The exhibit shows a primary target group; at least 15 interventions targeted one or more additional groups.

Similar to the categories of interventions, the target groups listed here are broad. However, even when target groups were similar, each grant had its own unique focus, as can be seen in the service population for the five interventions that targeted youth, as shown Exhibit 2-2 below.

Exhibit 2-2. WIF Interventions Targeting Youth

Project Name	Grantee Name	WIF Round	Youth Target Group Description
Linking Innovation, Knowledge, and Employment (@LIKE)	Riverside County Economic Develop- ment Agency (CA)	1	Disconnected youth aged 18 – 22
Los Angeles Reconnections Career Academy (LARCA)	City of Los Angeles (CA)	1	Chronically absent and dropout youth aged 16 – 24
Los Angeles Regional Initiative for Social Enterprise (LA:RISE)	City of Los Angeles (CA)	2	Opportunity youth; individuals with a criminal record or unstable housing
Youth Ambassadors for Peace	Monterey County WIB (CA)	2	Disconnected youth aged 16 – 24; youth formerly involved in or at-risk of becoming involved in gang activity or the criminal justice system; youth who are academically truant
A Wage Pathway Model to Place Low-Income, Low-Skill Youth and Young Adults in Occupations Leading to In- Demand Jobs	Ohio Department of Job and Family Services (OH)	3	Youth aged 18 – 24

Source: Abt Associates review of WIF evaluation reports.

2.2 **Career Pathways Interventions**

Several of the WIF interventions were designed to include elements common to career pathways programs, which typically are targeted to low-skilled and low-income adults. Career pathways approaches to workforce development offer articulated education and training steps between occupations in an industry sector, combined with support services, to enable individuals to enter and exit at various levels and to advance over time to higher skills, recognized credentials, and better jobs with higher pay (Schwartz, Strawn, and Sarna, 2018). Key characteristics of career pathways programs include (1) comprehensive and well-defined approaches to assessment of skills and needs; (2) innovative approaches to instruction and occupational training, including integration of these activities; (3) academic and non-academic supports to promote success; and (4) approaches for connecting students with career-track employment opportunities (Fein, 2012).

Career pathways programs are generally designed to allow individuals to exit and reenter the pathway as needed. For example, a jobseeker might engage with the initial entry-level training (e.g., Certified Nursing Assistant) and then work for a period to build her experience and financial resources before moving on to the next step(s) of the career pathway (e.g., associate-degree-level Registered Nurse). Career pathways models were first developed as a way to clearly articulate opportunities for advancement within a given occupation.

To date, research on career pathways programs generally have found positive effects, although not consistently. A recent synthesis of 96 career pathways evaluations found that most produced positive impacts on education outcomes (83 percent) and to a lesser extent increased employment (62 percent), and earnings (63 percent) (Sarna and Adam, 2020). Studies indicate that long-term followup maybe needed to measure the effects of career pathways programs. In education-focused programs such as career pathways, earnings outcomes can take substantial time to materialize as many participants either are continuing in training or have only recently completed training at the time of a study's follow up. Long-term impact findings will also shed light on whether participants move up to higher levels of education and jobs over time. For example, a rigorous evaluation of a career pathway program called Project QUEST program found that earnings impacts did not emerge until the fourth year and continued for nine years (Roder and Elliot 2019).

There are several rigorous, ongoing studies of career pathways programs, including the Pathways for Advancing Careers and Education (PACE) and the Health Profession Opportunity Grants (HPOG) impact studies sponsored by the Administration for Children and Families within the U.S. Department of Health and Human Services, that will provide more information on longer-term results. Early results from the PACE evaluation, which included nine separate studies of career pathways programs, showed positive educational outcomes, including significant increases in receipt of training and credentials for program participants, with longer-term research underway (Gardiner and Juras, 2019). Three-year results from the HPOG program, a healthcare training program, also show positive educational outcomes, but no impacts on earnings were detected (Peck et al., 2019). Longer-term results for HPOG will also be examined.

The interventions in six of the 43 WIF grantees were described as career pathways approaches. Four projects combined basic and occupational skills training for in-demand occupations for low-skilled

workers, but were implemented in different contexts and for different target populations. Two projects also offered case management and other supports.

- The Baltimore (MD) County Department of Employment and Workforce Development led the Accelerating Connections to Employment (ACEs) project in nine sites across four locations and focused on disadvantaged workers in need of basic skills in areas such as health care, transportation and logistics, and industries specific to the local area.
- The Los Angeles Reconnections Career Academy (LARCA) offered a similar approach of training activities and a case management support structure, but targeted youth aged 16 to 24 who were chronically absent or had dropped out from school.
- The New Orleans Career Pathways project was designed to help lower-skilled individuals train for and find jobs in advanced manufacturing, energy, health care, and information technology fields. The program's main components are: 1) rigorous screening system; 2) career pathways training that incorporates stackable credentials; and 3) coordination for connecting trainees to employers.
- The Micro-credentials: Opportunity through Stackable Achievements project in Pennsylvania offered participants training and credential attainment in a short time frame, providing a path to employment that was quicker than the traditional education and training models.

Two career pathways projects developed by tribal entities and with similar target population of tribal members had differing strategies.

- The Gila River Indian Community (GRIC) Career Pathways project connected occupational skills and basic skills education in high-growth industries—hospitality, construction, health care, small business development, and government (in the fire department). The program also offered educational "coaching" designed to help participants meet the basic educational thresholds required for training and "wraparound" support services to increase program retention.
- The second tribally-focused project, the *Southcentral Region Free Flowing Workforce*, was an effort to address the structural unemployment facing Native Americans. Through the partnership, the aim of the project was to enable job seekers access to employment opportunities in various job markets across WIOA Section 166 service providers and geographic areas in several states (South-Central Region Louisiana, Mississippi, Arkansas, and Texas). Using a career pathways model, the project was designed to provide wrap around, education based, industry focused job training services with multiple entry/exit points that align with regional employer needs. Enhanced support services were intended to provide participants with information about relocation to different regions with viable employment opportunities and to support participants in the transition to new areas so that they can pursue training and placement into employment in those areas.

Exhibit 2-3. Career Pathways Interventions

Project, Grantee, State, Round	Target Population	Brief Project Description
Accelerating Connections to Employment (ACE) Baltimore County Department of Employment and Workforce Development (MD) Round 1	Disadvantaged, low-skilled workers in need of basic skills	Combined basic skills and occupational skills training in locally in-demand occupations in health care, transportation and logistics, and industries specific to the local area. Intensive support mechanisms helped participants manage the training process, access related available support, and in their transition from training to employment.
Gila River Indian Community Career Pathways (GRIC-CP) Gila River Indian Community (GRIC) AZ Round 1	Tribal community members being served by WIA	Provided training for GRIC members in five high-growth industries—hospitality, construction, fire department, small business development, and healthcare—linking occupational skill and basic skills education, including an educational "coaching" program designed to help participants meet the basic educational thresholds required for the given sector training program and eventual employment after training completion.
Los Angeles Reconnections Career Academy (LARCA) City of Los Angeles (CA) Round 1	Chronically absent and dropout youth ages 16 to 24	Provided youth with training in areas such as construction, green technology, and health care offered youth the opportunity to earn college credit or industry-recognized credentials. Education services (e.g., tutoring, assistance enrolling in programs leading to a secondary education credential), employment services (e.g., paid work experience, employment search and placement services), and services designed to support education, training, and employment (e.g., case management, assessments, financial literacy training, work readiness training) rounded out the program.
Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) Round 3	Students with barriers to education and employment	Provided opportunities for students with barriers to education and employment to earn credentials within a short timeframe. Partnerships between community colleges and workforce development boards worked closely with local employers to develop micro-credentials programs, using a career pathways model, at each local community college. All micro-credential programs embedded instruction on technical and soft skills into the curriculum and provided students with support services.
Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) Round 3	Tribal members from the areas served who are unemployed /underemployed, low-income, youth, or living with disabilities	Designed to provide wrap around, education based, industry focused job training services with multiple entry/exit points that align with regional employer needs. Enhanced support services were intended to provide participants with information about relocation to different regions with viable employment opportunities and to support participants in the transition to new areas so that they can pursue training and placement into employment in those areas.
(Summer) Career Pathways City of New Orleans (LA) Round 2	Unemployed individuals, underemployed workers, discouraged workers	Training for lower-skilled individuals to find jobs in advanced manufacturing, energy, health care, and information technology fields. The program's main components were: 1) rigorous screening system; 2) career pathways training that incorporated stackable credentials; and 3) coordination for connecting trainees to employers.

Source: Abt Associates review of WIF evaluation reports.

2.3 **Work-Based Learning**

Work-based learning involves skill development at the work site in basic workplace requirements and occupational skills. It covers a wide range of strategies, including various forms of subsidized employment, as well as transitional employment or on-the-job training. In subsidized employment programs, a workforce development agency or other publicly funded program provides a subsidy to an employer to cover a portion of the worker's wages during the training period, generally with the goal of permanent unsubsidized employment following the training. These programs generally aim to provide workers with the opportunity to develop skills necessary to enter and advance within a particular industry. Some work-based programs might also offer support services, including training on "soft skills" (e.g., communication skills, time management, conflict resolution) and appropriate workplace behaviors, and job placement assistance. The aim is to improve workers' employment and earnings outcomes and facilitate their long-term participation in the labor force.

Research on subsidized employment programs has found substantial improvement in employment and earnings during the period of subsidized employment. However, evidence on the extent to which subsidized employment programs lead to long-term labor market improvements is mixed. A few studies show lasting economic improvements; others find initial employment and earnings impacts disappear after the end of the subsidized employment period (Bloom, 2016). Studies also indicate that subsidized employment programs have positive effects on other outcomes, such as family public benefit receipt, children's school outcomes, workers' school completion, psychological well-being, criminal justice system involvement, and longer-term poverty. Further, cost studies have consistently found that subsidized employment programs are generally cost-effective (Dutta-Gupta, Grant, Eckel, and Edelman, 2016).

Subsidized employment models with certain characteristics have been found to produce more positive outcomes. Notably, current evidence suggests that improvements in labor market outcomes are most likely in subsidized employment programs with longer-lasting interventions, complementary supports, strong employer engagement, wraparound services, and longer-term post-placement retention services (Dutta-Gupta et al., 2016).

Apprenticeship is an "earn-and-learn" training model where apprentices complete a structured workbased training program that combines technical instruction in a classroom with on-the-job learning and mentoring experiences at the worksite. Apprentices are employed during their training and earn progressively higher wages as they gain skills. Apprenticeships provide training in a specific occupation and deliver occupational skills that are recognized and designed to be transferable across employers. Research on the impacts of existing U.S. apprenticeship programs suggests that these programs are a promising approach for improving workers' economic outcomes. Some nonexperimental evaluations have found evidence suggesting that apprentices could experience significant earnings gains as a result of their participation in the apprenticeship program (DOL et al., 2014; Hollenbeck, 2008; Reed et al., 2012), and more rigorous studies are underway.

Six of the WIF grantees included work-based learning. All six of the grantees proposed strategies to develop and place jobseekers into unpaid internships, apprenticeships, or other subsidized employment, WIF work-based learning efforts were usually in high-growth or high-tech industries, such as information technology (IT); advanced manufacturing; or science, technology, engineering,

and math (STEM). Transitional or subsidized employment strategies were used for long-term unemployed or those job seekers with other barriers. **Exhibit 2-4** lists the WIF interventions for each of the projects in this category.

Three WIF interventions in this category focused on advanced manufacturing and STEM careers, and included employers as key partners in designing training curricula that would meet employers' needs.

- A goal of the Eastern Connecticut Manufacturing Pipeline Initiative (MPI) was to enhance collaboration and alignment of workforce programs to target employer needs through customized training, ensuring training and services were aligned with available jobs, and increasing the commitment from employers in hiring. In addition to General Dynamics/Electric Boat, partners included other manufacturing employers, community colleges, technical high schools, and workforce development organizations to carry out the MPI.
- The *Oh-Penn Pathways to Competitiveness (P2C)* intervention expanded the cross-state region's manufacturing pipeline, developed manufacturing career pathways, increased enrollment in manufacturing-related training and credential attainment, with the goals to improve employer satisfaction with job candidates and job seekers' employment outcomes.
- For the Steps Up to STEM project, a key component was the development of individualized career plans for middle-skill occupations, which served as three-way agreements among the workforce areas, the job seeker participant, and the employer. The majority of these career plans focused on two steps of participant training, which could include a mix of pre-hire classroom training, on-the-job training (OJT), and customized training.

Three WIF interventions focused on transitional jobs, subsidized employment, and on-the-job training (OJT) to build work readiness and provide various levels of experience in meeting basic workplace skills. These three projects included the following:

- Los Angeles Regional Initiative for Social Enterprise (LA:RISE) provided enhanced transitional employment services to out-of-school youth, individuals with a criminal record, and individuals with unstable housing. LA:RISE brought together a range of providers to deliver services, such as transitional employment, on-the-job training, work readiness, supportive services, and employment placement services.
- The Metro-Atlanta WIA Consortium Project to Aid the Long-Term Unemployed intended to place jobseekers who had been unemployed for at least a year into subsidized jobs for up to six months. Wage subsidies were provided as an incentive for employers to hire and train the participants.
- Made Right Here included an apprenticeship approach as one strategy. Made Right Here provided participants with the skills necessary to earn a living as modern "makers" (i.e., independent inventors, designers, and artisans who often work independently to invent and create) and developed an apprenticeship program that integrated classroom and on-the-job training, organized apprentices into teams that addressed problems across specialized areas, and culminated in a Maker Professional certificate.

Exhibit 2-4. Work-Based Learning Interventions

Project, Grantee, State, Round	Target Population	Brief Project Description	
Eastern Connecticut Manufacturing Pipeline Initiative Connecticut Department of Labor (CT) Round 3	Unemployed/underemployed individuals	Provided quick-turnaround training and a method for recruiting, assessing, screening, and preparing candidates for employment in the advanced manufacturing area, meeting the needs of employers for trained workers and the needs of job seekers for employment.	
Los Angeles Regional Initiative for Social Enterprise (LA:RISE) City of LA (CA) Round 2	Opportunity youth, individuals with a criminal record or unstable housing	Brought together and provided supports to a network of partners who delivered training and assessment services, support services, and employment placement services to individuals facing barriers to employment.	
Made Right Here Three Rivers Workforce Investment Board (PA) Round 1	Youth, dislocated manufacturing union members, and adults interested in manufacturing	Provided participants with the skills necessary to earn a living as modern "makers" (i.e., independent inventors, designers, and artisans who often work independently to invent and create) and developed an apprenticeship program that integrated classroom and on-the-job training, organized apprentices into teams that addressed problems across specialized areas, and culminated in a Maker Professional certificate.	
Metro-Atlanta WIA Consortium Project to Aid the Long-Term Unemployed DeKalb County (GA) Round 1	Long-term unemployed	Working with staffing agencies, such as Manpower, the project placed jobseekers who had been unemployed for at least a year into subsidized jobs for up to six months. The project subsidized workers' wages as an incentive for employers to hire and train them.	
Oh-Penn Pathways to Competitiveness West Central Job Partnership, Inc. (OH, PA) Round 1	Youth, veterans, dislocated workers, low-income adults	Expanded the cross-state region's manufacturing pipeline, developed manufacturing career pathways, and increased enrollment in manufacturing-related training and credential attainment, with the goals to improve employer satisfaction with job candidates, and to improve employment outcomes of job seekers.	
Steps Up to STEM Fulton, Montgomery, and Schoharie Counties Workforce Development Board, Inc. (NY) Round 1	Job seekers	Increased awareness of and access to STEM careers and training opportunities and developed the key component of the approach—individualized career plans, which are three-way agreements among workforce areas, jobseekers, and employers. The career plans focused on two steps of participant training, which could include a mix of pre-hire classroom training, on-the-job training, and customized training.	

Source: Abt Associates review of WIF evaluation reports.

2.4 **Entrepreneurship Training**

Two WIF grants focused on training jobseekers in how to develop their own businesses and become self-employed.

Rigorous studies in the past on the impacts of entrepreneurship training are few and the results have been mixed. A DOL study examined the Growing America through Entrepreneurship Initiative (Project GATE) that provided entrepreneurship and business development training to individuals interested in starting their own businesses. A rigorous evaluation found that Project GATE had increased the likelihood of owning a business in the initial months by 16 percent, but this impact faded over time with no significant effect on employment (either self-employment or salaried jobs). The evaluation also found a negative impact on earnings, as Project GATE participants earned less

from salaried employment compared to control group members (Benus, Shen, Zhang, Chan, and Hansen, 2009). Similarly, the Self-Employment Training (SET) pilot for dislocated workers, also sponsored by DOL, provided case management, customized training, and up to \$1,000 in seed capital funds for business start-up costs to those interested in starting their own business. This program led to modest increases in the rate of employment in any job (through self-employment or a wage job) but no discernable impact on earnings (Hock, Anderson, and Santilanno, 2018),

Exhibit 2-5 describes WIF interventions for each of the projects in this category. Both Startup Quest and VETEC (Round 1 grantees) were designed to develop and deliver entrepreneurship training and included a formal training component, as well as the opportunity to partner with a mentor. One additional WIF project (Made Right Here) focused in part on providing dislocated workers and other with the skills necessary to earn a living as a "modern maker"—an independent inventor, designer, or artisan who often works independently to invest and create. (Because that program mainly focused on apprenticeship, it is included in the work-based learning/apprenticeship category above instead.)

- Start Up Quest involved a 10-session entrepreneurial training program that provided participants with an introduction to the processes required to form a startup, and the opportunity to work with a team and entrepreneurial mentor to develop and present a commercialization strategy for an innovative technology.
- The Virginia Employment through Entrepreneurship Consortium (VETEC) offered participants a set of core trainings on essential entrepreneurship topics as well as supplemental services. Program Case Managers served as the point of contact to provide wrap-around services and engage the participant throughout the program. As part of the completion requirements, participants developed a preliminary business plan.

Exhibit 2-5. Entrepreneurship Training Interventions

Project Grantee, State, Round	Target Population	Brief Project Description	
Startup Quest	Unemployed/under-	Provided a 10-session entrepreneurial training that offered participants	
CareerSource North Central Florida (Alachua Bradford Regional Workforce Board) FL Round 1	employed workers with at least an associate's degree	(1) an introduction to the process required to form a startup, and (2) the opportunity to work with a team and entrepreneurial mentor to develop and present a commercialization strategy for an innovative technology. The program was targeted at unemployed/underemployed workers with an associate's degree or above to provide the knowledge, skills, and confidence to help participants start and operate their own business or find wage/salary employment.	
Virginia Employment through Entrepreneurship Consortium (VETEC) The SkillSource Group Inc. (VA) Round 1	Low-income WIA-eligible adults and dislocated workers	Provided comprehensive entrepreneurship and self-employment training, mentoring, and technical assistance to WIA/WIOA-eligible adults and dislocated workers interested in starting small businesses and attaining long-term financial self-sufficiency through self-employment in three Virginia local workforce investment areas.	

Source: Abt Associates review of WIF evaluation reports.

2.5 **Case Management, Counseling, or Coaching**

There were nine WIF projects that provided individualized case management services, offering assessment and service coordination as well as advising and coaching to support jobseekers in finding and retaining employment, sometimes provided in combination with other services. Program staff

serving in these roles had different titles (e.g., coach, navigator, counselor, case coordinator). Individualized case management and navigation have been provided in a wide range of settings and have been shown to improve academic performance, educational attainment, and health (Oettinger et al., 2015). For example, several rigorous studies have demonstrated that expanding the typical services with more intensive advising can lead to greater persistence in education, although sometimes only for the short term (Bettinger and Baker 2011; Scrivener and Weiss 2009).

While not extensively studied, evaluations of individualized services within the workforce system have found some positive results. In particular, a rigorous evaluation of Workforce Investment Act (WIA) services found that its individualized services helped job seekers earn 20 percent more in jobs that were more likely to offer paid sick leave and vacation days compared to those who received core (primarily information) services (Forston et al., 2017). Other studies in the workforce system of programs providing individualized navigation services, in combination with financial support for training through Individual Training Accounts, found positive effects on education outcomes, but with more limited effects on employment (Farrell and Martinson, 2017, Perez-Johnson et al., 2011)

Exhibit 2-6 presents brief descriptions of the nine WIF interventions for each of the projects in this category.

- Often using case management supports in conjunction with other workforce-related services, two of the WIF case management projects were designed to serve vulnerable populations, including individuals experiencing housing instability (Housing and Employment Navigator **Program** for those who were homeless and **Housing Works** for public housing residents).
- Another group of these interventions provided a specialized approach best offered in a case management structure, such as *Rethinking Job Search*, which offered workshops to teach the benefits of cognitive-behavioral techniques (CBT) to job seekers receiving Unemployment Insurance (UI). The aim of the workshops was to enhance job seeker motivation and selfefficacy related to job search activities. Bridge to Employment and Academic Marketplace (BEAM) offered supports and mechanisms through case management for economically disadvantaged adults who had left postsecondary education in order to assist in their return and completion.
- Breaking Barriers in San Diego targeted people living with disabilities and used an Individual Placement and Support (IPS) approach, emphasizing immediate entry into employment and providing a range of employment and support services to improve employment outcomes of participants.
- Career Jump Start focused its intervention on individuals with one or more barriers to employment using case management to identify and remove those barriers.

Several interventions used a case management approach focused on youth disconnected from school or employment.

Linking Innovation, Knowledge, and Employment (@LIKE) used a case management approach to provide a variety of services, such as life coaching, career exploration, education, and work readiness.

Exhibit 2-6. Case Management, Counseling, or Coaching Interventions

Project, Grantee, State, Round	Target Population	Brief Project Description
Breaking Barriers in San Diego San Diego Workforce Partnership Inc. Round 2	Low-income individuals with disabilities	Improved the employment outcomes of low-income individuals with disabilities in San Diego County, CA, through an Individual Placement and Support (IPS) approach. Provided program participants with career counseling, job search assistance, personalized benefits counseling, supportive services referrals, and follow-along service once participants found a job placement.
Bridge to Employment and Academic Marketplace (BEAM) Workforce Investment Board of Herkimer, Madison and Oneida Counties (NY) Round 2	Economically disadvantaged adults	Assisted economically disadvantaged adults in their return to and completion of postsecondary training or education through intensive case management provided by outreach coordinators.
Career Jump Start Program Northwest Pennsylvania Workforce Development Board (NWPA Connect) (PA) Round 2	Individuals with one or more employment barriers	Provided job seekers with one or more barriers to employment with intensive case management services to reduce barriers to employment and occupational skills training offered by the Pennsylvania State University Behrend at no cost.
Housing and Employment Navigator Program WorkForce Central (WA) Round 1	Homeless families, head expresses interest in job services	Provided intensive case management, including assistance accessing relevant workforce and other services, such as housing and social benefit programs, for homeless families in which the head of the household was interested in career development and employment.
Housing Works Worksystems, Inc. (OR) Round 1	Public housing residents	Provided streamlined workforce services for public housing residents, such as career mapping workshops, individual resource planning sessions, a life skills/basic skills course, job preparation as well as opportunities for internships and on-the-job training to better prepare residents for in-demand careers in construction, healthcare, manufacturing, and office work.
Linking Innovation, Knowledge, and Employment @LIKE Riverside County Economic Development Agency (CA) Round 1	Disconnected youth aged 18 -22	Designed collaboratively by three California WIBs, provided services through a case management approach in five general areas: life coaching, career exploration, education, employment, and work readiness preparation to low-income, disconnected youth aged 18 - 22.
Rethinking Job Search (formerly Job Growers, Incite) Willamette Workforce Partnership (OR) Round 2	Participants receiving UI benefits	Facilitators provided workshops to teach the benefits of cognitive-behavioral techniques (CBT) to job seekers receiving Unemployment Insurance (UI). The aim of the 12 two-hour workshops (average class size was 8 participants) was to enhance job seeker motivation and self-efficacy related to job search activities, which would ultimately improve employment outcomes.
A Wage Pathway Model to Place Low-Income, Low-Skill Youth and Young Adults in Occupations Leading to In- Demand Jobs Ohio Department of Job and Family Services (OH)	Youth aged 18 — 24	Offered incentives and additional support to youth aged 18- 24 to help them with a quicker route to employment and retention of and advancement in jobs.
Round 3		

Project, Grantee, State, Round	Target Population	Brief Project Description
Monterey County WIB (CA) Round 2	 24, youth formerly involved in or at-risk of becoming 	Provided a variety of services including case management, work readiness and life skills training, and other support services to youth aged 16-24 who were disconnected from education and employment in order to increase their employability.

Source: Abt Associates review of WIF evaluation reports.

- The Wage Pathway Model offered services beyond typical case management to include coaching and support in several areas as well as incentives to motivate participants towards jobs and to experience employment advances.
- Youth Ambassadors for Peace focused on youth, along with those youth who were formerly involved or at risk of becoming involved in gang activity, and provided them with case management services, work-based learning opportunities, and financial incentives in order to increase participants' employability.

2.6 **Cross-System Coordination**

This category applied to interventions in which workforce service agencies collaborated with one another or with non-workforce service agencies; example interventions sought to improve coordination and cooperation among existing partners or to bundle and co-locate existing services for efficiency. Projects in this category altered broader social service frameworks in order to reduce duplicative services in a geographic area; others focused on enacting broader policy or community changes. Partnerships with industry and service providers are common, but these systems change interventions go beyond common workforce partnerships to substantially change the way services were provided.

A number of past DOL-funded initiatives, as well as those state, local, and privately funded, have sought to improve workforce services through systems changes. 11 Most studies of these initiatives examined system-level outcomes, though some also analyzed individual-level outcomes. Initiatives in this category vary in their design and aim, but many have produced promising results. For example, an experimental evaluation of Jobs-Plus, a demonstration project combining employment services, new rent regulations, and neighbor-to-neighbor outreach, found that the program led to an increase in average annual earnings in three of six study sites (Riccio, 2010). A quasi-experimental study of the DOL/ETA-funded Youth Opportunity grants, which aimed to concentrate funding in high-poverty communities, found positive impacts on the labor force participation rate (though it reduced full-time employment among those who were employed) and positive impacts on several education

¹¹"Systems" generally refers to the institutional framework, activities, services, and training and employment opportunities within a community. Systems change initiatives are defined as those addressing at least some elements to reduce barriers and create opportunities for individuals to improve their economic outcomes and can include building cross-agency partnerships and clarifying roles, identifying funding needs and sources, aligning policies and programs, and measuring system change and performance.

outcomes. 12 The analysis of community-level outcomes found that the initiative appeared to be successful at concentrating resources in high-poverty areas and reaching a high proportion of youth in those areas (Jackson et al., 2007).

The Center for Working Families provided a coordinated set of employment services, public benefits supports, and financial services to better serve low-income families. An outcome study in three sites found that participants who received bundled services had a high probability of achieving a major economic outcome (e.g., staying employed, earning a vocational certificate or associate's degree, buying a car). This finding was particularly strong among those who received high-intensity bundled services (Annie E. Casey Foundation, 2010).

One common strategy for systems change is the co-location of workforce and other services, and evidence on its effectiveness is mixed. Co-location of services is often a component of a systems change strategy, but has not often been evaluated in isolation. One exception is the Work Advancement and Support Center demonstration, in which staff from workforce and welfare agencies in three sites were co-located in AJCs to offer work supports alongside retention and advancement services, such as career coaching and skill training. The random assignment study found increases in participants' receipt of work supports in three sites and increased education and training rates and earnings gains in two sites (Miller, Van Dok, Tessler, and Pennington, 2012). In contrast, the Employment Retention and Advancement demonstration found that co-located staff designed to coordinate services did not produce better outcomes than non-co-located staff, although this could not be directly attributed to the staffing arrangements. The sites that co-located services experienced increases in engagement in program services, but participants did not experience improved labor market outcomes (Hamilton & Scrivener, 2012; Hendra et al., 2010).

Exhibit 2-7 describes the WIF interventions for each of the projects in this category. Six interventions were designed to transform daily management and operations to make them more responsive to customer needs, often by co-locating service entities targeting similar populations of interest or by braiding different sources of funding to meet common strategy goals. Though each of the interventions in this category shared a common goal of increased coordination, the WIF approaches varied as demonstrated in the following:

- Chelsea CONNECT focused on the co-location of a range of employment and education services, while On-Ramps to Career Pathways and Kansas WIF included a systems change effort to reallocate resources and reconfigure policies to support new training and coaching efforts.
- Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative (SV ALLIES) and Project Growing Regional Opportunity for the Workforce (Project GROW) aimed to strengthen and streamline services by promoting coordination across employment and education stakeholders.
- Virginia Financial Success Network aimed to bundle services for WIOA participants to help them achieve financial and employment goals, but the project ultimately was not implemented fully, and take up of supportive services was lower than expected.

¹² The reliability of the findings is limited by the use of different data sources for the two groups.

Exhibit 2-7. Cross-System Coordination Interventions

Project, Grantee, State, Round	Target Population	Brief Project Description
Chelsea CONNECT Metro North Regional Employment Board (MA) Round 1	Low-skilled workers	Coordinated and co-located services in the areas of employment, financial education, financial services, skill development, and income and housing stabilization to improve employment, education, and financial outcomes of low-wage, low-skilled, and unemployed individuals.
Kansas WIF Kansas Department of Commerce (KS) Round 3	Workforce system providers, job seekers with barriers to employment	Strengthened service delivery and improved workforce system alignment in Kansas in order to improve workforce customer experience and outcomes. Key project activities included: developing and conducting cross-system training for workforce staff, assisting job seekers with on-the-job (OJT) placements and co-enrollment in partner services, and building an online portal (ReEmployKS) to support customer access to partners and their services.
On-Ramps to Career Pathways (ORCP) Rhode Island Department of Labor and Training (RI) Round 1	Low income and low-skilled workers	Included two components: (1) a systems change effort to reallocate resources and reconfigure policies to support the implementation of this new set of services; and (2) On-Ramps Pilot aimed to develop and implement work readiness training, work experience, and career coaching.
Project Growing Regional Opportunity for the Workforce (Project GROW) Border Workforce Alliance (TX) Round 1	Low-skilled adults aged 18 and older	Accelerated credentialing, employment, and career advancement for in-demand occupations among low-skilled adults through local coordination among WIB training contractors, community colleges, local employers, and non-profit career training providers along the Texas-Mexico border.
Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative (SV ALLIES) San Mateo County (CA) Round 1	English language learners	Assisted adult English learners to succeed in family-sustaining careers by (1) building a system to coordinate and align the activities of multiple stakeholders that provide education, training, and employment opportunities for English learners; and (2) pilot new program services that blended English instruction and workforce readiness skills.
Virginia Financial Success Network Virginia Community College System (VA) Round 2	Adult and dislocated worker WIOA participants	Offered WIOA adult and dislocated workers a range of services at American Job Centers, including workforce and education, income support, and financial services (including access to a financial coach).

Source: Abt Associates review of WIF evaluation reports.

2.7 **Management Information Systems Changes**

Another WIF intervention category involved revising, developing, and instituting internal MIS in order to gain process and budgetary efficiencies for workforce services. Administrative or program operations that might be targeted include participant tracking; participation rates; customer service; budgeting and staffing; and communications and reporting both internally and externally. The goal of these interventions was to improve coordination and cooperation within the organization's operations and management, though many of these efficiencies could also potentially have service delivery benefits for participants.

Much of the evidence supporting efforts to enhance MIS is from implementation studies, though MIS changes or improvements are sometimes tested in conjunction with other interventions. That said, a

quasi-experimental evaluation of the Wisconsin Reemployment Connections Demonstration project, which integrated state Unemployment Insurance (UI) and WIOA systems so that UI claimants were automatically connected with employment-related services provided through the AJCs, found that claimants who used the integrated system drew UI benefits for a shorter time and had higher quarterly earnings than did a comparison group (Almandsmith, Ortiz Adams, and Bos, 2006).

Descriptive research has provided recommendations related to enhancing data systems, including characteristics of effective data systems; recommendations for data measures and data quality; and promising strategies for developing, implementing, and sustaining new systems (Miles, Maguire, Woodruff-Bolte, and Clymer, 2010; Price and Roberts, 2012; Unemployment Insurance and Workforce System Connectivity Workgroup, 2010; Walker, Farley, and Polin, 2012; Weigensberg et al., 2012).

Exhibit 2-8 describes the three WIF interventions in this category, designed to implement new data systems and improve performance through evidence-based decision making. Given the complexity of system development, two of the three projects, Career Connect and Managing for Success were

Exhibit 2-8. Management Information Systems Interventions

Project, Grantee, State, Round	Target Population	Brief Project Description
Career Connect Chicago Cook Workforce Partnership (IL) Round 1	Workforce system providers	Set out to design and implement an integrated workforce management information system—Career Connect—that would house comprehensive program and client-specific information, as well as information on performance measures across funding streams, resulting in accomplishment of the long-term goals to improve economic outcomes for jobseekers and employers, broaden economic gains across Cook County, and help increase coordination across funding streams in the field of workforce development. For several reasons, the Partnership was able to accomplish only part of its intended project.
Managing for Success Newark Workforce Investment Board (NJ) Round 1	NJ public workforce systems customers	Originally conceived as a MIS that integrated data from various agency sources, the grantee was unable to build Managing for Success as planned. Instead, the grantee created a data sharing agreement with New Jersey's Department of Labor and Workforce Development (NJ DLWD) to obtain access to some individual-level customer data in order to better understand the demographic characteristics of the individuals they serve. To improve customer services and client performance, NWIB encouraged staff performance through team-building activities, sustained outreach to staff from NWIB staff, and awards luncheons.
Minnesota WIF Project (CareerForceMN.com) Minnesota Department of Employment and Economic Development (MN) Round 3	Career seekers, employers, workforce system staff and partners	Designed and implemented a new, innovative online platform, CareerForceMN.com, a one-stop-shop for labor market tools and information for both career seekers and employers in Minnesota.

Source: Abt Associates review of WIF evaluation reports.

unable to develop and implement the MIS during the WIF grant period. However, the third project operated by the Minnesota Department of Employment and Economic Development, was able to fully implement its MIS project. The main design components of this project, called *CareerForceMN.com* included integration of workforce system tools and resources (e.g., job postings, workshop listings, and career planning resources); use of a modern interface with customized content; and support for collaboration and communication among workforce system staff, partner organizations, career seekers, and employers.

2.8 Technological Innovation (New/Online/Remote Services)

Six WIF grantees developed technology-based innovations related to job search as well as methods that enabled remote service delivery. This category includes interventions using telecommunications and web- or app-based innovations as their service strategy. These interventions were designed to create or enhance online service delivery modules, allowing customers to access learning tools, job referrals, and/or training programs online. The transition from face-to-face, in-office service delivery to online often included developing the hardware and software infrastructure, training staff on their use, ensuring usability and security for students, and developing back office functionality that allows for real-time data collection and reporting.

Several experimental and quasi-experimental evaluations have been conducted of online courses in educational settings. A meta-analysis review of online learning strategies (U.S. Department of Education, 2010) surveyed rigorous studies in which online learning was compared to face-to-face learning. The analysis indicated that students in online learning conditions performed more poorly when compared to students in face-to-face conditions. It noted, however, that differences were largest when studies contrasted blended strategies to those that were face-to-face only. The researchers also found that the effects increased when the online instruction was collaborative or instructor-driven, rather than self-driven by the online learner.¹³

While many evaluations of online courses within the education system have been conducted, there are few rigorous evaluations of this service delivery system within workforce programs. However, information from descriptive studies is available. For example, an outcome study of self-guided services at select American Job Centers (AJCs) found that self-directed services (which were most commonly online) were commonly used, but that most jobseekers who used them still needed some staff support to navigate them, especially if jobseekers had low computer literacy, general literacy, or English language skills (D'Amico et al., 2009). An outcome evaluation of the DOL-funded Military Spouse Career Advancement Accounts demonstration, for which online service delivery was part of the intervention, found that while some participants reported increased access to training services through the program, others reported more learning difficulty in an online community compared to a classroom setting (Zaveri, Pisciotta, and Rosenberg, 2009). Finally, an outcome evaluation of programs funded by DOL Technology-Based Learning grants, which sought to increase access to

¹³Smith, Jaggars, and Bailey (2010) found some limitations in the Department of Education review regarding its applicability for underserved postsecondary students. They noted that many of the included studies focused on discrete topics in a short time frame rather than the traditional semester-long college course, and that most of the study populations included well-prepared college students.

training services through the use of electronic technology, found that participants had high rates of program completion, credential attainment, and employment following program completion (Maxwell, Sattar, Rotz, and Dunham, 2013), although the extent to which this could be attributed to the program services could not be determined.

Exhibit 2-9 describes the WIF interventions for each of the projects in this category. Three of the WIF interventions included components of remote service delivery, while three others implemented technology innovations. The Employment Support Center (ESC), Electronic Ohio Means Jobs (OMJ), and Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative offered varying levels of remote or self-directed services which included access to online trainings, webinars,

Exhibit 2-9. Technological Innovation (New/Online/Remote Services) Interventions

Project, Grantee, State, Round	Target Population	Brief Project Description
CareerSource Florida/Performance Funding Model Florida Department of Economic Development (FL) Round 2	Local workforce development boards in Florida, job seekers in Florida (PFM clients)	Implemented the Performance Funding Model (PFM), a resource-distribution strategy used to reward local workforce development boards (LWDBs) for their performance relative to seven performance metrics. In implementing the PFM, CareerSource Florida's aim was to incentivize change and motivate local board leadership to increase efficiency and effectiveness.
Code Louisville KentuckianaWorks Round 2	Job seekers in information technology and coding specifically	Provided participants with training in modern computer software development (coding) using online software to conduct the training, rather than the more common classroom style training, and combines a mentoring component in small groups.
Electronic Ohio Means Jobs (OJM) Ohio Department of Job and Family Services (OH) Round 1	Ohio job seekers	Designed to be an online virtual service delivery portal that provided internet-based employment services available in American Job Centers (e.g., job searches, resume writing, labor market information, and access to workshops) to residents through a "self-serve" portal.
Employment Support Scenter (ESC) Pasco-Hernando Workforce Board, Inc (FL) Round 1	Wagner-Peyser, WIA, TAA, Title 1, and Welfare Transition program customers	Expanded the Employment Support Center (ESC) to improve phone-based outreach and to provide resources and employment-related assistance, job referrals, as well as informational videos on topics related to job search strategies and an expanded social media presence with the goal to increase service provision and information to remotely located job seekers.
TechSF Workforce Innovation Partnership San Francisco Office of Economic and Workforce Development (CA) Round 1	Long-term unemployed and all workforce system customers	Consisted of both systems-level and participant service-level projects. The systems-level projects (CoLab, txt2wrk, and an employer engagement initiative) developed new relationships among IT stakeholders and implemented improvements in the local workforce development system, such as an effort at a job-search phone app. The participant service-level project included technical training in networking, tech support, programming, and multimedia services, career management workshops, and project-based and employer-supported learning opportunities all geared at placing San Francisco residents in local IT jobs.
Utah and Montana Next Generation Labor Exchange (GenLEX) Utah Department of Workforce Services (UT) Round 1	Job seekers and employers in UT and MT	Promoted the use of self-service job matching in order to reduce reliance on staff services, lower per-participant costs, provide jobseekers with better connection to career pathways and related education opportunities, and introduce performance measures that more accurately measured the labor exchange system's success.

Source: Abt Associates review of WIF evaluation reports.

and resources, as well as telephone call centers that allowed grantee staff to answer common or urgent questions without requiring jobseekers to come into the office. Three projects used innovative technology-based approaches. **TechSF** attempted a variety of efforts aimed at developing new relationships among IT stakeholders. Code Louisville offered an online training in coding to open a career option to job seekers, and the Florida Performance Funding Model aimed to reward performance of local workforce development boards.

2.9 **Employer Engagement / Sector Strategies**

When the first WIF interventions were being developed in 2012, there was substantial interest in using industry partnerships to strengthen the connections between the workforce development system and employers and industries. Employer engagement efforts and industry partnerships seek to bring employers' insights on the needs of the industry into workforce development programs. Industryspecific partnerships can include performing labor market analyses; defining job specifications for recruitment and eligibility to training; developing industry-appropriate training curricula, including integrating on-the-job training and sector strategies; and providing job placements. The aim of these initiatives is to improve the relevance and effectiveness of service delivery, and sometimes to provide direct job placements.

While there is limited rigorous evidence on the outcomes for industry partnerships specifically, several evaluations of strategies that aim to provide sector-specific training to meet employer needs have resulted in positive outcomes on participant earnings and likelihood of employment.

- The Sectoral Employment Impact Study (SEIS) found that, based on a random assignment study, participants in sector-focused programs earned significantly more than control group members, with most of the earnings gains occurring in the second year. Additionally, participants in sector-focused programs were significantly more likely to work, and worked more consistently than control group members. (McGuire, 2010)
- A rigorous study of four WorkAdvance programs, which offered training and placement services to help prepare individuals for quality jobs in sectors where there is strong local demand and the opportunity for career advancement, found that one of the programs produced significantly increased earnings four to eight years after enrollment. There were no statistically significant effects on earnings at the other three sites. There is evidence that some of the WorkAdvance programs increased the likelihood of individuals having earnings of at least \$30,000 in some time periods (Schaberg and Greenberg, 2020),
- Year Up, a national sectoral training program for young adults aged 18-24 provides training in the IT and financial service sectors followed by six-month internships at major firms. The full-time program provides extensive supports—including weekly stipends—and puts a heavy emphasis on the development of professional and technical skills. A rigorous evaluation found that effects on earnings were consistently large and positive in the sixth and seventh quarters after enrollment (Fein and Hamadyk, 2018).

Other studies have produced a wide range of lessons related to how to develop partnerships and to structure roles and responsibilities. For example, in 2007, DOL and several foundations launched the National Fund for Workforce Solutions (NFWS), a national funding platform. Its aim is to strengthen workforce services—and improve employment, training, and labor market outcomes for low-income jobseekers and for employers—by supporting workforce intermediaries to work closely with employers. The national implementation evaluation of NFWS found that in the first year of NFWS, the project successfully organized more than 20 funding collaboratives, creating numerous workforce partnerships that provided a range of services to employers and jobseekers. The evaluation also found that intermediaries sometimes struggled to balance their desire to serve the most vulnerable populations versus their plans to meaningfully engage and serve employers (Baran et al., 2009).

Several implementation studies of industry partnerships strategies in recent years have described central components of the interventions and promising strategies that can guide future efforts. Implementation research and case studies have documented how stakeholders developed partnerships, delegated responsibilities, and sustained relationships for a range of approaches including these:

- The Community Based Job Training Grants, which were awarded to invest in the capacity of community colleges to train workers for opportunities in high-growth, high-demand industries (Eyster et al., 2009).
- The Workforce Innovations in Regional Economic Development (WIRED) initiative, which sought to bring together regional organizations to work towards economic stability and workforce growth (Hewat et al., 2009).
- Partnerships developed under the Workforce Investment Act (WIA) (Macro, Almandsmith, and Hague, 2003) and innovative collaborations between WIBs and employers (Government Accountability Office, 2012).
- The Sectoral Employment Development Learning Project of Project Quest, a sectoral workforce organization in San Antonio (Mistry and Byron, 2011; Rademacher, Bear, and Conway, 2001).

Exhibit 2-10 describes the WIF interventions for each of the projects in this category. Five of the WIF grantees designed programs focused on forging industry partnerships and supporting and strengthening relationships with employers or other workforce development stakeholders. Two of the projects aimed to develop training (jobseeker training in the *Orange County ITCCP* and workforce development staff training in Skills Wisconsin) that was responsive to employer needs. Two projects, Ohio BRN Expansion and SWMERN-E, aimed to help businesses access critical services in order to maintain and/or create jobs in the local economy. The Accelerated Training for Illinois Manufacturing (ATIM) project could be categorized in several categories, but it is included here as a sectoral training strategies, a workforce strategy encouraged under the Workforce Innovation and Opportunity Act (WIOA). ATIM provided accelerated training for WIA-eligible adults leading to employment in advanced manufacturing.

Exhibit 2-10. Employer Engagement/Sector Strategies Interventions

Project, Grantee, State, Round	Target Population	Brief Project Description
Accelerated Training for Illinois Manufacturing (ATIM) Illinois Department of Commerce and Economic Opportunity (IL) Round 1	WIA-eligible adults with at least 10th-grade reading/9th-grade math	Provided accelerated training for WIA-eligible adults with the aim to lead to employment in advanced manufacturing.
Ohio Business Resource Network (BRN) Expansion Workforce Initiative Association (OH) Round 2	Employers considered "at risk" or that have "growth potential"	Helped businesses access critical services in order to maintain and/or create jobs in the local economy by: identifying area businesses either at risk of laying off workers or that had the potential to grow and fuel demand for additional workers; interviewing identified businesses to assess their strengths, opportunities, weaknesses, and threats; developing a comprehensive proposal containing offers of assistance from one or more of the 200+ organizations that served as BRN partners.
Orange County Information Technology Cluster Competitiveness Project (ITCCP) Orange County Workforce Investment Board (CA) Round 1	IT employers, educational institutions, community organizations, youth and adult students, incumbent workers, veterans, and job searchers.	Implemented three pilots designed to (1) engage and educate K-12 students about IT careers; (2) provide training to meet the needs of IT employers; and (3) place students and veterans in internships.
Skills Wisconsin Workforce Development Board of South Central Wisconsin (WI) Round 1	Workforce development boards	Improved communication and coordination among workforce development stakeholders by (1) implementing a cloud-based customer relationship management application; and (2) providing training on a demand-driven approach to workforce development staff; and (3) enhancing industry partnerships and developing new training curricula.
Southwest Michigan Employer Resource Network – Expanded (SWMERN-E) W.E. Upjohn Institute for Employment Research (MI) Round 2	Employers and their incumbent workers	Expanded its network into two additional Michigan counties, increased the number of employer members, and offered services to employer members' employees, such as success coaching and training in leadership, supervisory, and occupational skills. Additionally, the program offered services in recruiting and training to help retain workers.

Source: Abt Associates review of WIF evaluation reports.

3. Operational Experiences and Lessons: Findings from the WIF **Implementation Studies**

For WIF, the required evaluations of each grantee's project aimed to generate "lessons learned' in order to improve labor market outcomes, replication of promising program practices, and increased cost efficiency in the workforce system" (DOL, 2011, 3). In addition to outcomes or impact studies, WIF evaluations (whether specifically required by the grant agreement or not) also included an implementation study. The implementation studies documented the design, implementation, and operation of the WIF projects. The studies varied in scope, but most addressed design and implementation issues that (1) provided information useful to replicating promising project components and (2) put outcomes or impact study findings in context.

Following an overview of the goals of the WIF implementation studies, this chapter then describes the fidelity of program implementation to the intended design. This is followed by a summary of the findings from implementation studies on key topics: grantee management and planning, developing and implementing partnerships, and participant recruitment and completion. Given the diversity among the 43 WIF grants, this chapter does not present a comprehensive analysis across all implementation studies, but highlights some project-specific findings that provide potentially useful operational practices and lessons (Note: this chapter is based on implementation study findings and does not reflect impact study results; the implementation studies do not indicate the effectiveness of the practice). 14,15

3.1 Implementation Studies: An Overview

Implementation studies can provide useful context and information for understanding outcomes or impacts. Moreover, by documenting the original design, services as implemented, and reasons for any departures from plans, implementation studies can provide additional information to consider for design and execution of future programs.

Implementation studies can be guided by a broad range of research questions. Each WIF implementation study had a unique scope, but most addressed one or more of the following:

- How was the project developed? What were the goals, and how were they met?
- How was the project implemented? Was the project delivered with fidelity to its design? Why or why not?

See Appendix A for individual summaries of each WIF evaluation study. All of the individual WIF Final Evaluation Reports are accessible online at https://innovation.workforcegps.org/sitecore/content/sites/innovation/home. Most of the final reports include findings from the implementation studies, but some evaluators produced separate implementation research reports.

Throughout this chapter, individual evaluation reports are cited where the report illustrates the finding. These citations are not meant to be exhaustive as to implementation studies with findings relevant to that topic.

- Did participants engage in services? If not, why not? Did participation vary by subgroup (e.g., gender, age, geographic location)? If so, why?
- In what environment did the project operate? What contextual factors influenced implementation?
- What was the experience of key stakeholders, including program partners and employers? Of program participants?
- What promising practices/lessons were learned in program implementation? What were the key challenges?
- What resources (financial, administrative, stakeholder engagement) were needed to implement the program? What are plans for future sustainability?

Grantee third-party evaluators used multiple data sources in their implementation studies. Common sources included review of documents, such as program manuals, meeting notes, guidance documents for staff, or local economic data; interviews with program administrators and line staff; interviews with program partners; participant focus groups; participation data from the WIF project database or other sources; and survey data collected from project staff, participants, employers, and other partners.

Because of the varied interventions and the varied methods of assessing their implementation, this discussion of cross-cutting implementation findings should be viewed as a general discussion of key themes. To identify common implementation experiences across the 43 studies, the NEC team developed a list of operational experiences from the reports, identified common topics (e.g., planning, partnerships, recruitment, management), then identified practices within each topic that were reported by evaluation as being useful in facilitating implementation or responding to difficulties that were encountered.

3.2 WIF Implementation Study Findings

Across the range of interventions designed and implemented by the WIF grantees and the range of research questions addressed by their third-party evaluators, the NEC identified the following common topics in the implementation studies: fidelity of program implementation to program design, grantee management and planning, developing and implementing partnerships, and finally, participant recruitment and program completion. Each is described below.

3.2.1 **Fidelity of Implementation to Design**

Implementation studies generally explore the degree to which an intervention is implemented according to design, and if not, the reasons for deviations. This section describes the extent to which this occurred among the WIF grantees.

For WIF projects, the evaluations found that grantees generally implemented their projects as planned. However, there were some WIF projects that encountered difficulties in fully implementing the intended interventions.

Even for those projects where evaluators reported some perceived challenges in implementation, the projects were still able to implement major elements of their intended projects or adjusted to focus of implementation on other aspects of the project. As discussed below, grantees that fully implemented their programs as designed appeared to share certain features, such as highly engaged project leadership, a strong vision of and commitment to the project, well-developed partnerships, and concrete plans for implementation.

Still, there were at least five projects for which the implementation study reported some difficulties in implementing major intervention components. A range of factors affected implementation to varying degrees:

- Some grantees reported experiencing changes in local or state government leadership that shifted organizational priorities away from the focus of the WIF grant. For example, the Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative dedicated their WIF funds to revamping their labor exchange systems, which required significant IT resources. Changing priorities at the state leadership level meant that agency leaders decided to commit IT staff time and resources to projects outside of WIF that had become of higher priority (Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative; Vogel-Ferguson and Tanana, 2016).
- Some grantees reported facing administrative changes within the partners involved that appeared to hinder implementation. In one instance, a grantee had to begin working with a new workforce board midway through the grant period, resulting in grantee staff investing additional time and resources familiarizing the new administration with the project and ensuring its goals aligned with new priorities (Managing for Success, Newark Workforce Investment Board (NJ); Mabe and Yarborough, 2016).
- Some grantees reported being affected by changes in local or state regulatory or legal requirements. For example, one grantee planned to provide online service delivery to a select group of jobseekers in order to determine whether these services improved outcomes relative to traditional in-person service delivery. During the grant period, a new state law required all state public workforce agencies to provide online service delivery to all jobseekers. As a result, grantee staff and the evaluator had to make unanticipated changes to their program and evaluation design, respectively (Electronic Ohio Means Jobs (OMJ); The Ohio State University, 2016).
- Some grantees' interventions were affected by difficulty in meeting timelines and unanticipated loss of (non-WIF) funding. For example, a Round 1 grantee did not realize the full vision and scope of the planned intervention, as a result of (as described by the evaluator) a plan to implement a new and complex model for workforce service delivery within an inadequate timeframe, along with reliance on additional funding resources which did not materialize (On-Ramps to Career Pathways (ORCP), Rhode Island Department of Labor and Training (RI), Public Policy Associates, 2019).
- Finally, implementation of the Workforce Innovation Opportunity Act (WIOA), which occurred as Round 1 grants were getting under way and when Round 2 and 3 grants were awarded, affected implementation of some components. For example, one grantee planned to develop an MIS that would contain comprehensive measures across funding streams to support varied reporting capabilities and provide the information necessary to

adequately serve the needs of the workforce system's customers. However, to ensure that the data system met the needs of the new reporting requirements under WIOA, the project reported experiencing a delay in development of the MIS (Career Connect, Cook County, IL, Buitrago, K., and Terpstra, A., 2017).

3.2.2 **Grantee Management and Planning**

This subsection describes grantee implementation experience related project leadership and staffing. (The role of partners, including communication with partners, intervention activities is described in Section 3.2.3.)

Strong project leadership and staff engagement appeared to be hallmarks of projects that had full, timely implementation of the WIF interventions.

Several WIF evaluations described efforts by grantees to assure that there was clear and consistent leadership, as well as staff training and robust project operation. These evaluations suggested (as based on for example, information collected through interviews with staff and partner staff) that consistent project leadership was an important element in keeping partners on task, ensuring each organization's work reinforced the work of other partners, maintaining project momentum, disseminating information about the project to external stakeholders, advocating for project needs, marketing the project to potential participants and the community generally, and responding to external factors (Skills Wisconsin, Davis, Akiya, and Miller, 2016; Linking Innovation, Knowledge, and Employment (@LIKE) Riverside County Economic Development Agency (CA), Gupta, Srinivasan, Chen, Patterson, and Griffith, 2016).

Several WIF evaluations also reported that the project director was an important management position, serving as a single point of contact for staff and partners to ask questions and seek clarification as needed. Project directors also disseminated information about the project to external stakeholders, such as employers who might offer on-the-job training opportunities; advocated for project needs, such as IT staff time to complete project critical tasks; and marketed the project to potential participants and the community generally. Some evaluation reports noted that the project director role was particularly important when external factors, like changes in state or local government or workforce administration, meant that project objectives needed to be communicated to new leadership or activities needed to address new policy priorities.

Changes in project leadership can be expected over the course of a project's implementation, but even if expected, some WIF grantees reported this was disruptive to a project's implementation. For one grantee, because the leadership had originally conceptualized and spearheaded development of the project, the change in leadership could have significantly affected the implementation of the project. However, in spite of the leadership change, the project continued and was largely implemented as planned. The implementation study suggests that the project used the leadership change as an opportunity to restructure the project's organization, and put in place a core team with clearly defined roles to oversee specific project components (CareerSource Florida/Performance Funding Model, Jenner, E. et al., 2019). For another intervention, the evaluation reported that turnover in the project leadership position hindered implementation and forward momentum of the project activities (Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative, County of San Mateo, CA, Bischoff, Hebbar, et al., 2015).

In the case of one grantee, the project did not have full-time project directors and instead relied on multiple staff—both their own and their partner organizations'—to share leadership of grant activities. According to evaluators, these staff reported it was challenging to take on a leadership role while attending to their day-to-day work related to the project (On-Ramps to Career Pathways (ORCP), Rhode Island Department of Labor and Training (RI), Public Policy Associates & Brandon Roberts + Associates, 2016). Staff in these shared leadership roles reported they were unable to respond adequately to questions and address concerns related to project implementation and operations. Some partners in grants that used a shared leadership system expressed frustration with what they perceived to be planning and implementation processes that lacked clear action plans and direction. Some partners reported that their time could have been used more effectively with additional guidance from a single source (TechSF, City of San Francisco, Hebbar et al., 2015).

Some grantees experienced implementation difficulties because of staff turnover or due to understaffing.

Based on the evaluation reports, some grantees experienced staff turnover that slowed implementation and made ongoing service delivery difficult as grantees had to hire and train new staff. In some instances, hiring was a slow process. Grantees that were local government agencies, for example, often needed board approval for a job description; were required to post the position in several forums for many weeks, interview candidates, and conduct background checks; and then once the candidate was identified, obtain board approval to make the hire (Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative, County of San Mateo, CA, Bischoff, Hebbar, et al., 2015; Metro-Atlanta WIA Consortium Project to Aid the Long-Term Unemployed, Dixon et al., 2015). Because the WIF grants were time limited (ranging from 36 to 52 months), staff turnover at any level left gaps that affected the timely implementation of services and ongoing operations, as remaining team members had to fill multiple roles.

In addition, some WIF projects were understaffed from the beginning of the grant. The implementation studies found that some projects did not commit sufficient funds to staffing, and thus did not have enough staff to complete the project activities defined in their proposal's scope of work. Other projects were unable to recruit staff with the right skills and experience to complete project activities, experienced administrative challenges in the hiring process, or took longer than expected to hire staff with the right mix of expertise and skills (Chicago Cook Workforce Partnership's Career Connect, Buitrago and Terpstra, 2017; Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative, County of San Mateo, CA, Bischoff, Hebbar et al., 2015; Metro-Atlanta WIA Consortium Project to Aid the Long-Term Unemployed, Dixon et al., 2015; Los Angeles Reconnections Career Academy (LARCA), Geckeler et al., 2017; On-Ramps to Career Pathways (ORCP), Rhode Island Department of Labor and Training (RI), Public Policy Associates & Brandon Roberts + Associates, 2016; Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative, Vogel-Ferguson et al., 2016; Career Jump Start Program, Venango County, PA, Corea, C. et al., 2019; Monterey County Youth Ambassadors for Peace Project, Guitierrez, I., et al., 2019).

3.2.3 Developing and Implementing Partnerships

This subsection describes grantee implementation experiences with regard to project partnerships. Some WIF grantees proposed projects that required multiple partners to deliver a range of services. For example, several projects proposed developing new industry-focused training curricula that

would be delivered to disadvantaged jobseekers along with a range of support services. These projects often required many partners, including employers, training providers, the workforce system, community-based organizations, and social services agencies, to deliver the intervention to jobseekers. This section discusses implementation experiences in terms of project partners, employer partners, and communication and planning.

Project Partners

Grantees that had a history of collaboration with their partners appeared to be able to more quickly launch their projects than projects that had to develop new partner relationships.

Based on the evaluation reports, those grantees that already knew their partners' missions, policies, and goals, and had pre-existing interpersonal connections with staff members in the partner organizations, appeared to be to reduce project launch time and improve each organization's overall experience in implementing the WIF interventions. For example, the previously established relationship with employers and training providers, forged throughout many years of working collaboratively with one another, helped enable a quick start up and effective working relationship from early in the grant period. (Eastern Connecticut Manufacturing Pipeline Initiative, McConnell, D., Burroughs, N. et al., 2019; Skills Wisconsin, Davis et al., 2016; Housing Works, Worksystems, Inc. (OR) McCrohan, 2017).

Strong partnerships in the WIF evaluations were generally characterized in the evaluation reports as those with a similar level of commitment to the project by all partners, both in funding and in willingness to engage in the day-to-day planning, operation, and service delivery over the life of the project.

Some grantees established mechanisms to support partner buy-in for the duration of the grant. For example, one WIF project delivered jointly by public housing authorities and WIBs (one of which was the named grantee) in two states required each partner to commit an equal amount of its regular program funds to the project in addition to the funds received through the grant (Housing Works, Worksystems, Inc. (OR), McCrohan, 2017). By requiring partners to spend their own funds on the project, the grantee ensured they remained committed to the project through the duration of the grant and each partner, an incentive to participate in the project to earn a return on its investment.

The Eastern Connecticut Workforce Investment Board partnered with an employer with substantial future employment opportunities to offer customized training and other supports, such as staff recruitment and on the job training through its Manufacturing Pipeline Initiative (MPI). 16 As conveyed in the evaluation report, the substantial joint planning among the partners ahead of implementation and strong commitment from the employer partners in the form of curriculum input and pledge to provide employment to participants deepened the stakes that the employer partners had in the outcome of the project (Eastern Connecticut Manufacturing Pipeline Initiative, McConnell, D.,

¹⁶ The WIF grantee Eastern Connecticut Workforce Investment Board (EWIB) partnered with General Dynamics/Electric Boat (EB), and as a major supplier of submarines to the U.S. Navy, EB was looking for approximately 5,000 new employees to fill manufacturing positions in the span of 10-15 years in order to fulfill output demands from major contracts with the U.S. Navy.

Burroughs, N. et al., 2019). For another grantee, even with a long history of working together, spending crucial time early in the grant period in planning among key partners in order to attain their full engagement and support laid a foundation for the continued investment and fostered excitement for the implementation of the project (Minnesota WIF Project (CareerForceMN.com), Mian, P. et al., 2019).

Based on the evaluation reports, working with a new partner required upfront time getting to learn about the partner's organizational structure, staffing, and services that could be incorporated into the WIF project.

For example, some grantees proposed working more closely with employers to develop training programs to meet their hiring needs. To recruit employers to participate in the project, grantees had to learn how to leverage their partners' experience and connections. In many cases, it took grantees and their partners several months to determine how to engage and recruit employers, and additional time to integrate employers into the project (Oh-Penn Pathways to Competitiveness, Bill, Armstrong, Nanda, and Chen, 2016; Tech SF City of San Francisco, Hebbar et al., 2015). For an intervention that required the development of new collaborative partnerships, the majority of early implementation was focused on forging those new partnerships, while later implementation was about strengthening the relationships in carrying out the intervention (Los Angeles Regional Initiative for Social Enterprise (LA:RISE), Geckeler, C., Folsom, L. et al., 2019).

Administrative barriers or logistical issues sometimes hindered grantee plans to closely coordinate service delivery and funding with partners.

For example, a grantee proposed braiding multiple funding sources from different agencies to serve shared customers. In practice, local, state, and Federal regulations often made this challenging. (On-Ramps to Career Pathways (ORCP) Rhode Island Department of Labor and Training (RI), Public Policy Associates & Brandon Roberts + Associates, 2016). Another grantee envisioned easing service provision among partners by creating and sharing a single intake form for six community-based organizations. Upon further exploration, it became clear that a single intake form was impractical because each organization needed to collect participant information in specific ways to comply with its own funding sources (Chelsea (MA) CONNECT, Siegel, Bromberg, Kornetsky, and Grant, 2015). In cases where administrative and logistical barriers were a result of local, state, or Federal rules, grantees and their partners were often unable to remove these barriers or find easy workarounds to achieve their original goal.

Some grantee partnerships experienced implementation difficulties when a partner became unable to deliver the resources it initially committed to the project.

When a partner became unable to deliver planned funding, services, or expertise, the grantee had to quickly identify and recruit appropriate substitute organizations, inform them of the program's objectives and goals, and instruct them on how to provide the original partner's services. Finding new partners was especially challenging for grantees serving jobseekers in remote areas, including rural and some suburban communities, where the original partner had a unique service niche or where local rules precluded the original partner from providing the service as envisioned. For example, many grantees planned to create new and more flexible training programs to address employer needs in particular industries. However, some training providers, especially state-funded education institutions, had strict requirements for developing and approving curricula that could not be easily adapted or avoided. In at least two cases, partners who were originally included in the grant to provide occupational training were unable to update their training curriculums to meet employer needs and could not participate in the partnership as grantees originally envisioned (Skills Wisconsin, Bill et al., 2016; Gila River Indian Community (AZ) Career Pathways (GRIC CP), Gonzalez-Santin, Sharp, Perry, and Maceachron, 2016).

Employer Partnerships

Almost all grantees proposed in their WIF applications some type of employer engagement as part of their projects.

Based on the evaluation reports, the roles of employers in WIF interventions varied and included serving on advisory councils, in creating standards for identifying eligible applicants, and in curriculum and program development.

The implementation studies found that across the WIF projects, though many grantees planned to work with employers to offer internships and on-the-job learning opportunities, few were able to do so. Employer interviews conducted for implementation studies revealed that employers were often hesitant to offer internships or other on-the-job learning opportunities because of liability concerns and/or concerns about their staff being less productive while supervising participants.

Many WIF grantees found that it was more difficult to offer informal work-based learning opportunities in some occupations than in others; at least one WIF grantee noted that it was especially challenging to offer work-based learning opportunities (that were not formal apprenticeships) in manufacturing and construction (Metro-Atlanta WIA Consortium Project to Aid the Long-Term Unemployed, Dixon et al., 2015; Accelerating Connections to Employment (ACE), Baltimore County (MD), Modicamore et al., 2017; Project Growing Regional Opportunity for the Workforce (Project GROW), Border Workforce Alliance (TX), Patnaik et al., 2016; Monterey County (CA) Youth Ambassadors for Peace Project, Guitierrez, I., et al., 2019).

Grantees recruited employer partners through a number of strategies including building on previous relationships, networking through local chambers of commerce or other partners in the grant, and cold-calling employers to gauge their interest in the WIF project, and sought to address their needs and concerns in order to engage them in the program.

Some of the implementation studies found through surveys of employers that the WIF projects were important to developing the skills of jobseekers or incumbent workers and that full implementation of the project would help employers better meet their need for qualified job candidates (Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative, County of San Mateo, CA, Bischoff, Hebbar et al., 2015; TechSF City of San Francisco, Hebbar et al., 2015). A few WIF projects addressed skills shortages in two high-demand industries: advanced manufacturing and information technology. In these projects, the training program was relatively short term (weeks or months vs. years) because jobs in the industries did not require a postsecondary degree. The training developed skills needed by employers and that could not easily be gained on the job. Because employers in these industries were already struggling to hire enough staff to meet their needs, they were eager to partner with WIF grantees to train jobseekers. WIF Evaluations reporting such

partnerships between employers and WIF interventions included: Oh-Penn Pathways to Competitiveness (Bill et al., 2016), TechSF Workforce Innovation Partnership (Hebbar et al., 2015), Eastern Connecticut Manufacturing Pipeline Initiative (McConnell, D., Burroughs, N. et al., 2019), and Code Louisville (Bollinger, C. et al., 2019).

Implementation studies also found that some employers were initially hesitant to partner with public workforce agency grantees due to concerns about working through a public agency to develop trainings and hire staff. Employers reported that were also concerned that the agencies' mission to serve all jobseekers, including very low skilled individuals, would result in poor job candidates. To address these concerns, some grantees enlisted the help of chambers of commerce, industry organizations, and other employers to connect to new employer contacts. Many employers ultimately valued their partnership with the public workforce agency, but they also recommended that the agency's role be downplayed during employer recruitment (Southwest Michigan Employer Resource Network Expansion (SWMERN-E) Project, Khemani, D., et al., 2019; Oh-Penn Pathways to Competitiveness, Bill et al., 2016; Los Angeles Reconnections Career Academy (LARCA) Geckeler et al., 2017; Ohio Business Resource Network Expansion, Public Policy Associates, 2016). Having trusted employer partners, built on strong working relationships and proven responsiveness, enabled one grantee to pivot from one industry to another when employment opportunities decreased. ((Summer) Career Pathways City of New Orleans, LA, Baird, M. et al., 2019).

Finally, implementation studies indicated that project staff who had been specifically trained to recruit and communicate with employers had positive experiences in engaging employers and involving them in WIF projects. At least one grantee's entire project focus was on meeting employers' needs and engaging with employers to build career pathways for job seekers. Some grantees developed business services curriculums that trained staff on how to best serve employers and address their needs. Other grantees trained staff in how to communicate the organization's value to employers by informing them of the time- and resource-saving services available through the project. Others trained staff on email and phone etiquette and implemented organization-wide standards for communication with employers (Oh-Penn Pathways to Competitiveness, Bill et al., 2016; Los Angeles Reconnections Career Academy (LARCA), Geckeler et al., 2017; Ohio Business Resource Network Expansion, Public Policy Associates, 2016).

Planning and Communication

Designing and implementing WIF projects involved coordination among grantee staff and between grantees and their partners, including employers.

Coordinating planning efforts was important to executing the project within the grant period. WIF implementation studies reported several planning approaches that facilitated project implementation.

These included: (1) Regular team meetings (both internal and with external partners) to discuss and address issues related to the grant, create clear action plans designed to move intervention implementation forward, and delegate tasks to partners most appropriate to execute them (Startup Quest[®], Career Source Northwest FL, Nanda et al., 2017); (2) Timelines that clearly delineated when tasks had to be completed and by whom, and that were updated throughout the grant period (Chicago Cook Workforce Partnership's Career Connect Project, Buitrago and Terpstra, 2017); (3) Ongoing

communication to ensure plans came to fruition, including meeting regularly, either by phone or in person, to discuss efforts underway, monitor progress, and troubleshoot problems (Skills Wisconsin, Davis et al., 2016; Startup Quest®, Career Source Northwest FL, Nanda et al., 2017) and using email communication with project directors and other partners to address minor questions and problems in between regular meetings; and (4) Use of partner feedback to make adjustments and hold one another accountable for accomplishing tasks within the shared scope of work and timeline.

Some grantees that struggled with implementation lacked clear timelines and concrete next steps, according to the evaluation reports.

At least one grantee favored iterative planning processes that called partners to come together frequently for continuous improvements (Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative, County of San Mateo, CA, Bischoff, Hebbar et al., 2015). However, as noted in the evaluation report, many stakeholders involved in the planning processes stated that the intervention would have been strengthened by more action-oriented planning in the first year of the grant. For example, using a "Collective Impact" approach intended to help forge partnerships and a jointly agreed-upon purpose, the planning efforts focused on the multitude of ways that their agencies could serve participants and better coordinate their services. However, the grantee did not deliver services to individuals in its target population until 18 months after the start of the grant. Partners who had been initially engaged in iterative planning efforts reported less engagement over time because the plans did not seem to translate into services to participants (Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative, County of San Mateo, CA, Bischoff, Hebbar et al. 2015). For another project there were some similar planning issues early on, but once a clear plan for communication was in place, the project benefited from close collaboration and ongoing input (Kansas WIF, McCrohan, N., McConnell, D. Winans, N. et al., 2019).

Participant Recruitment and Completion 3.2.4

Another key topic of implementation studies was the extent to which grantees were able to recruit their target populations and engage them in project services. The implementation studies documented grantees' recruitment efforts, including the extent to which they were able to meet their enrollment targets and adjustments they made in light of recruitment difficulties.

Recruitment

About a third of WIF projects that served individuals directly struggled to recruit the planned number of participants during the grant period, and the implementation studies documented these difficulties and strategies that were used to address them.

The improving economy made recruitment more difficult than anticipated.

Round 1 WIF grants were awarded in 2012, and Rounds 2 and 3 in 2014 and 2015 respectively during the later stages of recovery from the 2008 recession, and many grants were implemented as the economy was improving in many regions. When they conceived of and submitted their applications, some WIF grantees had expected a large target population for their training programs; instead, many jobseekers were able to find work without assistance due to the improving economy. Based on the evaluation reports, some grantees had to commit more resources to recruitment than they originally

had anticipated and/or to serve individuals who were less employable than program designers originally envisioned.

Some grantees experienced a mismatch between the project design with the needs of the target population.

Some WIF grantees were unable to convert their target population's initial interest into project enrollment. For example, as reported in the evaluation studies, grantees that aimed to serve some of the most disadvantaged jobseekers often found tensions between potential participants' need to earn wages versus their need to improve job skills to obtain better jobs. At least one grantee found that there was minimal uptake of the services offered through the intervention, either due to barriers preventing participation (lack of adequate transportation or childcare) or mismatch between type of service provided and the needs and interests within the target population for the services. Although the intervention targeted a very low skilled population for a multi-step career pathways program, the project found that potential participants needed to balance school and work, and thus could not commit to the time needed to enroll in and complete the program (Project Growing Regional Opportunity for the Workforce (Project GROW), Patnaik et al., 2016). The implementation study reports also documented promising practices for addressing recruitment challenges.

Eligibility requirements limited the pool of potential participants.

Grantees initially developed eligibility requirements based on whom they thought would most benefit from their services. However, as they implemented their projects, a number of grantees found that the eligibility requirements hindered recruitment by creating too narrow a pool of possible participants (as noted in the report on the Los Angeles Reconnections Career Academy (LARCA), Geckeler et al., 2017). In another example, a grantee planned to recruit long-term unemployed individuals, defined as those unemployed at least one year. This substantially limited the applicant pool because individuals who had been unemployed less than 52 weeks but longer than 27 weeks (the standard definition of long-term unemployed) had to be turned away (Metro-Atlanta WIA Consortium Project to Aid the Long-Term Unemployed, Dixon et al., 2015). Another grantee planned to target out-of-school youth, but initially excluded young adults on probation or parole from the recruitment pool. After determining that many out-of-school youth were excluded from participating because of their probation or parole status, grantee leadership expanded the eligibility requirements to include them. Doing so required the grantee to provide additional supports to address their needs (Linking Innovation, Knowledge, and Employment (@LIKE) Riverside County (CA) Economic Development Agency, Gupta et al., 2016). Another grantee changed the age eligibility requirements in order to open services to a wider pool of possible participants (Bridge to Employment and Academic Marketplace (BEAM), NY, Finkle, J. et al., 2019). Finally, one grantee was able to increase service uptake by expanding the original project design of offering services only in the summer months to serve multiple cohorts year-round ((Summer) Career Pathways, City of New Orleans, Baird, M. et al., 2019).

Grantees used non-traditional and varied recruitment strategies to bolster enrollment.

Non-traditional strategies, designed to meet target populations directly in the communities where they lived, 17 used a variety of tactics, including advertisements on public transportation, TV, and radio; hosting marketing booths at community functions; and conducting in-person street recruitment where the target population was likely to frequent (e.g., malls, tattoo parlors, skate parks) (Linking Innovation, Knowledge, and Employment (@LIKE) Riverside County (CA) Economic Development Agency, Gupta et al., 2016).

Some grantees simplified enrollment procedures to reduce the burden on prospective participants and maintain their interest in the program.

Some grantees reduced the amount of paperwork potential participants needed to complete to enroll in the project, in some instances to one page. Grantees also reduced the time between enrollment and the start of services in order to keep participants engaged. For example, one grantee enrolled participants immediately after determining eligibility based on applicants' self-reported characteristics. The participants then had up to 30 days to provide documentation to verify their eligibility. As reported by the evaluation, this action was intended to reduce the possibility that that participants who expressed interest in project activities would disengage while waiting for their eligibility to be confirmed (Linking Innovation, Knowledge, and Employment (@LIKE) Riverside County Economic Development Agency (CA), Gupta et al., 2016).

Across evaluations, the reported completion rates for participant-focused services varied considerably and some grantees developed strategies to improve them.

Several of the implementation studies reported that grantees noticed a decline in participant engagement with the project between enrollment and the start of services. This occurred in particular for at least three projects with vocational training components that began on specific dates (e.g., first week of every month, once per academic term), which often resulted in a multi-week interval between enrollment and the start of training. Such grantees adapted their projects to add specific activities during this time in order to engage participants and keep them interested in the project. Examples of activities included high-energy orientation sessions where staff aimed to motivate participants about the project, enrolling participants in soft skills training, providing case management services, or assigning activities to address barriers to participation, including childcare and transportation (Los Angeles Reconnections Career Academy (LARCA) Geckeler et al., 2017; Linking Innovation, Knowledge, and Employment (@LIKE) Riverside County Economic Development Agency (CA), Gupta et al., 2016; and Accelerating Connections to Employment (ACE), Baltimore County (MD) Modicamore et al., 2017).

Many workforce programs have traditionally relied on direct referrals from other agencies to fill their program slots, but evaluators reported that WIF programs that proactively engaged potential participants in participants' communities were more successful in recruiting than in periods of the program when they had not done this. In at least two programs, proactive recruitment meant recruiting participants at their schools, community centers, malls, and other places where they were likely to spend their time to inform them about the program and answer questions.

At least two grantees used individualized training plans for each participant soon after enrollment and closely monitored completion rates in an effort to increase participant completion of the services. The plans assessed the participant's skills, made recommendations for training and skills development that matched their interests, and updated them as the participant continued through project activities (Accelerated Training for Illinois Manufacturing (ATIM), Illinois Department of Commerce and Economic Opportunity, Betesh, Kim, Kogan, Lindy, and Paprocki, 2017 and Steps Up to STEM, Dunn et al., 2016).

3.3 Conclusion

The WIF third-party implementation studies documented a variety of grantee interventions, reflecting the wide-ranging efforts that grantees undertook. Most grantees implemented at least some core components as planned. The implementation studies in the WIF evaluation reports identified a wide and diverse range of useful practices in regard to management of the projects, developing partnerships including those with employers, and addressing common challenges in recruitment and program completion.

4. Outcomes and Impacts from WIF Evaluations

As discussed in Chapter 1, all WIF third-party evaluations were required to include an outcome or impact study, with the project type (A, B, or C) determining the minimum level of rigor of the evaluation design (outcome study, QED, or RCT). The outcome and impact studies were designed to provide evidence of the effectiveness of each WIF intervention and add to the evidence base for each intervention model. These studies document how participants or systems fared during the operation of the grantee's program by measuring changes in participant outcomes or systems that occurred over the course of the program.

This chapter presents a cross-grantee comparison of the WIF evaluation findings by intervention category. Each of the sections summarize evaluation results by intervention category: Career Pathways; Work-Based Learning; Entrepreneurship Training; Case Management, Counseling, or Coaching; Cross-System Coordination; MIS Changes; Technological Innovation (New/Online/Remote Services); and Employer Engagement/Sector Strategies. Though this chapter summarizes the findings, it does not directly compare evaluation results: the diversity in both the content on interventions and the evaluation design and execution makes these comparisons inappropriate. It is important to note that some grantee interventions implemented multiple program components and some of their evaluations could fit into more than one category. In these cases, the WIF evaluations focused on the effects of the intervention as whole, and the effects on individual components could not be determined.

Throughout this chapter, highlighted boxes provide more information about several of the WIF interventions and evaluations. These projects were selected for inclusion based on the degree of implementation success, the strength of the evaluation findings, and the quality of the evaluation reports. 18 This report discusses only those results that are significant, and we also state where possible, the significance level used to report the results. Appendix D provides a description of evaluation design principles that may be helpful for understanding evaluation results and appraising evaluation evidence, and it includes information on evaluation rigor and challenges for each grantee as determined by the NEC.

4.1 **Career Pathways Interventions**

The evaluations of the six career pathways interventions, providing occupational training with a range of supports, resulted in generally positive findings, as shown in **Exhibit 4-1** below. Overall, three of these evaluations used an RCT design and three used an outcomes approach.

Four of the career pathways evaluations had positive effects, although on a range of different outcomes, and three of them used an RCT.

The Accelerating Connections to Employment (ACE) project found that the ACE program had a positive impact on employment one and two years after the program, and a positive

¹⁸Due to space limitations, only a few of the WIF projects are highlighted. Readers are encouraged to access each of the full final evaluation reports available for WIF projects [https://www.workforcegps.org/]. Brief summaries of each evaluation report are included in Appendix A of this report.

- impact on total earnings within one and two years after random assignment; and some evidence of positive impacts on measures of job quality.
- The Los Angeles Reconnections Career Academy (LARCA), which targeted youth aged 16 to 24 who were chronically absent or had dropped out from school, found that two years after random assignment, the program had positive impacts on enrollment in secondary education, receipt of secondary education credentials, enrollment in post-secondary education, and the number of post-secondary credits attempted. Within one year after random assignment, participants also earned more credits than control group members. The evaluation found that participants were less likely to be employed and earned slightly less than control group members at either one year or two years after random assignment, most likely because participants were still engaged in training or education activities.
- The New Orleans Career Pathways project's RCT evaluation found a positive program impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. Individuals who were unemployed and had lower earnings when they started the training experienced the largest increases in earning compared to control group members. The study did not find statistically significant impacts on the likelihood of being employed or persisting in a job.
- The Micro-credentials: Opportunity through Stackable Achievements project in Pennsylvania offered participants training and credential attainment in a short time frame, providing a path to employment that was quicker than the traditional education and training models. The outcomes evaluation found that approximately 92 percent of participants completed at least one micro-credential, and, among those who completed at least one microcredential and were employed 12 months before and 3- or 6-months after the program, these participants experienced an increase in wages.
- Two tribal entities serving tribal members as their target populations developed career pathways projects; the evaluations had mixed results, at least in part due to evaluation issues.
- Because of data issues, the outcome study of the GRIC Career Pathways project measured limited outcomes, but found that the completion of degree or certificate was a predictor of employment and that GRIC participants who received work readiness training were significantly more likely to complete the career pathways training program and more likely to become employed.
- The Southeastern Free Flowing Workforce had limited results in its efforts to implement the project, as the project was unable to recruit a sufficient number of participants to the project. Due to the lack of participants, the evaluation did not yield any outcome results.



Highlighted Career Pathways WIF Project

Name of Project: City of New Orleans Career Pathways

Target Population: Unemployed individuals, underemployed workers, discouraged workers

Intervention Description: Career Pathways was designed to help lower-skilled individuals in New Orleans, LA train for and find jobs in advanced manufacturing, energy, health care, and information technology fields. The program's main components are: 1) rigorous screening system; 2) career pathways training that incorporates stackable credentials; and 3) coordination for connecting trainees to employers. For the training component, there were 367 participants in 25 cohorts who were offered two rounds of training and a subsidy to cover materials and training related costs. The first round of training was a two-month classroom-based training, followed by an optional second "stackable" credit training. Of the 83 percent of participants who attended at least one session of the first training, 77.8 percent completed the training, for an overall completion rate of 64.4 percent. Attendance at the second training was lower at 20 percent.

Evaluation Approach: The evaluation of Career Pathways included an implementation study, a random assignment impact study, and a cost study.

Brief Description of Results:

- The grantee organization transitioned from relying on external partners (e.g., businesses in the hospitality and leisure field and local cultural partners) for recruitment to overseeing the responsibilities internally, with support from a contractor.
- The screening process became more rigorous over time. The process eventually included a twoday orientation, a 45-minute interview to assess interested candidates' likelihood of completing the program, and basic skills assessments.
- Participation and completion rates were high. About 83 percent of individuals in the training group attended at least one class. The overall completion rate was about 64 percent.
- There were positive program impacts on earnings; however, there were no statistically significant impacts on the likelihood of being employed or persisting in a job.
- Individuals who were unemployed and who had lower earnings when they started the training had the largest increases in earnings compared to control group members.

Exhibit 4-1. Evaluation Results Summaries of Career Pathways Interventions

Accelerating Connections to Employment (ACE) Baltimore County Department of Employment and Workforce Development (MD) Various sites in Maryland: New Haven, Connecticut; Austin, Texas; and Atlanta, Georgia Round 1 Cilia River Indian Community (GRIC) (AZ) Gila River Arizona Round 1 Los Angeles Reconnections Career Academy (LARCA) City of Los Angeles (CA) Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) Tocal workforce development board areas in Pennsylvania Round 3 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) New Orleans, LA Round 2 RCT The evaluation found that the ACE program after A perticipants send of positive impacts on encollment in post-secondary education, receipt of secondary education credential send may be a positive impact on participants (RD percent) entire the career pathway send a positive impacts on encollment in secondary education, receipt of secondary education receipt in the number of post-secondary education receipt in the num		Project, Grantee, Area Served,	Evaluation	Outcomes and Impacts Summary
Employment (ACE) Baltimore County Department of Employment and Workforce Development (MD) Various sites in Maryland; New Haven, Connecticut; Austin, Texas; and Altanta, Georgia Round 1 Gila River Indian Community (GRIC) (AZ) Gila River Indian Community (GRIC) (AZ) Gila River, Arizona Round 1 Los Angeles Reconnections Career Academy (LARCA) City of Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Round 3 South-central Region Free Flowing Workforce Round 3 (Summer) Career Pathways City of New Orleans, LA Round 2 employment one and two years after the program, as measured by positive impact on total earnings within one and two years after randomization, and a positive impact on total earnings within one and two years after randomization, and a positive impact on total earnings within one and two years after the program, as measured by positive impacts on total earnings within one and two years after the program, as measured by positive impact on total earnings within one and two years after the program and mone and two years after the program in three of the four states; some widence of positive impacts on total earnings within one and two years after the program of the tow states; some widence of positive impact on total earnings within one and two years after randomization, in three of the four states; some widence of positive impact on total earnings within one and two years after randomization, in three of the four states; some widence of positive impact on total earnings within one and two years after randomization, and the proportion of participants within one and two years after randomization, and the proportion of a degree or certificate that was purposefully linked to the needs of each sector was a statistically-significant predictor of employment in unusubsidized position. Participants who received work readiness training were also significantly profiled to the was a statistically-significant predictor of employment in unusubsidized position		Round	Design	
Desiritive impact on total earnings within one and two years after randomization in three of the four states; some evidence of positive impacts on measures of job quality, including the proportion of participants earning at least \$13 per hour one year after randomization, and the proportion working at least \$13 per hour one year after randomization, and the proportion working at least \$35 hours. Sample size: 2,169 participants	•	Employment (ACE)	RCT	employment one and two years after the program, as measured by positive
Active sites in Maryland; New Haven, Connecticut, Austin, Texas; and Atlanta, Georgia Round 1 Gila River Indian Community (GRIC) Career Pathways Gila River Indian Community (GRIC) Career Pathways Gila River, Arizona Round 1 Los Angeles Reconnections Career Academy (LARCA) City of Los Angeles, California Round 1 Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) Tocal workforce development board areas in Pennsylvania Round 3 South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 Key Gummer) Career Pathways Round 3 Round 4 Round 6 Round 7 Round 9 Roun	•	Employment and Workforce		positive impact on total earnings within one and two years after randomization in three of the four states; some evidence of positive impacts on measures of
Gila River Indian Community (GRIC) Career Pathways Gila River Indian Community (GRIC) (AZ) Gila River, Arizona Round 1 Los Angeles Reconnections Career Academy (LARCA) City of Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) Tocal workforce development board areas in Pennsylvania Round 3 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 Gila River (Arizona Round 2 The completion of a degree or certificate that was purposefully linked to the needs of each sector was a statistically-significant predictor of employment in an unsubsidized position. Participants who received work readiness training were also significantly more likely to be employed post-training. Sample size: 57 participants who received work readiness training were also significantly more likely to be employed post-training. Sample size: 57 participants assignment, the LARCA program showed positive impacts on enrollment in secondary education, receipt of secondary education, and the number of post-secondary education, receipt of secondary education, and the number of post-secondary education, and the number of post-secondar	•	Haven, Connecticut; Austin, Texas;		hour one year after randomization, and the proportion working at least 35 hours.
GRIC) Career Pathways	•	Round 1		Cample 3ize. 2,100 participants
were also significantly more likely to complete the career pathways training program and more likely to be employed post-training. Sample size: 57 participants RCT Academy (LARCA) City of Los Angeles (CA) Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) 7 local workforce development board areas in Pennsylvania Round 3 South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans, LA RCT The evaluation results showed that the New Orleans Care Pathways Round 2 were also significantly more likely to be employed post-training. Sample size: 57 participants At two years after random assignment, the LARCA program showed positive impacts on enrollment in secondary education, and the number of post-secondary education, not post-secondary education, not post-secondary education, or expendition or event for post-secondary education, not post-secondary education, or event of post-secondary education, or event for post-secondary education, or event for post-secondary education, or event for post-secondary education, or	•		Outcome	needs of each sector was a statistically-significant predictor of employment in
 Gila River, Arizona Round 1 Los Angeles Reconnections Career Academy (LARCA) City of Los Angeles (CA) Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) Tolcal workforce development board areas in Pennsylvania Round 3 South-central Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 City of New Orleans, LA New Orleans, LA Round 2 The evaluation results showed that the New Orleans can be for participants in the health care pathway. The study did not find meaningful program impacts on enrollment in post-secondary education, and the number of post-secondary education in post-secondary educ	•	• ()		were also significantly more likely to complete the career pathways training
 Round 1 Los Angeles Reconnections Career Academy (LARCA) City of Los Angeles (CA) Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) Tocal workforce development board areas in Pennsylvania Round 3 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans, LA Round 2 Round 2 At two years after random assignment, the LARCA program showed positive impacts on enrollment in secondary education, and the number of secondary orceletis francontrol group members or redefitals, enrollment in post-secondary education, and the number of post-secondary credits attempted. Within one year after RA, participants also earned more credits than control group members. Sample size: 1,066 program group members; 1,012 control group members The study found most participants (80 percent) enrolled in one micro-credential pathway, with a small portion of participants enrolled in two or three pathways. Approximately 92 percent of participants completed at least one micro-credential. Sample size: 700 participants The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans C	•	Gila River, Arizona		
Academy (LARCA) City of Los Angeles (CA) Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) Tolcal workforce development board areas in Pennsylvania Round 3 South-central Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans, LA New Orleans, LA Round 2 impacts on enrollment in secondary education, receipt of secondary education, and the number of post-secondary education and earlied post-secondary education and earl	•	Round 1		Cample Size. Of participants
 City of Los Angeles, California Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) 7 local workforce development board areas in Pennsylvania Round 3 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 Outcome The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report (Summer) Career Pathways City of New Orleans (LA) New Orleans, LA Round 2 	•		RCT	impacts on enrollment in secondary education, receipt of secondary education
 Los Angeles, California Round 1 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) 7 local workforce development board areas in Pennsylvania Round 3 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans, LA Round 2 Los Angeles, California earned more credits than control group members. Sample size: 1,066 program group members: 1,012 control group members The study found most participants (80 percent) enrolled in one microcredential pathway, with a small portion of participants enrolled in two or three pathways. Approximately 32 percent of participants completed at least one micro-credential. Sample size: 700 participants The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•	City of Los Angeles (CA)		
 Micro-credentials: Opportunity through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) 7 local workforce development board areas in Pennsylvania Round 3 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans (LA) New Orleans, LA Round 2 The study found most participants (80 percent) enrolled in one micro-credential. Sone pathways, with a small portion of participants completed at least one micro-credential. Sample size: 700 participants The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•	Los Angeles, California		
through Stackable Achievements Pennsylvania Department of Labor & Industry (PA) 7 local workforce development board areas in Pennsylvania Round 3 Outcome Inter-Tribal Council of Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways Round 3 Round 3 Round 3 Round 3 City of New Orleans, LA Round 2 Round 2 Credential pathway, with a small portion of participants enrolled in two or three pathways. Approximately 92 percent of participants completed at least one micro-credential. Sample size: 700 participants The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members.	•	Round 1		Sample size: 1,066 program group members; 1,012 control group members
Industry (PA) 7 local workforce development board areas in Pennsylvania Round 3 Outcome Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans, LA Round 2 New Orleans, LA Round 2 Industry (PA) Micro-credential. Sample size: 700 participants The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members.	•		Outcome	credential pathway, with a small portion of participants enrolled in two or three
 Round 3 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans (LA) New Orleans, LA Round 2 The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•			micro-credential.
 Southcentral Region Free Flowing Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans (LA) New Orleans, LA Round 2 The final report includes a short discussion of descriptive statistics from a survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•			Sample size: 700 participants
 Workforce Inter-Tribal Council of Louisiana, Inc. (LA) South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 Inter-Tribal Council of Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans (LA) New Orleans, LA Round 2 Round 2 survey conducted with the project partners. The survey results show that very few participants were opting to relocate to other areas, a centerpiece of the intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•	Round 3		
intervention. The intervention also aimed to establish a centralized data system to track and coordinate services among the partners; by program end, only one partner fully implemented the system. Sample size: unclear in final report RCT The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members.	•		Outcome	survey conducted with the project partners. The survey results show that very
 South-central Louisiana, Mississippi, Arkansas, and Texas Round 3 (Summer) Career Pathways City of New Orleans (LA) New Orleans, LA Round 2 FROM Orleans (LA) Round 2 ROT Sample size: unclear in final report The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•			intervention. The intervention also aimed to establish a centralized data
 Round 3 (Summer) Career Pathways City of New Orleans (LA) New Orleans, LA Round 2 RCT The evaluation results showed that the New Orleans Career Pathways had a positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•			only one partner fully implemented the system.
 City of New Orleans (LA) New Orleans, LA Round 2 positive impact on participants' earnings per quarter, with higher increases in earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•	Round 3		Sample Size: unclear in linai report
earnings for participants in the health care pathway. The study did not find meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members.	•	(Summer) Career Pathways	RCT	
 New Orleans, LA Round 2 meaningful program impacts on employment, job duration, or arrests. Lastly, the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members. 	•	City of New Orleans (LA)		
Round 2 the results of a survey of participants suggests that treatment group members were more satisfied with their jobs than control group members.	•	New Orleans, LA		
Sample size: 367 training group members, 281 control group members	•	Round 2		the results of a survey of participants suggests that treatment group members
				Sample size: 367 training group members, 281 control group members

4.2 **Work-Based Learning**

Six of the WIF grantees had projects that used some form of work-based learning in which participants received training at an employer's office/worksite. Included here are programs offering short-transitional jobs, which involve subsidies to employers and focus on building basic work readiness skills, rather than occupational skills. One of the evaluations in this category used an RCT, four used an outcomes approach, and one a QED. Exhibit 4-2 lists the brief evaluation results for the studies in this category. Several of the studies showed some positive results, although on a range of outcomes:

- The evaluation of the Los Angeles Regional Initiative for Social Enterprise (LA:RISE), the one RCT design in this category, showed that the program had a positive impact on employment during the first three quarters of the follow-up period, but no impacts in subsequent quarters.
- The *Oh-Penn Pathways to Competitiveness (P2C)* study, using both an outcome and OED design, found evidence suggesting positive impacts on employment in manufacturing, overall employment, and wages for previously unemployed men in the study. However, a number of issues (such as missing data and possible crossover between the comparison groups) in the impact evaluation diluted those results.
- The Eastern Connecticut Manufacturing Pipeline Initiative (MPI) helped transition job seekers with little to no manufacturing experience to manufacturing employment. The study found that the engagement of employers in the design of the program and the commitment of all partners toward a common goal were key elements of the program's outcomes. MPI participants benefited from the program by obtaining industry-recognized credentials, employment, and increased earnings.
- The Steps Up to STEM project evaluation found that the program provided STEM labor market and career information to more than 14,400 job seekers and assessed approximately 2,200 people for STEM readiness, exceeding the program's goals by more than 60 percent. The outcome study found that Steps Up to STEM improved training participants' wages.

Two projects had inconclusive results due to implementation and evaluation design difficulties, as noted below:

- The evaluation of the Metro-Atlanta WIA Consortium Project to Aid the Long-Term *Unemployed* did not have follow-up data on a large enough sample of participants to permit any firm conclusions to be drawn from the study.
- While the evaluation of *Made Right Here* identified a number of program successes, the evaluators also noted that the initiative was an ambitious effort that remained a "work in progress." Program successes identified include the implementation of the nationally recognized Maker Apprenticeship certificate and apprenticeship, the ability of the project to investigate and address the needs of startups, and effective engagement of unions and institutions of higher education.



Highlighted Work-based Learning WIF Project

Name of Project: Eastern Connecticut Manufacturing Pipeline Initiative (MPI)

Target Population: Unemployed and underemployed job seekers and manufacturing employers.

Intervention Description: A goal of the MPI is to enhance collaboration and alignment of workforce programs to target employer needs through customized training, ensuring training and services are aligned with available jobs, and increasing the commitment from employers in hiring. A second goal of the MPI is to strengthen the quality of American Job Center services by using high quality assessment tools and case management methods and by working directly with employers to identify training needs in growing industry areas. The MPI program was comprised of 5 stages (recruitment/assessment, basic skills and work readiness, customized skills training, supportive services, and on-the-job training), with participants completing only those stages appropriate for their job training/seeking needs. With the WIF grant, MPI enrolled just over 700 participants in 40 skills training classes. Participants spent approximately 18 weeks from registration with the MPI to completion. 598 participants completed the program and earned a credential.

Evaluation Approach: The evaluation of the MPI included an implementation study, an outcomes, and a cost study.

Brief Description of Results:

- The evaluation of the program found that the MPI met the needs of employers by providing needed employees, and that the MPI was effective at transitioning job seekers with little to no manufacturing experience to manufacturing employment in a short amount of time.
- The engagement of employers in the design of the program and the commitment of all partners involved toward a common goal were key elements of the programs outcomes.
- MPI participants benefited from the program by obtaining industry-recognized credentials, employment, and increased earnings.

4.3 **Entrepreneurship Training**

Exhibit 4-3 presents the WIF evaluations for the two projects that implemented an entrepreneurship intervention. Both evaluations have strong findings; both used an RCT design; and both found evidence of positive, statistically significant impacts on employment outcomes. Neither found statistically significant evidence of effects on earnings.

- The RCT evaluation of the Startup Quest® program found that there was no impact on selfemployment outcomes (likelihood of self-employment, or earnings from self-employment), but there was a positive impact on wage/salary employment approximately 2 years after program receipt.
- The evaluation of the Virginia Employment through Entrepreneurship Consortium (VETEC) found that participation in VETEC resulted in a statistically significant impact on the likelihood of being self-employed at 18 months after random assignment.

Exhibit 4-2. Evaluation Results Summaries of Entrepreneurship Training Interventions

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Startup Quest® CareerSource North Central Florida (Alachua Bradford Regional Workforce Board) (FL) Daytona, Gainesville, Jacksonville, Tallahassee, and Tampa Bay, Florida Round 1		The evaluation found no impact on self-employment outcomes (likelihood of self-employment, or earnings from self-employment), a positive impact on wage/salary employment approximately 2 years after program receipt (6.0 percentage points, statistically significant at the 10 percent level; note that about half of the sample was observed for 7 to 8 quarters beyond random assignment); a negative impact on ever receiving Unemployment Insurance (UI) benefits during the 14- to 16-month period following random assignment (a 6.7 percentage-point reduction in likelihood of UI receipt, statistically significant at the 5 percent level); a negative impact on duration of receipt of UI benefits, during the 14- to 16-month period following random assignment (a 1.5 week reduction in duration of receipt, statistically significant at the 10 percent level). The study also found a pattern of increasing wage/salary employment and earnings over the 8 quarters post-randomization (impacts on earnings are never statistically positive).
•	Virginia Employment through Entrepreneurship Consortium (VETEC)	RCT	The evaluation found that participation in VETEC resulted in a statistically significant impact on the likelihood of being self-employed at 18 months after random assignment.
•	The SkillSource Group, Inc. (VA)		
•	Northern Virginia, Greater Richmond, VA and Hampton Roads, VA		
•	Round 1		

4.4 Case Management, Counseling, or Coaching

The evaluations of the nine projects using case management, career counseling, and job coaching included seven RCTs or QEDs and two outcomes studies. Many of the evaluations in this category experienced issues executing the evaluation as planned, particularly small sample sizes and, for the QEDs, dissimilar treatment and comparison groups. As a result, the findings are mixed. Exhibit 4-4 below presents brief descriptions of the evaluation results for each of the projects in this category.

Of the seven studies using an RCT or quasi-experimental design, two are mixed, five have positive findings.

- The QED evaluation of the Linking Innovation, Knowledge, and Employment (@LIKE) found positive and statistically significant impacts on several outcomes including: placement in unsubsidized employment, attainment of vocational training, completion of high school/GED, and program completion. However, the treatment and comparison group were not equivalent on some characteristics, and some of the data for the treatment and comparison groups were collected from different sources, thus raising concerns about comparability of the data.
- The RCT evaluation of the *Housing and Employment Navigator Program* measured program outcomes at three different time points: 9, 18 and 24 months after random assignment. The study found strongly positive impacts on participation in education and training programs by 9 months, and significantly higher employment rates at 24 months after random assignment.
- The OED evaluation of the Wage Pathway Model found a statistically significant effect of the Wage Pathways program on participant earnings. Evaluators estimated that effect at approximately \$500 annually.
- Another QED, the evaluation of the Housing Works program found that participants were more likely to attain credentials (such as GED, postsecondary degree, industry or trade certificates and professional licenses). Participants were 20 percentage points more likely to be employed in the first quarter after leaving the program than public housing residents who did not participate in the program. However, evaluators did not find statistically significant differences in the second or third quarters.
- The QED evaluation of the **Rethinking Job Search** found that participants were more likely to be employed in the third quarter and fourth quarter after exit compared to individuals in a matched comparison group. Rethinking Job Search participants also had a greater likelihood of receiving UI benefits for a shorter duration than individuals in the matched comparison group.



Highlighted Case Management/Counseling/Coaching WIF Project

Name of Project: Rethinking Job Search (Willamette Workforce Partnership, OR)

Target Population: WIOA participants receiving UI benefits

Intervention Description: The Willamette Workforce Partnership used its WIF grant to design, implement, and evaluate the Rethinking Job Search (Rethinking) program. Operating in 11 counties in Oregon, Rethinking provided a series of workshops to teach the benefits of cognitive-behavioral techniques (CBT) to job seekers receiving Unemployment Insurance (UI). The aim of the workshops was to enhance job seeker motivation and self-efficacy related to job search activities, which would ultimately improve employment outcomes. The Rethinking program consisted of 12 two-hour workshops held three days a week for four consecutive weeks. By the end of the grant period, Rethinking offered 157 workshop series. A total of 1,215 individuals enrolled in the workshops, which exceeded the enrollment target. The majority of participants completed the program.

Evaluation Approach: The evaluation of Rethinking Job Search consisted of an implementation study, outcomes study, and cost study. Data sources included key stakeholder interviews, participant focus groups, participant surveys, program data, and administrative data.

Brief Description of Results:

- Facilitator turnover in six of the eleven Rethinking sites led to delays while new facilitators were brought on board and trained. Possible explanations for the turnover included: personal reasons, staffing shifts related to funding, and low compensation.
- Workshops were implemented with fidelity to the program standards and curriculum, with little variation across sites.
- Participants' self-ratings of their socioemotional skills, confidence, and motivation were high in both the post-workshop survey and the six-month follow-up survey.
- Rethinking participants had a 12 percent greater chance of being employed in third guarter and an 8 percent greater chance of being employed in the fourth guarter compared to individuals in a matched comparison group.
- Attending a greater number of workshops did not increase the likelihood of employment.

The remaining two evaluations RCT or QED design did not find statistically significant impacts:

The RCT evaluation of *Breaking Barriers in San Diego* found that the program did not have a statistically significant impact on any participant employment or earnings outcomes measured—including employment/ever employed, total earnings, length of employment, hours worked, and hourly wage—or any physical and mental health outcomes.

Highlighted Case Management/Counseling/Coaching WIF Project



Name of Project: Breaking Barriers in San Diego

Target Population: Low income individuals with disabilities

Intervention Description: The San Diego Workforce Partnership (SDWP) used its WIF grant to design, implement, and evaluate the Breaking Barriers program. Breaking Barriers aimed to improve the employment outcomes of low-income individuals with disabilities. The program model was based on the Individual Placement and Support (IPS) approach, which was originally designed for individuals with serious mental illness in a clinical setting. Using IPS approach, Breaking Barriers provided a range of employment and support services, including career counseling, job search assistance, personalized benefits counseling, supportive services referrals, and follow-along service once participants found a job placement.

Evaluation Approach: The evaluation of the Breaking Barriers program consisted of an implementation study, a randomized control trial impact study, and a cost study. In total, 1,061 individuals were enrolled in the study (528 to the program group, 533 to the control group). Study participants were randomly assigned to a group offered Breaking Barriers service or to a group not offered Breaking Barriers services.

Brief Description of Results:

- Breaking Barriers experienced staff turnover. About one-third of employment specialists and supervisors hired at program launch were still at Breaking Barriers 1.5 years later.
- The majority of study participants (92 percent) had some employment history. However, less than half of study participants (42 percent) were employed in the year before study enrollment.
- A little over half of program participants received follow-along services, which varied depending on the needs of the participant. Some participants received intensive support, while others needed or only wanted light check-ins
- The randomized control trial impact study found that Breaking Barriers did not have a statistically significant impact on any employment or earnings outcomes measured—including ever employed, total earnings, length of employment, hours worked, and hourly wage—or any physical and mental health outcomes. Attending a greater number of workshops did not increase the likelihood of employment.

The RCT evaluation of the *Bridge to Employment and Academic Marketplace (BEAM)* program found that the intervention did not have a statistically significant impact on participants' educational, employment, or earnings outcomes. Due to the small sample size, the study was limited in its ability to detect impacts on outcomes.

Similar to the above RCTs, both outcome studies in this category also experienced the challenge of small sample sizes, which affected the reliability of their results.

- The evaluation of *Career Jump Start* (sample size of 109) found that about half of the participants earned an industry-specific occupational credential. Participants with fewer barriers to employment and better math skills were more likely to earn an occupational credential. About 39 percent of participants that were eligible for a follow-up were employed in the first quarter after exiting the program.
- The Youth Ambassadors for Peace evaluation (out of the 167 youth enrolled in YAP, 120 youth were included in the study) found that a small percentage of participants received incentives for obtaining a high school diploma or equivalent or enrolling in college (26 percent) or for finding unsubsidized employment (39 percent).

Exhibit 4-3. Evaluation Results Summaries of Case Management, Counseling, or **Coaching Interventions**

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Breaking Barriers in San Diego	RCT	The study found that Breaking Barriers did not have a
•	San Diego Workforce Partnership Inc.		statistically significant impact on any employment or earnings outcomes measured—including ever employed.
•	San Diego County, California		total earnings, length of employment, hours worked, and
•	Round 2		hourly wage—or any physical and mental health outcomes.
•	Bridge to Employment and Academic Marketplace (BEAM)	RCT	The study found that the Guided Career Pipeline intervention did not have a statistically significant impact on
•	Workforce Investment Board of Herkimer, Madison and Oneida Counties (NY)		participants' educational, employment, or earnings outcomes.
•	9 counties in New York		
•	Round 2		
•	Career Jump Start Program	Outcome	The study found that the program had low completion rates
•	Northwest Pennsylvania Workforce Development Board (NWPA Connect) (PA)		(22 percent) during the evaluation period. A little more than half of participants earned an industry-specific occupational credential. Participants with fewer barriers to employment
•	6 counties in Pennsylvania (Clarion, Crawford, Erie, Forest, Venango, and Warren)		and better math skills were more likely to earn an occupational credential. About 39 percent of participants
•	Round 2		that were eligible for a follow-up were employed in the first quarter after exiting the program.

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Housing and Employment Navigator Program WorkForce Central (WA) Yakima, Whatcom, Skagit, and Islands Counties, Washington Round 1	RCT	The three time points for measuring outcomes for this study indicate that the program has limited effects in the short term but provide suggestive evidence that the program may increase employment in the longer term, with significantly higher employment rates for Navigator program participants among those who could be observed at least 24 months after randomization.
•	Housing Works Worksystems, Inc. (OR) 5 counties in Oregon Round 1	QED	The study found that participants were 20 percentage points more likely to be employed in the first quarter after exit than public housing residents who did not participate in the program. Evaluators did not find statistically significant differences in the second or third quarters after exit. These differences may be driven in part by differences in participant characteristics between the two groups.
•	Linking Innovation, Knowledge, and Employment (@LIKE) Riverside County Economic Development Agency (CA) Riverside, San Bernardino, and Imperial Counties, CA Round 1	QED	The evaluation findings show positive and statistically significant impacts on several outcomes: placement in unsubsidized employment, attainment of vocational training, completion of high school/GED, and program completion.
•	Rethinking Job Search (formerly Job Growers, Incite) Willamette Workforce Partnership (OR) Clackamas, Lane, Coos, Lincoln, Deshutes, Klamath, Marion, Yamhill, Jackson, Washington, and Multnomah Counties in Oregon Round 2	Outcome/ QED	The QED of participant outcomes found that Rethinking participants were more likely to be employed in the third quarter and fourth quarter after the exit quarter compared to individuals in a matched comparison group. Rethinking participants had a greater likelihood of receiving UI benefits for a shorter duration than individuals in the matched comparison group. Lastly, attending a higher number of program workshops did not increase the likelihood of employment.
•	A Wage Pathway Model to Place Low-Income, Low-Skill Youth and Young Adults in Occupations Leading to In-Demand Jobs Ohio Department of Job and Family Services (OH) Ashtabula, Cuyahoga, Ottawa, Summit, and Hamilton Counties in Ohio Round 3	Outcome/ QED	Wage Pathway sites were compared to similar workforce participants in counties in the state that did not implement Wage Pathways. The evaluation found a statistically significant effect of the Wage Pathways program on participant earnings. Evaluators estimated that effect at approximately \$500 annually.
•	Youth Ambassadors for Peace Monterey County WIB (CA) Monterey County, CA Round 2	Outcome	The study found that a small percentage of youth in the study either received incentives for obtaining a high school diploma or equivalent or enrolling in college (26 percent) or obtained unsubsidized employment (39 percent). Approximately 20 percent of youth in the study (24 out of 120) had arrests records, with fifteen of the youth arrested after enrolling in the program.

4.5 **Cross-System Coordination**

Of the six interventions that implemented cross-system coordination interventions, three evaluations used an RCT or QED, and three used an outcome design. Overall, the studies found some positive

effects, but results were limited. Exhibit 4-5 provides summaries of the evaluation results for each of the projects in this category. The evaluations that used a RCT or QED design found:

- The RCT of Virginia Financial Success Network (VFSN) project found that VFSN did not have an impact on participants' education attainment, employment, wages, or net worth. Receipt of more coaching sessions was associated with an increase in the likelihood of earning a credential and increasing individual and household income. Ultimately, the project was not implemented fully, and take-up of supportive services was lower than expected.
- The QED evaluation of the *On-Ramps to Career Pathways (ORCP)* found that the ORCP achieved some notable milestones in its systems change goal, particularly related to career pathways, while other systems change activities were not fully adopted within the workforce system. The ORCP did not improve participant employment rates or wage gains; however, it did have a positive effect on employment retention among participants who were employed.
- The QED evaluation of **Project GROW**, which experienced lower than anticipated sample sizes, found that it did not have impacts on participants' employment and educational outcomes.

The outcomes studies produced similar findings:

- The evaluation of the **Kansas WIF** project found that elements of the project were implemented as planned, such as the launch of the ReEmployKS online portal and delivery of cross-system trainings, but that the number of participants starting and completing an on-thejob training placement was lower than expected.
- The evaluation for Chelsea CONNECT found that on a number of measures participants reported improved outcomes after participation in the program. However, the study sample for the outcome analysis was relatively small and represented a small portion of those served by the project.
- The evaluation of the SVALLIES project found that although the project did not yield the broad changes to the workforce systems to serve adult English learners as was initially planned, the initiative did result in new relationships between project stakeholders that serve English learners. While a majority of participants who completed the pilots showed increased English language ability after the program, the outcome study findings are limited by small sample sizes.

Exhibit 4-4. Evaluation Results Summaries of Cross-System Coordination Interventions

Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
CONNECT Metro North Regional Employment Board (MA) North of Boston, Massachusetts Round 1	Outcome	The CONNECT outcomes study found that 60 percent of participants reported being employed at the end of the 18 month follow-up period compared to 44 percent at program entry. Seventy-three percent reported being better able to meet their living expenses than they were at program intake. Sixty percent said CONNECT improved on their financial stability. Participants reported an increase in average annual income between intake and 18 months. Fifteen percent of participants reported receipt of, or enrollment towards, a degree or certificate. Fifty-five percent reported that CONNECT helped improve their education.
 Kansas WIF Kansas Department of Commerce (KS) Kansas Round 3 	Outcome	The ReEmployKS online portal, including a mobile application, for job seekers was successfully developed and launched. A total of 19 in-person cross-system trainings were conducted. Staff who attended the training reported being satisfied with the training and found it valuable. Program enrollment and on-the-job training (OJT) placements were highest toward the end of the grant period. Enrollments exceeded the planned goal, with 240 participants enrolled. However, the percentage of participants who started and completed an OJT placement was 43 and 58 percent, lower than the planned targets of 80 and 70 percent. Of employers interviewed, 21 of 27 reported that the OJT placement met their performance standards. However, less than half of employers interviewed (41 percent) reported that they still employed the individual who had been placed in an OJT in their organization.
 On-Ramps to Career Pathways (ORCP) Rhode Island Department of Labor and Training (RI) Rhode Island Round 1 	QED	The ORCP achieved some notable milestones in its systems change goal, particularly related to career pathways, which continued to be a focus within the state beyond the grant. The other systems change activities were not fully adopted within the workforce system. The ORCP did not improve participant employment rates or wage gains; however, it did have a positive effect on employment retention among participants who were employed. The analysis detected a small, positive impact on employment rates in the second quarter after program exit, but a negative impact of more than \$1,000 on earnings within a two quarter follow-up period and a negative impact on employment rates in the first quarter of follow-up.
 Project Growing Regional Opportunity for the Workforce (Project GROW) Border Workforce Alliance (TX) Texas-Mexico border region: Cameron, Lower Rio Grande, Middle Rio Grande, South Texas, and Upper Rio Grande, Texas 	QED	Project GROW enrolled 425 individuals, 64 percent of their original enrollment target. Sixty-four percent of Project GROW participants completed the training program, but only 24 percent completed their occupational vocational training. The evaluation found, overall, that the Project GROW model was not implemented as envisioned. The project did not have any statistically significant impacts on participants' employment and educational outcomes.
Round 1		

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Silicon Valley Alliance for Language Learners' Education and Success Innovation Initiative (SV ALLIES)	Outcome	The study found that the majority of program completers in each of the four SV ALLIES pilots demonstrated gains based on pre- and post-assessment tests of their English language skills. Within 60 days after program end, 28 percent of participants had obtained a new job. The evaluation reported a positive association between the number of job advising sessions that participants
•	San Mateo County (CA)		attended and their likelihood of obtaining a new job. Results from the participant survey suggested that the pilot projects increased participants' confidence to
•	Santa Clara and San Mateo Counties, CA		succeed in their jobs and advance in their careers. Finally, employers involved in the pilots reported observing gains in their employee participants' English
•	Round 1		abilities and confidence.
•	Virginia Financial Success Network	RCT	The evaluation found that while many aspects of the project were implemented as designed, VFSN had challenges: the program operated at a somewhat
•	Virginia Community College System (VA)		smaller scale than planned (falling short of the 1,800 enrollment goal by approximately 300); one of the financial tools—The Benefit Bank®—was delayed and not all components were developed; support services were
•	8 workforce regions in Virginia		underutilized; and the take-up of financial coaching was much lower than expected with only 57 percent of participants meeting at least once with a coach.
•	Round 2		The program did not have an impact on education attainment, employment, wages, or net worth.

4.6 **Management Information Systems Changes**

Exhibit 4-5 shows the findings from the three WIF evaluations designed to implement new data systems for the purpose of improving evidence-based decision and program performance. As noted in Chapter 3, two of the three projects, Career Connect and Managing for Success were unable to develop and implement the intended MIS during the WIF grant period. The Managing for Success project was able to conduct an alternative effort in reviewing demographic data to help understand the customer base and to assess customer satisfaction with services. The evaluation reports for these two projects document the challenges encountered and provide findings for the efforts the grantees were able to accomplish (see **Exhibit 4-6**).

Unlike the other two grantees, the Minnesota Department of Employment and Economic Development was able to fully implement its MIS project. The outcomes evaluation of this grantee's program, CareerForceMN.com revealed interesting findings among the three target user groups of career seekers, employers, and workforce staff. Workforce staff reported both positive and negative outcomes (an increase in ease in serving employers, a decrease in the percent of staff satisfied with the tools). While the percent of career seekers who had some interaction with the system increased, the proportion who were satisfied decreased.

Exhibit 4-5. Evaluation Results Summaries of Management Information Systems Interventions

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Career Connect		Implementation required more time and staff resources than anticipated and a lengthy
•	Chicago Cook Workforce Partnership (IL)		process of trial-and-error to establish appropriate roles, responsibilities, and levels of effort for all players involved; Identifying requirements to be included in a Request for Information (RFI) for the system was critical to gathering stakeholder input and helping
•	Cook County, Illinois		the mostly non-technical project team develop an understanding of the technical needs,
•	Round 1		timeline, and costs; Stakeholder engagement was necessary for understanding key perspectives and potential for identifying challenges.
•	Managing for Success	Outcome	The outcomes evaluation on the alternative intervention conducted by the grantee
•	Newark Workforce Investment Board (NJ)		explored the extent to which jobseekers were satisfied with the services they received. While the outcomes survey data suggest that customer satisfaction increased during the intervention period, findings were not statistically significant. Customer satisfaction
•	Newark, New Jersey		was found to decline after the end of the intervention period.
•	Round 1		
•	Minnesota WIF Project (CareerForceMN.com)	Outcome	The outcome study found that the percent of staff serving employers who reported ease in serving employers increased by 7 percentage points, from pre-launch to post-launch
•	Minnesota Department of Employment and Economic Development (MN)		of the platform. There was a decrease in the percentage of workforce staff who reported being satisfied with available tools and resources. The percentage of employers who reported that it was easy or very easy to communicate with workforce staff declined slightly from 69 percent pre-launch to 66 percent post-launch, and the
•	Minnesota		percentage of career seekers who had some interaction with the workforce system
•	Round 3		increased. However, the proportion of career seekers who were satisfied with the system decreased from 60 percent to 37 percent, statistically significant at the 5 percent level.

4.7 **Technological Innovation (New/Online/Remote Services)**

The evaluations of the six WIF interventions in the technological innovation category include five RCTs or QEDs and one outcome study. Exhibit 4-7 provides summaries of the evaluation results of these studies. While some of the studies produced positive results, several did not detect effects of participant outcomes. However, the nature of the intervention resulted in a range of evaluation issues that affected the reliability of results.

The Employment Support Center (ESC), Electronic Ohio Means Jobs (OMJ) and Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative projects offered varying levels of remote or self-directed services which included access to online trainings, webinars, and resources, as well as telephone call centers that allowed remote access to grantee staff. Evaluations of all three projects used a RCT or QED approach.

- For *Employment Support Center (ESC)*, the QED evaluation found that the use of remote services increased program staff's capacity to deliver services, collect accurate data, and follow-up on customer's outcomes. However, this evaluation's results were affected by the comparability of the comparison groups, lack of adjustment for non-response bias, and crossover potential.
- The *Electronic Ohio Means Jobs (OMJ)* evaluation aimed to assess if client outcomes differed using the OMJ self-serve portal versus using traditional online services accessed through the One Stop Centers. Because the study experienced high crossover and attrition

- rates, the impact of the OMJ intervention on participant outcomes could not be assessed through the evaluation.
- The evaluation (conducted only in Utah as Montana was not able to maintain two systems) of the Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative found that the new system did not result in any changes in job seeker or employer outcomes. Moreover, job seeker satisfaction with the system was lower for the new/test system compared to the standard system.

Three projects implemented initiatives that used innovative technology-based approaches. While the evaluation of *TechSF* used an outcome design, the evaluation of the *Code Louisville* project used a QED, and the Florida Performance Funding Model used an outcomes study and a QED.

- The outcome evaluation of *TechSF* found a positive association between the number of career management workshops that participants attended and their likelihood of obtaining a new job, but overall the evaluation was hindered by small sample sizes and the short period of implementation of the initiatives.
- The QED evaluation of the *Code Louisville* project found the completion rate for the more than 1,400 participants was 58 percent, lower than for comparison training groups.
- The evaluation of the *Florida Performance Funding Model* found small effects on employment and earnings outcomes. Evaluators noted that as a statewide, system-change effort, the project was complex and encountered a number of challenges during implementation, including the departure of the primary architect, natural disasters, and a grant period that they concluded was too short to observe results from the intervention.

Exhibit 4-6. Evaluation Results Summaries of Technological Innovation Interventions

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	CareerSource Florida/Performance Funding Model	Outcome/ QED	The evaluation found that the PFM produced mixed results: a marginal positive effect on employment outcomes, marginal negative effect on wage outcomes, and negligible effects on employment for who were unemployed at time of enrollment.
•	Florida Department of Economic Development (FL)		The evaluation noted that the mixed results on the outcomes were not surprising given the complexity of this systems-change project, and a number of issues du implementation.
•	Florida		
•	Round 2		
•	Code Louisville	QED	The overall completion rate for Code Louisville was 58 percent, lower than the
•	KentuckianaWorks		completion rate for comparable training programs. Nevertheless, participants had rising earnings post program. In addition to a series of descriptive statistics about
•	Louisville, Kentucky		program participants, the evaluation used a matched comparison to other WIOA
•	Round 2		participants in comparable training programs. Program participants typically had lower employment rates than those in comparison groups during the year post program entry. In terms of earnings, program participants had higher earnings pos program initially as compared to the comparison groups, but the difference decline over time.

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Electronic Ohio Means Jobs (OMJ) Ohio Department of Job and Family Services (OH) Ohio Round 1	RCT	Because the study experienced high crossover and attrition rates, the RCT findings are essentially not valid. The process study found that over 78 percent of customers agreed that services were accessible with the exception of "assessments." Implementation study participants rated two-thirds of services as "useful," and over 70 percent gave the system an overall rating of "very" or "somewhat" useful. Users' ratings of the system (as helpful, easy, of high quality, personal, clear, engaging, user friendly, available and new) while somewhat lower, approached designers' ratings. 11 out of 12 OMJ Center staff were "very" or "somewhat" confident that the system was working as intended.
•	Employment Support Center (ESC) Pasco-Hernando Workforce Board, Inc. (FL) Pasco and Hernando Counties, Florida Round 1	QED	The evaluation found that the use of remote services increased program staff's capacity to deliver services, collect accurate data, and follow-up on customer's outcomes. The study also found that participants who engaged in particular remote services (such as recruitment events, job fairs, online orientation, resume completion, training search, and/or follow-up from ESC workers) were more likely to become employed than job-seekers that engaged in traditional in-person services. Engaging in career guidance, assistance with job search, or referrals to WIA did not increase employment levels.
•	TechSF Workforce Innovation Partnership San Francisco Office of Economic and Workforce Development (CA) San Francisco, CA Round 1	Outcome	With generally positive results, the evaluation had small sample sizes. The outcome evaluation examined the employment and earnings outcomes of the technical training participants who attended career management workshops, and included participants' perceptions of the workshops. There was a positive association between the number of career management workshops that participants attended and their likelihood of obtaining a new job. Among participants who obtained a new job after receiving services, 59 percent were employed in contract positions. According to participants and program staff, attending the career management workshops improved their interviewing skills, ability to identify job leads, and helped create resumes that communicated their skills.
•	Utah and Montana Next Generation Labor Exchange (GenLEX) Initiative Utah Department of Workforce Services (UT) Utah and Montana Round 1	RCT/ QED	The impact evaluation found, overall, that the new system did not result in any statistically significant changes in job seeker outcomes. Job seeker satisfaction with the system was statistically significantly lower for the new/test system compared to the standard system. In addition, employer usage generally did not change. The implementation of the GenLEX initiative was hampered by personnel changes and shifting priorities.

4.8 **Employer Engagement / Sector Strategies**

The evaluations of the five projects in the Employer Engagement/Sector Strategies category used a variety of evaluation designs, with varied results, as summarized in Exhibit 4-8 below. The one RCT in this category had positive and statistically significant results.

The Accelerated Training for Illinois Manufacturing (ATIM) had a positive and statistically significant impact on enrollment in and completion of occupational skills training and completion of multiple (stacked) certificates for ATIM participants relative to the control group, as well as positive impacts on earnings and, in select quarters, employment, during the second year following random assignment.

Highlighted Employer Engagement/Sector Strategy WIF Project



Name of Project: Accelerated Training for Illinois Manufacturing (ATIM)

Target Population: WIA-eligible adults with at least 10th grade reading/9th grade math.

Intervention Description: The ATIM program, as originally envisioned, included seven components: (1) integrated basic and occupational skills "bridge" training for participants with lower basic skills; (2) industryspecific training, planned with employer input, leading to nationally-recognized credentials; (3) accelerated training schedules, offering training in "stackable" credentials; (4) individualized training and employment plans; (5) a state-level participant tracking system, to aid in case management and allow consistent measurement of outcomes across state agencies; (6) team-based case management across the workforce system, training providers, and employers; and (7) work-based training, such as on-the-job training, internships, and job shadowing. While most of these components were implemented, the following were not ultimately feasible during the grant period: (1) integrated basic skills training, (6) case management teams, and (7) work-based training opportunities.

Evaluation Approach: The evaluation of the ATIM program included an implementation study, an outcomes study, a random assignment impact study, and a cost study. The final sample for the impact study included 738 individuals, 514 enrolled in ATIM and 224 were assigned to the control group.

Brief Description of Results:

- Eighty-five percent of ATIM participants enrolled in a basic manufacturing skills training module, 62 percent of whom received at least one certificate. Additionally, 76 percent of participants also enrolled in other occupational skills training programs offered through local training partners, 83 percent of whom completed training. The majority of ATIM participants (71 percent) also exited the program with employment, mostly (63 percent) in jobs related to their training.
- The impact study found that the program had positive impacts on enrollment in (69.8 percentage points) and completion of (51.9 percentage points) training; probability of receiving at least one training certificate (55.1 percentage points) and on average number of certificates received (2.0); and earnings (\$5,500 more during the second year after random assignment).

There were two QED evaluations in this category – one with inconclusive findings and another with more positive findings, as noted below:

The Ohio Business Resource Network (BRN) Expansion examined the outcomes of the BRN program on employers in two of the five LWIAs. The impact study compared changes in the number of full-time employees and total wages for employers who acted on at least one of the BRN-proposed business services to those who did not take up any of the BRN-proposed services. However, the impact analysis did not detect impacts regarding in the number of full time employees or wage levels.

The Skills Wisconsin project found that the Customer Relationship Management (CRM) system implementation in pilot areas led to an increase in the likelihood of employment for job seekers but had no effect on job retention or earnings.

While the final two projects in this category differed in scope and target population, both used outcomes evaluation and both had positive findings.

- The evaluation of the *Orange County ITCCP* found some positive results in employment and earnings outcomes. The pilot efforts were limited to a relatively small group of participants, however, and over a short time frame.
- The evaluation of **SWMERN-E** found the program provided necessary resources that employers could use to aid their workforce. The services included soft skills and occupational training and OJT to prepare new employees for their new positions. Participants were satisfied or very satisfied with the training and resources. Employers also reported value in networking with one another and working collectively across firms to identify retention challenges in the local community.

Exhibit 4-7. Evaluations of Employer Engagement / Sector Strategies Interventions

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Accelerated Training for Illinois Manufacturing (ATIM)	RCT	ATIM had a positive and statistically significant impact on enrollment in and completion of occupational skills training and completion of multiple (stacked) certificates for ATIM participants relative to the control group, as well as positive
•	Illinois Department of Commerce and Economic Opportunity (IL)		impacts on earnings and, in select quarters, employment, during the second year following random assignment.
•	5 regions in Illinois covering 62 of 102 counties		
•	Round 1		
•	Ohio Business Resource Network (BRN) Expansion	QED	The analysis found no evidence of a positive effect on the number of full-time employees or wage levels for employers who acted on at least one of the BRN-
•	Workforce Initiative Association (OH)		proposed business services as compared to those who did not take up any of the services.
•	13 counties in Ohio		
•	Round 2		
•	Orange County Information Technology Cluster Competitiveness Project (ITCCP)	Outcome	The studies of the pilots implemented by the grantee generally found positive results, though these were limited by small sample size. The Training Programs Pilot Project evaluation found that 67 percent of participants unemployed at enrollment were employed at follow up.
•	Orange County Workforce Investment Board (CA)		
•	Orange County, California		
•	Round 1		

	Project, Grantee, Area Served, Round	Evaluation Design	Outcomes and Impacts Summary
•	Skills Wisconsin Workforce Development Board of South Central Wisconsin (WI) Wisconsin Round 1	QED Outcome	The program was able to exceed all but one of its performance targets (e.g. number of businesses served, number of employer profiles, number of jobseekers trained and served, number of times Salesforce was accessed) while operating as a relatively low cost-program. The impact study results suggest that Salesforce implementation in pilot areas led to an increase in the likelihood of employment for job seekers but had no effect on job retention or earnings, after controlling for observable differences among jobseeker cohorts. In the outcomes analysis, the evaluators found that employer opinions of the workforce system did not change in a meaningful way, though employers with more direct contact with the program had slightly more positive feelings about the workforce system.
•	Southwest Michigan Employer Resource Network – Expanded (SWMERN-E)	Outcome	The outcomes evaluation found that the expanded ERN model provided necessary resources that employers could use to aid their workforce. Participants were satisfied or very satisfied with the training and resources. Employers also reported
•	W.E. Upjohn Institute for Employment Research (MI)		value in networking with one another and working collectively across firms to identify retention challenges in the local community.
•	Branch, St. Joseph, Kalamazoo and Calhoun Counties, Michigan		
•	Round 2		

4.9 The WIF Evaluations: Summary of Findings

Overall, given the large number of studies initiated and completed, the WIF evaluations add to the evidence base on the effectiveness of different workforce strategies and build capacity for conducting workforce-related evaluations. Those studies with strong evaluation designs and execution in particular will help build the field's knowledge of program effectiveness.

The WIF evaluations show positive to mixed effects across a range of outcomes, although study limitations affected the reliability of some of the results. They also show that a diverse array of interventions can accomplish similar goals, such as to increase employment and earnings, provide services to a population not served previously, and form partnerships among stakeholders who might not have collaborated before. However, given the varied range of interventions implemented and the different expectations about what outcomes they were designed to improve, it is difficult to draw firm conclusions about particular interventions or intervention types.

Finally, the challenges that evaluators experienced can also provide useful lessons. While some evaluations showed minimal findings, they can still offer important information about workforce strategies that may not be effective in a particular context. Thus the experience with WIF evaluations can inform efforts to improve third-party evaluations of workforce initiatives, highlighting common evaluation problems (such as those observed by the WIF NEC and also by some of the WIF evaluators: small sample sizes; difficulty obtaining data; identifying appropriate comparison groups; using appropriate analytic methods; and writing comprehensive, clear reports).

5. Key Findings from the WIF Projects

This chapter provides lessons and observations about grantee-led evaluations in several areas, including: building expertise in evaluation, managing a set of complex relationships, developing effective communication strategies with evaluators, addressing and overcoming common evaluation challenges, understanding the value of implementation evaluations, and finally, the importance of developing reporting standards. For each area, we present lessons learned and offer recommendations for addressing challenges encountered. The data sources for this chapter are the NEC's analysis of the interim and final WIF evaluation reports, the NEC team's experience in serving in the role since the start of the project in 2012, and discussions held with WIF evaluators, especially as their evaluation projects ended. The chapter is also based on one-on-one interactions with grantees and evaluators conducted throughout the grant period and the development of evaluation guidance materials, including webinars and other written documentation.

5.1 Lessons Regarding Grantees' Role in the Evaluations

Overall, grantees' involvement in conducting evaluations required considerable time and effort in development of an initial evaluation design in their grant application; soliciting and procuring a thirdparty evaluator; and supporting a variety of evaluation activities, such as providing data, and assuring that critical evaluation documents, such as longer design report and final evaluation report, were produced during the grant's period of performance. Specific observations and lessons from WIF include the following:

Many grantee organizations started with minimal experience supporting program evaluations and WIF built expertise in evaluation, one of WIF's goals.

At the time of the release of the Round 1 WIF SGA in late 2011, guidance for WIF evaluations was limited to the language and information contained in the SGA. While the SGA referred to "rigor" and "rigorous evaluation," it did not provide definitions or benchmarks for these terms or further detailed information about requirements for the evaluations of the WIF-funded interventions. While DOL has since implemented the Clearinghouse of Labor and Evaluations and Research (CLEAR) that now provides guidance on these issues, the limited guidance in the SGA led to challenges in the early phases of the projects for grantees' understanding of the key requirements for carrying out the evaluations, including contracting and communicating with the evaluator, designing the evaluation, determining if the intervention was ready for an evaluation and assigning the most appropriate evaluation design.

Those grantees who were inexperienced in procuring evaluators encountered difficulties in finding an appropriate evaluator, in defining the evaluator's scope of work, and in budgeting for the evaluation. For many grantee organizations the procurement process was lengthy and complex. These challenges resulted in the evaluator often being hired well into the first year of the grant and needing to then complete an evaluation design in a short time frame (e.g., less than six months). In spite of these challenges, all WIF projects developed the capacity to engage an evaluator, developed an approved Evaluation Design Report, and completed the evaluation of the project within the grant time period. While some grantees experienced a steep learning curve in undertaking an evaluation, through the process all grantees built evaluation capacity and experience.

Grantees had to gain an understanding of the tiered evidence structure, requiring expertise that grantees had not yet developed, particularly before the technical assistance was provided.

At the application stage, applicants had to understand and apply the tiered evidence structure of the WIF grants. This relatively novel concept proved challenging to some grant applicants, leading some to incorrectly identify the proposed intervention type. The incorrect identification by some projects was compounded further by inappropriate assignment of evaluation approach that accompanied the project type. Further, some applicants proposed interventions that may not have been ready for evaluation, even as a Type A, "new, untested idea." Focused on the idea of "innovation," some grantees proposed efforts to test a variety of creative, new service delivery approaches. Finally, the limited experience with evaluation led at least two grantees to procure evaluators with inadequate experience in workforce-related interventions or in the specific evaluation type proposed (such as a RCT). To address the knowledge and information gaps of grantees around evaluation, the NEC provided a variety of types of assistance, including webinars, written guidance, in-depth review and comments and suggestions for improvement to preliminary evaluation plans followed later by detailed review of evaluation design reports (EDRs) and draft final reports, along with one-on-one technical assistance and information sharing. In the end, grantees clearly gained substantial evaluation knowledge and expertise, and were able to learn and use the evaluation information in execution of their project's evaluations.

To help clarify and enforce evaluation standards, the NEC provided documentation on expected levels of rigor for the evaluations, the process for submitting evaluation designs, and expectations for evaluator collaboration with the NEC.

In order to conduct thorough and consistent reviews of evaluation designs, the NEC developed standards based upon What Works Clearinghouse (WWC) and Investing in Innovation (i3) standards (both Department of Education tiered evidence programs), and refined them for suitability to the WIF evaluations. However, the lack of standards of rigor in the SGA limited the ability of the NEC to enforce the standards that were developed. As a result, evaluators were not always certain if they were required to do what the NEC suggested. For Rounds 2 and 3, the two-phased funding approach that required the on time submission and approval of the EDR before Phase 2 funding would be granted addressed some of the ambiguity surrounding EDR approval and enforcement of standards for Round 1 grantees.

An initial period for planning, implemented as part of later WIF rounds, was valuable in improving the implementation of the interventions and evaluations.

In the later funding rounds, DOL structured the WIF grants to include an initial one-year planning period. By defining this initial period, DOL defined the sequence of evaluation and intervention implementation. During this initial year, grantees were required to procure an evaluator, fully develop the intervention, and develop and submit an EDR. Developed by the evaluator, the EDR was required to describe in detail the process and plan for conducting the evaluation. The EDR was due on a specific date, and was reviewed for approval by the NEC and DOL.

The WIF structure involved a number of stakeholders in a complex array of relationships that presented challenges for both grantees and evaluators. 19

WIF evaluators saw their primary relationship with the grantee that had procured and contracted with them to conduct the evaluation of the WIF intervention. A secondary relationship for the evaluator was with DOL, the grantee's funder. Another relationship was that between the evaluator and the NEC. This relationship, while non-binding and lacking means for enforcement, was often regarded as an extension of the relationship with DOL. The evaluator might also have a relationship with the DOL Federal Project Officer (FPO), and also the technical assistance provider as an extension of the relationship with the grantee. The grantee and its subgrantees or contractors (including the evaluator) were bound by the grant agreement between the grantee and DOL that prescribed a set of requirements.

The various entities involved with the WIF each had different primary concerns and interests. The grantee was concerned with fulfilling the funder's grant agreement requirements (including having an evaluation conducted on their intervention), timely implementation of the intervention, meeting any implementation challenges, and regular reporting to DOL. The evaluator was primarily interested in ensuring that the evaluation design was feasible and also methodologically sound. While evaluators were largely responsive to the NEC, they saw their primary relationship as with their client, the grantee. The evaluator was thus often in the challenging position being between the grantee and the NEC, at times confronting issues that their funder, the grantee, did not necessarily understand and that the NEC had raised. Complicating these relationships at times was the inexperience of the grantee with program evaluation, and thus a lack of clear understanding about what the evaluator might need from the grantee in a variety of areas, such as detailed information about the intervention, access to and acquisition of relevant program data.

Because grantees funded the evaluations, some issues were encountered in maintaining evaluator independence.

While independence of the third-party evaluator was a grant requirement in the SGA/FOA (DOL, 2011, 25; DOL, 2014, 11; DOL, 2015, 1), because the grantee procured, contracted with, and paid the evaluator with grant funds, the independence of the evaluation could be at risk. In such a structure, there may be a potential for bias (or the appearance of bias) that risks discrediting the evaluation. It was important to keep in mind that grantees in this position need to make efforts to ensure the independence of the evaluator, including enabling the evaluator to independently conduct all key aspects of the evaluation. Even with maintaining independence, to respond to grantees' requests, evaluators did provide interim evaluation results, so that program refinements and mid-course adjustments could be made to improve program operations throughout the grant period.

Communication among the stakeholders involved in WIF emerged as a key component to maintaining effective working relationships and also for contributing to maintaining evaluator independence.

Based on the NEC's experience, the grantees and evaluators who established strong communication channels and effective practices of sharing information were able to establish strong evaluations. The

See diagram of roles of various WIF stakeholders in Appendix C.

"Evaluation Toolkit for Grantees" developed by the NEC for Rounds 2 and 3 was expressly targeted at educating grantees about key concepts in evaluation, including how best to communicate with and assist the evaluator. The toolkit focused on a number of issues such as evaluator independence, protecting the rights of human subjects, and how to develop a statement of work and appropriate level of effort to procure an evaluator. The evaluator can also be challenged in effectively communicating evaluation results to their client, the grantee. When findings are not positive or do not demonstrate the expected outcomes, the evaluator needs to ensure that the grantee fully understands those findings, as well as the lessons that may be present in even non-positive results or in analysis of the intervention's implementation.

Evaluators and grantees experienced challenges in evaluation execution, many of which were common in the evaluation field but some of which were unique to WIF.

WIF evaluations experienced many of the same challenges that are common in evaluation execution. These included for example lower than expected levels of participant recruitment and resulting issues for the evaluation sample size; challenges in accessing data (including state data and program-specific data that was not collected or identified sufficiently); and survey administration and non-response. Some evaluation designs in particular posed challenges for evaluators. Specifically, evaluations with a quasi-experimental design faced a range of execution challenges, including the unavailability of comparison group data, challenges in defining the treatment group that made outcome comparisons unrealistic and impossible, and follow up timeframes that prevented full assessment of outcomes. Because QED evaluations are complex and challenging to conduct, it is important to ensure that evaluators have the requisite level of skills to carry out these designs and also that the intervention is suitable and lends itself to this design type. For subsequent rounds of WIF, DOL recognized the challenges in QED evaluations, and altered the required evaluation design for Type B projects to eliminate the requirement to use this type of design.

A challenge in evaluation execution that was unique to WIF concerned the limited period of performance of the grant and the relatively short follow up period to assess outcomes and impact results. Because the grants had an established period of performance due to the expenditure requirements associated with the source of grant funds, the evaluations in turn were on a limited time frame. The time period was limited further by ensuring that there would be an adequate follow up period to assess the intervention outcomes. For those evaluations that used Unemployment Insurance (UI) data, these studies needed to build into the timeline an additional two quarters (six months) in order to use data as reported through the UI system. Several of the final evaluation reports concluded that the short timeframe for follow up limited the observation of intended outcomes.

WIF grantees and evaluators also had difficulty determining whether an intervention was ready for evaluation. Given that WIF encouraged innovation, determining if a program was ready to undergo an evaluation may not have been addressed sufficiently as grantees applied for grant funding. For example, some grantees approached their intervention as a continually innovating enterprise. For Round 3, DOL instituted a requirement for an "Evaluability Assessment" as part of the grant application. While this requirement was helpful in helping to determine if projects were ready for evaluation, some projects were still implemented based upon a minimal evidence base, and without benefit of understanding the project's feasibility, potential partner engagement level, and potential client/participant interest in services.

Finally, while WIF had a goal of comparing outcomes across grantees, it was not possible to collect comparable data across interventions. Because WIF interventions were expected to be innovative and could include broad range of strategies and outcomes, DOL intentionally did not require reporting on a previously established set of measures for funded projects, and grantees developed a wide range of measures even for similar outcomes (such as how to measure employment and earnings). While grantees had quarterly performance reporting on a variety of individually-set measures, the lack of a standard set of data measures required of all interventions ultimately prevented a direct comparison of results across the grantees.

The implementation studies from WIF serve as a rich source of information and learning, in particular for the WIF interventions that were focused on innovative activities, partnerships, or methods.

An important lesson from WIF evaluation reports centers on the implementation studies produced as part of the impact or outcome study. A well-executed implementation study can provide important information about the challenges in implementing innovative projects, how new relationships are forged, and what elements of a project are instrumental to its full implementation. As explored in Chapter 3 of this report, even for those projects that were not able to implement the intervention with fidelity to the original design, critical lessons about the challenges in implementation of the intervention and those around the evaluation, are instructive.

While many Final Evaluation Reports were logically organized, well-written, and provided sufficient detail about the intervention, the evaluation design, and the findings from the study, a number of reports were not well organized and did not sufficiently or clearly describe the study or convey the findings.

The WIF Final Evaluation Reports varied in readability, organization, and how clearly the findings were presented. Many of the issues of readability stemmed in large part from report writers struggling to appeal to a broad audience, including grantee and program staff, as well as academic or evaluation technical experts. Reporting on evaluation results presents a challenge around how to explain highly technical information, such as the methods used by the evaluator to analyze data, the resulting findings, and their interpretation or meaning. Some evaluators effectively used non-technical language to present evaluation findings within the body of the report, telling a compelling "story" about the intervention and moving the more detailed technical information to appendices. Some reports did not include enough information about evaluation methodology, baseline statistics and/or statistical significance information for the analytic strategies used. For Rounds 2 and 3, after guidance was provided to evaluators and grantees about expectations for report presentation, the quality of the final reports universally improved.

5.2 **Considerations for Similar Future Programs**

Although WIF has concluded, for the benefit of other possible future programs with a similar granteeled evaluation structure, below we provide some specific recommended strategies that can address the challenges encountered within WIF.

Define roles clearly and increase communication and accountability across stakeholders. Given the complex array of relationships involved in a Federally-sponsored grant program,

communication among and between stakeholders can take on a significant role. It should be acknowledged and understood that all entities are working toward the same goal: effective execution of the intervention and full implementation of the evaluation design, with both resulting in a strong final evaluation report. This alignment can also be conveyed in messaging from the sponsor, which can assist in keeping grantees more fully engaged in the evaluation.

- Develop clear, consistent standards and lines of authority to enforce standards. To address the issues encountered early on in WIF, defining the required level of rigor in the grant solicitation and ensuring that grantees pass-through these requirements to their third-party evaluators is an important consideration. Developing a clear, consistent set of standards to be applied to workforce-related evaluations, perhaps through a separate entity (such as CLEAR at DOL), would also be beneficial. We also recommend developing definitions and passing bars for "confirmation" and "reservations" and that these standards are included in the grant solicitation or other early guidance for grantees. Establishing a set of criteria that can be explained and used by the evaluators (and grantees) in development of their evaluation design plan will assist in creating a transparent process. Finally, there should be a method for enforcing the criteria in order to ensure that standards are upheld and that recommendations followed.
- Build capacity within grantee/project staff to ensure evaluation goals and methods are *understood.* One strategy to help ensure quality evaluations is to ensure that grantee organizations are better consumers and funders of evaluations. Educating and informing the entities that procure and engage evaluators to evaluate their interventions, so that they have a working knowledge of evaluation concepts, terminology, and data needs will help ensure that programs can be better equipped to pursue an evaluation.
- Ensure an adequate timeline to measure outcomes relevant to a workforce intervention. Timeline requirements for the evaluation should align with the timing and expectations for outcomes measured for the intervention. When a project timeline is limited because of funding restrictions or requirements, it is important to temper evaluation outcomes accordingly so as not to set the project up to fail to meet those outcomes. In other words, the evaluation design, including the research questions selected and the specific measures for answering those questions, should reasonably be expected given the timeframe allotted under the grants.
- Ensure comparability of data measures across evaluations. If the findings or results of evaluations are meant to be aggregated or compared more readily, specific pre-established measures should be incorporated so that all interventions are gathering and reporting on the same measures, and evaluations of those interventions can also use those same measures. For a grant program like WIF, DOL could create different categories of innovation – focused on both interventions aimed at individual participants and those aimed at systems change (as evaluations for these would be assessing different outcome measures). If assessing participant employment or earnings, DOL could define the measure and timing (e.g., employment levels or increase in quarterly earnings).

- Ensure that projects are ready for evaluation. Similar to the requirement included in the FOA for the Round 3 WIF grants, building an evaluability assessment into the process for grant applications would require potential grantees to demonstrate that a project has matured enough or that project planning has developed to the point where an evaluation is feasible. Even with a year-long planning process, a completely new or continually evolving intervention poses challenges for development of a workable evaluation approach.
- **Promote strategies to ensure that the evaluation is independent.** One strategy for ensuring an independent evaluation would be for the Federal sponsor to procure and directly fund the evaluation. This structure would separate the evaluator and grantee relationship to ensure clear independence and a more solid line of accountability from funder to evaluator.
- Evaluators should note that veterans are excluded from random assignment evaluations and recognize the important implications for sample size targets. Evaluators should take the veterans priority of service requirement into consideration when developing recruitment budget and strategies. If the evaluation is being conducted in an area with a sizable veteran population, it may be difficult to meet sample size targets. Given that recruitment is already a challenge for most random assignment studies to create a control group, the evaluator may need to budget even more time and resources for recruitment given the requirement that veterans may not be randomly assigned and therefore cannot be included in the study sample.
- Require implementation or process studies as a component of an outcome or impact evaluation. For WIF Rounds 2 and 3, DOL included an implementation study requirement, recognizing the important information that can be revealed through such studies. In the end, the WIF implementation studies were a useful information source of lessons learned and provided important context for the outcome and impact studies.
- Include an initial period for comprehensive planning of the intervention, engagement of evaluator, evaluability assessment, and evaluation design. A recommended approach for grantee-led evaluations is to include an initial period during which the grantee can procure an evaluator, who can then conduct an evaluability assessment as a first step prior to designing an evaluation. This step will help to determine if a program is ready for evaluation, and if so, appropriately identify a project type and ensure that the appropriate level of rigor is determined. Only those grantees that meet specific standards or benchmarks in this initial phase related to procuring the evaluator and evaluability would be eligible to move forward to a next phase of funding.
- Include detailed evaluation requirements, and clear expectations for evaluation deliverables and timeline. Detailed information about specific evaluation requirements and guidance on evaluation deliverables, timing, and the review and approval process would strengthen the grant or funding announcement for grantee-led evaluations, providing more information for potential grantees to follow and use for planning.
- Provide detailed guidance on final report requirements, including the level of detail needed for the discussion of results, methodology used, and the intended audience. To help ensure quality and consistency across final reports, provide guidance on how to structure a report in a logical order, the level of detail to include, which technical (analytic) details and

KEY FINDINGS FROM THE WIF PROJECTS

information to include in the report main body versus an appendix, and other general guidance about developing well organized, sufficiently detailed and readable reports, including how to provide documentation that uses non-technical language and effectively conveys the interpretation of evaluation results.

6. Conclusions

WIF offers a rich set of lessons for a variety of stakeholders, including grantee organizations, evaluators, and funders. Overall, WIF was a substantial accomplishment: across the three rounds of grants, 43 grantees developed and implemented a range of innovative, interesting projects, procured external evaluators, developed and conducted evaluations, and produced final evaluation reports that share the projects' implementation experiences and outcomes. Although the evaluation component may have been one of the more challenging grant requirements to meet, all grantees met the requirement and gained significant evaluation knowledge and capacity from the experience. Further, the grantees and their evaluators produced a broad, interesting, and useful array of findings among varied interventions, including a number of promising workforce approaches, contributing a variety of implementation and evaluation lessons to the evidence base.

The WIF experience offers lessons in the area of evaluating innovative interventions. As the name makes clear, WIF supported and promoted the development of new ideas, encouraging workforce providers to develop creative solutions to solve workforce program challenges, develop new methods of service, form relationships with new partners, and deliver services to new populations. The tiered evidence structure, coupled with the appropriate evaluation type, supported this innovative thinking promoted by WIF. Under this structure, WIF could fund new projects as they could be evaluated using less rigorous approaches. More established interventions that were scaling their reach would be evaluated using a more rigorous evaluation method.

While evaluation findings, especially those from experimental designs, provide concrete information about program effectiveness, the evaluations that experienced challenges also provide useful lessons. Even evaluations that have minimal findings can nevertheless provide important information about what may not be effective in a particular context. The evaluations can also offer lessons on how to improve third-party evaluations of workforce initiatives, highlighting common evaluation problems (such as small sample sizes; difficulty obtaining data; identifying appropriate comparison groups; using appropriate analytic methods; and writing comprehensive, clear reports).

The experience of the WIF grantees indicates that some of these interventions were not yet appropriate for an outcomes evaluation (the least rigorous evaluation approach). Instead, the option of a process or formative evaluation approach (sometimes termed "developmental evaluation") would help further develop the intervention simultaneously as the evaluation is being conducted. And some intervention approaches could have benefited from a thorough feasibility assessment to help determine how well the intervention would be received and how it would operate. These interventions seem to not have been quite ready for implementation, or at least implementation within the time frame offered through the WIF grant.

There are a number of important lessons for the provision of technical assistance from WIF as well. The report has discussed the challenge of providing evaluation technical assistance without a means of enforcement. While the two-phased structure of later grant rounds partly addressed this issue, there are additional methods that could be instituted for similar grant efforts. Beyond approval of the evaluation design reports, other benchmarks or thresholds could be built into the grant agreement that require an approval process or at least a consultation process with the technical assistance provider. Such benchmarks could include for example, a more detailed data collection plan, along with

submission of data sharing agreements copies (in order to assess if data collection will be sufficient and is implemented according to plan). The requirements could also include that a more detailed analysis plan to be fully developed and submitted for review after data collection is underway (analyses cannot be fully specified until the evaluator has a clear understanding of the data), and also require a brief assessment of data collected that provides insight into the quality of the data and the potential future analysis (this element would help to ensure that the plans are understood among all for handling this situation). If the sample size is smaller than expected, the evaluator should provide a backup plan for additional sample recruitment and a plan for analysis that accommodates the smaller than expected sample size (this is a challenge in many evaluations, and the evaluator should have plans to address it potentially). These benchmarks and supplementary plan elements required throughout the course of the evaluation period would help ensure that the evaluator and grantee stay engaged with the technical assistance provider, which in turn could help avoid common issues encountered in evaluations. The technical assistance provider would be viewed as a resource and partner in supporting the completion of a successful evaluation.

7. References

- Abt Associates. (2014). Evaluation Toolkit for Prospective Workforce Innovation Fund Grantees. Washington, DC: U.S. Department of Labor. Retrieved from https://www.doleta.gov/workforce innovation/pdf/grantees/FINAL WIF EvaluationToolkit 5-12-2014.pdf
- Almandsmith, S., Ortiz Adams, L., & Bos, H. (2006). Evaluation of the Strengthening the Connections Between Unemployment Insurance and the One-Stop Delivery Systems Demonstration Project in Wisconsin. Oakland, CA: Berkeley Policy Associates.
- Baird, M., Engberg, J., Gonzalez, G., Goughnour, T., & Gutierrez, R. (2019). Effectiveness of Pre-Screened, Demand-Driven Job Training Programs for Disadvantaged Workers: An Evaluation of the New Orleans Career Pathway Training. Prepared for the New Orleans Office of Workforce Development. Santa Monica, CA: RAND Corporation.
- Baran, B., Michon, S., Teegarden, S., Giordono, L., Lodewick, K., Benner, C., & Pastor, M. (2009). Implementing the National Fund for Workforce Solutions: The Baseline Evaluation Report. Washington, DC: National Fund for Workforce Solutions.
- Benus, J., Shen, T., Zhang, S., Chan, M., & Hansen, B. (2009). Growing America Through Entrepreneurship: Final Evaluation of Project GATE. Columbia, MD: IMPAQ International. Retrieved from https://wdr.doleta.gov/research/details.cfm?q=GATE&id=2444
- Betesh, H., Kim, H., Kogan, D., Lindy, R., & Paprocki, A. (2017). Evaluation of Accelerated Training for Illinois Manufacturing (ATIM). Prepared for the Illinois Department of Commerce and Economic Opportunity. Oakland, CA: Social Policy Research Associates.
- Bettinger, Eric P., & Baker, R. (2011). The Effects of Student Coaching in College: An Evaluation of a Randomized Experiment in Student Mentoring (NBER Working Paper No. 16881). Cambridge, MA: National Bureau of Economic Research.
- Bill, N., Armstrong, K., Nanda, N., & Chen, Y. (2016). Oh-Penn Pathways to Competitiveness Evaluation: Third-Party Evaluation Services for Workforce Innovation Fund Grant - Final Evaluation Report. Prepared for the West Central Jobs Partnership. Columbia, MD: IMPAQ International.
- Bischoff, U., Hebbar, L., LeFevre, L., Jaeger, L., Broek, M., & Austin, K. (2015). Silicon Valley ALLIES Innovation Initiative, Evaluation Report. Prepared for County of San Mateo, California. San Francisco, CA: WestEd.
- Bischoff, U., Wendt, S., LeFevre, L., & Rice, J. (2015). Evaluation of the Orange County Information Technology Cluster Competitiveness Project. Prepared for the Orange County WIB. San Francisco, CA: WestEd.
- Bloom, D. (2016, Oct). Should the Government Subsidize Jobs for the Unemployed? New York: MDRC. Retrieved from https://www.mdrc.org/publication/should-government-subsidize-jobsunemployed
- Bolan, M., Demirel, S., & Keenan, P. (2017). Housing and Employment Navigator Program Evaluation. Prepared for Workforce Central Tacoma (Pierce County), Southcentral Workforce Council (Yakima County) and Northwest Workforce Council (Whatcom, Skagit, and Islands Counties). Seattle, WA: Marc Bolan Consulting.

- Bollinger, C. R., & Troske, K. (2019). Evaluation of Code Louisville Training Program. Prepared for KentuckianaWorks, Lexington, KY: Center for Business and Economic Research, Gatton College of Business and Economics, University of Kentucky in cooperation with IQS Research.
- Buitrago, K., & Terpstra, A. (2017). Final Report on the Chicago Cook Workforce Partnership's Career Connect Project: An Implementation Study. Prepared for the Chicago Cook Workforce Partnership. Chicago: Social IMPACT Research Center.
- Butler, D., Alson, J., Bloom, D., Deitch, V., Hill, A., Hsueh, J., Jacobs, E., Kim, S., McRoberts, R., & Redcross, C. (2012). What Strategies Work for the Hard-to-Employ? Final Results of the Hardto-Employ Demonstration and Evaluation Project and Selected Sites From the Employment Retention and Advancement Project. Washington, DC: Office of Planning, Research, and Evaluation (OPRE), Administration for Children and Families, U.S. Department of Health and Human Services.
- Card, D., Kluve, J., & Weber, A. (2010). Active Labor Market Policy Evaluations: A Meta-Analysis (NBER Working Paper No. 16173). Washington, DC: National Bureau of Economic Research.
- Corea, C., Mian, P., Miller, Z., Nanda, N., & Smith, J. (2019). Evaluation of the Career Jump Start Program. Prepared for the Northwest Pennsylvania Workforce Development Board. Columbia, MD: IMPAQ International, LLC.
- D'Amico, R., Dunham, K., Goger, A., Lea, C., Rigg, N., Ude, S., & Wiegand, A. (2009). Findings from a Study of One-Stop Services: A Case Study Approach, Final Report. Oakland, CA: Social Policy Research Associates. Retrieved from https://wdr.doleta.gov/research/details.cfm?q=One-Stop&id=2473
- Davis, S., Akiya, K., & Miller, Z. (2016). Evaluation of Skills Wisconsin: Final report. Prepared for the Workforce Development Board of South Central Wisconsin. Columbia, MD: IMPAQ International.
- Dixon, T., Bryan, S., Patterson, A., Williams, L. A., Lewis, B. C., & Ballentine, J. (2015). Workforce Innovation Fund DeKalb County Workforce Development. Final evaluation report. Prepared for DeKalb County Workforce Development. Atlanta, GA: Research and Evaluation Group.
- Dunham, K. (2009). Linkages Between TAA, One-Stop Career Center Partners, and Economic Development Agencies. Oakland, CA: Social Policy Research Associates.
- Dunn, N., Bellville, J., Dickinson, S., Barrett, D., Waterson, T., & Jiao, Y. (2016). Steps Up to STEM: U.S. Department of Labor Workforce Innovation Fund final evaluation report. Prepared for Fulton, Montgomery, and Schoharie Counties Workforce Development Board, Inc. Indianapolis, IN: Thomas P. Miller & Associates.
- 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.
- Eyster, L., Stanczyk, A., Smith Nightingale, D., Martinson, K., & Trutko, J. (2009). Characteristics of the Community-Based Job Training Grants Program. Washington, DC: The Urban Institute.
- Evster, L., Smith Nightingale, D., 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: The Urban Institute.

- Farrell, M., & Martinson, K. (2017). The San Diego Bridge to Employment in the Health Care Industry Program: Implementation and Early Impact Report (OPRE Report No. 2017-41). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Fein, D. (2012). Career Pathways as a Framework for Program Design and Evaluation: A Working Paper From the Pathways for Advancing Careers in Education (PACE) Project (OPRE Report # 2012-30). Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- 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
- Finkle, J., Krauser, E., Bellville, J., Jenner, E., Leger, R. (2019). BEAM: USDOL Workforce Innovation Fund Evaluation. Prepared for the Herkimer, Madison, and Oneida Counties Workforce Development Board, Indianapolis, IN: Thomas P. Miller & Associates and The Policy & Research Group.
- 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 (No. 42e8b3550e40408f854b966d0229c3b5). Washington, DC: Mathematica Policy Research.
- Freedman, L., Elkin, S., & Millenky, M. (2019). Breaking Barriers: Implementing Individual Placement and Support in a Workforce Setting. Prepared for the San Diego Workforce Partnership. New York, NY: MDRC.
- Gardiner, K., Rolston, H., Fein, D., & Cho, S. (2017). Pima Community College Pathways to Healthcare Program: Implementation and Early Impact Report (OPRE Report No. 2017-10). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Geckeler, C., Betesh, H., Diaz, H., Folsom, L., Kim, H., & Paprocki, A. (2017). Helping Dropout Youth Find Education and Employment: Final Report of the Los Angeles Reconnections Career Academy (LARCA) Program. Prepared for the Los Angeles Economic and Workforce Development Department. Oakland, CA: Social Policy Research Associates.
- Geckeler, Christian, Folsom, L., Hebbar, L., Mallett, J., Paprocki, A., Sarver, M. (2019). The Impact of a Social Enterprise and Workforce System Operated Transitional Employment Program in Los Angeles: Final Report for the Impact Evaluation of the Los Angeles Regional Initiative for Social Enterprise (LA:RISE) Pilot Program. Prepared for the Economic and Workforce Development Department. Oakland, CA: Social Policy Research Associates.
- Gonzalez-Santin, E., Sharp, C., Perry, T., & Maceachron, A. (2016). GRIC Career Pathways Evaluation Final Report. Prepared for the Gila River Indian Community. Phoenix, AZ: Office of American Indian Projects, School of Social Work, Arizona State University.
- Greenberg, D. H., Michalopoulos, C., & Robins, P. K. (2003). A meta-analysis of governmentsponsored training programs. *Industrial and Labor Relations Review*, 57(1), 31-53.
- Guitierrez, I., Levin, M., & Mallet, J. (2019). Engaging Opportunity Youth: Final Report for the Monterey County Youth Ambassadors for Peace Project. Prepared for the Monterey County Economic Development Department and Workforce Development Board. Oakland, CA: Social Policy Research Associates.

- Gupta, S., Srinivasan, M., Chen, Y., Patterson, L, & Griffith, T. (2016). Evaluation of the Linking Innovation, Knowledge, and Employment Program Final Evaluation Report. Prepared for the Riverside County Economic Development Agency. Columbia, MD: IMPAQ International.
- Gupta, S., Srinivasan, M., Corea, C., Kingi, H., & Patterson, L. (2017). Evaluation of the Virginia Employment Through Entrepreneurship Consortium (VETEC) Program. Prepared for The SkillSource Group. Columbia, MD: IMPAO International.
- Hamilton, G., & Scrivener, S. (2012). Increasing Employment Stability and Earnings for Low-Wage Workers: Lessons From the Employment Retention and Advancement (ERA) Project. New York: MDRC.
- Haskins, R., & Margolis, G. (2014). Show Me the Evidence: Obama's Fight for Rigor and Results in Social Policy. Washington, DC: Brookings Institution Press.
- Hawley, J., Lou, T., Olsen, R., & Spence, C. (n.d.) Report on the Evaluation of Ohio's Wage Pathways Program. Prepared for Ohio Department of Jobs and Family Services. Columbus, OH: Ohio State University.
- Hebbar, L., LeFevre, L., Bischoff, U., Wendt, S., Broek, M., & Austin, K. (2015). Evaluation of TechSF Workforce Innovation Partnership: Report. Prepared for the San Francisco Office of Economic and Workforce Development. San Francisco, CA: WestEd.
- Hendra, R., Dillman, K.-N., Hamilton, G., Lundquist, E., Martinson, K., & Wavelet, M. (2010). How Effective Are Different Approaches Aiming to Increase Employment Retention and Advancement? Final Impacts for Twelve Models. New York: MDRC.
- Hendra, R., Greenberg, D. H., Hamilton, G., Oppenheim, A., Pennington, A., Schaberg, K., & Tessler, B. L. (2016). Encouraging Evidence on a Sector-Focused Advancement Strategy: Two-Year Impacts From the WorkAdvance Demonstration. New York: MDRC.
- Hewat, N., Hollenbeck, K., Armit, N., Graber, C., Kaplow, J., McConnell, D., et al. (2009). Nurturing America's Growth in the Global Marketplace Through Talent Development: An Interim Report on the Evaluation of Generations II and III of WIRED. Washington, DC: Employment and Training Administration, U.S. Department of Labor.
- Hock, Heinrich, Mary Anne Anderson, & Robert Santillano. (2018). Supporting Self-Employment as a Reemployment Strategy: Impacts of a Pilot Program for Dislocated Workers After 18 Months. Washington, DC: Employment and Training Administration, U.S. Department of Labor.
- Hollenbeck, K. (2008). Sensitivity Testing of Net Impact Estimates of Workforce Development Programs Using Administrative Data (Upjohn Institute Working Paper No. 08-139). Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. Retrieved from https://doi.org/10.17848/wp08-139
- Imeokparia, T., Creticos, P. A., Polson, D., Kass, A., & Herzenberg, S. (2016). New App for Making It in America: Final Evaluation Report. Prepared for the Three Rivers Workforce Investment Board, Inc. Chicago, IL: University of Illinois at Chicago.
- Jackson, R. H., Dixon, M. R., McCoy, A., Pistorino, C., Zador, P., Thomas, C., Lopdell, J., Lucas-McLean, J., Bennici, F., Sum, A., Fogg, N., D'Amico, R., Weigand, A., & Bruno, L. (2007). Youth Opportunity Grant Initiative: Impact and Synthesis Report. Prepared by Decision Information Resources. Washington, DC: Education and Training Administration, U.S. Department of Labor.

- Jenner, E., Jenner, L., Leger, R., & Mason, E. (2019). Florida Department of Economic Opportunity Performance Funding Model. Prepared for the Florida Department of Economic Opportunity. New Orleans, LA: Policy and Research Group.
- Khemani, D., Mack, M., Hebbar, L., & Negoita, M. (2019). Engaging Employers, Incumbent Workers and Jobseekers: Final Report for the Southwest Michigan Employer Resource Network Expansion (SWMERN-E) Project. Prepared for W. E. Upjohn Institute for Employment Research. Oakland, CA: Social Policy Research Associates.
- Koralek, R., Johnson, H., Ratcliffe, C., & Vericker, T. (2010). Assisting Newcomers Through Employment and Support Services: An Evaluation of the New American Centers Demonstration Project in Arkansas and Iowa. Washington, DC: Urban Institute.
- Mabe, W., & Yarborough, C. S. (2016). Evaluation of Newark Workforce Investment Board Workforce Innovation Fund Grant: Final Report. Prepared for the Newark Workforce Investment Board. New Brunswick, NJ: John J. Heldrich Center for Workforce Development.
- MacDonald, G., Hunseker, Lee, R., Villamar, R., & Walker Egea, C. (2015). Pasco-Hernando Workforce Board Workforce Innovation Fund Grant Evaluation. Prepared for the Pasco-Hernando Workforce Board. Tampa, FL: University of South Florida's Center for Research, Evaluation, Assessment, and Measurement.
- Macro, B., Almandsmith, S., & Hague, M. (2003). Creating Partnerships for Workforce Investment: How Services Are Provided Under WIA. Oakland, CA: Berkeley Policy Associates.
- 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.
- Martinson, K. (2017). Evidence-Based Approaches for Improving Economic Success for Low-Income Workers. Wisconsin Family Impact Series. Retrieved from https://www.purdue.edu/hhs/hdfs/fii/wp-content/uploads/2018/02/FIS36-Karin-Martinson.pdf
- Maxwell, N., Sattar, S., Rotz, D., & Dunham, K. (2013). Evaluation of Programs Funded by Technology-Based Learning Grants. Oakland, CA: Mathematica Policy Research.
- McConnell, D., Burroughs, N., Polzin, M., and Butts, J. (2019). Eastern Connecticut Manufacturing Pipeline Initiative: Final Evaluation Report. Prepared for the Eastern Connecticut Workforce Investment Board. Lansing, MI: Public Policy Associates.
- McCrohan, N. (2017). Final Report for Housing Works: A Regional Workforce-Housing Alliance. Prepared for Worksystems, Inc. Lansing, MI: Public Policy Associates.
- McCrohan, N., McConnell, D. Winans, N., Colby, A., Burroughs, N., Pichala, M., & Shapiro, Z. (2019). Evaluation of the Kansas Workforce Innovation Fund: Final Report. Prepared for the Kansas Department of Commerce. Lansing, MI: Public Policy Associates.
- McCrohan, N., Winans, N., Colby, A., Burroughs, N., Graber, C., Corteville, L., & Price, S. (2019). Rethinking Job Search: Final Report. Prepared for the Willamette Workforce Partnership. Lansing, MI: Public Policy Associates.
- Mian, P., Nanda, N., & Smith, J. (2019). Evaluation of the Minnesota DEED Workforce Innovation Grant: Final Report. Prepared for the Minnesota Department of Employment and Economic Development. Columbia, MD: IMPAQ International.
- Miles, M., Maguire, S., Woodruff-Bolte, S., & Clymer, C. (2010). Putting Data to Work: Interim Recommendations From the Benchmarking Project. Philadelphia, PA: Public/Private Ventures.

- Miller, C., Van Dok, M., Tessler, B., & Pennington, A. (2012). Strategies to help low-wage workers advance: Implementation and final impacts of the Work Advancement and Support Center (WASC) Demonstration. New York, NY: MDRC.
- Mistry, N., & Byron, J. (2011). The Federal Role in Supporting Urban Manufacturing. What Works Collaborative. Retrieved from https://www.brookings.edu/wpcontent/uploads/2016/06/04 urban manufacturing mistry byron.pdf
- Modicamore, D., Lamb, Y., Taylor, J., Takyi Laryea, A., Karageorge, K., & Ferroggiaro, E. (2017). Accelerating Connections to Employment: Final Evaluation Report. Prepared for the Baltimore County (MD) Department of Economic and Workforce Development. Fairfax, VA: ICF.
- Nanda, N., Corea, C., Gasperini, B., Middleton, A., & Romualdo, A. (2017). Evaluation of CareerSource North Central Florida's Workforce Innovation Fund Grant: Startup Ouest $^{ ext{ iny B}}.$ Prepared for CareerSource North Central Florida. Columbia, MD: IMPAQ International.
- Oettingen, G., Kappes, K, Guttenberg, B, & Gollwitzer, P. (2015). Self-regulation of time management: Mental contrasting with implementation intentions. European Journal of Social Psychology (45), 218-229.
- Office of Management and Budget (OMB). (2013). Next Steps in the Evidence and Innovation Agenda (Memorandum M-13-17). https://www.whitehouse.gov/wp-content/uploads/2018/10/m-13-17.pdf
- Office of Management and Budget (OMB). (2015). Fiscal Year 2017 Budget Guidance (Memorandum M-15-11). https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/memoranda/2015/m-15-11.pdf
- O'Shea, D., Patnaik, A., & Prince, H. (2016). Growing Regional Opportunity for the Workforce: Project GROW Goes to Seed in the Texas-Mexico Border Areas: Final Implementation Analysis Report. Prepared for Workforce Solutions, Inc. Austin, TX: Ray Marshall Center for the Study of Human Resources, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin.
- Patnaik, A., O'Shea, D., & Prince, H. (2016). Growing Regional Opportunity for the Workforce (Project GROW) Final Evaluation Report. Prepared for Workforce Solutions, Inc. Austin, TX: Ray Marshall Center for the Study of Human Resources, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin.
- Paulsell, D., Max, J., Derr, M., & Burwick, A. (2007). Collaborating With Faith and Community-Based Organizations: Lessons Learned From 12 Workforce Investment Boards. Princeton, NJ: Mathematica Policy Research.
- Peck, L. R., Litwok, D., Walton, D., Harvill, E., & Werner, A. (2019). Health Profession Opportunity Grants (HPOG 1.0) Impact Study: Three-Year Impacts Report (OPRE Report 2019-114). Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Perez-Johnson, I, Moore, Q., & Santillano, R. (2011). Improving the Effectiveness of Individual Training Accounts: Long-Term Findings From An Experimental Evaluation of Three Service Delivery Models. Washington, DC: Employment and Training Administration, U.S. Department of Labor.
- Price, D., & Roberts, B. (2012). Strengthening State Systems for Adult Learners: An Evaluation of the First Five Years of Shifting Gears. Chicago, IL: The Joyce Foundation. Retrieved from

- https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxicmFuZG9u cm9iZXJ0c2Fzc29jaWF0ZXN8Z3g6MzI3NDM3NTVIMzU0ZWU5ZA
- Public Policy Associates. (2016). Final report: Evaluation of the Ohio Business Resource Network Expansion. Prepared for the Workforce Initiative Association. Lansing, MI: Author.
- Public Policy Associates & Brandon Roberts + Associates. (2016). On-Ramps to Career Pathways Evaluation. Prepared for the Rhode Island Department of Labor and Training. Lansing, MI & Chevy Chase, MD: Authors.
- Public Policy Associates (2019). Final Evaluation Report: Virginia Financial Success Network. Prepared for the Virginia Community College System. Lansing, MI: Public Policy Associates.
- Rademacher, I., Bear, M., & Conway, M. (2001). Project QUEST: A Case Study of a Sectoral Employment Development Approach. Washington, DC: Aspen Institute.
- 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. Oakland, CA: Mathematica Policy Research.
- Riccio, J., (2010). Sustained Earnings Gains for Residents in a Public Housing Jobs Program: Seven-Year Findings From The Jobs-Plus Demonstration. New York: MDRC.
- Roder, A. and Elliott, M. (2019). Nine-Year Gains: Project QUEST's Continuing Impact. New York: Economic Mobility Corporation.
- Rossi, P. H., Lipsey, M. W., & Freeman, H. E. (1999). Evaluation: A Systematic Approach. Thousand Oaks, CA: Sage Publications.
- Sarna, M. & Adam, T. (2020). Evidence on Career Pathways Strategies: Highlights From a Scan of the Research. Rockville, MD: Abt Associates.
- Schaberg, K. (2017). Can Sector Strategies Promote Longer-Term Effects? Three-Year Impacts From the WorkAdvance Demonstration. New York: MDRC.
- Schaberg, K., & Greenberg, D. H. (2020). Long-Term Effects of a Sectoral Advancement Strategy Costs, Benefits, and Impacts from the WorkAdvance Demonstration. New York: MDRC.
- Schoeph, K., Wilkinson, A., Kelly-Smith, A., Jones, C., Tolliver, A., & Bolte, H. (2019). Final Evaluation Report 2019. Prepared for the PA Department of Labor and Industry. Indianapolis, IN: Thomas P. Miller & Associates.
- Schwartz, D., Strawn, J., & Sarna, M. (2018). Career Pathways Research and Evaluation Synthesis: Career Pathways Design Study. Prepared for U.S. Department of Labor, Chief Evaluation Office. Bethesda, MD: Abt Associates.
- Scrivener, S., Sommo, C., & Collado, H. (2009). Getting Back on Track: Effects of a Community College Program for Probationary Students. New York, NY: MDRC.
- Scrivener, S., Weiss, M. J., & Teres, J. J. (2009). More Guidance, Better Results? Three-Year Effects of an Enhanced Student Services Program at Two Community Colleges. New York, NY: MDRC.
- Siegel, B., Bromberg, A., Kornetsky, A., & Grant, B.-J. (2015). Evaluation of the Chelsea CONNECT: Final report. Prepared for the Metro North Regional Employment Board. Somerville, MA: Mt. Auburn Associates.
- Smith Jaggars, S., & Bailey, T. (2010). Effectiveness of Fully Online Courses for College Students: Response to a Department of Education Meta-Analysis. New York, NY: Community College Research Center, Teachers College, Columbia University.

- The Annie E. Casey Foundation. (2010). An Integrated Approach to Fostering Family Economic Success: How Three Model Sites Are Implementing the Center for Working Families Approach. Baltimore, MD: Author. Retrieved from https://www.aecf.org/resources/an-integrated-approachto-fostering-family-economic-success/
- The Ohio State University. (2016). A Randomized Control Trial: Evaluation of the OhioMeansJobs.com Internet-based Employment Services System. Prepared for the Ohio Department of Job and Family Services. Columbus, OH: Author.
- The Q Marketing Group (Subcontractor to the Pierite Group) (2019). September 2019 Evaluation Report Workforce Innovation Fund. Prepared for the Inter-Tribal Council of Louisiana, Inc. Marksville, LA: The Pierite Group
- Unemployment Insurance and Workforce System Connectivity Workgroup. (2010). A National Call for Innovation: Rethinking Reemployment Services for UI Claimants. U.S. Department of Labor and the National Association of State Workforce Agencies.
- United States Department of Education, Office of Planning, Evaluation, and Policy Development. (2010). Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies. Washington, DC: Author.
- United States Department of Labor, Employment and Training Administration. (2011). Notice of Availability of Funds and Solicitation for Grant Applications for Workforce Innovation Fund Grants (SGA/DFA PY-11-05), https://www.doleta.gov/grants/pdf/SGA-DFA-PY-11-05.pdf
- United States Department of Labor, Employment and Training Administration. (2014). Notice of Availability of Funds and Solicitation for Grant Applications for Workforce Innovation Fund Grants (SGA/DFA PY-13-06).
- United States Department of Labor, Employment and Training Administration. (2015). Notice of Availability of Funds and Solicitation for Grant Applications for Workforce Innovation Fund Grants (FOA-ETA-15-10).
- Unites States Department of Labor, United States Department of Commerce, United States Department of Education, & United States Department of Health and Human Services [DOL/DOC/ED/HHS]. (2014). What Works in Job Training: A Synthesis of the Evidence. Retrieved from https://www.dol.gov/asp/evaluation/jdt/jdt.pdf
- United States Government Accountability Office [GAO]. (2008). Community Colleges and One-Stop Centers Collaborate to Meet 21st Century Workforce Needs. Washington, DC: Author.
- United States Government Accountability Office [GAO]. (2012). Innovative Collaborations Between Workforce Boards and Employers Helped Meet Local Needs. Washington, DC: Government Accountability Office.
- United States Government Accounting Office [GAO]. (2016). Tiered Evidence Grants: Opportunities Exist to Share Lessons from Early Implementation and Inform Future Federal Efforts (Report to Congress, GAO-16-818). https://www.gao.gov/assets/680/679917.pdf
- Vogel-Ferguson, M. B., & Tanana, M. (2016). Utah and Montana GenLEX Initiative: Final Report. Salt Lake City, UT: University of Utah Social Research Institute.
- Walker, K., Farley, C., & Polin, M. (2012). Using Data in Multi-Agency Collaborations: Guiding Performance to Ensure Accountability and Improve Programs. Philadelphia, PA: Public/Private Ventures.

- Weigensberg, E., Schlect, C., Laken, F., George, R., Stagner, M., Ballard, P., & DeCoursey, J. (2012). Inside the Black Box: What Makes Workforce Development Programs Successful? Chicago, IL: Chapin Hall at the University of Chicago.
- Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (Eds.). (2010). Handbook of Practical Program Evaluation (3rd ed.). San Francisco, CA: John Wiley & Sons, Inc.
- Zaveri, H. H., Pisciotta, C., & Rosenberg, L. (2009). The Implementation Evaluation of the Military Spouse Career Advancement Accounts Demonstration. Princeton, NJ: Mathematica Policy Research.