

Long-Term Effects of a Sectoral Advancement Strategy

Costs, Benefits, and Impacts
from the WorkAdvance
Demonstration

Executive Summary

Kelsey Schaberg
David H. Greenberg

March 2020

**Long-Term Effects of a Sectoral
Advancement Strategy**
**Costs, Benefits, and Impacts from the WorkAdvance
Demonstration**

**Kelsey Schaberg
David H. Greenberg**

March 2020



The funding for this report was provided by the Robin Hood Foundation.

Dissemination of MDRC publications is supported by the following organizations and individuals that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Annie E. Casey Foundation, Arnold Ventures, Charles and Lynn Schusterman Family Foundation, The Edna McConnell Clark Foundation, Ford Foundation, The George Gund Foundation, Daniel and Corinne Goldman, The Harry and Jeanette Weinberg Foundation, Inc., The JPB Foundation, The Joyce Foundation, The Kresge Foundation, and Sandler Foundation.

In addition, earnings from the MDRC Endowment help sustain our dissemination efforts. Contributors to the MDRC Endowment include Alcoa Foundation, The Ambrose Monell Foundation, Anheuser-Busch Foundation, Bristol-Myers Squibb Foundation, Charles Stewart Mott Foundation, Ford Foundation, The George Gund Foundation, The Grable Foundation, The Lizabeth and Frank Newman Charitable Foundation, The New York Times Company Foundation, Jan Nicholson, Paul H. O'Neill Charitable Foundation, John S. Reed, Sandler Foundation, and The Stupski Family Fund, as well as other individual contributors.

The findings and conclusions in this report do not necessarily represent the official positions or policies of the funders.

For information about MDRC and copies of our publications, see our website: www.mdrc.org.

Copyright © 2020 by MDRC®. All rights reserved.

Overview

This report summarizes the long-term findings of a rigorous random assignment evaluation of the WorkAdvance model, a sectoral training and advancement initiative. Launched in 2011, WorkAdvance goes beyond the previous generation of employment programs by introducing demand-driven skills training and a focus on jobs that have identifiable career pathways. The model is heavily influenced by the positive findings from the Sectoral Employment Impact Study completed in 2010, as well as prior 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, cost, and interim impact findings of WorkAdvance and showed encouraging evidence for the WorkAdvance model. The impact findings presented in those reports covered the first three years of follow-up. While those findings showed earnings gains for some programs in some years, whether WorkAdvance could consistently increase earnings in the long term was still an open question.

This report presents the long-term economic impacts of WorkAdvance and covers a two-year period occurring between four and eight years after individuals entered the study. The economic outcomes are based on National Directory of New Hires data and include 2017 and 2018. The report also builds on a previous cost analysis and presents findings from a full benefit-cost analysis to examine whether the effects of WorkAdvance resulted in gains or losses from the perspective of WorkAdvance participants, the government, and society.

Key Findings

- The WorkAdvance program at Per Scholas increased average earnings in 2017 and 2018; there were no statistically significant effects on average earnings at the other three sites. There is evidence that some of the WorkAdvance programs increased the likelihood of individuals having earnings of at least \$30,000 in some time periods. None of the WorkAdvance sites increased employment by a statistically significant amount in either long-term follow-up year.
- In the pooled sample from all four providers, WorkAdvance had no effect on employment but increased average earnings and the likelihood of individuals having high earnings.
- The overall pattern of economic impact findings suggests that the earnings-based impacts are driven by WorkAdvance group members having higher wages than control group members, rather than by being employed at a higher rate. This suggests WorkAdvance group members are advancing over time, as intended by the WorkAdvance model.
- The findings from the benefit-cost analysis are positive from the perspectives of the participants, the government, and society at all four sites.

Overall, the WorkAdvance results support the case for focusing on how sector programs can be improved. The long-term economic impacts show that sector programs *can* increase earnings in the longer term and *can* lead to advancement gains over time for low-income individuals, but not all sector programs will lead to increases in employment and earnings. Focusing future efforts on how to make the sectoral approach — in particular, the advancement-focused services — more consistently successful can help workforce providers strengthen sector-based programs. This is the final planned report for the WorkAdvance evaluation.

Preface

Over the past decade — in the same period that the WorkAdvance study has been conducted — the workforce development field has increasingly adopted the sectoral approach to meet the needs of both low-income workers and employers. Sector strategies train individuals for quality jobs in specific industries and occupational clusters where there is strong local demand and the opportunity for career advancement. Although variations of sector strategies have been used since the 1980s, interest in the approach grew after the release of the results from the Sectoral Employment Impact Study (SEIS) in 2010. Findings from that study, which used a rigorous random assignment design, showed positive earnings gains over a two-year follow-up period for individuals in three mature sector programs.

After the release of that study’s findings, more workforce service providers started adopting the sector approach. The WorkAdvance model and evaluation were developed starting in 2011. WorkAdvance combined the most promising aspects of the programs involved in the SEIS evaluation — including strong employer relationships, a stringent screening process, and the provision of individual, tailored services — with the best of what was known about advancement programs. The WorkAdvance evaluation sought to understand whether the overall approach could be a path to upward mobility for low-income individuals. Sector strategies also became a key component of the federal Workforce Innovation and Opportunity Act passed in 2014.

To date, several studies, including WorkAdvance, have shown that sector strategies can be effective at helping people complete sector-based vocational training, obtain credentials and certifications, and find initial jobs within the target sectors. Less evidence is available on what happens to people after they start working in a given sector and whether they are able to move into higher-paying jobs, either by gaining new skills on the job or by obtaining additional training and certifications. One exception is an evaluation of Project QUEST, which has released economic impact findings through follow-up Year 9 and has shown that earnings gains can be sustained through a longer follow-up period. The findings from the WorkAdvance evaluation presented in this report also add to that body of evidence and show that sector strategies can increase earnings in the longer term and lead to advancement gains over time for low-income individuals.

As sector strategies continue to be adopted by workforce providers, the challenge will be to ensure that the approach can be effectively and consistently implemented across a range of providers; in particular, making sure that advancement-focused services are targeted and robust enough to help participants move up career pathways. Developing actionable evidence about how these programs can consistently lead to economic gains in different contexts, particularly in the long term, will be crucial to their success as a key strategy for upward mobility in the United States.

Virginia Knox
President, MDRC

Acknowledgments

The WorkAdvance extended follow-up analysis and this brief are supported by funds provided by the Robin Hood Foundation. MDRC also received support from the U.S. Department of Health and Human Services to acquire the National Directory of New Hires data. WorkAdvance was originally implemented as part of the 2010 Social Innovation Fund grant to the Mayor's Fund to Advance New York City and the Mayor's Office for Economic Opportunity (NYC Opportunity).

The authors would like to thank the many individuals who provided feedback on the findings and the report: Plinio Ayala at Per Scholas; Michael Rochford, Larry Rothchild, and Nancy Lasher at St. Nicks Alliance; Jill Rizika at Towards Employment; Karen Pennington and Rachel Griffin at Madison Strategies Group; and David Berman from NYC Opportunity.

Several people provided help with securing the necessary data: Terry L. Adams at the Ohio Department of Job and Family Services; John Miley, Jane Stout, and Gina Antipov at the Oklahoma Employment Security Commission; and Jeffrey Sorensen, Brian Close, and Shannon Hesnor at the New York State Department of Labor. We also thank staff members from the U.S. Department of Health and Human Services and the Social Security Administration who worked to provide us with data from the National Directory of New Hires.

The authors would also like to thank several MDRC staff members who contributed to the brief. Frieda Molina was the project director and Stephanie Rubino oversaw the budget and proposal. Kali Aloisi and Sally Dai processed the data. Dan Bloom, Megan Millenky, and Johanna Walter helped secure access to the National Directory of New Hires data. Richard Hendra oversaw the analysis and offered invaluable guidance on all phases of the analysis and report. Barbara Goldman, Gayle Hamilton, Joshua Malbin, Frieda Molina, and James Riccio provided insightful comments on drafts of the brief. Daron Holman assisted with the benefit-cost analysis and led the report production and fact checking. Jill Kirschenbaum edited the brief and Ann Kottner prepared it for publication.

The Authors

Executive Summary

Many individuals with low incomes struggle to obtain and maintain jobs that pay enough to meet their needs and put them on a path to upward mobility. At the same time, employers often report difficulty finding workers with the required skills. 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.

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 individuals 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 Sectoral Employment Impact Study (SEIS), influenced the design of the WorkAdvance model.¹ It showed positive earnings gains over a two-year follow-up period for individuals 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 proactive reemployment services when a participant loses a job — may help individuals not only maintain their sector-based employment but also advance within the sector and continue to increase their earnings over time.² WorkAdvance sought to build on the SEIS findings and learn whether sector programs with an explicit focus on career advancement could be a path to upward mobility for low-income individuals.

WorkAdvance Model and Evaluation

The essential theory behind WorkAdvance is that offering low-income individuals education and employment-related skills and experience in high-demand sectors will help them advance in the labor market. This theory informs the five key components of the WorkAdvance model:

1. **Intensive screening** of program applicants before enrollment for motivation and readiness, to ensure program providers select participants who can take advantage of the training and qualify for jobs in the target sector
2. Sector-appropriate **preemployment and career readiness services**, including an orientation to the sector, career advancement coaching, and limited support services

¹Sheila Maguire, Joshua Freely, Carol Clymer, Maureen Conway, and Deena Schwartz, *Tuning in to Local Labor Markets: Findings from the Sectoral Employment Impact Study* (Philadelphia: Public/Private Ventures, 2010).

²Gayle Hamilton and Sue Scrivener, *Increasing Employment Stability and Earnings for Low-Wage Workers: Lessons from the Employment Retention and Advancement (ERA) Project* (New York: MDRC, 2012).

3. Sector-specific **occupational skills training** aligned with employer needs, leading to certifications that are in demand in the regional labor market
4. Sector-specific **job development and placement services** based on strong relationships with employers and intended to facilitate entry into positions that participants have been trained for and that offer genuine opportunities for continued skills development and career advancement
5. Postemployment **retention and advancement services**, including ongoing contact, coaching, skills training, and rapid reemployment help if needed

The WorkAdvance model was implemented by four providers — Per Scholas, St. Nicks Alliance, Madison Strategies Group, and Towards Employment — and the programs were evaluated using a randomized controlled trial design. (Table ES.1 provides an overview of the WorkAdvance providers.) A total of 2,564 individuals enrolled in the study between June 2011 and June 2013 and were assigned at random to either the program (WorkAdvance) group or the control group. Individuals in both research groups were tracked over time and their outcomes were compared to estimate the “impacts” of the programs.³

Table ES.1

WorkAdvance Provider Characteristics

	Per Scholas	St. Nicks Alliance	Madison Strategies Group	Towards Employment
Location	Bronx, NY	Brooklyn, NY	Tulsa, OK	Northeast Ohio
Target sector(s)	Information technology	Environmental remediation	Transportation, manufacturing	Health care, manufacturing
Sample size	690	479	697	698

Several previous reports described the implementation, participation, cost, and interim economic impact findings of WorkAdvance and showed encouraging evidence for the WorkAdvance model.⁴ The impact findings presented in those reports covered the first three years of

³In randomized controlled trial evaluations, these “impacts” can be attributed to the program, since the program and control groups are statistically alike at study entry and the only difference between them is that one group received program services and the other did not.

⁴Betsy Tessler, Michael Bangser, Alexandra Pennington, Kelsey Schaberg, and Hannah Dalporto, *Meeting the Needs of Workers and Employers: Implementation of a Sector-Focused Career Advancement Model for Low-Skilled Adults* (New York: MDRC, 2014); Richard Hendra, David H. Greenberg, Gayle Hamilton, Ari Oppenheim, Alexandra Pennington, Kelsey Schaberg, and Betsy L. Tessler, *Encouraging Evidence on a Sector-Focused Advancement Strategy: Two-Year Impacts from the WorkAdvance Demonstration* (New York: MDRC, 2016); and Kelsey Schaberg, *Can Sector Strategies Promote Longer-Term Effects? Three-Year Impacts from the WorkAdvance Demonstration* (New York: MDRC, 2017).

follow-up. While those findings showed earnings gains for some programs in some years, whether WorkAdvance could consistently increase earnings in the long term was still an open question.

This report presents the long-term economic impacts of WorkAdvance and adds to the small body of rigorous evidence currently available on whether sector programs can increase employment and earnings for low-income individuals beyond the third year after they enter such programs. The impacts are based on data collected from the National Directory of New Hires (NDNH) and cover 2017 and 2018, adding an additional two years of follow-up data for all sample members.⁵ Depending on when individuals entered the study, this two-year period occurred between four and eight years after they were randomly assigned. The analysis of the long-term data was done separately for each site.⁶

The report also presents findings from a full benefit-cost analysis that examines whether the effects of WorkAdvance resulted in gains or losses from the perspectives of WorkAdvance participants, the government, and society.

Key Findings

Analyses in this report yielded the following key findings:

- **The WorkAdvance program at Per Scholas increased average earnings in both 2017 and 2018. At the other three sites, there were positive but not statistically significant differences in average earnings. However, the WorkAdvance programs at two of the other sites, in addition to Per Scholas, did increase the percentage of the sample with relatively high earnings.**

Per Scholas’s WorkAdvance program produced statistically significant impacts on average earnings in both follow-up years. For example, in 2018, WorkAdvance group members earned an average of \$38,404, an increase of \$6,281 (or almost 20 percent) over the control group average (Table ES.2).⁷ Earnings gains of this size are rarely seen in random assignment studies

⁵The findings presented in previous WorkAdvance reports used state unemployment insurance wage data to measure employment and earnings for all sample members. However, additional unemployment insurance wage data were not available for Madison Strategies Group sample members, so this report primarily focuses on data available through NDNH.

⁶The effects of WorkAdvance were expected to strengthen as the programs gained more experience, and thus the economic impacts at each site were also analyzed by cohort — one of the study’s two prespecified, confirmatory subgroups. 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. Findings from the cohort analysis are presented in the main report.

⁷The exhibits in the Executive Summary only show outcomes for 2018. This year was chosen because it was the latest year for which follow-up data were available. Outcomes for 2017 are discussed in the text and shown in the exhibits in the main report.

Table ES.2**Impacts on Employment and Earnings in 2018, by Site**

	WorkAdvance Group	Control Group	Difference (Impact)	P-Value
Per Scholas				
Ever employed (%)	83.2	84.6	-1.4	0.624
Total earnings (\$)	38,404	32,122	6,281 ***	0.004
Earned \$30,000 or more (%)	57.0	50.7	6.3 *	0.099
St. Nicks Alliance				
Ever employed (%)	77.7	79.7	-2.0	0.601
Total earnings (\$)	26,670	23,822	2,849	0.208
Earned \$30,000 or more (%)	41.4	32.0	9.3 **	0.033
Madison Strategies Group				
Ever employed (%)	74.1	78.6	-4.4	0.168
Total earnings (\$)	21,248	20,461	787	0.603
Earned \$30,000 or more (%)	33.6	27.8	5.8 *	0.092
Towards Employment				
Ever employed (%)	79.0	78.6	0.4	0.894
Total earnings (\$)	19,742	18,338	1,404	0.275
Earned \$30,000 or more (%)	28.9	23.8	5.1	0.117

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

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

of workforce programs and highlight the continued effectiveness of Per Scholas’s WorkAdvance program.

At St. Nicks Alliance, Madison Strategies Group, and Towards Employment, WorkAdvance group members earned more than control group members in both years on average, but the differences are not statistically significant (Table ES.2).

Table ES.2 also shows that Per Scholas (by 6 percentage points), St. Nicks Alliance (by 9 percentage points), and Madison Strategies Group (by 6 percentage points) increased the likelihood of individuals having earnings of at least \$30,000 in 2018. Madison Strategies Group also produced a statistically significant impact on this measure in 2017 (not shown).⁸ Towards

⁸Previous reports looked at impacts on the likelihood of individuals having earnings of at least \$20,000 per year. That threshold was chosen based on the distribution of earnings for the pooled sample. Because the earnings

Employment did not have a statistically significant effect on the likelihood of individuals having high earnings in either year, although more WorkAdvance group members than control group members had earnings of \$30,000 or more in both years.⁹

- **None of the WorkAdvance sites increased overall employment by a statistically significant amount above the fairly high employment levels of the control groups in either 2017 or 2018.**

Across the sites, more than 78 percent of control group members worked in 2017 and 2018, setting a high bar for the WorkAdvance programs.¹⁰ Table ES.2 shows that WorkAdvance group members and control group members worked at similar rates in 2018 at all four sites (a similar pattern is seen in 2017). The high employment rates among both research groups may reflect the low national unemployment rates during the follow-up years.

- **Pooling the samples from the four providers, WorkAdvance increased average earnings and the likelihood of individuals having high earnings in 2017 and 2018. WorkAdvance did not have a statistically significant effect on employment in either year for the pooled sample.**

The main WorkAdvance impact analysis was done at the site level. However, given the substantial variation in providers' organizational emphases and prior experience operating sector strategies, it is also useful to understand how a model like WorkAdvance might perform, on average, across a range of providers and contexts. Combining the sample from the four sites, WorkAdvance had no effect on employment in either 2017 or 2018 (employment rates were high for both research groups in both years). However, WorkAdvance did increase earnings by statistically significant amounts in both years for the pooled sample. In 2018, WorkAdvance increased earnings by \$2,716 over the control group average (Table ES.3). Additionally, 40 percent of WorkAdvance group members had earnings of at least \$30,000 that year, a statistically significant increase of 6 percentage points over the control group average.

While the earnings impacts for the pooled sample show the effect for a range of possible WorkAdvance providers, they do mask the variation in impacts across the sites. In other words, some of the pooled sample earnings impacts are being driven by the large earnings impacts at Per Scholas. However, an exploratory analysis of the impacts for the pooled sample from only St. Nicks Alliance, Madison Strategies Group, and Towards Employment showed that the

outcomes presented in this report are longer term than those presented in previous reports, and individuals tend to have higher earnings over time, this threshold was increased to \$30,000.

⁹Among the late cohort at Towards Employment, there was a statistically significant effect on the likelihood of individuals having earnings of \$30,000 or more in 2017.

¹⁰The employment outcomes reflect work in any sector, not just the ones the WorkAdvance sites targeted. WorkAdvance was designed to increase employment in the targeted sectors and not necessarily overall employment.

Table ES.3
Impacts on Employment and Earnings in 2018
for the Pooled Sample

Outcome	WorkAdvance group	Control group	Difference (Impact)	P-Value
Ever worked (%)	78.8	80.2	-1.5	0.355
Total earnings (\$)	26,419	23,703	2,716 ***	0.003
Earned \$30,000 or more (%)	40.0	33.7	6.4 ***	0.001
Sample size	1,293	1,271		

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

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

statistically significant earnings impacts remained in some long-term follow-up periods (not shown).¹¹ This suggests that the earnings impacts of WorkAdvance were not limited to Per Scholas.

- **The overall pattern of economic impacts suggests that WorkAdvance increased advancement: The earnings-based impacts are driven by WorkAdvance group members having higher wages than control group members, rather than by being employed at a higher rate. This indicates that some WorkAdvance group members were advancing over time, as intended by the WorkAdvance model.**

Because WorkAdvance increased average earnings (at Per Scholas *and* for the pooled sample) without increasing overall employment, it can be inferred that WorkAdvance led to wage gains.¹² This is a sign that some WorkAdvance group members were advancing over time, as the model intended. Further evidence of advancement is seen in the statistically significant impacts on the likelihood of individuals having earnings of at least \$30,000 at three of the four sites.

¹¹This analysis indicated that among the pooled sample from St. Nicks Alliance, Madison Strategies Group, and Towards Employment, WorkAdvance increased earnings by statistically significant amounts in Quarter 3, 2017 through Quarter 1, 2018; in Quarter 4, 2018; and in 2017 overall.

¹²The increases in earnings could also be driven by 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, are attributable to hours worked. However, an analysis based on the Year 2 survey data showed that around half or more of WorkAdvance’s impact on earnings at each site was attributable to hourly wages (with the rest attributable to hours worked).

- **The findings from the benefit-cost analysis are positive from the perspectives of WorkAdvance participants, the government, and society at all four sites.**

As a result of increases in earnings and fringe benefits, WorkAdvance group members made substantial financial gains of between \$5,500 and \$15,500 during the combined observation and projection period (which ranges from 5 years to 10 years across the sites),¹³ even though they paid higher taxes and relinquished appreciable amounts of government transfer benefits (Table ES.4). Although the government incurred considerable costs in operating WorkAdvance, these costs were at least offset at all four sites (and substantially so at Per Scholas) by participants paying more in taxes and receiving less in government transfer benefits. Because participants were better off at all four sites and the government's budget also improved, the financial gains for society at all four sites were substantial. Various sensitivity tests, including Monte Carlo simulations, produced similar findings.¹⁴

Conclusion

WorkAdvance was an attempt to initially increase employment in promising sectors and eventually increase earnings and help low-income individuals advance along a career pathway. Previous findings from the evaluation, which covered the first three years of follow-up, showed initial increases in employment in the targeted sector at all sites and increases in earnings at some sites. Long-term effectiveness, however, is a key measure of WorkAdvance and similar programs, given that it takes time for individuals to complete training, find initial sector jobs, and eventually advance into higher-level jobs within that sector. This report provides more evidence on the long-term effectiveness of the WorkAdvance programs.

The findings show that the previous increases in employment seen at some of the sites faded in the long-term findings. None of the sites' WorkAdvance programs increased overall employment by a statistically significant amount in either 2017 or 2018. However, the long-term impact findings show evidence of earnings increases at some sites. Per Scholas's WorkAdvance program produced large impacts on average earnings in both 2017 and 2018. And three of the four WorkAdvance programs led to statistically significant increases in the likelihood of individuals having high earnings. Because there are increases in earnings and in high earnings without

¹³The observation period for Per Scholas and St. Nicks Alliance is 63 months and for Madison Strategies Group and Towards Employment, 62 months. The combined observation and projection period for Per Scholas is 7 years, and 10 years for St. Nicks Alliance. For Madison Strategies Group and Towards Employment, the benefits and costs were not projected beyond the 62-month observation period because it appears the positive earnings impacts disappeared after the observation period.

¹⁴Results from the Monte Carlo analysis suggest that it is difficult to know for certain whether there were net losses or net gains from the government's perspective at St. Nicks Alliance, Madison Strategies Group, and Towards Employment. Whatever the direction, they were probably small, suggesting that program operating costs were largely offset. See Chapter 3 of the main report for more information.

Table ES.4

Benefits and Costs by Accounting Perspective Over the Observation Period and for Two Sites Over the Observation and Projection Periods (in 2018 Dollars), by Site

Net financial gains and losses (\$)	Participants	Government	
		Budget	Society
Per Scholas			
Over the observation period	13,997	11,370	27,535
Over the observation and projection periods	15,456	13,387	31,387
St. Nicks Alliance			
Over the observation period	1,623	-4,130	-3,293
Over the observation and projection periods	9,387	3,660	13,742
Madison Strategies Group			
Over the observation period	11,192	1,615	13,114
Over the observation and projection periods	11,192	1,615	13,114
Towards Employment			
Over the observation period	5,505	265	5,820
Over the observation and projection periods	5,505	265	5,820

SOURCES: The sources and derivation of net program costs are described in Hendra et al. (2016). The sources and derivation of the remaining benefit and cost components are described in Appendix B.

NOTES: The observation period for Per Scholas and St. Nicks Alliance is 63 months and for Madison Strategies Group and Towards Employment is 62 months. The combined observation and projection period for Per Scholas is 7 years and for St. Nicks Alliance is 10 years. For Madison Strategies Group and Towards Employment, the benefits and costs were not projected beyond the observation period because it appears the positive impacts on earnings disappeared after the observation period.

All gains and losses include the monetized effects of WorkAdvance on nonmarket time and deadweight loss, are inflation-adjusted to 2018 dollars, and are discounted to 2018 present values.

commensurate increases in employment, there is evidence that WorkAdvance did lead to wage gains. This is a sign that WorkAdvance group members were advancing over time, as the model intended.

The findings from the benefit-cost analysis show large financial gains from the perspectives of WorkAdvance participants and society at large for all four sites. The size of these gains is exceptional when compared with benefit-cost findings from other evaluations of employment and training programs.

Overall, the WorkAdvance results reinforce other rigorous research that shows that sectoral programs *can* be quite effective; the results also support the case for investigating why

certain types of programs are successful and how they can be improved. The long-term economic impacts of WorkAdvance show that sector programs *can* increase earnings in the longer term and *can* lead to advancement gains over time for low-income individuals. At the same time, sector programs are difficult to design and implement well, and not all programs will lead to statistically significant increases in employment and earnings. Focusing future efforts on how to make the sectoral approach more consistently successful will help workforce providers effectively implement or strengthen such programs.

This is the final planned report for the WorkAdvance evaluation. Longer-term findings from several other evaluations of sector programs will be released in the next few years, which will provide more evidence on the effectiveness of sector strategies.