

# Employment and Earnings Effects of the WorkAdvance Demonstration After Seven Years

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# OVERVIEW

This report summarizes the long-term—Year 7—findings of a rigorous random assignment evaluation of WorkAdvance, a sectoral training and advancement initiative launched in 2011. Sectoral strategies such as WorkAdvance train people for quality jobs in specific industries and occupational clusters where there is strong local demand and the opportunity for career advancement. The WorkAdvance model is heavily influenced by the positive findings from the Sectoral Employment Impact Study completed in 2010, as well as earlier research on job-retention and career-advancement strategies.

The WorkAdvance model was implemented between June 2011 and June 2013 by four providers—Per Scholas, St. Nicks Alliance, Madison Strategies Group, and Towards Employment—and a total of 2,564 individuals enrolled in the study. Several previous reports described the implementation, participation, benefits and costs, and interim impact findings of WorkAdvance, and showed encouraging evidence for the WorkAdvance model. The impact findings presented in those reports covered up to six to eight years of follow-up.

This report presents the economic impacts of WorkAdvance seven years after individuals entered the study, as measured using federal administrative data (data collected for the administration of a public program or policy). Two outcomes—total annual earnings and the percentage of people with annual earnings of at least \$40,000—are considered the main indicators of WorkAdvance’s success in Year 7 (or “confirmatory”).

## MAIN FINDINGS

- The WorkAdvance program at Per Scholas increased average earnings (by 14 percent) in Year 7; there were no statistically significant effects on average earnings at the other three sites.
- The WorkAdvance programs at Per Scholas, St. Nicks Alliance, and Towards Employment increased the proportion of people who earned \$40,000 or more in Year 7.
- None of the WorkAdvance sites increased employment by a statistically significant amount in Year 7 (a secondary, or “exploratory” outcome). Coupled with the statistically significant impacts at most sites on the percentages of people earning at least \$40,000, this finding suggests that WorkAdvance group members are advancing in their careers over time, as the model intended.

Overall, the WorkAdvance results show that sector programs *can* increase earnings in the longer term and *can* lead to advancement gains over time, but that not all sector programs will lead to increases in employment and earnings. Focusing future efforts on how to make the sectoral approach more consistently successful can help workforce providers strengthen sector-based programs. Another report from the WorkAdvance evaluation will describe the impacts of the model 10 years after study enrollment.



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The Authors



## INTRODUCTION

Many Americans struggle to obtain and maintain jobs that pay enough to meet their needs and put them on a path to upward mobility. Workers face various challenges in the labor market, including high training costs, limited connections to employers, and stagnant (and declining) wages due to broader economic factors like automation, globalization, and the decline of unions.<sup>1</sup> These challenges are often even more pronounced for groups that have been historically disadvantaged in the labor market—such as Black and Latino workers.<sup>2</sup> At the same time, employers often report difficulty finding workers with the required skills.<sup>3</sup> WorkAdvance, a workforce development model, seeks to overcome these challenges through a “dual customer” approach that meets the needs of both job seekers and employers.<sup>4</sup>

The WorkAdvance evaluation was originally funded by a 2010 federal Social Innovation Fund grant to the Mayor’s Fund to Advance New York City and the Mayor’s Office for Economic Opportunity (NYC Opportunity), and the model was developed with assistance from MDRC. A previous extended follow-up analysis was supported by funds provided by the Robin Hood Foundation. This current analysis and report are supported by Arnold Ventures.

The WorkAdvance model was strongly influenced by prior research in two areas. First, it drew heavily on previous findings about sectoral strategies—strategies that train people for quality jobs in specific industries and occupational clusters where there is strong local demand and the opportunity for career advancement. The findings from one study in particular, the Public/Private Ventures Sectoral Employment Impact Study (SEIS), influenced the design of the WorkAdvance model.<sup>5</sup> That study showed positive earnings gains over a two-year follow-up period for people in three mature sector programs.

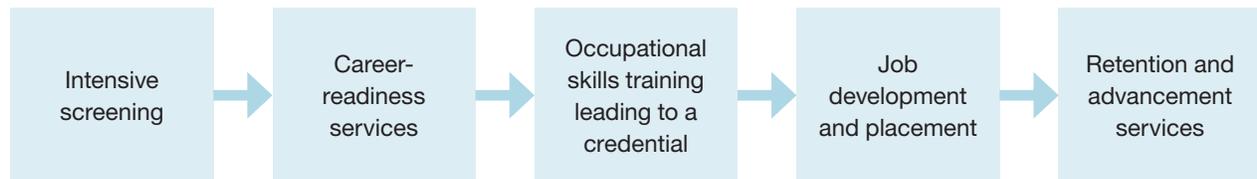
Second, WorkAdvance drew from earlier research on job-retention and career-advancement strategies. Results in this area have been mixed, but WorkAdvance is based on the hypothesis that concrete postemployment support—such as coaching tied to specific career paths and active outreach to former participants so that reemployment services can be provided quickly when a participant loses a job—may help individuals not only maintain their employment in a sector but also to advance within that sector and continue to increase their earnings over time.<sup>6</sup>

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1. Gravelle (2020).
  2. Shakesprere, Katz, and Loprest (2021). The United States Census defines Latino (masculine) or Latina (feminine) as any person of “Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin.” In recent years, some research publications and other sources have started using “Latinx” as a gender-neutral reference to this population. See Nichols (2017).
  3. Holzer (2013).
  4. See Ganzer (2017) and Jacobson and Beardsley (2018) to hear directly from individuals who participated in training at two of organizations in the WorkAdvance evaluation about their work-related challenges and their views on the training. These videos also highlight how the WorkAdvance programs thought about addressing some of the labor market challenges workers faced.
  5. Maguire et al. (2010).
  6. Hamilton and Scrivener (2012).

WorkAdvance sought to build on the SEIS findings and determine whether sector programs with an explicit focus on career advancement could be a path to upward mobility for people with low incomes.

The WorkAdvance model has five main components, described in more detail in previous reports and summarized in Figure 1.<sup>7</sup>

**FIGURE 1** WorkAdvance Model Components



WorkAdvance was evaluated using a randomized controlled trial design with programs at four sites: Per Scholas in the Bronx, New York; St. Nicks Alliance in Brooklyn, New York; Madison Strategies Group in Tulsa, Oklahoma; and Towards Employment in northeast Ohio.<sup>8</sup> Between June 2011 and June 2013, 2,564 individuals across the sites were randomly assigned to either a WorkAdvance (program) group who had the opportunity to enroll in a WorkAdvance program, or to control group who did not but who could enroll in other services in the community.

WorkAdvance targeted adults who were unemployed or earning low wages (less than \$15 per hour), with family incomes below 200 percent of the federal poverty level. The people in the study were looking to enter or advance in the labor market by attending training and gaining new skills in a particular sector. The extensive, up-front screening process used by the WorkAdvance programs resulted in the programs enrolling highly motivated people.

There is, however, considerable variation both within and across sites in terms of the demographics, education, work experience, and other characteristics of the people who ultimately enrolled in the study. For example, the people who enrolled in the Per Scholas WorkAdvance program tended to be younger and to have higher education levels, on average, than people who enrolled in the other WorkAdvance programs. Towards Employment, the only program that focused on the health care sector, was also the only one that recruited mostly women. Most people in the study at all sites identified as non-White: 80 percent of Per Scholas' sample identified as Black or

7. For a thorough discussion of these components, see Chapter 1 of Hendra et al. (2016).

8. "Site" is short for "experimental site," a term that encompasses the program, the program group, the control group, and the local environment.

Hispanic/Latino,<sup>9</sup> over 60 percent of individuals at St. Nicks Alliance and Towards Employment were Black; and Madison Strategies Group had sizable groups of people who identified as Black (28 percent), American Indian, non-Hispanic (21 percent), and Hispanic (36 percent). Table 1 provides a summary of the features of each program and the sample composition at each site.

There have been three previous reports and three briefs describing the implementation, participation, cost-benefit, and impact findings of the WorkAdvance evaluation.<sup>10</sup> The economic impacts of the WorkAdvance programs have been evaluated for each site and in aggregate (combining individuals from all four sites) at roughly two years, at three years, and over a two-year period corresponding to between six and eight years, depending on when people entered the study.<sup>11</sup> Those findings showed encouraging evidence for the WorkAdvance model increasing people's longer-term economic mobility.

WorkAdvance is not the only sector-based workforce development program that has been tested and evaluated. The years since the SEIS study was published have seen many new, sector-focused programs with similar goals of job placement and advancement, and sector strategies were a major component of the federal Workforce Innovation and Opportunity Act passed in 2014. Several of these programs have been pilot tested and evaluated across the country, with varying success. Long-term impacts on career advancement (typically measured with earnings) can only be measured after several years, and are slowly being evaluated for some of these other workforce development programs. Project QUEST, a San Antonio–based workforce development initiative that participated in a randomized controlled trial of its program focused on the health care sector, has shown large positive impacts on earnings for program participants, with average earnings gains surpassing \$4,500 in the eleventh year.<sup>12</sup> Year Up, one of several career pathways programs with a sector focus evaluated as part of the Pathways for Advancing Careers and Education (PACE) evaluation, has shown sustained, significant impacts on participants' earnings over a five-year follow-up period, with program group members earning 38 percent more than the control group in Quarters 12 and 13.<sup>13</sup>

However, there are other workforce development programs with a sector focus that have not shown the same long-term success. The remaining programs evaluated as part of PACE have not

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**9.** The WorkAdvance baseline information form asked individuals whether they considered themselves to be Latino/Hispanic/Spanish. This report uses the phrase “Hispanic/Latino” in lieu of the language on that form for ease of reading.

**10.** Past WorkAdvance reports can be found at [www.mdrc.org/project/workadvance#related-content](http://www.mdrc.org/project/workadvance#related-content).

**11.** The variation in follow-up periods is a result of the data available for the last report. The data covered 2017 and 2018, which corresponds to roughly Year 6 to Year 8 for individuals who entered the study at the beginning of the enrollment period to roughly Year 4 to Year 6 for individuals who entered the study at the end of the enrollment period. The data available for this report cover Year 7 for all individuals.

The economic impacts have also been evaluated five years after random assignment using state unemployment insurance wage data for three sites only due to data-access issues in one of the states.

**12.** Roder and Elliot (2021).

**13.** Fein, Dastrup, and Burnett (2021).

**TABLE 1 WorkAdvance Providers and Baseline Sample Composition**

	<b>Per Scholas</b>	<b>St. Nicks Alliance</b>	<b>Madison Strategies Group</b>	<b>Towards Employment</b>
<b>Provider characteristics</b>				
Location	Bronx, NY	Brooklyn, NY	Tulsa, OK	Northeast Ohio
Target sector(s)	Information technology	Environmental remediation	Transportation, manufacturing	Health care, manufacturing
Approach	Training first	Training first	Training and placement first until fall 2012; then mostly training first	Training and placement first until fall 2012; then mostly training first
<b>Sample composition</b>				
Average age	31	35	35	35
Female (%)	13	15	16	59
Postsecondary degree (%)	30	17	10	10
Currently employed (%)	13	11	27	27
Ever employed (%)	96	98	99	97
Race/ethnicity (%)				
Hispanic/Latino	36	23	6	5
Black, non-Hispanic	44	63	28	71
White, non-Hispanic	5	7	39	18
Asian/Pacific Islander, non-Hispanic	9	3	3	1
American Indian, non-Hispanic	1	2	21	2
Other <sup>a</sup>	2	3	3	2
Received food stamps/SNAP (%)	17	42	35	55
Previously convicted of a crime (%)	10	20	40	25

SOURCES: Information from documentation supplied by providers and the WorkAdvance baseline information form.

NOTES: SNAP = Supplemental Nutrition Assistance Program.

<sup>a</sup>“Other” includes sample members who identified as “other” or “multiracial” as their race on the baseline information form”

shown any significant impacts on earnings outcomes three years after random assignment.<sup>14</sup> Health Profession Opportunity Grants (HPOG—an evaluation of programs granted funding to provide education and training in the health care sector to people who are receiving Temporary Assistance for Needy Families or are otherwise earning little income) has also not shown any impact on earnings three years after random assignment.<sup>15</sup>

This report will attempt to answer the question of whether WorkAdvance—one model for a short-term, sector-based workforce development program that leads to industry-recognized certifications or credentials—can contribute to long-term career advancement. It extends the follow-up period for the WorkAdvance evaluation using data from the National Directory of New Hires (NDNH).<sup>16</sup> The economic-outcome-related findings are shown for the seventh year relative to the date each study participant was randomly assigned to the WorkAdvance or control group.

In short, the findings in this report indicate that WorkAdvance’s long-term economic impacts still vary across the providers. There is evidence of earnings increases at some sites. Per Scholas’ WorkAdvance program led to substantial gains in Year 7 in average earnings and in the percentage of people earning \$40,000 or more (the study’s two confirmatory outcomes), a continuation of the strong impacts seen for that program in earlier reports.<sup>17</sup> St. Nicks Alliance and Towards Employment also increased the percentage of people with earnings of at least \$40,000. None of the programs led to increases in employment seven years after random assignment. The overall pattern of findings suggests WorkAdvance has the potential to create long-term, sustained impacts on participants’ earnings and career advancement over time. Yet at the same time, the findings show that not all programs will lead to statistically significant increases in employment and earnings in the long term, which indicates that the model can still be strengthened going forward.

This report begins by discussing the findings detailed in past reports, then discusses the Year 7 impacts at each site, followed by a discussion of the pooled impacts (the impacts combining people from all four sites) and subgroup impacts. The report ends by summarizing the findings, discussing the remaining gaps in knowledge about sector-based training programs, and offering some potential avenues for research to be covered in the next report.

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14. Juras and Buron (2021)

15. Peck et al. (2019). Note that each HPOG grantee has its own program model, which is not the case for WorkAdvance or some of the other sector-based training programs mentioned in this section.

16. The National Directory of New Hires, maintained by the federal Office of Child Support Enforcement, contains some of the most comprehensive employment information on people across the United States.

17. The confirmatory outcome measures are used to assess the overall success of the WorkAdvance programs in the time period in which they are measured. Statistically significant impacts on the confirmatory outcomes represent the highest level of evidence of the success of the programs.

## FINDINGS FROM PAST REPORTS

Several previous reports described findings from the WorkAdvance evaluation’s implementation, participation, cost-benefit, and interim economic impact analyses. As mentioned above, the evidence was encouraging. The analyses were all done at the site level because the four providers had substantially different characteristics and levels of experience operating sector strategies, and because the samples of study participants were quite different at the four sites. The economic impact analysis was also done for the pooled sample because each provider implemented the same model components, so their differences in characteristics can serve as an opportunity to determine how effective the model is when implemented by a range of providers.

### Implementation Findings

The four providers came into the evaluation with a variety of backgrounds, and their levels of experience running sectoral programs strongly influenced their implementation of the WorkAdvance model. Translating the WorkAdvance model into concrete services took time—more than a year for some components and providers—and a substantial amount of assistance. All the providers fully implemented all the model’s components by the end of the demonstration’s operational phase.

### Participation Findings

People in the WorkAdvance group were eligible to receive all the services provided in the WorkAdvance programs. Control group members, on the other hand, were not eligible to receive those services, but were free to seek out other services on their own in their communities. The study’s *treatment contrast* can be measured by comparing the percentages of the WorkAdvance group who received various services with percentages of people in the control group who received similar services.

At all four sites, WorkAdvance produced large increases in participation, relative to the control group, in services related to all the model components—career-readiness services, occupational skills training, job search services, and postemployment services. Notably, WorkAdvance increased individuals’ likelihood of completing occupational skills training in the targeted sector by 31 percentage points or more, compared with the control group rates at every site. It also increased the likelihood of individuals obtaining a credential in that sector by between 25 percentage points and 46 percentage points across the sites. This level of increase in service receipt is not often seen in workforce programs, since program enrollees often have barriers that prevent them from fully engaging in and completing services, especially occupational skills training that can last for several months. These large participation increases mean that the WorkAdvance evaluation provided a good test of whether its services are effective at improving economic outcomes for people, beyond what would have happened without the program.

## Economic Impact Analysis

The study's initial impact analysis—which looked at outcomes through roughly two years after people were randomly assigned—showed that WorkAdvance led to increases in employment in the target sectors at all four sites.<sup>18</sup> This analysis provided evidence that the sites all met the initial goal of moving people into jobs in the target sector. Meeting this initial goal, however, is a necessary but not sufficient condition for impacts on overall employment, earnings, or career advancement. Impacts on those measures varied across the sites.

The most recent economic impact findings before this report extended the follow-up period through six to eight years after study enrollment, depending on when individuals entered the study.<sup>19</sup> The findings continued to vary across the sites. The Per Scholas WorkAdvance program produced large, positive, and statistically significant impacts on average earnings in both follow-up years and an impact on the percentage of people who earned \$30,000 or more in the latest year, highlighting the continued effectiveness of the program. The WorkAdvance programs at St. Nicks Alliance and Madison Strategies Group increased the percentage of people who earned \$30,000 or more in at least one of the two follow-up years. The Towards Employment WorkAdvance program did not produce any statistically significant impacts on earnings. None of the programs increased employment by a statistically significant amount in either long-term follow-up year. In the pooled sample combining people from all four sites, WorkAdvance had no effect on employment but increased average earnings and the percentage of people with earnings of \$30,000 or more.

The overall pattern of economic impact findings suggests that the earnings-based impacts, where they occurred, reflected WorkAdvance group members having higher wages than control group members, not more of them being employed. It suggests that WorkAdvance group members are advancing in their careers over time, as the WorkAdvance model intended.

## Benefit-Cost Analysis

The findings from the benefit-cost analysis are positive from the perspectives of WorkAdvance participants, the government, and society at all four sites over a 5- to 10-year follow-up period.<sup>20</sup> Thanks to increases in earnings and fringe benefits, WorkAdvance group members made very substantial financial gains, even though they paid higher taxes and gave up appreciable

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18. See Hendra et al. (2016).

19. For this last analysis, MDRC accessed NDNH data spanning all of calendar years 2017 and 2018. Depending on when individuals entered the study, this two-year period occurred between four and eight years after they were randomly assigned. See Schaberg and Greenberg (2020) for more information.

This analysis also showed longer-term findings—through Year 5—based on state unemployment insurance wage data for the sites where data were available. In general, the findings tell a story that is similar to the NDNH-based findings.

20. See Schaberg and Greenberg (2020) for a discussion of the methods used in the benefit-cost analysis.

amounts of income-tested government benefits and unemployment insurance. And although the government incurred considerable costs in operating WorkAdvance, these costs were offset at one site and more than offset at the other three sites by participants paying more in taxes and receiving less in government benefits. Because participants were better off at all four sites and the government's budget also improved, the financial gain for society as a whole from all four programs was substantial. These positive benefit-cost findings are not often seen in evaluations of employment and training programs.

## LONG-TERM ECONOMIC IMPACT FINDINGS BY SITE

Since the last report, the research team collected additional administrative data on employment and earnings from the NDNH. These data cover long-term economic outcomes for people in the study seven years after random assignment. This length of follow-up data collection should show whether the WorkAdvance programs led to career gains beyond initial job placements. These findings are a snapshot of the employment and earnings of people in the WorkAdvance sample seven years after random assignment. Furthermore, the NDNH data do not specify the sector that someone is employed in, so it is not possible to assess employment in the targeted sector, an important outcome measured in the earlier WorkAdvance reports. WorkAdvance random assignment began in June 2011 and ended in June 2013, so participants' seventh years range from Quarter 2 of 2018 to Quarter 2 of 2020.<sup>21</sup>

This current analysis has two prespecified, *confirmatory* outcome measures that are used to gauge the long-term effects of WorkAdvance in Year 7.<sup>22</sup> They are total annual earnings and the percentage of people with annual earnings of at least \$40,000, both for Year 7 following random assignment (see Box 1 for more information about this \$40,000 threshold).<sup>23</sup> The confirmatory outcome measures are used to assess the overall success of the WorkAdvance programs in the

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**21.** The coverage period overlaps with the beginning of COVID-19 lockdowns and economic disruption for people who entered the study in 2013. It is unclear at this point whether the pandemic and related economic downturn affected individuals in both research groups the same. The Year 10 report will reveal how participants in WorkAdvance fared during an economic downturn and how they recover from it. That report will show the changes brought by COVID-19 for the full sample.

**22.** The prespecified analysis plan for this study is published here: <https://osf.io/ndyja>.

**23.** The earnings data used in this report were not adjusted for inflation.

As was done in previous reports, the earnings threshold is based on the top quartile of earnings for the pooled control group sample, rounded to the nearest \$5,000. (The top quartile of earnings is calculated by arranging all earnings values from smallest to largest and then looking for the value that divides the 75 percent of lowest earners from the 25 percent of highest earners.) The control group earnings distribution is used here to estimate high earnings among a sample similar to the WorkAdvance group who did not experience the effects of WorkAdvance. This definition was used so that the measure could capture a high earnings amount, but one that people in the study could realistically obtain given the structure of the labor market. Previous WorkAdvance reports presented impacts for earnings thresholds at \$20,000 and \$30,000. These outcomes are included in this report's tables as exploratory measures and continue to help describe the earnings patterns of the WorkAdvance sample.

## BOX 1

### Understanding WorkAdvance’s Earnings Threshold: What Does It Mean to Earn \$40,000 a Year?

What it can mean to earn \$40,000 or more annually depends on a variety of factors, including the local cost of living and the makeup of one’s household. This salary is far above the federal poverty line for a household of three people (approximately the average number of people in a U.S. household in the seven years of the follow-up period);\* the federal poverty line ranged from \$20,780 in 2018 to \$21,720 in 2020.† This salary also does not include other sources of income, including earnings from self-employment, income from other sources (for example, renting out a room), or any earnings from other members of participants’ households.

Assuming a 40-hour work week, earning \$40,000 a year is equivalent to an hourly wage of almost \$19.25. This hourly wage far surpasses the federal minimum wage of \$7.25 per hour (the minimum wage in Oklahoma and Ohio) and is also higher than the local minimum wage of \$15 in New York City (during the follow-up period). It is also higher than the average baseline hourly wage of people in the WorkAdvance sample, which was \$11.12.

However, \$19.25 an hour still falls short of a livable wage in many of the communities of people participating in the WorkAdvance study. According to the Massachusetts Institute of Technology’s Living Wage calculator, it is less than a living wage for a family of three people in any of the WorkAdvance locations.‡ In New York City, a living wage would be \$34.35 per hour for a family of two adults (one working) and one child. In Cuyahoga County and Tulsa County, living wages for the same family would be \$26.44 per hour and \$27.65 per hour, respectively.

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NOTES: \*Fry (2019).

†U.S. Department of Health and Human Services, Assistant Secretary for Planning and Evaluation (n.d.).

‡The Living Wage Calculator can be found at <https://livingwage.mit.edu>.

time period in which they are measured.<sup>24</sup> Statistically significant impacts on the confirmatory outcomes represent the highest level of evidence of the success of the programs. All other outcomes are considered *exploratory*, meaning they are not the main indicators of the success of WorkAdvance, but they still provide useful evidence.

This report considers the percentage of people who were employed to be an exploratory outcome. Earlier WorkAdvance reports emphasized employment—particularly employment in the sector targeted by the WorkAdvance training—as an important outcome measure for the program and

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24. Previous WorkAdvance reports—focused on shorter follow-up periods—identified different confirmatory outcomes.

saw the impacts across sites on target-sector employment as an early sign that the programs were effectively jump-starting people’s careers in these sectors.<sup>25</sup> Evidence of long-term effectiveness, though, comes from the career-advancement aspect of the WorkAdvance model, which is measured by earnings.

That is not to say that impacts on the employment rate in the long term are unimportant. Besides being an exploratory research question in this analysis, employment impacts are used to assess career advancement. If WorkAdvance participants’ average employment rate remains the same as the employment rate for the control group but their average earnings increase, it probably means they are earning higher wages, a sign of advancement within the workforce.<sup>26</sup>

As with the previous reports, the confirmatory analysis of the long-term data was done at the site level (in other words, the site-level impacts are the main indicators of whether the WorkAdvance programs were successful). After discussing the site-level impacts, this report presents impacts for the pooled sample (combining individuals from all four sites) as well as impacts across a few subgroups (all of which are considered exploratory). These subgroups are defined by the time when people were randomly assigned, their previous attachment to the labor market, and their race/ethnicity.<sup>27</sup>

## Per Scholas

Per Scholas, a nonprofit organization that provides information technology (IT) training and employment services in New York City, came into the study with substantial experience operating a sectoral training program.<sup>28</sup> The organization had been operating most of the WorkAdvance model components (except for the advancement-focused and postemployment services) since 1998, and was able to adapt its curriculum and training offerings readily based on what it heard from employers. Per Scholas had also previously participated in another randomized controlled trial, the SEIS.<sup>29</sup> It was the only provider in WorkAdvance with such experience both operating a sector program and participating in an evaluation.

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25. Hendra et al. (2016).

26. Increases in earnings could also reflect increases in hours worked. The NDNH data do not include information on hours worked, so it is not possible to test how much of the earnings impacts, if any, could be attributed to hours worked. However, an analysis based on survey data from Year 2 showed that around half or more of WorkAdvance’s impact on earnings at each site could be attributed to hourly wages (while the rest could be attributed to hours worked).

27. Sample members who came into the study during the first half of the intake period—between June 2011 and September 2012—are in the “early cohort,” while the “late cohort” includes all remaining sample members, who enrolled between October 2012 and June 2013.

28. During the evaluation period, Per Scholas offered training that led to the attainment of the A+ and Network+ certifications. These certifications helped prepare people for jobs as help-desk technicians and IT field technicians.

29. See Maguire et al. (2010).

In Year 7, the Per Scholas WorkAdvance program showed strong, sustained impacts on earnings (as shown in Table 2). On average, people in the WorkAdvance group earned \$4,844 more than people in the control group, a statistically significant impact of more than 13 percent. The

**TABLE 2** Per Scholas Impacts on Employment and Earnings in Year 7

	WorkAdvance Group	Control Group	Difference (Impact)	P-Value
Total earnings (\$)	40,494	35,651	4,844 **	0.036
Earned more than a certain amount (%)				
Earned \$40,000 or more	48.8	42.4	6.4 *	0.094
Earned \$30,000 or more	59.5	54.6	4.9	0.198
Earned \$20,000 or more	70.7	66.1	4.7	0.191
Ever worked (%)	87.2	84.1	3.1	0.248
Sample size (total = 690)	349	341		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Rounding may cause slight discrepancies in sums and differences.

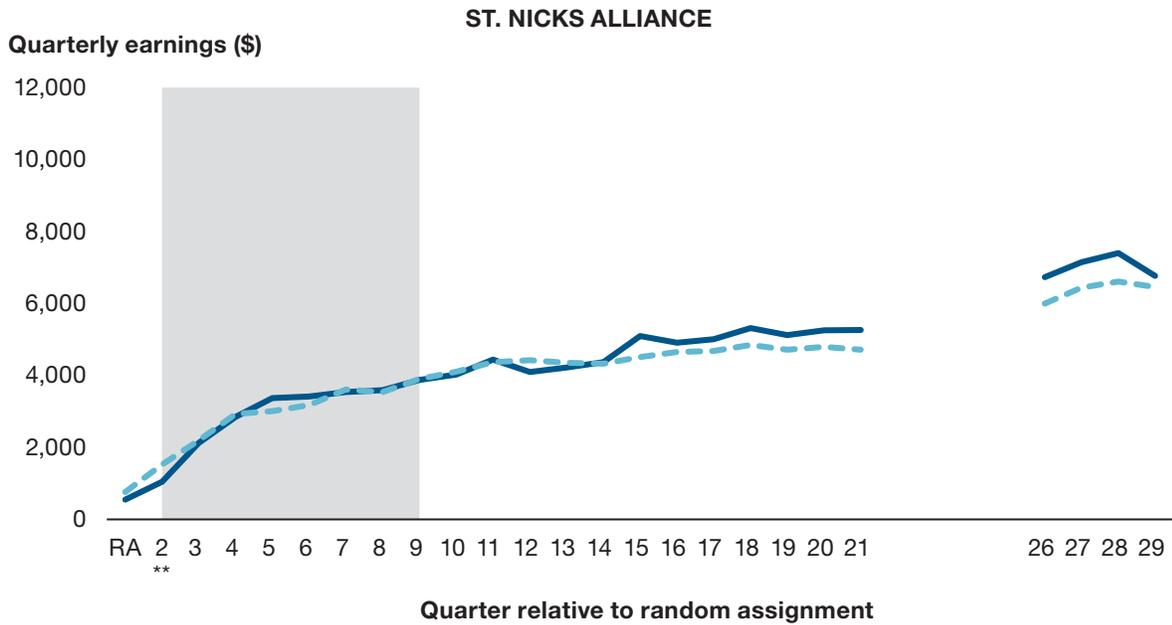
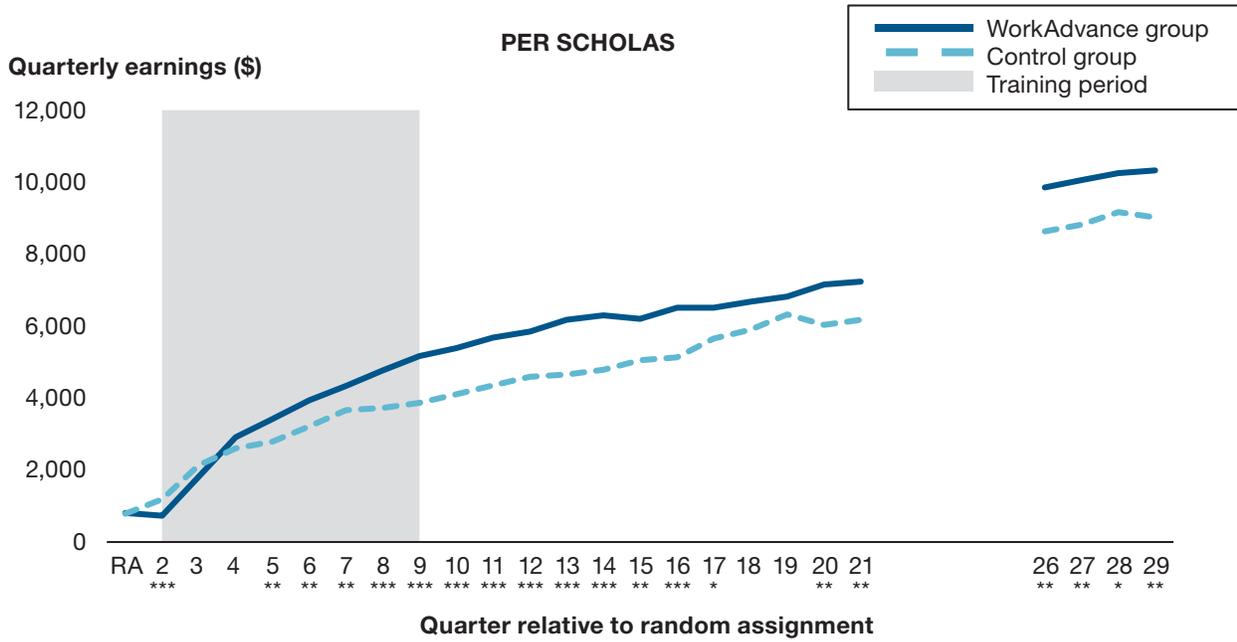
In this analysis, the two confirmatory outcomes are total earnings and the proportion earning \$40,000 or more.

WorkAdvance group was also more than 6 percentage points more likely than the control group to earn \$40,000 or more, a statistically significant difference. There was no impact on employment in Year 7 (Per Scholas produced impacts on employment in Years 1 through 3).<sup>30</sup> These findings suggest that WorkAdvance group members were probably advancing into jobs with higher earnings at a higher rate than control group members.

Figure 2 plots earnings for the WorkAdvance and control groups by quarter relative to random assignment. Earnings data for the first five years are state unemployment insurance data used

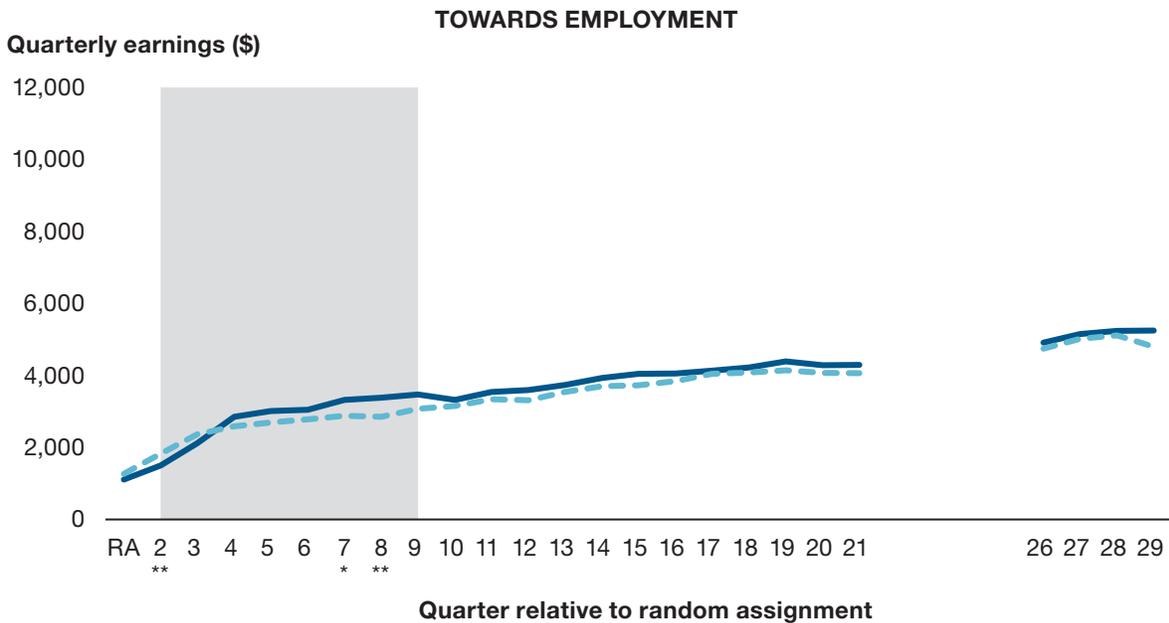
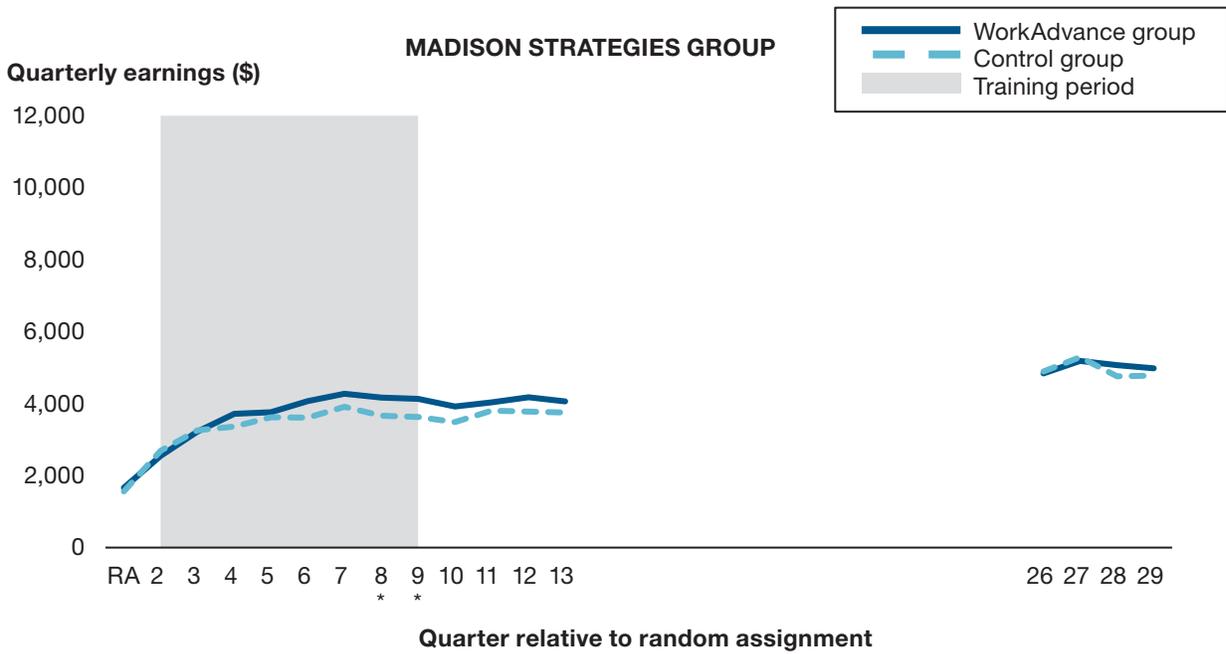
**30.** The NDNH data do not cover most independent contractors and, therefore, those workers would not be captured in the employment and earnings outcomes presented in this report. As of May 2017, around 7 percent of workers nationally were estimated to be independent contractors (U.S. Bureau of Labor Statistics, 2018). Some industries, such as IT, may have higher rates of independent contractors than others.

**FIGURE 2** Quarterly Earnings by Site, Years 1 to 7



(continued)

Figure 2 (continued)



SOURCES: MDRC calculations using state unemployment insurance data from New York, Ohio, and Oklahoma and National Directory of New Hires data.

NOTE: Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

in earlier WorkAdvance reports, while data for the seventh year come from the NDNH.<sup>31</sup> (The gaps in the plots represent the period where complete data were not available for the sample.)

In the data available for the seven years of the follow-up period, the Per Scholas WorkAdvance program appears to show a strong and consistent impact on average earnings. The WorkAdvance group began to earn more on average than the control group by the second half of the first year of the follow-up period and continued to earn more throughout the rest of the period. Starting in Quarter 5, the impact is statistically significant in almost all quarters.

Seven years after implementing the WorkAdvance program, Per Scholas continues to be an impressively strong example of the positive impacts of the WorkAdvance program on participants' career prospects.

## St. Nicks Alliance

St. Nicks Alliance, a large, community-based organization in New York City, offers a range of services including workforce programs. The organization has operated a job training program in its targeted sector, environmental remediation, since 2001.<sup>32</sup> For the evaluation, St. Nicks Alliance added components of the WorkAdvance model to its job training program within the context of operating a multifaceted organization, and later added training in hazardous materials transportation and pest control.<sup>33</sup> It took time for the organization to fully implement the WorkAdvance model.

In Year 7, people in the WorkAdvance group earned \$28,045, on average, approximately \$2,500 more than the control group, an increase of approximately 10 percent. This difference is not statistically significant. The St. Nicks Alliance WorkAdvance program did increase the proportion of people earning at least \$40,000 by 8 percentage points, a statistically significant difference (as shown in Table 3). There was no impact on the employment rate in Year 7. The lack of impact on employment coupled with the statistically significant increase in earnings of \$40,000 or more

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**31.** There is a slight mismatch between the types of employment reported in the unemployment insurance data and those reported in the NDNH data. The state unemployment insurance data cover employment only in that state, while the NDNH data cover employment in all states. The NDNH data include all of the employment types that appear in the unemployment insurance data, as well as self-employment (in some states), federal employment, and military employment. Because of these differences, total earnings in Year 7 are expected to be slightly inflated in comparison with those calculated using the earlier unemployment insurance data, but this change is probably small and also probably affects both research groups comparably.

**32.** Jobs in the environmental remediation sector deal with the removal of pollutants and contaminants from the environment, including from water and soil.

**33.** Training in these fields was added because the environmental remediation sector changed over time—for example, hiring practices changed from a model in which employers hired people directly to a model that mainly relied on contractual hires made through staffing agencies) and the seasonality of the sector (as part of the study, the organization needed to recruit participants year-round).

**TABLE 3 St. Nicks Alliance Impacts on Employment and Earnings in Year 7**

	<b>WorkAdvance Group</b>	<b>Control Group</b>	<b>Difference (Impact)</b>	<b>P-Value</b>
Total earnings (\$)	28,045	25,511	2,534	0.277
Earned more than a certain amount (%)				
Earned \$40,000 or more	32.8	25.2	7.5 *	0.068
Earned \$30,000 or more	43.5	37.8	5.7	0.197
Earned \$20,000 or more	54.8	47.4	7.4 *	0.100
Ever worked (%)	75.6	79.0	-3.4	0.370
Sample size (total = 479)	242	237		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Rounding may cause slight discrepancies in sums and differences. In this analysis, the two confirmatory outcomes are total earnings and the proportion earning \$40,000 or more.

suggests that WorkAdvance group members were more likely to have advanced into jobs with higher earnings than control group members.

The St. Nicks Alliance WorkAdvance program did not produce impacts on overall employment or earnings in previous shorter-term analyses. Reviewing average quarterly earnings for the site—shown in Figure 2—may provide some context for the overall trend of findings. The WorkAdvance group began to earn more on average than the control group in Quarter 15 (Year 4) and continued to maintain this gap through Year 7 of the follow-up period. While the differences in quarterly earnings are not statistically significant over this period, this pattern may suggest that the impacts of a program can begin to surface many years after it begins, as has been shown in other research. It should also be noted that the sample size at St. Nicks Alliance was smaller than the sample sizes at the other three sites. Therefore, the impacts need to be larger at St. Nicks Alliance, relative to those at the other sites, in order to be statistically significant.

## Madison Strategies Group

Madison Strategies Group is a nonprofit organization that provides workforce development services in Tulsa, Oklahoma.<sup>34</sup> Its WorkAdvance program initially targeted the transporta-

**34.** Madison Strategies Group is now often known as Tulsa Community WorkAdvance.

tion sector, but the provider later added a focus on the manufacturing sector after it became clear that someone who is trained to manufacture transportation-related parts has the skills to work in manufacturing more generally. In addition to the main “training-first” track, Madison Strategies Group initially implemented a “placement-first” track in which some participants skipped occupational skills training and sought immediate employment. The placement-first track was phased out, for the most part, midway through the enrollment period.<sup>35</sup> The organization was new to Tulsa at the beginning of the study, and it took some time for it to establish relationships with training providers and employers and to fully implement the WorkAdvance model components.<sup>36</sup>

In Year 7, the Madison Strategies Group WorkAdvance program did not produce any statistically significant impacts on employment or earnings. As shown in Table 4, the control group earned an average of \$19,729 in Year 7, approximately \$350 less than the WorkAdvance group. This difference is not statistically significant. There is no difference between the WorkAdvance group and control group in the percentage of people who earned \$40,000 or more.

Figure 2 shows that the average quarterly earnings for the WorkAdvance and control groups are similar to one another, with few impacts over time. The average earnings of the WorkAdvance group outpaced those of the control group in Years 2 and 3 and the program produced statistically significant increases in earnings in Quarters 8 and 9. This difference fades by Year 7 of the follow-up period. It should be noted that in earlier findings, the Madison Strategies Group WorkAdvance program showed strong impacts on job-quality metrics such as working in jobs with employer-offered health insurance and paid vacation, working for a “temp” or staffing agency, and being satisfied with one’s job. The NDNH data do not provide information about job quality, and it is possible that these impacts persisted in the long term.

## Towards Employment

Towards Employment is an established, community-based organization in northeast Ohio that provides a range of employment services. It targeted both the health care and manufacturing sectors. Before it implemented the WorkAdvance model, the organization focused more on work

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**35.** The placement-first track was intended to be a less expensive but still effective route to advancement. The idea was that people would gain experience and sector-specific skills (through on-the-job training, for example) without going to formal training first. Another rationale for the track was that it would help its training providers build relationships with employers sooner, because they were able to offer and deliver a more immediate service: connections with people looking for jobs.

**36.** Madison Strategies Group is a nonprofit spinoff of Grant Associates, a for-profit workforce development company with sector program experience in New York City. Madison Strategies Group was able to take some institutional knowledge from its parent organization. Now that it has operated for some time in Tulsa, Madison Strategies Group has shifted its focus considerably; it only offers two classes that were taught as part of this evaluation, because with time it came to understand that many of its other training offerings were not good fits for the job opportunities in Tulsa. It was able to make this shift as it learned more about local career pathways and made more connections with local employers.

**TABLE 4** Madison Strategies Group Impacts on Employment and Earnings in Year 7

	WorkAdvance Group	Control Group	Difference (Impact)	P-Value
Total earnings (\$)	20,081	19,729	353	0.810
Earned more than a certain amount (%)				
Earned \$40,000 or more	16.9	15.5	1.4	0.609
Earned \$30,000 or more	30.8	27.1	3.6	0.279
Earned \$20,000 or more	42.5	44.2	-1.6	0.655
Ever worked (%)	74.9	76.3	-1.4	0.669
Sample size (total = 697)	353	344		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Rounding may cause slight discrepancies in sums and differences.

In this analysis, the two confirmatory outcomes are total earnings and the proportion earning \$40,000 or more.

readiness than on technical training, but had experience with programs targeting entry-level jobs in the health care sector.

The evaluation required Towards Employment to add career-advancement services, deepen its expertise in the health care sector, and develop relationships with training providers and employers in a new sector, manufacturing.<sup>37</sup> Towards Employment adjusted the specific training and credentials it offered in both targeted sectors throughout the study period based on employer needs. Like Madison Strategies Group, Towards Employment initially implemented WorkAdvance using a “placement-first” track in addition to the main training-first track, before phasing it out, for the most part, and mainly using the training-first track.

Towards Employment’s WorkAdvance program did not increase average earnings in Year 7 by a statistically significant amount. Average earnings were \$20,569 for people in the WorkAdvance group and \$19,683 for people in the control group. People in the WorkAdvance group at Towards Employment were 4 percentage points more likely than people in the control group to earn at

**37.** Two other implementation factors affected only Towards Employment’s program: (1) The organization initially oversaw a second program location that was ultimately not included in the analysis, and (2) it managed partnerships with other service providers, educational institutions, trade organizations, and labor market intermediaries that delivered various components of the model, an arrangement that is probably typical of many sector programs. See Tessler et al. (2014) and Hendra et al. (2016) for more details.

least \$40,000 in Year 7, a difference that is statistically significant (as shown in Table 5). The program did not have an impact on employment in Year 7. The overall pattern of findings suggests that the program was able to help people advance into higher-wage jobs over time.

**TABLE 5 Towards Employment Impacts on Employment and Earnings in Year 7**

	<b>WorkAdvance Group</b>	<b>Control Group</b>	<b>Difference (Impact)</b>	<b>P-Value</b>
Total earnings (\$)	20,569	19,683	886	0.503
Earned more than a certain amount (%)				
Earned \$40,000 or more	17.1	12.7	4.4 *	0.094
Earned \$30,000 or more	29.5	27.8	1.8	0.598
Earned \$20,000 or more	47.0	47.3	-0.3	0.932
Ever worked (%)	80.3	79.5	0.8	0.788
Sample size (total = 698)	349	349		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Rounding may cause slight discrepancies in sums and differences. In this analysis, the two confirmatory outcomes are total earnings and the proportion earning \$40,000 or more.

As shown in Figure 2, starting in Quarter 4 (partway through Year 1) the WorkAdvance group earned more on average than the control group, but the difference in earnings is only statistically significant in Quarters 7 and 8. Given the statistically significant impact on earning at least \$40,000 in Year 7, there is some evidence that Towards Employment’s WorkAdvance program has successfully increased the earnings of participants many years later. Previously, Year 2 survey data showed Towards Employment’s WorkAdvance program had positive impacts on some work-related measures, including work schedules and job types, that cannot be measured using the NDNH data. It is possible that these impacts persisted in the long term.

## **LONG-TERM ECONOMIC IMPACT FINDINGS FOR THE POOLED SAMPLE AND SUBGROUPS**

While the main WorkAdvance impact analysis was done at the site level, given the substantial variation among the providers, it is useful to understand how a model like WorkAdvance might perform *overall*, across a range of providers. The analysis of the pooled sample is considered ex-

ploratory. Table 6 shows the impacts of WorkAdvance for the pooled sample, combining sample members from all four WorkAdvance sites.

**TABLE 6** Impacts on Employment and Earnings  
in Year 7 for the Pooled Sample

Outcome	WorkAdvance group	Control group	Difference (Impact)	P-Value
Total earnings (\$)	27,095	25,186	1,909 **	0.040
Earned more than a certain amount (%)				
Earned \$40,000 or more	28.2	24.1	4.2 **	0.011
Earned \$30,000 or more	40.4	36.9	3.5 *	0.059
Earned \$20,000 or more	53.7	51.5	2.2	0.245
Ever worked (%)	80.0	79.6	0.4	0.818
Sample size (total = 2,564)	1,293	1,271		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent. Rounding may cause slight discrepancies in sums and differences.

For the pooled sample, WorkAdvance had a large and statistically significant impact on total earnings and earnings of \$40,000 or more. WorkAdvance increased Year 7 earnings by more than \$1,900 and increased the proportion of people earning \$40,000 or more by 4 percentage points.<sup>38</sup> WorkAdvance did not have an impact on overall employment, with approximately four out of every five individuals in both research groups working in the seventh year following random assignment. The combination of significantly greater earnings and static employment rates suggests that WorkAdvance group members have advanced more in their careers than control group members over time, as the model intended. Taken together, the impacts for the pooled sample show that the WorkAdvance model can increase long-term earnings and career advancement for participants. (However, these findings mask the variation in impacts found across the sites discussed in the previous section.)

Among the people who enrolled in the WorkAdvance study, there is considerable variation in terms of demographics, education, work experience, and other characteristics. At the start of the study, it was an open question whether WorkAdvance would work better for some people than for

**38.** Sensitivity tests of the threshold for higher earnings were conducted using thresholds for annual earnings of \$20,000 and \$30,000. Across these tests, the impacts among the pooled sample remained positive, and were stronger at the higher thresholds.

others and whether the program should target a more well-defined group. The subgroup analyses are considered exploratory at this point in the study's history due to attenuation bias (that is, the tendency of baseline factors to be less correlated with outcomes over long time periods) but continue to provide a richer understanding of who benefits from WorkAdvance.<sup>39</sup> In this report, impacts for the WorkAdvance sample are presented based on three prespecified analyses, using subgroups defined by sample members' levels of attachment to the labor market at the time they entered the study (labor market attachment), the time they were randomly assigned (random assignment cohort), and their self-identified race and ethnicity when they entered the study.<sup>40</sup>

## Labor Market–Attachment Subgroup Analysis

The labor market–attachment subgroup analysis split the sample into three groups: (1) the fully attached, those who were employed or who had been out of work for less than one month at study entry; (2) the semiattached, those who had been out of work for between one and six months at study entry; and (3) the long-term unemployed, those who had never worked or who had been out of work for seven or more months at study entry. It was hypothesized that WorkAdvance would be most effective for people in the semiattached group, who had some connection to the labor market. This expectation was rooted in the results of previous studies, which showed that employment programs can be most effective for those who are at a “tipping point” in their employment trajectories.<sup>41</sup> Indeed, earlier analyses found that WorkAdvance was successful in increasing the earnings for the group of people identified as semiattached to the labor market, as well as for the people identified as long-term unemployed.

In the current analysis, the difference in earnings impacts across subgroups is not statistically significant, meaning there is less evidence that WorkAdvance worked better for one of the subgroups than the others. There is evidence, however, that WorkAdvance did increase earnings among some of the subgroups, an interesting finding that suggests the program is more effective for some subsamples. As in earlier analyses, there are statistically significant earnings impacts among the semiattached subgroup. Among that subgroup, the WorkAdvance group earned \$3,206 more, on average, than the control group in Year 7 and was 8 percentage points more likely to earn at least \$40,000 (as shown in Appendix Table A.1). These impacts (within the semiattached subgroup) suggest that the WorkAdvance model is helping semiattached participants advance in their careers.

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39. Reardon, Unlu, Zhu, and Bloom (2014).

40. Impacts were also analyzed for subgroups defined by baseline educational attainment (not shown). In general, the impacts appear to be stronger among those with college degrees than they are among those without college degrees. These impacts, however, are probably reflecting variations in site-level educational characteristics.

41. The Employment Retention and Advancement evaluation and other welfare-to-work studies showed an “inverted U” subgroup pattern. See Hendra et al. (2010). See also Hamilton and Scrivener (2012) and Friedlander (1988).

Among the long-term unemployed group, the WorkAdvance group earned \$2,799 more than the control group in Year 7, a difference that is statistically significant, but WorkAdvance did not have an impact on the proportion who earned \$40,000 or more. As in earlier analyses, WorkAdvance did not produce statistically significant impacts on earnings among the fully attached group.

## Random Assignment–Cohort Subgroup Analysis

One of the findings from the implementation analysis was that it took time for the providers—especially St. Nicks Alliance, Towards Employment, and Madison Strategies Group, which had not operated a sector-focused program previously—to implement all the WorkAdvance model components fully. Consequently, individuals who entered the study later at these sites probably received stronger services than individuals who came in earlier.

Another important piece of the implementation story was that two of the providers—Towards Employment and Madison Strategies Group—initially implemented a “placement-first” track in which some participants skipped occupational skills training and sought immediate employment, while other participants followed the main “training-first” track as outlined in Figure 1. About halfway through the study enrollment period, the placement-first track was phased out at both sites after preliminary evidence showed that people in that track were entering low-wage jobs and were not gaining the skills they needed to advance.

It was hypothesized that because of this difference in the maturity of the programs and their services over time, the impacts for individuals who entered the study later would be larger than the impacts for individuals who entered the study earlier. However, the influence of these program differences on economic outcomes were anticipated to fade over the longer-term follow-up period.<sup>42</sup>

Like in previous WorkAdvance reports, participants were grouped into an “early cohort” and “late cohort” based on when they entered the study.<sup>43</sup> The analysis shows that the difference in earnings impacts across cohorts is not statistically significant at any site, suggesting that the long-term impact of WorkAdvance was not significantly different based on when individuals entered the study (as shown in Appendix Table A.2).

Among the early cohort at two sites—Per Scholas and St. Nicks Alliance—there are impacts on at least one measure of earnings, continuing the pattern of cohort findings discussed in previous reports. Among the late cohort, the WorkAdvance group did not work more or earn

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42. Reardon, Unlu, Zhu, and Bloom (2014).

43. Sample members who came into the study during the first half of the intake period—between June 2011 and September 2012—are in the “early cohort,” while the “late cohort” includes all remaining sample members, those who enrolled between October 2012 and June 2013. For more discussion of the cohorts, see Hendra et al. (2016).

significantly more than the control group at any of the four sites. It is somewhat unclear what is causing this pattern of impacts.<sup>44</sup>

## Self-Identified Race and Ethnicity Subgroup Analysis

One of the goals of some sector programs is to create alternative pathways for people who have historically had trouble entering a sector, either due to discrimination or because they have had fewer social ties helping them into it. Early research showed that these programs may be most helpful to people who do not have access to the informal recruitment networks that many industries use to hire new employees, many of which are based on ethnicity, family ties, or neighborhoods.<sup>45</sup>

The WorkAdvance model did not originally describe these pathways as enhancing racial equity, instead focusing on the benefits to communities with low incomes. Since the evaluation ended, some of the providers have become more explicit in linking their sector-based training programs to the goal of racial equity (see Box 2). Since they have the goal of increasing underrepresented communities' access to jobs that have advancement opportunities, it is relevant to review the impacts of WorkAdvance by race and ethnicity to understand how effective the model is in increasing earnings for various groups in the long term.

The race and ethnicity subgroup analysis split the pooled sample into three groups: Hispanic/Latino; Black, non-Hispanic; and White, non-Hispanic.<sup>46</sup> Fifteen percent of sample members (1) identified as non-Hispanic and listed Asian, American Indian, or Other as their race; (2) identified as multiracial; or (3) did not provide a race. These sample members are not included in this subgroup analysis due to the small sample sizes of these categories.<sup>47</sup>

The subgroup analysis first tested whether the impacts of WorkAdvance differed by a statistically significant amount across the three subgroups. As shown in Appendix Table A.3, the differences in impacts across groups (shown in the “sig.” column) are not statistically significant for any of the measures of earnings in Year 7. This pattern means that across the three self-identified racial and ethnic subgroups in this analysis, one can have little confidence that the long-term effects of WorkAdvance differ.<sup>48</sup>

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44. Earlier reports presented some potential reasons, which continue to be apt. See Hendra et al. (2016) and Schaberg and Greenberg (2020).

45. National Economic Development and Law Center (1994).

46. The WorkAdvance baseline information form asked people whether they considered themselves to be White, Latino/Hispanic/Spanish, Black or African American, Asian or Pacific Islander, American Indian or Alaska Native, or some other race. Individuals were instructed to select one or more of these categories.

47. As shown in Table 1, the sites varied considerably in how their samples identified by race and ethnicity. More than 20 percent of the Madison Strategies Group sample identified as American Indian, comprising the vast majority of self-identified American Indian sample members in the study.

48. For more information on statistical significance testing in subgroup analyses, see Bloom and Michalopoulos (2010).

## BOX 2

### Ways the WorkAdvance Programs Have Integrated Racial Equity into Their Work Since the Original Evaluation

**PER SCHOLAS:** In 2016, Per Scholas began its Diverse by Design program, a forum for leaders in IT and workforce development to “come together to discuss and share best practices to attract, retain and develop skilled black and brown tech professionals.” It is now using momentum from this forum to “provide companies with the proven tech talent sourcing solutions, training, and resources needed to recruit, retain, and cultivate diverse talent on purpose.”\*

**ST. NICKS ALLIANCE:** An organization with deep ties to its community, St. Nicks Alliance has “always approached training programs with racial equity in mind and continues to advocate for community members from marginalized groups.” Recently, it has begun working with a contractor firm focused on diversity to recruit, train, and place over 50 New York City Housing Authority residents to do environmental remediation in a local development, Williamsburg Houses.

**MADISON STRATEGIES GROUP:** Recognizing that many people in Tulsa are being screened out of its WorkAdvance program, Madison Strategies Group has developed two funnel programs that prepare people for that more rigorous, sector-based training. The NextUp program targets younger adults while Due North focuses on residents of North Tulsa, a historically Black neighborhood.

**TOWARDS EMPLOYMENT:** Towards Employment has developed on-ramp programs for people who are identified as needing additional support and services before they can be successful in its sector-based training. It has also hired WorkAdvance alumni to coach current program participants on navigating systemic discrimination while maintaining their dignity in the workplace, drawing on their personal experiences after graduating from the training program.

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NOTE: \*More information on the Diverse by Design program can be found at <https://perscholas.org/ideas/diversebydesign>.

When conducting subgroup analyses, however, it is sometimes important to evaluate whether the intervention is effective for a specific subgroup, particularly if that group has historically faced structural challenges, even if the intervention did not work better for that subgroup compared with other subgroups. Looking at the impacts among each of these subgroups, shown in Appendix Table A.3, the findings suggest that WorkAdvance had a positive impact on the long-term earnings of self-identified Hispanic and Black, non-Hispanic individuals. WorkAdvance group members who identified as Hispanic earned more than \$35,000 on average in Year 7, a roughly \$5,800 (or 20 percent) increase compared with the control group. WorkAdvance group

members who identified as Black and non-Hispanic earned more than \$26,000, a \$2,875 (or 12 percent) increase compared with the control group. Both of these differences are statistically significant. Among self-identified White, non-Hispanic participants, there is only a small difference in Year 7 earnings that is not statistically significant (see Box 3 for a discussion of the differences in outcomes over time for the subgroups).

It is important to note that the differences in impacts across these subgroups can be explained in part by the distribution of these subgroups across the sites. For example, more than half of the self-identified Hispanic population in the WorkAdvance study comes from Bronx-based Per Scholas, the site with the largest earnings impacts. The majority of the self-identified White, non-Hispanic population in the WorkAdvance study is from Tulsa-based Madison Strategies Group, which did not have any impacts in Year 7.

### BOX 3

#### Differential Outcomes for Racial and Ethnic Subgroups

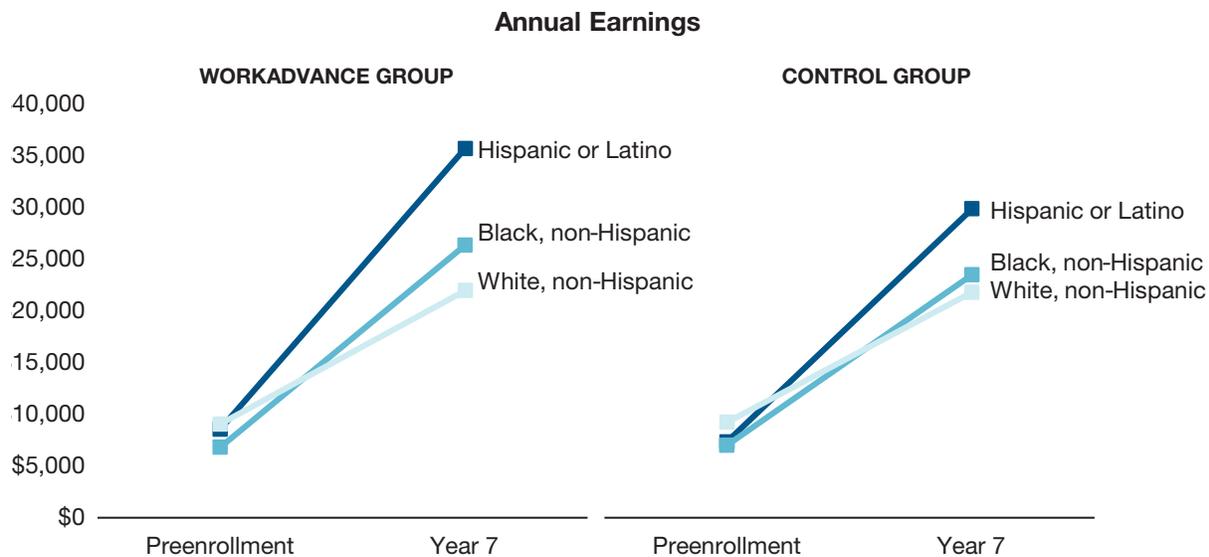
Discussing positive outcomes from a program like WorkAdvance can hide inequities among racial and ethnic groups that are reinforced or exacerbated by the program.\* It is important to know whether structural disparities in employment and earnings opportunities are replicated or reinforced by the WorkAdvance model. One descriptive check for this trend is to look at the change in outcomes over the duration of the WorkAdvance follow-up period, to see which self-identified racial and ethnic groups are benefiting the most from the program. In this exploratory analysis, unadjusted earnings in the year before study entry for each racial and ethnic group were plotted along with Year 7 unadjusted earnings. The resulting graph shows the rate of increase in earnings for each group. A trend of earnings increases that rise the fastest among the most historically advantaged group in the WorkAdvance program—in this case, the sample of White, non-Hispanic participants—could suggest that the program was reinforcing inequities that already existed.

In the figure showing outcomes among the pooled WorkAdvance group (left), all three racial and ethnic groups included in the analysis are shown to have similar average baseline earnings, probably a product of the study eligibility requirement that one's family income must be less than 200 percent of the federal poverty level. Seven years later, all the groups of participants had increased their earnings, but the rate of increase was greater for the Black, non-Hispanic and Hispanic/Latino groups than it was for the White, non-Hispanic group. The chart for the pooled control group (right) shows a similar trajectory over the seven-year period but with varying slower rates of growth in earnings for these three racial and ethnic groups.

This nonexperimental analysis supports the argument that WorkAdvance is not replicating inequities in earnings by racial and ethnic groups that are well documented in the places where the program operates.†

(continued)

### BOX 3 (CONTINUED)



NOTES: \*Krause (2019).

†Office of Federal Contract Compliance Programs (n.d.).

## CONCLUSION

The findings presented in this report contribute to the growing body of evidence on the long-term effectiveness of sector programs. Specifically, these findings offer some evidence on the career-advancement focus of the WorkAdvance model.

The findings show evidence of long-term, sustained impacts on participants' earnings and career advancement at some sites, but these impacts are uneven and more pronounced at some sites than others. Per Scholas' WorkAdvance program led to overall, average earnings gains and to gains in the proportion of people who earned at least \$40,000 in Year 7. These types of sustained earnings gains are not often seen in evaluations of workforce programs. WorkAdvance also increased the proportion of people who earned \$40,000 or more at two other sites, St. Nick's Alliance and Towards Employment. The fourth site did not show any impacts in Year 7.

The longer-term analysis described in this report also shows that some earlier earnings differences that were positive but not statistically significant in the analyses included in earlier reports could continue to grow and eventually become statistically significant. St. Nick's Alliance WorkAdvance program showed this pattern.

For the pooled sample, WorkAdvance was effective in increasing earnings without increasing employment, suggesting that the program had an impact on career advancement over time when implemented by four providers with different levels of experience running sector-based training programs. Further, WorkAdvance increased Year 7 earnings for individuals that identified as Hispanic/Latino and Black, non-Hispanic, suggesting that WorkAdvance can help to increase the earnings of racial and ethnic groups who have historically been disadvantaged in the labor market.

Overall, the long-term economic impacts of WorkAdvance reported here join findings from other evaluations of sector programs that show sector programs can increase earnings in the longer term and can lead to career advancement over time for individuals who participate in them. Taken together with the long-term evaluations of programs such as Project Quest and Year Up, these findings suggest that sector-based training strategies can have substantial impacts on participants' earnings and career advancement. At the same time, sector programs can be hard to implement well and not all programs will lead to statistically significant increases in employment and earnings. Further, each of these models offers a different collection of services, and the question about which aspects of these programs are critical to their success remains unanswered. The WorkAdvance results support the case for focusing on how sector programs can be improved and highlight areas future research could explore.

Of the research conducted on these programs, little has been dedicated to parsing the effects of their individual components. At least two program components are worth more exploration: the screening method used to select participants and the postemployment coaching designed to help people advance in their careers.<sup>49</sup> WorkAdvance had very rigorous screening for inclusion in the training programs, as outlined in an earlier report.<sup>50</sup> On average, providers had to recruit five people in order to end up with one who enrolled in the study. This rigor probably resulted in a more engaged and motivated group of participants. Project QUEST, which has had remarkable success, had a similar screening rate of about one in five individuals before the formal randomized controlled trial was conducted, while Year Up's screening deemed only 16 percent of applicants eligible to participate.<sup>51</sup> Some programs that have not shown long-term economic impacts have not used such rigorous screening processes.<sup>52</sup>

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**49.** During the COVID-19 pandemic, there has been increased focused on modes of training, including virtual, in-person, synchronous, and asynchronous options. MDRC has worked with Per Scholas during the pandemic to explore the effectiveness of these various modes. See Stover and Molina (2020) for a discussion of Per Scholas's experience.

**50.** Tessler et al. (2014).

**51.** Osterman and Lautsch (1996); Fein, Dastrup, and Burnett (2021).

**52.** Werner, Buell, and Sick (2017); Gardiner, Martinson, and Dastrup (2021); Farrell, Juras, Judkins, and Dastrup (2020).

MDRC is currently working with Per Scholas to assess and refine the program's application and intake process. The goal is to make the process less burdensome to both staff members and applicants, while still ensuring the program selects applicants who are a good fit.

Another component that is more closely related to long-term career advancement is the postemployment coaching done in WorkAdvance. This service has two goals: to assist participants in addressing “life issues” that might arise and to help them identify next-step job opportunities and skills training to move up career ladders.<sup>53</sup> Postemployment coaching was not implemented fully until after many of the other WorkAdvance program components were put in place, and for many providers not until sample recruitment was complete—roughly two years after WorkAdvance started. Still, in the later part of the follow-up period this service was offered more systematically.<sup>54</sup>

This component was not present in some of the other successful sector-based programs. The model of Project QUEST includes counseling from the time participants are accepted into the program until they have obtained jobs, but does not include postemployment support.<sup>55</sup> Instead of coaching, Year Up offers postprogram services focused on connecting participants with their first jobs and not coaching focused on their career advancement afterward.<sup>56</sup> More research is necessary to clarify the roles of the various services provided to participants after they obtain initial jobs, and to shed light on whether WorkAdvance’s postemployment services contributed to its success.<sup>57</sup>

This is the first of two reports planned for this longer-term follow-up analysis. Another report will evaluate impacts through Year 10. That report will also incorporate findings from WorkAdvance participant interviews, which will focus on participants’ employment and wage histories over time, and on whether they receive any additional training or take additional steps to advance in their careers. Those interviews will provide more context to the findings presented in this report.

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**53.** Tessler et al. (2014).

**54.** Postemployment services were the last services to be completely developed and implemented. Once they were fully in place, the WorkAdvance providers differed in how often they offered coaching, in whether they gave incentives to staff members for connecting with program participants, and in the advice they provided regarding how quickly to seek career advancement opportunities and the best ways to do so (which differed by sector). For further discussion of the implementation of these services, see Chapter 2 of Hendra et al. (2016).

**55.** Roder and Elliot (2018).

**56.** Engstrom, Fein, and Gardiner (2014).

**57.** Some initial research parsing the effectiveness of WorkAdvance’s service components did not focus on postemployment services. Instead, it found that training in transferrable, certifiable skills appeared to play an important role, as did services meant to break down discriminatory barriers to being hired. See Katz, Roth, Hendra, and Schaberg (2020).



APPENDIX

A

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Subgroup Tables



**APPENDIX TABLE A.1** Impacts on Employment and Earnings in Year 7 for Subgroups Defined by Baseline Labor Market Attachment, Among the Pooled Sample

Outcome	Fully attached			Semiattached			Long-term unemployed			Sig.
	WorkAdvance Group	Control Group	Difference (Impact)	WorkAdvance Group	Control Group	Difference (Impact)	WorkAdvance Group	Control Group	Difference (Impact)	
Total earnings (\$)	27,571	28,480	-908	28,792	25,586	3,206 *	25,235	22,437	2,799 *	
Earned more than a certain amount (%)										
Earned \$40,000 or more	28.6	27.3	1.3	31.3	23.9	7.5 ***	25.3	21.9	3.4	
Earned \$30,000 or more	43.6	43.8	-0.2	42.3	36.8	5.5 *	36.3	32.4	4.0	
Earned \$20,000 or more	58.9	62.3	-3.4	55.7	50.5	5.2	48.4	44.7	3.7	
Ever worked (%)	83.5	86.5	-3.0	82.2	80.3	1.9	75.6	74.4	1.2	
Sample size (total = 2,561)	308	356		456	449		529	463		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: The fully attached group consists of sample members who at enrollment were working or had been unemployed for less than one month. The semiattached group consists of sample members who had been unemployed for one to six months at enrollment. The long-term unemployed group consists of sample members who had never been employed or who had been unemployed for seven or more months at enrollment.

Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Differences across subgroups were tested for statistical significance. Statistical significance levels (sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in sums and differences.

**APPENDIX TABLE A.2** Impacts on Employment and Earnings in Year 7 for Subgroups Defined by Random Assignment Cohort, by Site

	Early Cohort			Late Cohort			Sig.
	WA Group	C Group	Difference (Impact)	WA Group	C Group	Difference (Impact)	
<b>Per Scholas</b>							
Total earnings (\$)	39,225	32,632	6,594 **	41,806	39,424	2,382	
Earned \$40,000 or more (%)	49.7	38.4	11.3 **	47.2	47.8	-0.6	
Ever worked (%)	86.2	83.8	2.4	88.6	84.2	4.4	
Sample size (total = 690)	189	185		160	156		
<b>St. Nicks Alliance</b>							
Total earnings (\$)	26,278	22,511	3,767	29,464	29,798	-334	
Earned \$40,000 or more (%)	30.2	19.6	10.5 *	34.3	33.5	0.8	
Ever worked (%)	71.5	79.6	-8.1	79.4	78.9	0.5	
Sample size (total = 479)	127	131		115	106		
<b>Madison Strategies Group</b>							
Total earnings (\$)	17,492	17,342	150	22,474	22,000	474	
Earned \$40,000 or more (%)	10.4	11.0	-0.7	22.8	20.0	2.8	
Ever worked (%)	70.6	73.1	-2.5	79.5	78.9	0.6	
Sample size (total = 697)	173	164		180	180		
<b>Towards Employment</b>							
Total earnings (\$)	17,827	15,341	2,485	23,142	24,124	-982	
Earned \$40,000 or more (%)	11.2	8.0	3.2	23.0	17.1	5.9	
Ever worked (%)	76.2	74.6	1.7	83.8	85.1	-1.3	
Sample size (total = 698)	168	177		181	172		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: WA = WorkAdvance group; C = control group.

The early cohort includes all sample members randomly assigned through Quarter 3, 2012. The late cohort includes all sample members randomly assigned in or after Quarter 4, 2012.

Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Differences across subgroups were tested for statistical significance. Statistical significance levels (sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in sums and differences.

**APPENDIX TABLE A.3** Impacts on Employment and Earnings in Year 7 for Subgroups Defined by Racial and Ethnic Group, Among the Pooled Sample

Outcome	Hispanic, Latino, or Spanish			Black, non-Hispanic			White, non-Hispanic			Sig.
	WA group	C group	Difference (Impact)	WA group	C group	Difference (Impact)	WA group	C group	Difference (Impact)	
Total earnings (\$)	35,682	29,854	5,828 **	26,349	23,473	2,875 **	21,957	21,782	175	
Earned more than a certain amount (%)										
Earned \$40,000 or more	41.1	33.4	7.7	28.1	19.8	8.3 ***	19.9	19.0	0.9	
Earned \$30,000 or more	55.3	46.9	8.4 *	39.1	33.2	5.9 **	34.7	31.1	3.7	
Earned \$20,000 or more	66.7	56.6	10.1 **	53.4	49.0	4.4 *	46.5	45.8	0.8	
Ever worked (%)	84.3	79.2	5.1	81.9	80.1	1.8	70.3	78.9	-8.5 **	††
Sample size (total = 2,180)	211	216		655	630		235	233		

SOURCE: MDRC calculations using National Directory of New Hires data.

NOTES: WA = WorkAdvance group; C = control group.

Fifteen percent of sample members (1) identified as non-Hispanic and listed "Asian," "American Indian," or "Other" as their race; (2) answered as "multiracial"; or (3) did not provide a race. These sample members are not shown in this table.

Statistical significance levels are indicated as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Differences across subgroups were tested for statistical significance. Statistical significance levels (sig.) are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent.

Rounding may cause slight discrepancies in sums and differences.



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