Quasi-Experimental Impact Study of NFWS/SIF Workforce Partnership Programs

Evidence on the Effectiveness of Workforce Partnership Programs in Ohio and Wisconsin

Final Report – August 2016
Executive Summary

Authors

Marios Michaelides
Project Director and co-Principal Investigator
(University of Cyprus and IMPAQ International)

Peter Mueser
Co-Principal Investigator
(University of Missouri and IMPAQ International)

Scott Davis
(IMPAQ International)

Kassim Mbwana
(IMPAQ International)

Prepared and Submitted by:

IMPAQ International, LLC
10420 Little Patuxent Parkway
Columbia, MD 21044

Submitted to:

National Fund for Workforce Solutions
88 Broad Street
Boston, MA 02110

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Executive Summary

Since its establishment in 2007, the National Fund for Workforce Solutions (NFWS) has invested in Regional Funding Collaboratives that match NFWS funds with funds from other sources to support the development of local workforce partnerships. These partnerships identify the workforce needs of local employers and design and administer programs to help workers to obtain the skills needed to meet those needs. By 2010, NFWS was supporting 30 local workforce partnerships with active training programs in six states. In 2010, NFWS was awarded a two-year, $7.7 million grant by the Social Innovation Fund (SIF) to expand these programs and to support the creation of new programs.

In 2011, NFWS contracted with IMPAQ International, LLC (IMPAQ) to evaluate the effectiveness of the 30 NFWS/SIF-funded workforce partnership programs. The evaluation consisted of:

1) *an outcomes study* to examine program participation, services provided, and participant outcomes in the period of the SIF funding (January 2010 – February 2012); and
2) *a quasi-experimental impact study* to estimate the effects of selected NFWS/SIF-funded programs on the labor market outcomes of individuals who entered those programs during the SIF funding period.

This report presents the findings of the quasi-experimental impact study for six NFWS/SIF-funded programs – three based in Ohio (Healthcare Careers Collaborative, Advanced Manufacturing Partnership, and Construction Sector Partnership) and three based in Wisconsin (Wisconsin Regional Training Partnership Manufacturing Pathway, Wisconsin Regional Training Partnership Construction Pathway, and Milwaukee Area Health Alliance). These six programs provided training and other services to individuals interested in obtaining jobs and advancing their careers in healthcare, advanced manufacturing, and construction. The study relies on a quasi-experimental approach to estimate program impacts for participants who were unemployed at program entry by: (1) using the propensity score matching method to identify

matched comparison groups consisting of unemployed non-participants who were observationally equivalent to unemployed NFWS/SIF participants, and (2) estimating program impacts by comparing the labor market outcomes of NFWS/SIF participants with the outcomes of unemployed individuals in the matched comparison groups.

A. Program Descriptions

A.1 Ohio-based Programs

The three Ohio-based programs were supported by the Partners for a Competitive Workforce collaborative, a regional partnership in the Cincinnati area. This collaborative used NFWS funds, combined with funds from numerous private and public organizations, to help the three partnerships design and implement sustainable workforce strategies to promote the employment of low-income individuals in their respective focus industries. Below is summary of each of the three programs.

Health Careers Collaborative of Greater Cincinnati. This program focused on helping unemployed workers obtain the skills needed to access healthcare jobs. The program provided a wide range of services, including job readiness training, assistance in obtaining employability and training credentials, industry-focused training, and job search assistance. During the study period (January 2010 – February 2012), the program served 992 unemployed participants, who were primarily women, had more than a high school education, were under age 35, and had prior work experience.

Advanced Manufacturing Partnership. This program focused on promoting the employment and career advancement of low-skill workers in advanced manufacturing jobs. The program used an incremental approach in promoting participants' employment and educational advancement, which included job readiness training, assistance in obtaining employability credentials, enrollment in college coursework and specialized apprenticeships, and receipt of job search assistance. During the study period, the program recruited 684 unemployed

participants – the majority of participants were men, were nonwhite, had no more than a high school education, were under age 35, and had limited work experience.

Construction Sector Partnership. This program focused on creating career pathways in construction for low-skill workers. The program's pathways model was based on enrolling participants in pre-apprenticeship programs to help them obtain construction skills and providing job search services. During the study period, the program recruited 379 unemployed participants – the majority of participants were men, were nonwhite, with no more than a high school education, under age 35, and with limited work experience.

A.2 Wisconsin-Based Programs

The three Wisconsin-based programs were supported by the Milwaukee Area Workforce Alliance, which operates in the Milwaukee area. This collaborative used NFWS funds, combined with funds from private and public organizations, to support training programs that help low-income workers to obtain in-demand jobs in construction, manufacturing, and healthcare. Below is summary of the three programs.

Wisconsin Regional Training Partnership (WRTP) Construction Pathways and Manufacturing Pathways. WRTP focused on brokering relations between employers, unions, and workers to promote employment of low-skill workers in construction and manufacturing, and to help local employers to recruit a diversified and qualified workforce. The partnership supported two programs – WRTP Construction Pathways and WRTP Manufacturing Pathways – that offered participants pre-apprenticeship training, assistance in obtaining occupational credentials, career advancement training, and job search services. During the study period, the construction and manufacturing programs served 1,103 and 88 unemployed participants, respectively – the majority were men, were nonwhite, and with no more than a high school education.

Milwaukee Area Healthcare Alliance. This program worked with healthcare employers to identify sought-after skills and to provide training and other services to low-skill workers to

meet those needs. It provided participants with occupational training to obtain in-demand healthcare jobs (as identified by their employer partners), on-the-job training to help advance their careers, and job search services to identify suitable jobs. During the study period, the program served 306 unemployed workers, the majority were women, black, and under age 35.

B. Impact Study Results

The objective of the study is to examine the impacts of each program on the labor market outcomes of unemployed participants, including: employment, employment in the program's focus industry, job retention, and earnings. IMPAQ developed a quasi-experimental approach based on the propensity score matching method, which involved the following steps:

- *Step 1: Merge data* – Merge NFWS/SIF data on unemployed program participants (treatment group) with state Employer Service data on unemployed workers who sought state services during the same period as NFWS/SIF-funded program participants (comparison group).
- *Step 2: Produce propensity score* – Apply a logit model on the merged data to estimate the probability of NFWS/SIF program participation based on individual characteristics and employment history, and use the results to produce the propensity score (predicted probability of NFWS/SIF participation) for treatment and comparison cases.
- *Step 3: Use propensity score to construct sample weight* – Weigh each comparison case by the odds ratio of the predicted propensity score, so that the weighted comparison sample matches the characteristics distribution of the treatment sample.
- *Step 4: Compare treatment and weighted matched comparison sample* – Conduct statistical tests to verify that the treatment and matched comparison groups are truly matched in their characteristics.

The above approach was successfully implemented, producing a matched comparison group for each NFWS/SIF-funded program. It consisted of non-participants who sought state employment services during the same period, had similar characteristics, and resided in the same area as

unemployed NFWS/SIF participants. State Unemployment Insurance (UI) wage records data were used to produce common labor market outcomes for treatment and matched comparison cases in the six-quarter period following program entry, including: employment, employment in the program's focus industry, job retention, and earnings. Program impacts were estimated by comparing the mean outcomes between the treatment and the matched comparison group; results for each program are summarized below.

B.1 Ohio-based NFWS/SIF-funded programs

Health Careers Collaborative of Greater Cincinnati

- The program had large effects on employment. In the six quarters after program entry, participants' employment rates were 57.6–64.8 percent, exceeding the rates of the matched comparison group by 14.1–17.0 percentage points (29–37 percent).
- The program was effective in helping participants to obtain healthcare jobs. In the four quarters after entry, 33.4–34.3 percent of participants were employed in healthcare, exceeding the healthcare employment rates of the matched comparison group by 24.0–25.3 percentage points (23.3–30.4 percent).
- The program was very effective in improving participant job retention rates. About 35.2 percent of participants found employment in quarter 1 and remained employed in each of the six quarters after entry, compared to only 22.4 percent of matched comparison group members – a 12.8 percentage point (57 percent) difference.
- The program had large effects on earnings. In the six-quarter follow-up period, participants had $5,517 (52 percent) higher earnings than those in the matched comparison group.

Advanced Manufacturing Partnership

- The program had large effects on employment. In the six quarters after entry, 42.2–52.6 percent of participants were employed, exceeding the employment rates of matched comparison group members by 8.2–14.3 percentage points (24–38 percent).

- The program had modest effects on manufacturing employment; no more than 4.2 percent of participants were employed in manufacturing in the four quarters after entry.
- The program had positive effects on job retention. About 19.9 percent of participants found a job in quarter 1 and remained employed in each of the six quarters after entry, compared to 15.9 percent of matched comparison group members, a 25 percent difference.
- The program had positive effects on earnings. In the six-quarter follow-up period, participants had $2,635 (31 percent) higher earnings than those in the matched comparison group. These effects were lower than those of the Health Careers program.

Construction Sector Partnership

- The program had modest effects on employment. Between 38.8–45.9 percent of participants were employed in quarters 1–6 after program entry, which exceeded the employment rates of matched comparison group members by 3.2–6.1 percentage points (9–16 percent).
- The program had modest effects on employment in construction; no more than 4.8 percent of participants were employed in construction in the four quarters after entry.
- The program had no effects on job retention and modest effects on earnings.

B.2 Wisconsin-based NFWS/SIF-funded programs

WRTP Construction Pathways

- The program had large effects on employment. In the six quarters after program entry, 67.2–72.7 percent of participants were employed, exceeding the employment rates of matched comparison group members by 8.8–21.7 percentage points (14–43 percent).
- The program was not effective in helping participants to obtain construction jobs. In the six quarters after entry, fewer than three percent of participants were in construction jobs.
- The program had large positive effects on job retention. About 44.5 percent of participants found employment in quarter 1 and remained employed in each of the six quarters after

entry, compared to only 29.4 percent of matched comparison group members, a 15.1 percentage point (51 percent) difference.

- The program had large effects on earnings. In the six-quarter follow-up period, participants had $11,237 (56 percent) higher earnings than the matched comparison group.

WRTP Manufacturing Pathways

- The program had large effects on employment. In the six quarters after program entry, 66.3–72.1 percent of participants were employed, exceeding the employment rates of matched comparison group members by 11.1–28.6 percentage points (21–68 percent).
- The program was effective in helping participants to obtain manufacturing jobs. In the six quarters after entry, 32.6–40.7 percent of participants were employed in manufacturing, exceeding the rates of the matched comparison group by 23.7–29.6 percentage points (202–535 percent).
- The program had large effects on job retention. About 43.0 percent of participants found a job in quarter 1 and remained employed in each of the six quarters after entry, compared to 19.8 percent of matched comparison group members, a 118 percent difference.
- The program had large effects on earnings. In the six-quarter follow-up period, participants had $16,661 (134 percent) higher earnings than the matched comparison group.

Milwaukee Healthcare Alliance

- The program had substantial effects on employment. In the six quarters after program entry, 57.1–77.0 percent of participants were employed, exceeding the employment rates of matched comparison group members by 16.5–19.4 percentage points (28–40 percent).
- The program was effective in helping participants to obtain healthcare jobs. In the six quarters after entry, 27.9–47.4 percent of participants were employed in healthcare, exceeding the healthcare employment rates of the matched comparison group by 18.1–29.6 percentage points (155–196 percent).
- The program had large effects on job retention. About 40.1 percent of participants found a job in quarter 1 and remained employed in each of the six quarters after entry, compared

to 22.3 percent of matched comparison group members, an 80 percent difference.

- The program had positive effects on earnings. In the six-quarter follow-up period, participants had $5,418 (55 percent) higher earnings than the matched comparison group.

C. Conclusions

The results of the quasi-experimental impact study provide promising evidence about the effectiveness of NFWS/SIF-funded workforce training programs in healthcare, manufacturing, and construction. Results for the Ohio-based programs show that the Health Careers program was very effective in placing participants in healthcare jobs, leading to positive effects on overall employment, job retention, and earnings. The Advanced Manufacturing and Construction Partnership programs were not effective in placing participants in their respective focus industries. The Advanced Manufacturing program had positive effects on employment, job retention, and earnings, which were lower than the effects of the Health Careers programs, while the Construction Partnership program had modest effects on employment and earnings.

All three Wisconsin-based programs had important positive effects on participants' labor market outcomes. The WRTP Manufacturing program was the most effective of the six programs, since it placed participants in manufacturing jobs, leading to substantial effects on overall employment, job retention, and earnings. The Healthcare Alliance program was effective in helping participants find jobs in healthcare, leading to improved employment, job retention, and earnings. The program's effects were similar to the effects of the Ohio-based Health Careers program. The WRTP Construction program was ineffective in helping participants obtain jobs in construction, but – unlike the Ohio-based Construction Partnership program – it led to positive effects on employment, job retention, and earnings.

Overall, these results provide important insights on the effectiveness of NFWS/SIF-funded programs. Programs focusing on the healthcare industry can help participants obtain jobs in the industry and improve their labor market outcomes. While we get mixed results on manufacturing programs' effectiveness in helping participants obtain jobs in the industry, these

programs often lead to substantively important improvements in overall employment, job retention, and earnings. Finally, it appears that construction programs are unlikely to help participants obtain construction jobs, and are likely to have lower overall impacts on participants' labor market outcomes than healthcare and manufacturing programs.