#### **EDUCATION AND TRAINING**



#### **RESEARCH REPORT**

## New Insights into the Back on Track Model's Effects on Opportunity Youth Outcomes

### **Opportunity Works Final Evaluation Report**

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## **Executive Summary**

Opportunity Works was a three-year effort led by Jobs for the Future to help opportunity youth—young people ages 16 to 24 who are not in school or meaningfully employed—access postsecondary and career pathways. Based on the Back on Track framework, seven cities across the country undertook collective impact approaches with diverse partners to provide supportive, enhanced preparation and postsecondary/career bridging for eligible young people, with a particular focus on young men of color.

A quasi-experimental evaluation conducted by the Urban Institute in three Opportunity Works sites found large, consistent, positive effects on participants' postsecondary enrollment and increased connection with either education or employment about one year after program entry. Specifically, Opportunity Works participants were twice as likely to enroll in college and 25 percent more likely to be in either education or employment. Postsecondary results were even greater for young men of color, who were nearly six times as likely to enroll in college. This report also includes insights and lessons from qualitative field research.

## What Is Opportunity Works?

Between the critical ages of 16 and 24, many low-income youth risk becoming disconnected from school and the labor market. In 2016, 6 percent of young people ages 16 to 24 were not in school and did not have high school credentials; among youth from the lowest-income families, nearly 10 percent disconnected from school.<sup>1</sup> Males are about 45 percent more likely to drop out than females.<sup>2</sup> About 14 percent of high school dropouts in this age range are unemployed and about 40 percent are not in the labor force.<sup>3</sup> But the employment prospects for opportunity youth are encouraging if they gain the necessary postsecondary credentials and skills.

The Back on Track framework fosters the growth and scale of programs aimed at improving the postsecondary success of opportunity youth. Back on Track is characterized by three program phases:

- Enriched preparation: recruits high school noncompleters ages 16 to 24 and provides them with the curriculum, support, and coaching essential for educational success and career readiness, as well as support in completing a high school equivalency (HSE).
- Postsecondary/career bridging: helps students bridge to college and/or careers. This phase caters to opportunity youth who already have or are very close to obtaining high school credentials and helps them build the skill set essential for postsecondary achievement.
- **First-year support:** encourages program staff members to continue working with students through their first year of college or career.

The impact evaluation of Opportunity Works covered three sites that focused on the postsecondary and career-bridging phase of the model: Hartford, CT; Philadelphia, PA; and South King County/Seattle, WA. In addition, Boston, MA; New Orleans, LA; San Francisco, CA, and Santa Clara County, CA, participated in Opportunity Works and were included in an in-depth implementation evaluation.

Figure 1 shows the logic model for this phase, as it was specified for this initiative. Since Opportunity Works launched, Jobs for the Future has refined the framework, but the original 2014 approach is the subject of this evaluation.

#### FIGURE 1

#### Back on Track Postsecondary Bridging Logic Model (Original 2014 Framework)



Contextual factors: Local labor market, service infrastructure for youth, juvenile justice system, availability of adult and postsecondary education options, policies affecting youth (e.g., GED changes, Pell Grant availability)

### Did Opportunity Works Help Youth?

The Urban Institute-led evaluation measured the effects on Opportunity Works participants in Hartford, Philadelphia, and South King County/Seattle. Participant outcomes were compared with those of opportunity youth in other programs not governed by the Back on Track framework. For the analysis, our study uses both the National Student Clearinghouse (NSC) survey and a follow-up Opportunity Works survey, as well as data from a baseline survey.

Opportunity Works programs' effects on postsecondary enrollment were strongly positive (figure 2). When pooling the sites together, Opportunity Works participants are more likely to enroll in postsecondary institutions than their matched counterparts. About 53 percent of program participants enrolled in a postsecondary institution after the baseline survey, compared with only 26 percent in the

matched comparison group. In other words, participants were more than twice as likely as similar youth not in Back on Track programming to have enrolled in a postsecondary institution.

Further, program participation was associated with higher postsecondary enrollment in all sites. Opportunity Works participants in Hartford were 25 percentage points more likely to enroll in a postsecondary institution than their counterparts in the matched comparison group (a 93-percent gain), 12 percentage points more likely to enroll in Philadelphia (a 40-percent gain), and 44 percentage points more likely to enroll in South King County (a 200-percent gain).

#### FIGURE 2

#### **Impact of Opportunity Works on College Enrollment** Share of respondents enrolled in any postsecondary institution



Treatment Matched comparison

**Sources:** National Student Clearinghouse and Opportunity Works baseline surveys. **Note:** Differences in means between the treatment and control groups are statistically significant at \*\*\* p < 0.01 and \*\* p < 0.1.

The program also had positive effects on several other education outcomes (figure 3). Program participants were about 50 percent more likely to have applied to an associate's degree program than people in the matched comparison group (43 versus 29 percent). Opportunity Works participants were about 40 percent more likely to apply to training programs than people in the comparison group with similar baseline characteristics (25 versus 18 percent). Program participants were almost twice as likely to complete a Free Application for Federal Student Aid (FAFSA) than the matched comparison group (71 versus 37 percent).

Opportunity Works participants were also less likely to be disconnected from work and education. About 21 percent of Opportunity Works participants were not enrolled in school or working, compared with 46 percent of the comparison group (a 53 percent reduction).

#### FIGURE 3

Impact of Opportunity Works on Other Education and Labor Market Outcomes



Treatment Matched comparison

Sources: Opportunity Works baseline and follow-up surveys.

Note: Differences in means between the treatment and control groups are statistically significant at \*\*\* p < 0.01.

While the program had large effects on education and labor outcomes, no significant program effects appeared for exploratory outcomes, such as college graduation goals and the likelihood of being arrested (figure 4).

#### FIGURE 4



Impact of Opportunity Works on Exploratory Outcomes

Sources: Opportunity Works baseline and follow-up surveys.

# What Lessons Can Be Learned from Opportunity Works?

The magnitude of the impact of Opportunity Works on postsecondary enrollment is large, more than doubling overall enrollment. These findings are consistent across the three diverse sites in the impact study, which suggests that the Back on Track postsecondary bridging framework can be credited for the positive effect.

The Back on Track postsecondary bridging framework also appears to have helped participants reduce their chance of disconnection from education and employment. However, the program did not affect some of the exploratory outcomes around goals for education and justice involvement. It could be valuable to build out elements of the model that might improve these outcomes, such as mentoring support, which appeared in the original framework but was not implemented in any Opportunity Works site (Anderson et al. 2017).

## Introduction

The Back on Track framework describes a multiphase intervention to help opportunity youth—young people ages 16 to 24 who are not in school or meaningfully employed—gain access and succeed in pathways to postsecondary education and training and careers. Opportunity youth have been a growing focus of poverty alleviation, workforce development, and social inclusion efforts across the country. In early 2015, Jobs for the Future (JFF), in collaboration with the Aspen Institute Forum for Community Solutions, contracted the Urban Institute to evaluate a seven-city demonstration of the signature Back on Track framework. The demonstration was sponsored by a grant from a Social Innovation Fund (SIF) and national match funders, and branded Opportunity Works. This report summarizes findings from the in-depth implementation study, reported in more detail in an earlier publication, and describes the methods and findings from the impact study of the Opportunity Works intervention at the program sites. It is the final public report from the evaluation effort.

## **Opportunity Youth**

Between the critical ages of 16 and 24, many low-income youth risk becoming disconnected from school and the labor market. In 2016, 6 percent of young people ages 16 to 24 were not in school and did not have high school credentials; among youth from the lowest-income families, nearly 10 percent were disconnected from school.<sup>4</sup> Males are about 45 percent more likely to drop out than females.<sup>5</sup> About 14 percent of high school dropouts in this age range are unemployed and about 40 percent are not in the labor force.<sup>6</sup> A major contributor to lower labor force participation is a lack of high school or postsecondary credentials, labor market experience, and other forms of human capital. Consequently, social interventions can have an important effect on the outcomes of these opportunity youth.

The national and global economies have high demand for an educated labor force. Within the US labor market, jobs that require at least some postsecondary education are projected to increase substantially within the next 10 years.<sup>7</sup> In this sense, the employment prospects for opportunity youth are encouraging if they gain the necessary postsecondary credentials and skills.

### The Back on Track Framework

The Back on Track framework fosters the growth and scale of programs aimed at improving the postsecondary success of opportunity youth. Back on Track is characterized by three program phases, each with its own set of features. These are designed to help opportunity youth move toward postsecondary and career success.

- The first phase, enriched preparation, recruits high school noncompleters ages 16 to 24 and provides them with the curriculum, support, and coaching essential for educational success and career readiness. This phase helps students complete their high school equivalency (HSE) or diploma and focuses on creating a college culture through reinforcing interactions and procollege physical spaces, offering college- and career-ready curricula and instruction and customized and accelerated instruction, and providing personalized guidance and support.
- The second phase, postsecondary/career bridging,<sup>8</sup> helps students bridge to college and/or careers through supported dual enrollment, sharing of college knowledge and success strategies, personalized guidance with connections to "best bets," mentorship from program graduates, and supported transition to college. This phase caters to opportunity youth who already have or are very close to obtaining high school credentials and helps them build the skill set essential for postsecondary achievement. In this context, "postsecondary" refers to both academic-track college courses and career-oriented professional training courses offered at the postsecondary level by higher education institutions or other training providers.
- The final phase, first-year support, encourages staff members to continue working with students through their first year of college or career, particularly focusing on developing an attachment to postsecondary education.

JFF required each subgrantee site to choose one of the first two phases (enriched preparation or postsecondary bridging) as a primary focus of their Opportunity Works intervention for the SIF grant.

#### FIGURE 5

#### Back on Track Enriched Preparation Logic Model (Original 2014 Framework)

| Inputs  | Implementation Activities   | Enrichment<br>Outputs  | Enrichment Outcomes   |
|---|---|--|---|
| <ul> <li>Service delivery<br/>model</li> <li>Curricula</li> <li>Service delivery<br/>partners</li> <li>Technology &amp;<br/>tracking systems</li> <li>Staff/Personnel</li> <li>Matching dollars</li> <li>Technical<br/>assistance</li> <li>Opportunity<br/>youth</li> </ul> | Functional Activities<br>Activities necessary to set up & run<br>the program, which feed back into<br>inputs<br>- Local adaptation of Back on Track<br>intervention(s)<br>- Develop procedures<br>- Identify and organize service<br>delivery partners<br>- Identify funding sources<br>- Hire staff/initiate contracts<br>- Train staff<br>- Identify & reach out to youth<br>- Screen/enroll youth<br>- Determine & establish technology &<br>tracking systems<br>- Monitor tracking system data to<br>improve processes & services<br>- Programmatic Activities<br>Service delivery activities to achieve<br>outputs & outcomes<br>- Provide college- & career-ready<br>curriculum & instruction<br>- Provide customized instruction &<br>accelerate learning<br>- Create a college-going & career-<br>ready culture<br>- Provide personalized guidance &<br>support to develop student &<br>support network (navigation)<br>- Transition youth to postsecondary<br>bridging stage | Student-Level Program enrollment Program completion Participation in offered activities Completion of offered activities Program-Level The climate supports professional norms & personal responsibility Staff continually use data to assess progress, customize learning, & enhance instructional strategies | Short-Term Outcomes<br>Student Awareness/Agency Outcomes<br>• Students perceive themselves as potential college students<br>• Students develop a clear, realistic, & detailed postsecondary<br>& career plan<br>• Students develop an understanding of how they learn best<br>• Students exhibit behaviors such as agency, persistence, &<br>time management<br>Support System Outcomes<br>• Students have a sufficient care network<br>• Medium-Term Outcomes<br>Confirmatory<br>• Students complete high school or equivalent<br>Exploratory<br>• Students do not experience subsequent arrests or<br>incarceration<br>• Students are not disconnected from work and education<br>• Students become employed<br>• Students are employed in quality jobs<br>• Students 'earnings are higher than they would be otherwise |

Contextual factors: Local labor market, service infrastructure for youth, juvenile justice system, availability of adult and postsecondary education and training options, policies affecting youth (e.g., GED changes, Pell Grant availability)

#### FIGURE 6

#### Back on Track Postsecondary Bridging Logic Model (Original 2014 Framework)

| Inputs  | Implementation Activities   | Bridging<br>Outputs  | Bridging Outcomes  |
|---|---|--|--|
| <ul> <li>Service delivery<br/>model</li> <li>Curricula</li> <li>Service delivery<br/>partners</li> <li>Technology &amp;<br/>tracking systems</li> <li>Staff/Personnel</li> <li>Matching dollars</li> <li>Technical<br/>assistance</li> <li>Opportunity<br/>youth</li> </ul> | Functional Activities<br>Activities necessary to set up & run<br>the program, which feed back into<br>inputs<br>- Local adaptation of Back on Track<br>intervention(s)<br>- Develop procedures<br>- Identify and organize service<br>delivery partners<br>- Identify funding sources<br>- Hire staff/initiate contracts<br>- Train staff<br>- Identify & reach out to youth<br>- Screen/enroll youth<br>- Determine & establish technology &<br>tracking systems<br>- Monitor tracking system data to<br>improve processes & services<br>- Programmatic Activities<br>Service delivery activities to achieve<br>outputs & outcomes<br>- Support dual enrollment & provide<br>simulated college experience before<br>enrollment<br>- Develop college knowledge &<br>success strategies<br>- Provide personalized guidance &<br>connection to best bets (navigation)<br>- Current students receive<br>mentorship from program<br>graduates<br>- Transition youth to college | Student-Level Program enrollment Program completion Participation in offered activities Completion of offered activities Program-Level Counselors & instructors continually use data to support & assess learning. | Short-Term Outcomes Soft Skills for Success Students gain postsecondary & career navigation skills Students exhibit career-ready skills & behaviors Access College/Career Coursework Students have access to postsecondary facilities Students enroll in credit-bearing courses appropriate to reinforcing essential skills Subject Knowledge Gains Students demonstrate proficiency in key skills & subject areas Support Systems Students bave a sufficient care network Students bave a sufficient care network Students bave a sufficient care network Students build social networks supportive of postsecondary success Medium-Term Outcomes Medium-Term Outcomes Students enroll in training programs, including college Students enroll for more than one semester Students enroll for more than one year Students earn college or industry-recognized credentials Students complete 12 credits of college work Exploratory Students do not experience subsequent arrests or incarceration |

Contextual factors: Local labor market, service infrastructure for youth, juvenile justice system, availability of adult and postsecondary education options, policies affecting youth (e.g., GED changes, Pell Grant availability)

Both the enriched preparation and postsecondary bridging phases of Back on Track help at-risk youth achieve postsecondary success while simultaneously fulfilling the labor market needs of the national and global economy, but they are designed to serve youth at different stages of school progress and career readiness. Thus, the overarching logic models for the two stages of Back on Track have similar features, as demonstrated in figure 5 and figure 6. In particular, the long-term outcomes of both Back on Track stages are the same, but the enriched preparation participants would need a longer time horizon and different intervening service components to meet them. In addition, in the ideal structure of the enriched preparation model for Back on Track, participating youth will go on to participate in the postsecondary bridging model and receive first-year support to continue their academic and career journey. However, JFF designed the features so they could stand in isolation if necessary.

Back on Track served as a framework that programs could use to structure their service delivery to help young people obtain secondary, postsecondary, and employment success. JFF purposefully conveyed Back on Track as a framework rather than a rigid model, and individual programs could adapt Back on Track to their local context. Though JFF introduced further refinements to the Back on Track framework in late 2016, this report considered the original framework based on JFF (2014)—the model the sites used at the time of data collection.

### The Evaluation

JFF received a grant from the Corporation for National and Community Service's SIF program to implement Back on Track in Boston, MA; Hartford, CT; Philadelphia, PA; New Orleans, LA; San Francisco, CA; Santa Clara County, CA; and South King County/Seattle, WA. This effort is known as "Opportunity Works." Since the Corporation for National and Community Service requires rigorous, independent evaluation of funded activities, JFF hired the Urban Institute as a third-party evaluator to document implementation and assess the effects of Back on Track programs.<sup>9</sup>

The evaluation takes a mixed-methods research approach across the seven sites.<sup>10</sup> This report summarizes key findings from the implementation study, which is documented in detail in Anderson et al. (2017); presents new findings from the impact study; and provides reflections on the overall effectiveness of the Back on Track model to help opportunity youth achieve education and other quality-of-life outcomes. The program impact results come from a quasi-experimental impact study reviewed and approved by the Corporation for National and Community Service. Further details about the study design appear in the "Impact Study Methods" section.

## **Program Operations**

## Site Profiles

The following summaries provide high-level details of each site's program operations to contextualize this report's findings. More detailed descriptions of the site's program efforts can be found in the Site Summary Appendix from the interim project implementation report.

#### Boston, Massachusetts

Back on Track approach: Postsecondary/career bridging

**Target population:** Young people ages 20 to 24 with high school credentials who are not yet connected to postsecondary educational opportunities or employment

Number of young people served through August 2017: 377

Impact evaluation site: No

#### PROGRAM DETAILS

In 2013, the Boston Private Industry Council (PIC) established a Connection Center, the hub of youth outreach and recruitment for Opportunity Works. The Connection Center was originally located in a "T" train station to make it accessible to young people across the city. The Connection Center helped find and connect youth to postsecondary opportunities through a set of contracted partners. In collaboration with these partners, the Connection Center helped youth understand and explore their career options, provided coaches to support them, and aided them in applying for financial aid and various training or college programs. Additionally, the Connection Center and contracted partners assisted youth to overcome barriers in the process.

#### OUTREACH AND RECRUITMENT METHODS

Posting flyers with contact information for the Connection Center

#### PRIMARY REASONS FOR ATTRITION

- Housing
- Food insecurity

#### PARTNERSHIPS

Collective impact effort: Boston Opportunity Youth Collaborative

Backbone organization: Boston PIC (subgrantee) and Boston Opportunity Agenda

Primary partners:

- X-Cel Education
- Asian American Civic Association
- College Bound Dorchester
- Inquilinos Boricuas en Acción
- Jewish Vocational Services

#### Hartford, Connecticut

Back on Track approach: Postsecondary/career bridging

**Target population:** Young people ages 16 to 24 with or without high school credentials who are unemployed and/or not enrolled in postsecondary education, especially young men of color

Number of young people served through August 2017: 108

Impact evaluation site: Yes

#### **PROGRAM DETAILS**

Originally, the Social Innovation Fund (SIF) was a supplement to Workforce Innovation and Opportunity Act (WIOA) youth programming, with opportunity youth enrolled in both WIOA and SIF. This allowed partners to serve more opportunity youth while providing the same services they had through WIOA, which were informed by the Back on Track framework even before this grant. During the first year, youth received support from initial assessment and development through education or training, as well as help getting a job. Waiting lists were eliminated because the SIF funds enabled the partners to serve more youth. The backbone agency received guidance during this process from Jobs for the Future on how to deepen the Back on Track model, and further developments in implementation took place following the implementation study period.

#### OUTREACH AND RECRUITMENT METHODS

- Flyers
- Referrals from other community organizations
- Social media
- Outreach in local community (e.g., schools, malls)
- Word of mouth

#### PRIMARY REASONS FOR ATTRITION

- Housing
- Food insecurity
- Child care
- Transportation
- Mental health

#### PARTNERSHIPS

Collective impact effort: Hartford Opportunity Youth Collaborative

Backbone organization: Capital Workforce Partners

#### Primary partners:

- Blue Hills Civic Association
- Our Piece of the Pie

#### New Orleans, Louisiana

Back on Track approach: Postsecondary/career bridging Target population: Young people ages 16 to 24 Number of young people served through August 2017: 314 Impact evaluation site: No

#### **PROGRAM DETAILS**

The Cowen Institute at Tulane University in New Orleans supported four main programs through Opportunity Works: the Youth Empowerment Project (YEP), the largest literacy organization in the area; Delgado Community College's Accelerated Career Education (ACE) program, based on the Integrated Basic Education and Skills Training (I-BEST) model; the Earn and Learn program, a paid work experience at Tulane University; and Bard Early College of New Orleans, which provided liberal arts college classes for youth. Opportunity Works allowed for increased capacity in these programs for opportunity youth who entered the system through any partner organization—a "no-wrong-door" approach. The programs provided case management and pathways to education and employment.

Generally, the programs fell into the postsecondary bridging phase of the Back on Track model, but they were individualized to students' needs. The Opportunity Works enhancements at YEP bridged to postsecondary education through services provided by transition coordinators. YEP participants also benefited from other YEP services, including High School Equivalency Test (HiSET) completion, work readiness, basic soft skills, employability skills, and help with opening a bank account, developing a budget, and obtaining official identification. Delgado's ACE provided postsecondary bridging and industry-based credentials for those who wanted to pursue high-demand career and technical college courses. The program began with a noncredit industry-based credentialing semester; the subsequent semesters were for credit. The Opportunity Works enhancement helps the program concentrate resources toward opportunity youth. Earn and Learn provided an opportunity for paid work experience and on-the-job skills training linked to postsecondary education, mostly for those who have earned their high school diploma or high school equivalency (HSE). Opportunity Works allows Earn and Learn to serve more youth, doubling in capacity. In addition, Bard Early College taught an early college liberal arts writing and reading seminar at Earn and Learn and YEP.

#### OUTREACH AND RECRUITMENT METHODS

Referrals from partner organizations

- Word of mouth
- Information sessions
- Advertising (e.g., radio, TV, social media)

#### PRIMARY REASONS FOR ATTRITION

- Housing
- Transportation
- Crime/safety
- Mental health

#### PARTNERSHIPS

Collective impact effort: Employment and Mobility Pathways Linked for Opportunity Youth

Backbone organization: Cowen Institute at Tulane University

#### Primary partners:

- Youth Empowerment Project
- ACE Program at Delgado Community College
- Earn and Learn Career Pathways Program
- Bard Early College of New Orleans

#### Philadelphia, Pennsylvania

Back on track approach: Postsecondary/career bridging

**Target population:** Young people ages 16 to 24 with or without high school credentials who are unemployed and/or not enrolled in postsecondary education, especially young men of color

#### Number of young people served through August 2017: 120

Impact evaluation site: Yes

#### **PROGRAM DETAILS**

The Philadelphia Youth Network (PYN) hired two instructors and two college/personal success coaches to work with enrollees in the Opportunity Works-sponsored College Success Program (CSP)

in the city's four E3 high school reengagement centers. The CSP provided additional instruction and individualized support to about 80 enrollees a year. The staff members worked in coach-instructor pairs, and each team rotated between two E3 Centers. The CSP was divided into two phases. During the first 12-week phase, participants enrolled in one-hour college readiness courses four days a week with Opportunity Works instructors and coaches. The readiness course alternated daily between academic content (taught by instructors) and a noncognitive skills workshop (taught by coaches). Meanwhile, students engaged with E3 Center services, such as literacy support, high school equivalency instruction toward the General Education Diploma (GED) credential or a high school equivalency test, job readiness training, case management, and personal empowerment. During the second phase, the CSP staff helped participants bridge to postsecondary education by providing transition services, college placements, and ongoing support. Specifically, they helped with the logistics of dual or regular enrollment at the Community College of Philadelphia (CCP), accompanied participants to campus, monitored students' experiences, and helped students plan for their next steps in postsecondary education and training. PYN covered the cost of a "first college experience," based on the testing level and enrollment type of each student. The CSP staff continued to work with students after they enrolled in the Community College of Philadelphia for their first one to two semesters.

#### OUTREACH AND RECRUITMENT METHODS

- Building relationships with students at E3 Centers
- Word of mouth

#### PRIMARY REASONS FOR ATTRITION

- Housing
- Food insecurity
- Child care
- Transportation
- Crime/safety
- Mental health

#### PARTNERSHIPS

Collective impact effort: Project U-Turn

#### Backbone organization: Philadelphia Youth Network

Primary partners:

- Center for Literacy E3 Center
- Communities in Schools of Philadelphia, Inc. E3 Center
- Congreso de Latinos Unidos E3 Center
- JEVS Human Services E3 Center
- Community College of Philadelphia

#### San Francisco, California

Back on track approach: Enriched preparation

**Target population:** African American and Latinx young people ages 17 to 24 without high school credentials

Number of young people served through May 2017: 25

Impact evaluation site: No

#### **PROGRAM DETAILS**

The Opportunity Works program in San Francisco worked with largely justice-involved Latinx and African American youth across the Bay Area who were not in school. The program offered enriched preparation activities to get them back in school, help them obtain their GED, move away from their past involvement with the justice system, and clear their records to achieve future success. The program supported these activities by working closely with an education partner, the Five Keys Charter School, to provide classroom activities and help students obtain their high school credential. They also worked with several other partners in the community to ensure that participants received supports to help them escape poverty and move past a justice-involved life. Five Keys also created a reentry plan to provide direct referrals to support services in the community. In addition, they coordinated with other service providers—including case managers, therapists, counselors, and the students/participants. This created a more successful outcome for youth while transitioning out of custody and reentering the community.

#### OUTREACH AND RECRUITMENT METHODS

 Referrals from the San Francisco County Jail and Communities in Harmony Advocating for Learning and Kids (CHALK)

#### PRIMARY REASONS FOR ATTRITION

Housing

#### PARTNERSHIPS

Collective impact effort: Roadmap to Peace

Backbone organization: Bay Area Community Resources

#### Primary partners:

- Black to the Future
- Communities in Harmony Advocating for Learning and Kids (CHALK)
- Five Keys Charter School

#### Santa Clara County, California

Back on track approach: Enriched preparation Target population: Young people ages 16 to 24 without high school credentials Number of young people served through September 2017: 57 Impact evaluation site: No

#### **PROGRAM DETAILS**

The Opportunity Works program in Santa Clara County consisted of three education navigators who served opportunity youth in the region, motivating them to complete their high school diploma and connecting them to needed support services. The three education navigators were embedded within local institutions and had a supervisor at each host site—Silicon Valley Community Foundation (SVCF), Fresh Lifelines for Youth (FLY), and Conxión to Community. These organizations serve pregnant and parenting youth (Conxión), foster care youth (SVCF), justice-involved youth (FLY), and homeless youth—the four system touch points that rendered opportunity youth eligible for participation in the Opportunity Works program. Youth who have one of these system touch points triggered a referral to the Opportunity Works program when they enrolled in either San Jose Conservation Corps (SJCC) or

Opportunity Youth Academies (OYA), the two main educational service providers for dropouts in the region. A school staff member then connected them to the education navigator they felt could best serve the student's needs. One education navigator focused on justice-informed youth, one on foster care youth, and one on justice-involved youth. Students with these touch points were typically referred to the corresponding navigator.

The education navigator worked to motivate the youth to complete their education and provided referrals to other service providers to meet each student's needs. The program's goal was for students to receive a high school diploma, enroll in postsecondary education, and be excited about setting and working toward future goals. Opportunity Works students remained on their education navigator's caseload while they pursued their high school diploma and for three months after beginning postsecondary education to provide a more seamless transition.

#### OUTREACH AND RECRUITMENT METHODS

Referrals from education providers

#### PRIMARY REASONS FOR ATTRITION

- Housing
- Child care
- Transportation

#### PARTNERSHIPS

Collective impact effort: Opportunity Youth Partnership

#### Backbone organization: Kids in Common

Primary partners:

- Opportunity Youth Academies of the Santa Clara County Office of Education
- Conservation Corps
- Fresh Lifelines for Youth
- Silicon Valley Community Foundation
- Conxión to Community

#### South King County/Seattle, Washington

Back on Track approach: Postsecondary/career bridging

**Target population:** Young people ages 16 to 21 with or without high school credentials who are unemployed and/or not enrolled in postsecondary education, especially young men of color.

Number of young people served through August 2017: 254

Impact evaluation site: Yes

#### **PROGRAM DETAILS**

Seattle Education Access (SEA) partnered with Open Doors reengagement sites around South King County that provide high school completion supports through a mix of diploma and GED instruction, as well as case management to address basic needs such as stability, housing, and transportation. SEA added college prep navigators and retention services to supplement these existing services provided at Open Doors reengagement sites. While youth sometimes interacted in group settings, SEA's intervention was mostly conducted one-on-one by talking about participants' education histories and reasons for leaving traditional pathways and developing an individualized plan to successfully get to and through a college credential. SEA also worked with case managers at the Open Doors sites to make sure they had a coordinated plan to address any personal barriers to educational success that may exist for participants. The bulk of SEA's intervention focused on career exploration, including one-on-one coaching; career assessments helping students identify areas of interest and career pathways; provision of labor market information; connection to alumni and people in the field; use of information to make decisions about a specific program; and support for financial planning, scholarships, and budgeting.

#### OUTREACH AND RECRUITMENT METHODS

- Partnerships with reengagement centers that assist youth in finishing high school or attaining a high school equivalency
- Orientation meetings and classroom visits
- Self-referrals

#### PRIMARY REASONS FOR ATTRITION

- Housing
- Child care

#### PARTNERSHIPS

Collective impact effort: Road Map Project

Backbone organization: United Way King County (subgrantee) and Community Center for Education Results

Primary partners:

- Seattle Education Access (lead partner, working at the following Open Doors sites)
- Youth Source Renton
- YouthCare
- iGrad Academy
- Green River College Open Doors
- Southwest Youth and Family Services
- Career Link High School
- Federal Way Open Doors

### Key Lessons from the Implementation Study

The implementation study, conducted from the start of the Opportunity Works demonstrations in 2015 through late 2016, was informed by document review, logic model mapping in coordination with the sites, quarterly calls, and site visits in fall 2016. The implementation study provided information about program fidelity and describes the sites' efforts to inform others that may be interested in implementing similar interventions. The evaluation approach recognized the flexibility of Back on Track while ensuring that the programs bore some fidelity to Back on Track framework.

The following sections list key takeaways from the implementation research. A fuller explanation of each implementation finding is available in Anderson et al. (2017).

#### Nature of Communities

 Overall, poverty rates across the seven communities ranged from 10 percent (Santa Clara County) to 33 percent (Hartford), with an average of 22 percent, compared with the US average of 16 percent. Child poverty was particularly high in Hartford and New Orleans (45 percent and 41 percent, respectively).

 Every site reported that program participants are primarily people of color and come from communities experiencing significant economic hardship and instability. Common challenges included housing instability, access to services, lack of transportation, child care challenges, and exposure to crime and violence.

#### **Opportunity Works Programs**

- The seven sites in this study built their Opportunity Works programming from the Back on Track framework, adapting the framework to their local resources and context. All sites used all or nearly all of the framework elements and often went beyond the requirements of Backon-Track phase on which they focused. They used the grant funds to fill in service gaps, primarily through hiring coaching and navigation staff.
- In all sites, Opportunity Works brought some new or enhanced services, but typically features of the Back on Track framework already existed in the sites. In three sites, the new funds allowed more youth to be served.
- Staff defined program success along five dimensions. Four were youth-focused dimensions, and one was systems focused. The youth-focused dimensions were (1) building personal/academic skills and aspirations, (2) developing the ability to live independently, (3) attaining educational benchmarks, and (4) embarking on a career pathway. At the systems level, the sites aspired to create a youth focus in the way that organizations and institutions developed and structured education and training programs and social services systems. The systems-level goals were partially supported by the Aspen Institute's Opportunity Youth Incentive Fund collective impact effort for opportunity youth.
- The concept of "disconnected" opportunity youth was not simple. The working definitions used by the sites for target population recruitment reflected a continuum of engagement around school, work, and career pathways.
- The primary outreach and recruitment methods varied across sites, depending on the characteristics of the disconnected youth. Some sites were embedded within partner programs that enroll youth who have previously dropped out of high school, and the sites recruited directly from that program's student population.

- In all sites, the bulk of funds supported staff positions, primarily to provide or enhance education-related support services and improve organizations' ability to help youth navigate support and education systems. In some sites, there was an intentional effort to hire staff whose backgrounds make them more relatable to the youth.
- Sites report that limited funds required them to make a trade-off between funding staff at sufficient levels to individualize supports or directly supporting services that meet the basic needs of youth; they rely primarily on community resources for supportive services. Most communities were unable to meet the basic needs of youth in housing, child care, transportation, food security, crime/safety, and mental health; these are the reasons that youth tend to leave before finishing the program.
- Sites used multiple strategies to improve youth retention, including frequent contact with youth, relationship building, and monetary incentives. Three of the seven sites also articulated "recovery" strategies to reenroll youth who drop out of the program.
- Although the education-related services were the most clearly articulated part of the Back on Track framework, the fact that sites incorporated elements and features of the framework across phases suggests the phases of the Back on Track framework may be inseparable. JFF took steps to address this through a revised program model, released in draft form in late 2016.

#### Lessons for Others Interested in Developing Similar Programming

DESIGN

- When first thinking about program design, various sites emphasized the importance of having a strong understanding of the local labor market and the population to be served. One valuable way to get this insight is to engage program partners at multiple levels and possibly young people themselves to provide feedback.
- Many sites found recruitment to be an unexpected challenge. The difficulty was often in finding target youth who were *ready* for meaningful program engagement, especially intensive postsecondary bridging experiences. Anticipating and planning for recruitment and retention challenges can save the energy of shifting focus partway through implementation.
- Sites cautioned that it is important to ensure that program components are logistically coordinated and that young people are supported in accessing them. Academic institutions

often have inflexible procedures and schedules. It is good to recognize and try to work through the alignment of program elements early in planning.

- Offering nonacademic content, such as opportunities for socialization and cultural capital building, college- and job-readiness skill development, and personal confidence building can complement standard programming.
- Ensuring that new interventions are embedded seamlessly into existing programming can offer an uninterrupted continuum for youth that may increase retention and improve outcomes.
- Strong technical support from the funder or another organization well-versed in the framework can be valuable at the planning stage and throughout implementation.

#### SELECTING AND WORKING WITH PARTNERS

- Backbone organizations cautioned that it is important to select partners carefully. It is
  valuable to have partners with a range of service offerings and strengths to address the young
  people's various needs.
- It is also helpful to define the roles and expectations of partners clearly from the outset.
- When new partners come to the table, establishing trust is often a necessary first step, but it can take time.
- Regular partner meetings organized by backbone organizations can give partners a chance to create a common language, vision about the program, and data/tracking procedures. These meetings may be particularly effective when they allow for interaction among leadership, management, and direct service staff on multiple levels.
- It may be necessary to offer training to partners on the program goals, data collection and usage, and other key issues or skills.

#### DATA

It is valuable to build a data culture, which is an iterative and interactive process. Partners need to capture useful and usable information that can inform programming, not just meet reporting requirements. Shared data can allow staff across organizations to build a "conspiracy of support" for participants.

#### STAFFING AND WORKING WITH YOUTH

- The Back on Track framework is personnel intensive, and hiring the right staff members is a critical ingredient for success. Successful staff were relatable, set and maintained high expectations for youth, and demonstrated that they cared and understood young people's backgrounds.
- It was valuable for staff to have an opportunity to build trusting relationships with the youth as part of the program design. Establishing relationships took time and attention.
- Ensuring a reasonable staff-to-student ratio may maintain quality services and minimize the chance of staff burnout.
- Young people's barriers loomed large, especially around housing, transportation, debt, the need for income, hunger, mental health, transportation, and unsupportive social networks or family members.

#### Framework

- It was difficult to have meaningful postsecondary bridging without strong enriched preparation elements. Conversely, it was hard to promote an attractive enriched preparation program without identifying postsecondary bridging opportunities as a next step. In the original Back on Track framework, **the phases were inherently intertwined**. In response to this lesson, the revised framework incorporates redundancies in each phase.
- The framework may have needed to incorporate some earning opportunities for youth. The pressing need for income is a fundamental barrier that affects program progress and success.

#### **Participant Perspectives from Focus Groups**

Youth perspectives highlighted some of the most salient lessons from the implementation research and provided valuable feedback for future programming. The young people who attended the focus groups shared that they and others in the program came from difficult backgrounds and discussed their history and current challenges with the justice system, transportation, pregnancy and parenting, personal violence, housing/homelessness, illegal activities, and mental illness.

Some youth were initially unclear about their goals, and the program helped them see a path or a purpose. Others wanted to go to college all along but did not know how. Many had to balance the

need for a job with the desire to advance their education so that they could pursue a range of professional, long-term interests. Youth in programs with a financial incentive expressed that this feature was important to help them stay engaged in the programming. Those who were in programs without stipends or paid work experience opportunities wished there was more financial support.

Overall, most expressed positive experiences with the program. Almost universally, enrollees said that it helped them find direction or explore avenues they had not previously considered, such as college offerings aligned with their substantive interests. Many expressed pride and satisfaction about their accomplishments in the program.

Youth expressed the importance of relatable and caring staff, being held to high expectations and having peer support networks, a voice in program design, and a safe place with sufficient space. They valued the support services offered, but some wanted additional supports, such as transportation, child care, more income, help with time management, and mental health support.

### Insights from the Program Data

Each Opportunity Works site collected their own administrative program data to track participant characteristics and activities within Opportunity Works. Information on program activities across the seven sites for all enrollees ages 18 and older illustrate the nature and characteristics of Opportunity Works participants and programming. Because the program data do not track participant outcomes in a consistent way, have a limited number of participant well-being indicators, and do not contain information about comparison group members, these data cannot help describe program outcomes or effects.

The research team worked with sites to improve their data quality and gave general guidance about the types of indicators that would be useful to track. However, because of differences in tracking systems, variable definitions, and programming populations and approaches, most data elements are not directly comparable across sites. The following summaries are largely reported on a site-specific basis, except where it is reasonable to place sites next to each other to contextualize the results. The Urban Institute has not audited these numbers. In most cases, they reflect the latest available data as of summer 2017, though the figures are cumulative.

#### **Participant Demographics**

The following graphs describe participant characteristics as documented in the program data. Because each site did not track every characteristic in the same way, many tabulations are limited to a subset of sites. Participants with missing data do not contribute to the percentages, and the sample size for each tabulation in each site appears on the horizontal axes of the graphs.

A slight majority of program participants were male (52 percent), with San Francisco and Hartford serving a higher proportion of male participants than the other sites. Overall, 46 percent of participants were young men of color, defined as non-white male participants. This is expected, given the explicit focus on young men of color in the Opportunity Works initiative.

**FIGURE 7B** 

Young Men of Color



FIGURE 7A Male Participants

Few participants identified as non-Hispanic white. In four sites, most participants identified as non-Hispanic Black. In the two California sites, most participants identified as Latinx. South King County/Seattle had the most diverse mix of participants.

Participants averaged around 20-years-old at intake, though New Orleans participants were slightly younger on average. Boston, Philadelphia, and South King County/Seattle served some participants who were over age 24 at intake.

#### FIGURE 8 Race/Ethnicity



FIGURE 9 Age at Intake



Participants' educational preparation level, as recorded in the program data, varied widely among sites. In Philadelphia, almost no participants had a high school credential at enrollment (96 percent had less than a high school credential), while in Hartford almost all enrollees had a high school credential when they entered the program. Hartford also had the most enrollees—over one in five (21 percent)—who reported some college experience when they entered Opportunity Works. These variations reflect differing target populations among the sites.

FIGURE 10A



Less than a High School Credential

As expected, the young people enrolled in the Opportunity Works programs faced a range of challenges, including having children (23 percent), previous or current foster care involvement (10 percent), ever or currently homeless (20 percent), or ever justice-system involved (30 percent). The young people in Santa Clara were particularly likely to have current or previous involvement in the foster care and/or justice systems and to be pregnant or parenting. Young people in South King County/Seattle were more likely to have experienced homelessness than participants in other sites.

#### FIGURE 10B Some College Experience Reported
#### FIGURE 11A

Pregnant or Has Children

#### FIGURE 11B

Ever or Currently in Foster Care





FIGURE 11C Ever or Currently Homeless

FIGURE 11D Ever Justice Involved



#### **Program Activities**

The program activities data provide some insight on the types of programming in which participants engaged and the intensity of their involvement. These data are less consistent across sites than the participant characteristic data, so tabulations for each site appear separately.

#### **BOSTON, MASSACHUSETTS**

In Boston, many participants were still enrolled as of the latest available data. However, the site struggled to retain young people in the college/career bridging program (called "College Bridging"), with an attrition rate of 27 percent. Training program completion was much higher, though the withdrawal rate was only somewhat lower. The higher completion rate in training programs relative to the college bridging programs likely occurred because training programs were shorter than college academic programs.

#### FIGURE12A College Bridging Status (N = 41)



FIGURE 12B Training Status (N = 42)



#### HARTFORD, CONNECTICUT

In Hartford, most participants for whom data were available engaged in the program for 100–199 days, but about 13 percent engaged for over 300 days.<sup>11</sup> All participants completed a standardized skills assessment, and nearly all received guidance and counseling (96 percent). A very high portion also set goals and completed occupational skills training (89 percent each). Over half (52 percent) received job development and supports.

FIGURE 14





#### Days in the Program (N = 62)

#### **NEW ORLEANS, LOUISIANA**

In New Orleans, participants were divided nearly equally between programming at Delgado Community College (48 percent of all participants) and the Earn and Learn Career Pathways Program (52 percent of all participants). Participants at Delgado Community College were enrolled relatively evenly across its three programs: Core Programming, Education and Employment, and Support and Stabilization, whereas most participants enrolled at Earn and Learn were involved in Core Programming and a much smaller percentage were involved in Education and Employment.<sup>12</sup>

Across all participants in the city, four in ten (41 percent) completed a standardized skills assessment and 10 percent set goals.

100%

96%



#### PHILADELPHIA, PENNSYLVANIA

Nearly three-quarters (73 percent) of participants in Philadelphia attended a writing skills class, and almost as many participated in classes or workshops on understanding college expectations, goal setting, and college and career planning. Just over half (52 percent) participated in self-motivation classes. Participants engaged in a range of sessions focused on issues such as well-being and college planning. Group meetings ranged from one to two hours, with most sessions closer to two hours. One-one meetings could also last two hours, but the average length was just over half an hour. Staff also interacted with participants through a range of other media.

The most common reason for dismissal among the 62 participants with data on dismissal or completion was that participants resigned from the program (34 percent). Only 19 percent had completed their goals. Some less common reasons were leaving for employment or low attendance.

#### FIGURE 17

Most-Attended Classes or Workshops (N = 120)



FIGURE 18 Types of Contact and Duration







#### SAN FRANCISCO, CALIFORNIA

About two-thirds (64 percent) of participants in San Francisco were dually enrolled in Opportunity Works and Roadmap to Peace, while the remainder were only in Opportunity Works. Participants engaged in a range of activities, including Step to College, completing an individual plan or career action plan, and/or taking a GAIN basic skills assessment.

FIGURE 20 Program Enrollment (N = 25)

64%







#### SANTA CLARA, CALIFORNIA

Youth in Santa Clara enrolled in one of three partner sites, with San Jose Conservation Corps as the most common enrollment site (48 percent). About half of youth had started or completed a postsecondary plan as of the latest data collection. Staff were in intensive contact with some youth, with 12 contacts and 18 meetings for the median young person, but only 39 percent of young people were considered in "regular contact,"<sup>14</sup> and nearly one-quarter (23 percent) had little or no contact with program staff. <sup>15</sup>







FIGURE 23 Postsecondary Plan (N = 57)



#### FIGURE 24

FIGURE 25

Engagement Level (N = 57) Median Number of Contacts between Staff

18



12



Contacts per youth Meetings per youth

#### SOUTH KING COUNTY/SEATTLE, WASHINGTON

South King County/Seattle's Opportunity Works program participants were spread across many partner sites, but the most common sites were Career Link and iGrad. As of the latest available data, only 7 percent of participants were inactive, while almost one-third (31 percent) had graduated from the program<sup>16</sup> and the remainder were still active in the program (62 percent).

#### FIGURE 26 Enrollment Site (N = 252)



#### FIGURE 27

Program Status (N = 252)



#### **Well-Being Indicators**

Only a subset of sites provided data on participant well-being after program enrollment. A challenge in reporting well-being or participant outcomes based on program data is that programs often only track participants who stay in touch. Those who stayed in contact with program staff tended to be more stable and/or had better program experiences. Therefore, these findings are only descriptive and should be interpreted with appropriate caution. The impact section of this report provides objective outcomes and effects for three program sites.

#### **BOSTON, MASSACHUSETTS**

Boston reported few outcomes beyond credential attainment, but the latest data showed that onequarter of participants (25 percent) had earned a certificate. Few had earned a higher-level credential (e.g., a bachelor's or associate's degree), though more might emerge with additional follow-up.

#### FIGURE 27

Credentials Earned (N = 182)



#### NEW ORLEANS, LOUISIANA

In New Orleans, 1 in 10 participants completed a college application. Of those who attended a postsecondary institution, over half (58 percent) attended a two-year college, nearly one-quarter (22 percent) attended a four-year college, and the remainder (20 percent) were in a dual enrollment program. Of the students who entered postsecondary and had information, 14 percent had completed the first year of their postsecondary placement at the time of the latest available data.<sup>17</sup>

#### FIGURE 28A





FIGURE 29 Type of Institution Attended (N = 50)



#### SAN FRANCISCO, CALIFORNIA

In San Francisco, nearly three-quarters (72 percent) of participants had a resume, over half (56 percent) had a bank account, and many had a cover letter or had made progress toward their driver's license by the latest reporting period. On a scale of one to five, participants rated that they had the highest confidence in understanding financial outcomes but were least confident in their familiarity with financial aid.

#### FIGURE 30





#### FIGURE 31





#### SANTA CLARA, CALIFORNIA

Santa Clara carefully tracked participants' self-sufficiency growth over time; though the amount of time that participants had been in the program between intake and the most recent measure may vary across participation based on when they enrolled, the records do not note the timing of the most recent measure. Based on these simple descriptive growth measures, participants saw progress in income security, educational attainment, food security, and health care by the most recent data collection. They did not see progress on housing stability, transportation, or legal issues. These figures should not be interpreted as representing program effects because many people were still enrolled in programming as of the most recent measure and because the figures are not aligned with a meaningful comparison.

#### FIGURE 32A Self-Sufficiency: Income



#### FIGURE 32B Self-Sufficiency: Housing



#### FIGURE 32C Self-Sufficiency: Education



#### FIGURE 32D Self-Sufficiency: Food



#### FIGURE 32E Self-Sufficiency: Transportation



#### FIGURE 32F Self-Sufficiency: Legal



#### FIGURE 32G Self-Sufficiency: Health Care



#### SOUTH KING COUNTY, WASHINGTON

In South King County/Seattle, the most common outcome was college exploration or placement, which accounted for 14 percent of all outcomes. Eleven percent achieved a high school equivalency,<sup>18</sup> and 10 percent completed a college assessment or were accepted to college. Among those who attended a degree program, participants were most likely to be enrolled in a two-year transfer postsecondary program (64 percent).



#### **Program Data Summary**

The program data are not always comparable, but they demonstrate the types of measures that the Opportunity Works sites deemed important to track. They also provide some additional context about participant characteristics, programming details, and suggestive indicators of well-being.

These diverse data point to the need for a consistent data collection effort for cross-site evaluation, which is why the research team developed the baseline and follow-up participant surveys. Some descriptions of program experiences from the survey data appear in the next section.

# Descriptions of Program Activities from the Follow-Up Survey

Though the baseline survey was offered to participants at all seven sites, budget constraints and evaluation needs made it so only participants at impact sites could receive cash incentives for participation. This severely limited responses at the four nonimpact Opportunity Works sites. Ultimately, only participants in Hartford, Philadelphia, and South King County/Seattle—as well as

comparison group members at each of those sites—completed the follow-up survey. This section describes some of their program experiences.

The follow-up survey asked respondents to describe the types of services they received using three categories: education, job or career, and other. Education-related services included enrolling in a college class or completing their high school diploma or equivalency. Job- or career-related services supported students by providing technical training for a career or preparing them for short- or long-term employment. Finally, services in the "other" category included opportunities for one-on-one coaching and referrals to other service providers. Some of the tabulations below aggregate among respondents across these three impact study sites, while others provide site-specific information.

Those in the treatment group answered two separate questions about services provided through Opportunity Works and services they received through other programs. Figure 35 illustrates the top five types of services that students received through Opportunity Works programming, most of which fell into the education and job-related service categories.

#### FIGURE 35

Most Students in the Treatment Group Received a Variety of Education- and Career-Related Services through Opportunity Works



Opportunity Works
Other program

**Source:** Opportunity Works Social Innovation Fund follow-up survey. **Note:** The denominator does not include respondents who indicated "Prefer not to answer" in their survey.

Eighty-eight percent of students learned about different colleges and what it would take to be successful in that environment. At least 8 in 10 students received help enrolling in a college class, setting short-term or long-term career goals, and developing job-ready skills.

Student experiences varied by site. For example, one-on-one coaching ranked first among the respondents in the Hartford treatment group, reported by over 90 percent of students; transportation

assistance ranked highly at 84 percent. Similarly, 89 percent of students in the South King County treatment group indicated that they had received help completing financial aid. The Philadelphia treatment group reported relatively higher shares of respondents receiving education- and career-related services compared with the other two sites, with South King County/Seattle respondents reporting lower exposure to career-related services (figure 36a and figure 36b). Students in the Hartford treatment group tended to receive additional supports not directly related to education or employment, such as referrals and one-on-one coaching, at higher rates compared with the other two sites (figure 36c).

#### FIGURE 36A

### Philadelphia Treatment Group Reported Somewhat Higher Shares of Respondents Receiving Education-Related Services



**Source:** Opportunity Works Social Innovation Fund follow-up survey. **Note:** The denominator does not include respondents who indicated "Prefer not to answer" in their survey.

#### FIGURE 36B

### Philadelphia and Hartford Treatment Groups Reported Somewhat Higher Shares of Respondents Receiving Career-Related Services



Source: Opportunity Works Social Innovation Fund follow-up survey.

Note: The denominator does not include respondents who indicated "Prefer not to answer" in their survey.

#### FIGURE 36C

Hartford Treatment Group Reported Relatively Higher Shares of Respondents Receiving Additional Supports Not Directly Related to Education or Employment



Source: Opportunity Works Social Innovation Fund follow-up survey

Note: The denominator does not include respondents who indicated "Prefer not to answer" in their survey.

In contrast, students in the comparison group ranked services received differently; most of these differences between the treatment and comparison groups overall were statistically significant at the 0.01 level. The only services where there was no statistically significant difference between the groups were completing high school equivalency; referrals to housing, child care, or counseling; and help getting a driver's license (figure 37 through figure 39).

#### FIGURE 37

Higher Shares of Respondents in the Treatment Group Received Education-Related Services Than Those in the Comparison Group



Source: Opportunity Works Social Innovation Fund follow-up survey.

**Notes:** The denominator does not include respondents who indicated "Prefer not to answer" in their survey. Services marked with \*\*\* indicate that treatment and comparison group responses were statistically significant at the 0.01 level (p < 0.01).

#### FIGURE 38

Higher Shares of Respondents in the Treatment Group Received Career-Related Services Than Those in the Comparison Group



Source: Opportunity Works Social Innovation Fund follow-up survey.

**Notes:** The denominator does not include respondents who indicated "Prefer not to answer" in their survey. Services marked with \*\*\* indicate that treatment and comparison group responses were statistically significant at the 0.01 level (p < 0.01).

#### FIGURE 39

### Higher Shares of Respondents in the Treatment Group Received Other Services Not Directly Related to Education or Employment



Source: Opportunity Works Social Innovation Fund follow-up survey

**Notes:** The denominator does not include respondents who indicated "Prefer not to answer" in their survey. Services marked with \*\*\* indicate that treatment and comparison group responses were statistically significant at the 0.01 level (p < 0.01)

As shown in figure 40, two of the five top services respondents in the comparison group received were in the "other" category: a supportive environment among peers and transportation assistance (e.g., free or subsidized bus passes). This contrasts with the top five services reported for the treatment group in figure 35.

#### FIGURE 40

About Two-Thirds of Students in the Comparison Group Received a Support Beyond Education- and Career-Related Services



Source: Opportunity Works Social Innovation Fund follow-up survey.

Note: The denominator does not include respondents who indicated "Prefer not to answer" in their survey.

Again, the share of students who received specific services varied by site. For example, in South King County/Seattle and Philadelphia, about two-thirds of respondents had opportunities to complete high school or an equivalent degree, whereas only about a quarter of respondents in the Hartford comparison group said the same. This is likely because almost all students in Hartford had a high school credential at program entry.

Overall, a greater share of respondents from the treatment group indicated that they had received any kind of service across all three categories relative to those in the comparison group (figure 41). This demonstrates that there were important differentials in program experiences between members of the treatment and comparison groups, though many members of the comparison group received some level of service.

#### FIGURE 41

A Larger Share of Respondents from the Treatment Group Indicated That They Received Any Services Related to Education, Employment, or Additional Supports, Relative to Those in the Comparison Group



**Note:** The denominator does not include respondents who indicated "Prefer not to answer" in their survey. Services marked with \*\*\* indicate that treatment and comparison group responses were statistically significant at the 0.01 level (*p* < 0.01).

#### **Impact Study Implications**

While members of the comparison group participated in some programming, consistent treatment differentials appear between the groups. That is, Opportunity Works participants who responded to the follow-up survey received more intensive services than comparison group members enrolled in "business as usual" programming.

Despite the observed differences in service quantity, the survey data do not distinguish "more" from "better" services. For example, the survey does not characterize the quality of the high school equivalency programming, college guidance, or other supports. However, the implementation study and program data suggest that the Opportunity Works grant effort caused all providers, even those who were continuing a version of services that existed before Opportunity Works, to carefully consider the nature of their intervention, develop better ways to use data to track participation and outcomes, and bring partners to the table in more meaningful and sometimes new ways to create better interventions for youth.

An important note is that the nature of programming varied widely among the three impact sites, though all of them focused on postsecondary bridging. Philadelphia had the strongest focus on education interventions, though South King County also had a strong focus on education-related services. Hartford was strongest in the "other" services category. Regardless of these differences in focus, each site had elements of all three that largely aligned with the Back on Track model.<sup>19</sup> This variation means that the primary common element across sites was the guidance of the Back on Track framework. Consistency across the sites would provide further evidence that Back on Track's postsecondary bridging intervention itself should be credited with the positive effects, rather than the effect of any specific intervention approach.

# Impact Study Methods

This chapter describes the technical methodology employed in the Opportunity Works impact study. The impact study employs a technique called "propensity score matching" to find members of a comparison group who are most like treatment group members on observed characteristics. This quasi-experimental approach meets the Social Innovation Fund's definition of "moderate evidence."

### Impact Study Research Questions and Outcomes

At the beginning of this project, the research team defined seven research questions that would be the focus of the impact study, three being confirmatory and four exploratory. The differentiation between confirmatory and exploratory questions is valuable to help policymakers focus on the strongest evidence of whether a program worked while also examining other desirable effects that might have been generated or effects for certain subgroups.

The original evaluation plan was premised on a five-year study period. However, federal cuts to SIF grant funds limited the evaluation period to only three years. Therefore, the research questions have been modified to reflect outcomes that the research team could measure in the observed time frame.

#### **Confirmatory Questions**

- 1. What is the effect of the Back on Track program on participants' education and career outcomes?
- 2. Are participants in the program more likely to<sup>20</sup>
  - a. receive a high school diploma or GED?
  - b. apply to a training program?
  - c. apply to college?
  - d. enroll in a training program?
  - e. enroll in college?
- 3. After completion of the program, are participants in the program<sup>21</sup>
  - a. less likely to be disconnected from work and education?
  - b. less likely to be looking for work (if they are not pursuing education)?<sup>22</sup>

#### **Exploratory Questions**

- 4. Are participants in the program likely to have fewer subsequent arrests or incarceration spells?
- 5. Are participants in the program likely to have a stronger care network?
- 6. Do some sites have larger effects than others?
- 7. How are program effects different by subgroups?
  - a. Is the effect of the program different for young men of color?<sup>23</sup>

#### Outcomes

Given these research questions, the research team estimated the effects of the outcomes listed in table 1. Subsequent discussion describes the data sources. Outcomes from the follow-up survey are observed only for a share of the sample because of survey nonresponse.

#### TABLE 1

#### Outcome Measures for the Opportunity Works Impact Evaluation

| Outcome measure   | Data<br>source | Definition   | Percent of<br>study sample<br>with measure |
|---|----------------|--|--|
| Enrolled in any<br>postsecondary<br>institution         | NSC            | Matched with the National Student Clearinghouse<br>(NSC) as having an enrollment date for any<br>postsecondary institution following the date the<br>student completed the baseline Opportunity Works<br>survey.   | 96%  |
| Enrolled in a two-year<br>postsecondary<br>institution  | NSC            | Matched with the NSC as having an enrollment date<br>for any institution that the NSC coded as "2-year"<br>following the date the student completed the<br>baseline Opportunity Works survey.  | 96%  |
| Enrolled in a four-year<br>postsecondary<br>institution | NSC            | Matched with the NSC as having an enrollment date<br>for any institution that the NSC coded as "4-year"<br>following the date the student completed the<br>baseline Opportunity Works survey. This may include<br>some community colleges that offer four-year degree<br>programs. | 96%  |
| High school credential                                  | Survey         | Answered "yes" to survey question "Have you<br>received a high school diploma?" or "Have you<br>received a GED, HiSET, or TASC high school<br>equivalency?"  | 61%  |
| Applied to an associate's degree program                | Survey         | Chose "An associate's degree program at a two-year<br>or community college" (as one of multiple potential<br>responses) in response to the question "Since<br>[baseline survey date], did you <b>apply to</b> a degree or<br>credential program at any of the following?"          | 60%  |

|  | _      |   | Percent of   |
|--|--------|---|--------------|
|  | Data   |   | study sample |
| Outcome measure                              | source | Definition  | with measure |
| Applied to a four-year<br>degree program     | Survey | Chose "A four-year degree program at a college or<br>university" (as one of multiple potential responses) in<br>response to the question "Since [baseline survey<br>date], did you <b>apply to</b> a degree or credential program<br>at any of the following?"  | 60%          |
| Applied to a training<br>program             | Survey | Chose "A training program focused on a specific job,<br>industry, or occupation" (as one of multiple potential<br>responses) in response to the question "Since<br>[baseline survey date], did you <b>apply to</b> a degree or<br>credential program at any of the following?"  | 60%          |
| Completed FAFSA                              | Survey | Answered "yes" to survey question "Did you<br>complete the Free Application for Federal Student<br>Aid (FAFSA) or another form requesting financial aid<br>for college?"  | 56%          |
| Attended an associate's<br>degree program    | Survey | Chose "An associate's degree program at a two-year<br>or community college" (as one of multiple potential<br>responses) in response to the question "Since<br>[baseline survey date], did you <b>attend</b> a degree or<br>credential program at any of the following?"   | 60%          |
| Attended a four-year<br>degree program       | Survey | Chose "A four-year degree program at a college or<br>university" (as one of multiple potential responses) in<br>response to the question "Since [baseline survey<br>date], did you <b>attend</b> a degree or credential program<br>at any of the following?"  | 60%          |
| Attended any<br>postsecondary<br>institution | Survey | Chose "An associate's degree program at a two-year<br>or community college" and/or "A four-year degree<br>program at a college or university" (as one of multiple<br>potential responses) in response to the question<br>"Since [baseline survey date], did you <b>attend</b> a degree<br>or credential program at any of the following?"                                     | 60%          |
| Attended a training<br>program               | Survey | Chose "A training program focused on a specific job,<br>industry, or occupation" (as one of multiple potential<br>responses) in response to the question "Since<br>[baseline survey date], did you <b>attend</b> a degree or<br>credential program at any of the following?"  | 60%          |
| Looking for a job                            | Survey | Answered "no" to survey question "Last week, did<br>you do any work for pay?" and answered "Interested<br>in working but can't find work" to survey question<br>"What is the main reason you are not currently<br>working?"—only for respondents not enrolled in<br>school.   | 42%          |
| Not working and not<br>enrolled in school    | Survey | Answered "no" to survey questions "Are you still<br>attending this college?" and "Are you still in this<br>training program?" (for those who indicated they<br>enrolled), and answered "no" to survey question "Last<br>week, did you do any work for pay? If you had a job<br>but did not work last week because of a vacation or<br>illness, please count that as working." | 56%          |

|   | Outcome measure                              | Data<br>source | Definition  | Percent of<br>study sample<br>with measure |
|---|--|----------------|---|--|
| - | Goal to graduate from a<br>two-year program  | Survey         | Chose "Graduate from a two-year college program"<br>(as one of multiple potential responses) in response to<br>the question "Suppose you could do just what you'd<br>like and nothing stood in your way. How many of the<br>following things would you <b>want</b> to do?"  | 62%  |
|   | Goal to graduate from a<br>four-year program | Survey         | Chose "Graduate from college (four-year program)"<br>(as one of multiple potential responses) in response to<br>the question "Suppose you could do just what you'd<br>like and nothing stood in your way. How many of the<br>following things would you <b>want</b> to do?" | 62%  |
|   | Arrested since baseline                      | Survey         | Answered "yes" to survey question "Have you been arrested since [baseline survey date]?"  | 55%  |
|   | Social Provision Score                       | Survey         | Seven-item social provision scale   | 54%  |

**Notes:** "NSC" stands for National Student Clearinghouse. "Survey" references the Opportunity Works follow-up survey. The study sample is defined by program participants who took the baseline survey. The percent of study sample with the measure illustrates the outcome nonresponse.

### **Comparison Groups**

In consultation with the Opportunity Works program staff, the Urban team determined appropriate comparison programs from which to recruit youth by selecting programs in the same region as the Opportunity Works sites serving an underemployed, out-of-school youth population but offering services distinct from the Back on Track framework. The advantage of recruiting from other non-Back-on-Track programs is twofold: first, it shows how the Back on Track model fares in comparison with "business as usual" youth programming. Second, it compares Opportunity Works participants with members of the comparison group who were similarly motivated to join a program to improve their education and/or career outcomes. This motivation and desire to engage in programming is an important selection element that can be difficult to measure if not observed empirically through program enrollment.

#### Hartford

Comparison group members in Hartford were recruited through a multipronged effort. Our Piece of the Pie (OPP) and the Blue Hills Civic Association (BHCA) were running other less intensive programs to support youth in forging career pathways. When youth enrolled in these programs, Hartford Youth Service Corps at OPP and Career Pathways for Youth at BHCA, they were invited to take the comparison group survey. The Urban League of Greater Hartford also recruited eligible youth who

sought services from them. These three programs explained the study and recruited youth in person. The final group, Hartford's American Job Center, contacted youth who previously sought services from them by phone or provided Urban Institute staff with participant information for them to contact by phone. All youth recruited from each comparison program were screened to be sure they were not participants in the treatment group programs and that they had a high school diploma or GED and were ages 18 to 24. Screening comparison group members in Hartford differed from the other two sites, where having a high school credential was not a criterion for program enrollment.

#### Philadelphia

The primary source of comparison group members in Philadelphia was students enrolled in the School District of Philadelphia's accelerated high schools. Students in these schools did not succeed in traditional high schools. They were over age and undercredited, but they were pursuing an alternative high school credential in a programmatic setting. They did not have the opportunity to participate in Opportunity Works programming because they were not affiliated with the Opportunity Works program sites. The research team was able to recruit students from two accelerated high schools with the cooperation and permission of the school district. One difference between these students and those enrolled in Opportunity Works is that students in accelerated high schools were pursuing an alternative high school diploma, while Opportunity Works students in the city's E3 Centers were pursuing a GED or high school equivalency.

#### South King County/Seattle

Students from other Open Doors reengagement sites outside South King County, who are not served by the Back on Track program, were in the comparison group. The primary comparison recruitment location was the Goodwill Open Doors reengagement site in Tacoma, WA. These students were demographically and socially similar to South King County participants who were offered the opportunity to benefit from Opportunity Works services. One difference between the Tacoma comparison group students and those enrolled in Opportunity Works is that students in the Tacoma program were pursuing GED credentials, while Opportunity Works students in the Opportunity Works Open Doors center were pursuing a mix of GEDs and diplomas.

### **Data Collection Methods**

#### Participant Baseline and Follow-Up Surveys

Opportunity Works enrollees in impact sites were invited and incentivized to take a baseline and 12to-17-month follow-up survey. The surveys provide a useful mechanism for data collection because they cover not only program participants but also people from identified comparison programs, as discussed previously.

The baseline survey was designed to capture participants' characteristics early in their program enrollment.<sup>24</sup> It included questions about their age, gender, race, and ethnicity; household characteristics; school experiences; and employment and income. The survey also asked respondents about their education and career goals; experiences with the justice and foster care systems; and their perceived levels of social support and self-motivation. Most of the survey's content and wording mirrored that of other surveys for similar populations (e.g., the Young Parents Demonstration Survey, the National Longitudinal Survey of Youth, the National Longitudinal Study of Adolescent to Adult Health, the National Survey on Drug Use and Health, and the Re-Integration of Ex-Offenders Survey). It also incorporated various behavioral and mental health scales to inform matches of respondents in the treatment group with similar respondents in the comparison group. The Urban team developed the survey in fall 2015 after discussing outcomes of interest with Jobs for the Future and the program sites, and the survey received Institutional Review Board approval.

Opportunity Works participants who took part in the study enrolled in the programs on a rolling basis between June 2015 and July 2017. The baseline survey was similarly conducted on a rolling basis, as participants entered programs. The survey launched in October 2015 and concluded in July 2017. Respondents completed the web-based survey on a computer, tablet, or phone with an internet connection. In addition to working with staff in all sites to ensure a high response rate and improve the quality of the research, all enrollees in impact and comparison sites that aligned with the admission criteria for Opportunity Works programming were provided \$10-cash incentives for completing the baseline survey.

The recruitment process for survey participation proceeded as follows. First, program staff identified people in the treatment and comparison groups who were eligible for participation in the evaluation. Eligibility differed across sites by age and gender. In Hartford, enrollees ages 18 to 24 years old were eligible to participate in the survey.<sup>25</sup> Because Hartford treatment group members were largely required to have a high school credential, only people with high school credentials were

invited to take the survey as part of the comparison group. In Philadelphia, enrollees ages 18 to 21 could participate. In South King County, enrollees ages 18 to 22 were eligible. These restrictions were based on the treatment programs' design and were intended to minimize the differential between the treatment and comparison groups. Next, program staff invited those people to participate in the survey, commonly as part of the initial intake process. The Urban Institute provided training materials and a video for staff to explain the survey and the study and ensure respondents were prepared to give informed consent. Finally, the staff entered basic contact information for all people *invited* to take part in the survey (whether or not they agreed) in a secure document that was shared with the Urban Institute. This shared tracking mechanism allowed the research team to estimate response rates and provided additional information to inform follow-up survey outreach.

The follow-up survey launched in December 2016 and concluded in January 2019. It was offered by internet, phone, and ultimately in person for nonrespondents to earlier survey efforts. The Urban Institute partnered with Research Support Services (RSS) to support the follow-up survey effort. The goal was to administer the survey 12 to 17 months after respondents completed the baseline survey.<sup>26</sup>

The recruitment process for follow-up survey participation proceeded as follows. First, Urban staff created and shared a secure document with the names and relevant contact information, including primary email and phone number, of baseline survey participants with RSS. They also included a tracking mechanism to document and measure the number and type of efforts the research team made to reach each participant. Next, Urban contacted survey participants via email and text about 11 months after they had completed their baseline survey with two goals in mind: first, to confirm that the contact information on file was still accurate (and record new information if that was not the case); and, second, to let the respondent know that they would receive a separate invitation to take the follow-up survey the following month.<sup>27</sup> Urban staff then reached out to respondents again with a link to the web-administered follow-up survey and a reminder that they would receive \$20 once they had completed it. If, after five contact attempts within a month, the participant did not complete the webadministered survey, Urban staff passed the case on to RSS to follow up via phone or in person. After that, RSS coordinated with Urban staff to reach out to respondents by phone or in person. Generally, cases were kept open for four to five more months; RSS closed a few cases because some participants were incarcerated. The Urban Institute supported RSS's outreach efforts by contacting the program sites to gather updated contact information for any respondent who was unreachable.<sup>28</sup>

#### SURVEY RESPONSE RATES

It is not possible to calculate the response rate of those offered the baseline survey. The Urban research team asked program staff to record everyone who was offered the baseline survey, including those who refused, but this tracking was not sufficiently complete to accurately estimate a response rate. Particularly in South King County/Seattle, it was clear that not all enrollees were offered the baseline survey. Based on program data enrollment counts as of summer 2017, 94 percent of the 108 reported enrollees in Hartford took the baseline survey; 74 percent of the 120 reported enrollees in Philadelphia took the survey; and 35 percent of the 254 reported enrollees in South King County/Seattle took the survey.

Table 2 reports the response rates for the follow-up survey by site and treatment status. The overall response rate of 62 percent was lower than the Urban team had hoped to achieve, but this is the result of extensive efforts to contact this inherently mobile survey population (see endnote 28). Response rates among treatment group members were higher in each site and overall, likely because of program staff support in locating respondents and the participants' stronger association with the program and the study.

#### TABLE 2

| C'1                          | Number of                    | Response rate on |
|------------------------------|------------------------------|------------------|
| Site                         | baseline survey participants | follow-up survey |
| Hartford treatment           | 101                          | 72%              |
| Hartford comparison          | 98                           | 66%              |
| Philadelphia treatment       | 89                           | 55%              |
| Philadelphia comparison      | 116                          | 49%              |
| South King County treatment  | 89                           | 74%              |
| South King County comparison | 64                           | 55%              |
| Overall                      | 557                          | 62%              |
| Treatment overall            | 279                          | 67%              |
| Comparison overall           | 278                          | 56%              |

#### Response Rates for the Opportunity Works Follow-Up Survey

#### **National Student Clearinghouse**

The National Student Clearinghouse (NSC) is a national repository of data on postsecondary enrollment and credential completion maintained by a nonprofit, nongovernmental organization. It tracks students at 3,600 colleges and universities, covering 99 percent of postsecondary students in the United States.<sup>29</sup> For those who have enrolled in a postsecondary institution, the NSC provides data on enrollment institution and state, institution type, enrollment dates and status, class level, major(s) of study, graduation status and date, and degree(s) earned.

The Urban research team requested NSC data for all participants who completed the baseline survey, had a valid birthdate, and had any postsecondary activity since 2008 to also capture any pre-Opportunity-Works college engagement. With this data source, the research team was able to gather complete information on the postsecondary outcomes for nearly all study members (97 percent), even if they did not respond to the follow-up survey.<sup>30</sup> As is common practice with NSC data, a nonmatch of a valid name-birthdate combination was taken as evidence of no college record and therefore no postsecondary attendance.<sup>31</sup>

### Propensity Score Matching Approach

To estimate a program or intervention's effect, it is necessary to compare outcomes from those offered the treatment with those not offered the treatment. This comparison, however, can be biased if the treatment and comparison groups have very different baseline characteristics, particularly if those characteristics relate independently to the outcomes (e.g., if one group of students has much higher achievement test scores than the other). An experimental approach achieves balance between the groups through random assignment. In the absence of random assignment, many quasi-experimental approaches try to align baseline characteristics for both groups.

The research team used propensity score matching (PSM) to estimate the Opportunity Works intervention's effects. PSM is a strong approach in which a participant group and a similar comparison group not offered the program are pooled into one large group with a treatment status indicator. The analyst estimates the "propensity" to enroll in the program as a function of a number of variables that could affect program enrollment. The result is an equation that predicts each person's probability of enrollment based on their characteristics. Then, a researcher can compare participants and nonparticipants with the same probability of enrollment, based on each person's array of characteristics. This comparison provides a good estimate of what the participant would have achieved if he or she were not in the program, as long as the variables used for matching are exhaustive and there are not large unmeasured differences between the participants (the treatment group) and nonparticipants (the comparison group) produces the program impact estimates.

The research team implemented the model in two steps, first by estimating the probability that each person would participate in the program based on his or her baseline characteristics—the "propensity" to enroll. A probit model predicted each person's probability of program participation:

$$P_i = p(X_{im}, site_m)$$

where  $X_{im}$  was a set of baseline characteristics of person *i* from site *m* and *site<sub>m</sub>* represented site dummies.<sup>32</sup>

Second, this estimated propensity score allowed the Urban team to match people in the treatment group to those in the comparison group with a similar likelihood of participating in the program. The team used a nearest-neighbor-matching-with-replacement approach, where a person in the comparison group could be rematched with more than one person in the treatment group. The statistic of interest was the difference in the average outcomes between Opportunity Works participants in the treatment group and the matched comparison group:

$$\hat{\tau}_Y = \bar{Y}_{T,f} - \bar{Y}_{C,f},$$

Where  $\overline{Y}_{T,f}$  is the average of outcome *Y* for Opportunity Works at follow-up and  $\overline{Y}_{C,f}$  is the average of outcome *Y* for people in the comparison group who matched with people in the treatment group based on their observable characteristics. Standard errors using the expression derived by Abadie and Imbens (2006) allowed the research team to test whether  $\hat{\tau}_Y$  was statistically different from zero. After the matching, we test the significance of the program effect by performing a *t*-test for the difference in outcomes means between the treatment and control group, not controlling for baseline characteristics of people. This procedure provides consistent estimation of the treatment effect, if baseline covariates are balanced in both groups after matching. We also estimate standardized effect sizes for most of the outcomes, where the treatment effects are represented relative to the standard deviation of the control group's outcome. The analysis also tests for statistical significance, taking into account that some domains include multiple outcomes. Statistical significance in the three domains that had multiple outcomes were adjusted using a procedure developed by Benjamini and Hochberg (1995).

The Urban team conducted balancing tests to see if the treatment and comparison groups were reasonably balanced on the covariates once properly weighted using the methods above. Although it is never possible to tell how well the match performs on unobserved variables, the balancing analyses provide some indication of how confident one should be in interpreting the impact estimates. A two-sample *t*-test and a standardized bias test provided information about the balance between treatment and matched comparison groups. The two-sample *t*-test indicates if there are significant differences in covariate means in the treatment and comparison samples. The drawback of this approach is that it is sensitive to sample sizes, as the test is less likely to find significant differences in covariates when the sample is small.

#### **Comparison Group and Matching Criteria**

The research team used the following student characteristics for the propensity score matching equation:

- Personal demographics (age, race/ethnicity, gender)
- Prior involvement with the foster care system
- Any children
- Educational attainment at baseline (has a high school diploma or equivalent and whether enrolled at a postsecondary institution before baseline)
- Prior involvement with the justice system (ever arrested)
- Measures of soft skills and motivation at baseline (grit scale and personal goals)
- Public benefit recipient at the time of the baseline survey
- Time and site of recruitment

All matching was conducted using values of these variables measured at enrollment. These variables meet Caliendo and Kopeinig's guidance that

Only variables that influence simultaneously the participation decision and the outcome variable should be included...It should also be clear that only variables that are unaffected by participation (or the anticipation of it) should be included in the model. To ensure this, variables should either be fixed over time or measured before participation. In the latter case, it must be guaranteed that the variable has not been influenced by the anticipation of participation. (Caliendo and Kopeinig 2008)

## **Impact Study Findings**

This section presents the Opportunity Works impact analysis findings along a range of education, labor market and disconnection, and other exploratory outcomes. Opportunity Works programs' effects on postsecondary enrollment or attendance were strongly positive and robust across two data sources: the National Student Clearinghouse (NSC) and the follow-up Opportunity Works surveys. The results were even stronger for young men of color, and they were consistently positive and large across all three impact study sites. The labor market and disconnection outcomes from the follow-up survey also show that program participants were substantially better off than the matched comparison group members, and the results were consistent for young men of color. Few additional effects appeared in the exploratory outcomes examined.

The 557 respondents to the Opportunity Works baseline survey composed the study population— 279 from the treatment group and 278 from the comparison group. Of these, 538 study participants provided their name and date of birth and could be matched with the NSC to measure their postsecondary activities. Additional outcomes data—on college applications, FAFSA completion, employment outcomes, goals, arrests, and measures of social functioning and support—were available for the 345 people who responded to both the baseline and follow-up surveys.

The response rate for the NSC data was about 97 percent, and the response rate for the followup survey was approximately 62 percent. The high response rate for NSC makes the analysis using these data more credible. To assess the issue of nonresponse in the follow-up survey sample, we test for differences in baseline characteristics between respondents and nonrespondents to the follow-up survey for both the treatment and comparison groups in table A.1. The table shows that there are statistical differences between respondents and nonrespondents for five out of 18 the observable characteristics (not considering site dummies) in the treatment group and two out of 18 in the comparison group. Given the relatively small baseline difference between respondents and nonrespondents, we decided to not reweight the follow-up survey sample to adjust for nonresponse bias.<sup>33</sup>

This section also presents site-specific estimates when the sample sizes allow for precise estimates. The purpose of presenting site-specific estimates is to show that results are robust across sites. It is not advised to directly compare the results across sites because the service populations and intervention details differed substantially, as described earlier in this report.

### College Enrollment Outcomes from the National Student Clearinghouse

There were 538 people in the Opportunity Works program and comparison group who responded to the baseline survey, with both names and date of birth available. These people inform the impact evaluation of the program on college enrollment, using NSC data (referenced as the "NSC sample"). Table 3 presents their distribution by site and treatment status.

#### TABLE 3

#### **NSC Sample Sizes**

| Site/group                   | Not in sample | In sample |
|------------------------------|---------------|-----------|
| Total                        | 19            | 538       |
| Total treatment              | 3             | 276       |
| Total comparison             | 16            | 262       |
| Hartford treatment           | 1             | 100       |
| Hartford comparison          | 4             | 94        |
| Philadelphia treatment       | 2             | 87        |
| Philadelphia comparison      | 10            | 106       |
| South King County treatment  | 0             | 89        |
| South King County comparison | 2             | 62        |

Sources: National Student Clearinghouse and Opportunity Works baseline surveys.

Within the NSC sample, the research team compared Opportunity Works participants with comparison group members using a PSM approach. Effective matching balances observable baseline characteristics between the program participants and matched comparison group. Table B.1 demonstrates how effectively this study matched the treatment and comparison group by comparing baseline characteristics. The "Treatment," "Unmatched comparison," and "Matched comparison" columns show average baseline characteristics of Opportunity Works participants, all individuals in the comparison group, and matched individuals in the comparison group who are used in the analysis, respectively. While there are substantial differences in baseline characteristics between the treatment and unmatched comparison groups, the characteristics of the matched comparison group are not statically different from the treatment group except for three characteristics. Because baseline covariates are balanced in both groups after matching, a simple t-test of the difference in outcomes between the treatment and matched comparison groups provides consistent estimation of the treatment effect of the program.

Table 4 reports the impact of Opportunity Works on the outcomes for members of the treatment and matched comparison groups. The NSC analysis focuses on three outcomes: whether the person enrolled in any postsecondary institution after the baseline survey, whether the person enrolled in a two-year postsecondary institution, and whether the person enrolled in a four-year postsecondary institution. Effects are estimated for all sites together and each site separately.

When pooling the sites together, Opportunity Works participants are more likely to enroll in both two- and four-year postsecondary institutions than their matched counterparts. About 53 percent of program participants enrolled in a postsecondary institution after the baseline survey, while only 26 percent did in the matched comparison group. In other words, program participation increased the likelihood of postsecondary enrollment by about 27 percentage points (a 104-percent increase over the comparison group, indicating that enrollment more than doubled). The findings demonstrate enrollment increases at both two-year and four-year institutions, with increases by 13 percentage points for each outcome (representing a 62-percent and 133-percent increase over the comparison group, respectively).<sup>34</sup> These results are not surprising, given that a much higher share of respondents in the treatment group received education-related services relative to the comparison group (figure 37).

Program participation was associated with higher postsecondary enrollment in all sites. Opportunity Works participants in Hartford were 25 percentage points more likely to enroll in a postsecondary institution than their counterparts in the matched comparison group (a 93-percent gain), 12 percentage points more likely in Philadelphia (a 40-percent gain), and 44 percentage points more likely in South King County (a 200-percent gain). Enrollment increases were concentrated in two-year institutions in Hartford and Philadelphia and four-year institutions in South King County. However, the results for four-year enrollment from South King County should be interpreted with caution, because many four-year institutions in the area also offer two-year degrees (e.g., Green River Community College). In the NSC data, institutions are classified by the highest degree they offer, and the data do not report the type of credential a student sought. Once again, it is important to keep in mind when evaluating the treatment effects across sites that each program served a population and offered distinct services—therefore, it is best not to directly compare their effectiveness but to take consistent results as reflecting the true effect of the common Back on Track postsecondary bridging framework.
### Impact Estimates for Opportunity Works Participants in the NSC Sample versus the Matched Comparison Group

| All Sites<br>Enrolled in any postsecondary<br>institution53.3%26.1%0.272***<br>(0.060)0.62Enrolled in a two-year<br>postsecondary institution34.1%21.0%0.130**<br>(0.057)0.32Enrolled in a two-year<br>postsecondary institution23.6%10.1%0.134***<br>(0.043)0.44Hartford<br>Enrolled in any postsecondary<br>institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in any postsecondary<br>institution52.0%27.0%0.220***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52Enrolled in a two-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution37.9%23.0%0.115*<br>(0.061)0.25Enrolled in a four-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.061)0.36Enrolled in any postsecondary<br>institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in any postsecondary<br>institution67.4%22.5%0.049***<br>(0.078)1.08Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03   | Outcomes                                  | Treatment | Matched comparison | Difference | Standardized<br>effect size |
|---|---|-----------|--------------------|------------|-----------------------------|
| Enrolled in any postsecondary<br>institution53.3%26.1% $0.272^{***}$ $0.62$<br>(0.060)Enrolled in a two-year<br>postsecondary institution34.1%21.0% $0.130^{**}$<br>  | All Sites                                 |           |                    |            |                             |
| institution53.3%26.1%0.727***0.62Enrolled in a two-year<br>postsecondary institution34.1%21.0%0.130**<br>(0.057)0.32Enrolled in a four-year<br>postsecondary institution23.6%10.1%0.134***<br>(0.043)0.44Hartford<br>Enrolled in any postsecondary<br>institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution52.0%23.0%0.220***<br>(0.062)0.52Enrolled in a two-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149***<br>(0.061)0.36Philadelphia<br>Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149***<br>(0.074)0.36Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in a four-year<br>postsecondary institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in a four-year<br>postsecondary institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in a four-year<br>postsecondary institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in a four-year<br>postsecondary institution67.4%22.5%0.449****<br>(0.078)1.08Enrolled in a two-year<br>postsecondary institution67.4%   | Enrolled in any postsecondary             |           |                    |            |                             |
| Enrolled in a two-year<br>postsecondary institution34.1%21.0%0.130**<br>(0.057)0.32<br>(0.057)Enrolled in a four-year<br>postsecondary institution23.6%10.1%0.134***<br>(0.043)0.44Hartford<br>Enrolled in any postsecondary<br>institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25Enrolled in a four-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.061)0.36Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08Enrolled in a four-year<br>postsecondary institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in a two-year<br>postsecondary institution67.4%22.5%0.049***<br>(0.078)1.08   | institution                               | 53.3%     | 26.1%              | 0.272***   | 0.62                        |
| postsecondary institution         34.1%         21.0%         0.130**<br>(0.057)         0.32           Enrolled in a four-year<br>postsecondary institution         23.6%         10.1%         0.134***<br>(0.043)         0.44           Hartford<br>Enrolled in any postsecondary<br>institution         52.0%         27.0%         0.250***<br>(0.067)         0.56           Enrolled in any postsecondary<br>institution         45.0%         23.0%         0.220***<br>(0.062)         0.52           Enrolled in a four-year<br>postsecondary institution         45.0%         23.0%         0.220***<br>(0.062)         0.52           Enrolled in a four-year<br>postsecondary institution         11.0%         9.0%         0.020<br>(0.036)         0.07           Philadelphia<br>Enrolled in any postsecondary<br>institution         40.2%         28.7%         0.115*<br>(0.061)         0.25           Enrolled in a two-year<br>postsecondary institution         37.9%         23.0%         0.149**<br>(0.074)         0.36           Enrolled in a four-year<br>postsecondary institution         6.9%         9.2%         -0.023<br>(0.039)         -0.08           South King County<br>Enrolled in any postsecondary<br>institution         67.4%         22.5%         0.449***<br>(0.078)         1.08           Enrolled in a two-year<br>postsecondary institution         67.4%         22.5%         0.011         0.03 <td>Enrolled in a two-year</td> <td></td> <td></td> <td>(0.000)</td> <td></td> | Enrolled in a two-year                    |           |                    | (0.000)    |                             |
| (0.057)Enrolled in a four-year<br>postsecondary institution23.6%10.1%0.134***<br>(0.043)0.44Hartford<br>Enrolled in any postsecondary<br>institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in a two-year<br>postsecondary institution67.4%22.5%0.0110.03  | postsecondary institution                 | 34.1%     | 21.0%              | 0.130**    | 0.32                        |
| Enclose in error year<br>postsecondary institution23.6%10.1%0.134***<br>(0.043)0.44Hartford<br>Enrolled in any postsecondary<br>institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>   | Enrolled in a four-year                   |           |                    | (0.057)    |                             |
| (0.043)HartfordEnrolled in any postsecondary<br>institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in any postsecondary<br>institution67.4%22.5%0.049***<br>(0.078)1.08Enrolled in any postsecondary<br>institution67.4%22.5%0.041***<br>(0.078)   | postsecondary institution                 | 23.6%     | 10.1%              | 0.134***   | 0.44                        |
| HartfordEnrolled in any postsecondary<br>institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149***<br>(0.074)0.36Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in any postsecondary<br>institution67.4%22.5%0.049***<br>(0.078)1.08Enrolled in any postsecondary<br>institution18.0%16.9%0.0110.03   |   |           |                    | (0.043)    |                             |
| Enrolled in a two-year<br>postsecondary institution52.0%27.0%0.250***<br>(0.067)0.56Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.064)0.36Enrolled in a two-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08Enrolled in a two-year<br>postsecondary institution67.4%22.5%0.049***<br>(0.078)1.08Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03  | Hartford<br>Eprolled in any postsecondary |           |                    |            |                             |
| Enrolled in a two-year<br>postsecondary institution45.0%23.0%0.220***<br>(0.062)0.52<br>(0.062)Enrolled in a four-year<br>  | institution                               | 52.0%     | 27.0%              | 0.250***   | 0.56                        |
| Enrolled in a two-year45.0%23.0%0.220***0.52postsecondary institution11.0%9.0%0.0200.07postsecondary institution11.0%9.0%0.0200.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*0.25Enrolled in a two-year<br>postsecondary institution40.2%28.7%0.115*0.25Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149***0.36Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution67.4%22.5%0.0110.03  |   |           |                    | (0.067)    |                             |
| possecondary institution43.9%26.9%0.020<br>(0.062)Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149***<br>(0.074)0.36Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution67.4%22.5%0.049***<br>(0.078)1.08<br>(0.078)  | Enrolled in a two-year                    | 45.0%     | 23.0%              | 0 220***   | 0.52                        |
| Enrolled in a four-year<br>postsecondary institution11.0%9.0%0.020<br>(0.036)0.07<br>(0.036)Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25<br>(0.061)Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36<br>(0.074)Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08<br>(0.039)South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03  | posisecondary institution                 | 43.070    | 20.070             | (0.062)    | 0.52                        |
| postsecondary institution11.0%9.0%0.020<br>(0.036)0.07<br>(0.036)Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25<br>(0.061)Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36<br>(0.074)Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08<br>(0.039)South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03   | Enrolled in a four-year                   | 44.00/    | 0.00/              | 0.000      |                             |
| Philadelphia<br>Enrolled in any postsecondary<br>institution(1000)Philadelphia<br>Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25<br>(0.061)Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36<br>(0.074)Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08<br>(0.039)South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03  | postsecondary institution                 | 11.0%     | 9.0%               | 0.020      | 0.07                        |
| Enrolled in any postsecondary<br>institution40.2%28.7%0.115*<br>(0.061)0.25<br>(0.061)Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36<br>(0.074)Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08<br>(0.039)South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03  | Philadelphia                              |           |                    |            |                             |
| institution 40.2% 28.7% 0.115* 0.25<br>(0.061)<br>Enrolled in a two-year<br>postsecondary institution 37.9% 23.0% 0.149** 0.36<br>(0.074)<br>Enrolled in a four-year<br>postsecondary institution 6.9% 9.2% -0.023 -0.08<br>(0.039)<br>South King County<br>Enrolled in any postsecondary<br>institution 67.4% 22.5% 0.449*** 1.08<br>(0.078)<br>Enrolled in a two-year<br>postsecondary institution 18.0% 16.9% 0.011 0.03   | Enrolled in any postsecondary             |           |                    |            |                             |
| Enrolled in a two-year<br>postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36<br>(0.074)Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08<br>(0.039)South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03  | institution                               | 40.2%     | 28.7%              | 0.115*     | 0.25                        |
| postsecondary institution37.9%23.0%0.149**<br>(0.074)0.36<br>(0.074)Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08<br>(0.039)South King County<br>Enrolled in any postsecondary<br>   | Enrolled in a two-year                    |           |                    | (0.001)    |                             |
| Enrolled in a four-year<br>postsecondary institution6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03   | postsecondary institution                 | 37.9%     | 23.0%              | 0.149**    | 0.36                        |
| Enrolled in a four year6.9%9.2%-0.023<br>(0.039)-0.08South King County<br>Enrolled in any postsecondary<br>institution67.4%22.5%0.449***<br>(0.078)1.08<br>(0.078)Enrolled in a two-year<br>postsecondary institution18.0%16.9%0.0110.03  | Eprolled in a four-year                   |           |                    | (0.074)    |                             |
| South King County         Enrolled in any postsecondary         institution       67.4%       22.5%       0.449***       1.08         Enrolled in a two-year         postsecondary institution       18.0%       16.9%       0.011       0.03   | postsecondary institution                 | 6.9%      | 9.2%               | -0.023     | -0.08                       |
| South King County         Enrolled in any postsecondary         institution       67.4%       22.5%       0.449***       1.08         (0.078)         Enrolled in a two-year         postsecondary institution       18.0%       16.9%       0.011       0.03         Enrolled in a four-year   |   |           |                    | (0.039)    |                             |
| Enrolled in a two-year<br>postsecondary institution 18.0% 16.9% 0.011 0.03<br>Enrolled in a four-year   | South King County                         |           |                    |            |                             |
| Enrolled in a two-year<br>postsecondary institution 18.0% 16.9% 0.011 0.03<br>Enrolled in a four-year   | institution                               | 67.4%     | 22.5%              | 0.449***   | 1.08                        |
| Enrolled in a two-yearpostsecondary institution18.0%16.9%0.0110.03Enrolled in a four-year   |   |           |                    | (0.078)    |                             |
| Enrolled in a four-year   | Enrolled in a two-year                    | 19.0%     | 16.0%              | 0.011      | 0.03                        |
|   | Enrolled in a four-year                   | 10.0%     | 10.7%              | 0.011      | 0.03                        |
| postsecondary institution 53.9% 12.4% 0.416*** 1.26   | postsecondary institution                 | 53.9%     | 12.4%              | 0.416***   | 1.26                        |

Sources: National Student Clearinghouse and Opportunity Works baseline surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). We use *t*-tests without controlling for baseline characteristics to test statistical differences in outcomes between treatment and control groups. Standardized effect sizes are represented relative to the standard deviation of the control group's outcome. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

### **Results for Young Men of Color**

Table 5 compares the outcomes for participants in Opportunity Works with the matched comparison group for young men of color. There are 159 program participants and 110 people in the unmatched comparison group within this demographic group.<sup>35</sup> Overall, even stronger effects of program participation emerge when looking at men of color. About 52 percent of men of color from the Opportunity Works programs enrolled in a postsecondary institution after their baseline interview compared with only 8.8 percent from the matched comparison group. As a result, program participation is associated with a 43-percentage-point increase in college enrollment for men of color, a 489-percent gain. Program participation's strong effects on enrollment also appear in both two-year and four-year institutions (27- and 19-percentage-point increases in the likelihood of enrollment, respectively).

When looking at specific sites, program participation is associated with a 42-percentage-point increase in enrollment in a postsecondary institution for men of color at Hartford (a 391-percent gain), a 34-percentage-point increase in Philadelphia (a 696-percent gain), and a 57-percentage-point increase in South King County (a 664-percent gain). Once more, stronger effects appear for enrollment in two-year postsecondary institutions in Hartford and Philadelphia and four-year postsecondary institutions in South King County. Once again, it is important to keep in mind when evaluating the treatment effects across sites that each program serves a population and offers distinct services.

#### TABLE 5

Impact Estimates for Opportunity Works Participants in the NSC Sample versus the Matched Comparison Group—Young Men of Color

|   |           | Matched    |                     | Standardized |
|---|-----------|------------|---------------------|--------------|
| Outcomes                                  | Treatment | comparison | Difference          | effect size  |
| All Sites                                 |           |            |                     |              |
| Enrolled in any postsecondary institution | 52.2%     | 8.8%       | 0.434***<br>(0.064) | 1.53         |
| Enrolled in a two-year postsecondary      |           |            |                     |              |
| institution                               | 35.8%     | 8.8%       | 0.270***<br>(0.057) | 0.95         |
| Enrolled in a four-year postsecondary     |           |            |                     |              |
| institution                               | 18.9%     | 0.0%       | 0.189***<br>(0.038) | -            |
| Hartford                                  |           |            |                     |              |
| Enrolled in any postsecondary institution | 53.0%     | 10.8%      | 0.422***<br>(0.068) | 1.36         |
| Enrolled in a two-year postsecondary      |           |            |                     |              |
| institution                               | 45.8%     | 10.8%      | 0.349***<br>(0.067) | 1.12         |

|   |           | Matched    |            | Standardized |
|---|-----------|------------|------------|--------------|
| Outcomes                                  | Treatment | comparison | Difference | effect size  |
| Enrolled in a four-year postsecondary     |           |            |            |              |
| institution                               | 12.0%     | 0.0%       | 0.120***   | -            |
|   |           |            | (0.033)    |              |
| Philadelphia                              |           |            |            |              |
| Enrolled in any postsecondary institution | 39.0%     | 4.9%       | 0.341***   | 1.59         |
|   |           |            | (0.083)    |              |
| Enrolled in a two-year postsecondary      |           |            |            |              |
| institution                               | 39.0%     | 4.9%       | 0.341***   | 1.59         |
|   |           |            | (0.083)    |              |
| Enrolled in a four-year postsecondary     |           |            |            |              |
| institution                               | 0.0%      | 0.0%       | -          | -            |
|   |           |            |            |              |
| South King County                         |           |            |            |              |
| Enrolled in any postsecondary institution | 65.7%     | 8.6%       | 0.571***   | 2.04         |
|   |           |            | (0.093)    |              |
| Enrolled in a two-year postsecondary      |           |            |            |              |
| institution                               | 8.6%      | 8.6%       | 0.000      | 0.00         |
|   |           |            | (0.063)    |              |
| Enrolled in a four-year postsecondary     |           |            |            |              |
| institution                               | 57.1%     | 0.0%       | 0.571***   | -            |
|   |           |            | (0.074)    |              |
| Matching quality statistic                |           |            |            |              |
| Pseudo-R <sup>2</sup>                     |           | 0.1836     |            |              |

Sources: National Student Clearinghouse and Opportunity Works baseline surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). We use *t*-tests without controlling for baseline characteristics to test statistical differences in outcomes between treatment and control groups. Standardized effect sizes are represented relative to the standard deviation of the control group's outcome. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

# College Enrollment and Additional Outcomes from the Follow-Up Survey

The follow-up survey provides insights into a broader range of outcomes for the 345 people who responded to both the baseline and follow-up surveys. Table 6 presents the distribution of respondents by site and treatment status. In addition, appendix A contains a nonresponse bias analysis that tests whether the 345 people who responded to the follow-up survey are statistically different from the 212 people in the nonresponse group by treatment group. This analysis shows that follow-up respondents in the treatment group were less likely to be black, less likely to be in foster care, and more highly educated than nonrespondents in the treatment group. In addition, respondents in the treatment group, responders were more likely to be older and more highly educated than nonresponders.

| Site                         | Not in sample | In sample |
|------------------------------|---------------|-----------|
| Total                        | 212           | 345       |
| Total treatment              | 91            | 188       |
| Total comparison             | 121           | 157       |
| Hartford treatment           | 28            | 73        |
| Hartford comparison          | 33            | 65        |
| Philadelphia treatment       | 40            | 49        |
| Philadelphia comparison      | 59            | 57        |
| South King County treatment  | 23            | 66        |
| South King County comparison | 29            | 35        |

### TABLE 6 Follow-Up Survey Analysis Sample Sizes

Sources: Opportunity Works baseline and follow-up surveys.

Appendix table B.2 compares the baseline characteristics of program participants with all individuals in the comparison group (unmatched) and those individuals in the comparison group used in the analysis (matched). The goal of the table is to assess the propensity score matching quality for the follow-up survey sample. While there are substantial differences in baseline characteristics between the treatment and unmatched comparison groups, the characteristics of the matched comparison group are not statistically different from the treatment group except for two baseline characteristics. Once again, the balance in covariates in both groups after matching ensures consistency in our PSM estimates of the treatment effect.

Table 7 estimates Opportunity Works program effects for three types of outcomes: education, labor market and disconnection, and exploratory. Exploratory outcomes are not a primarily goal of the program but could be affected by the intervention. Effects are estimated for all sites together in table 7 and for each site separately in table 8. Because there are many comparisons in this analysis, the research team corrected for the risks associated with multiple outcomes. Treatment effects significant at the 10-percent level after adjusting for multiple outcomes effects are bolded, and the text notes where conclusions differ after multiple-outcome adjustment. Appendix C shows significance levels when taking into account multiple outcomes within these three domains (Benjamini and Hochberg 1995).

The program had several positive effects on education outcomes. Program participants were 7 percentage points more likely to get a high school credential than people in the matched comparison group (an 8-percent gain over the comparison group). Opportunity Works participants were also more likely to apply for associate's degrees or training programs than people in the comparison group with

similar baseline characteristics (14 and 7 percentage points more likely, respectively). However, there were no significant differences in probability of applying for a four-year degree program. Program participants were twice as likely to complete a Free Application for Federal Student Aid (FAFSA) application than the matched comparison group (71 percent versus 37 percent), an effect of 34 percentage points. Consistent with the results from the NSC sample, Opportunity Works participants were 16 percentage points more likely to attend an associate's degree program than the matched comparison group (an 81-percent gain) and more likely to attend any postsecondary institution (14 percentage points).<sup>36</sup> In this analysis, Opportunity Works participants were 10 percentage program. Finally, program participants were 11 percentage points more likely to attend a training program (an 83-percent gain).

The labor market and disconnection outcomes were also desirable and significant for Opportunity Works participants. Opportunity Works participants who were not enrolled in school were less likely to be looking for a job (i.e., not employed or in school and unable to find work). Only 18 percent of treatment group members were looking for a job, compared with 41 percent of the matched comparison group, with an effect of -31 percentage points (a 62-percent decrease). Program participants were also less likely to be disconnected from work and education. About 21 percent of Opportunity Works participants were not enrolled in school and not working, compared with 46 percent of the comparison group, an effect of -24 percentage points (a 53-percent reduction).

No significant program effects appeared for the exploratory outcomes. Opportunity Works participants and the comparison group members did not differ significantly in their college graduation goals, the likelihood of being arrested, or their social provision scores.

### Impact Estimates for Opportunity Works Participants in the Follow-up Survey Sample versus the Matched Comparison Group

|  |           | Matched    |            | Standardized |
|--|-----------|------------|------------|--------------|
| Outcome                                  | Treatment | comparison | Difference | effect size  |
| Educational outcomes                     |           |            |            |              |
| High school credential                   | 90.4%     | 83.5%      | 0.069*     | 0.19         |
|  |           |            | (0.038)    |              |
| Applied to an associate's degree program | 43.1%     | 28.7%      | 0.144***   | 0.32         |
|  |           |            | (0.037)    |              |
| Applied to a four-year degree program    | 8.3%      | 5.5%       | 0.028      | 0.12         |
|  | 04.0%     | 47 70/     | (0.030)    | 0.40         |
| Applied to a training program            | 24.9%     | 17.7%      | 0.072      | 0.19         |
| Completed EAESA                          | 70.0%     | 36 6%      | (0.024)    | 0.71         |
| Completed FAF3A                          | /0.7/0    | 30.0%      | (0.074)    | 0.71         |
| Attended an associate's degree program   | 36.1%     | 20.0%      | 0 161***   | 0.40         |
|  | 0011/0    | 20.070     | (0.047)    | 0.10         |
| Attended a four-year degree program      | 2.8%      | 3.3%       | -0.006     | -0.03        |
| , , , ,                                  |           |            | (0.022)    |              |
| Attended any postsecondary institution   | 37.8%     | 23.3%      | 0.144***   | 0.34         |
|  |           |            | (0.053)    |              |
| Attended a training program              | 23.3%     | 12.8%      | 0.106***   | 0.32         |
|  |           |            | (0.027)    |              |
| Labor market and disconnection           |           |            |            |              |
| outcomes                                 |           |            |            |              |
| Looking for a job                        | 18.4%     | 49.1%      | -0.307***  | -0.61        |
| Networking and net soundled in school    | 01 40/    | 45.00/     | (0.067)    | 0.40         |
| Not working and not enrolled in school   | 21.4%     | 45.8%      | -0.244     | -0.49        |
| <b>F</b>                                 |           |            | (0.032)    |              |
| Exploratory outcomes                     |           |            |            | 0.09         |
| Goal to graduate from a two-year         | 62.2%     | 59 5%      | 0.027      | 0.08         |
| program                                  | 02.270    | 50.5%      | (0.037     |              |
| Goal to graduate from a four-year        |           |            | (0.070)    | -0.12        |
| program                                  | 64.4%     | 69.7%      | -0.053     | 0.12         |
|  |           |            | (0.042)    |              |
| Arrested since baseline                  | 4.2%      | 5.4%       | -0.012     | -0.05        |
|  |           |            | (0.025)    |              |
| Social Provision Score                   | 3.13      | 3.07       | 0.058      | 0.10         |
|  |           |            | (0.061)    |              |

Sources: Opportunity Works baseline and follow-up surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). We use *t*-tests without controlling for baseline characteristics to test statistical differences in outcomes between treatment and control groups. Standardized effect sizes are represented relative to the standard deviation of the control group's outcome. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. Bold impacts are significant at the 10-percent level after adjusting for multiple outcomes, using the procedure developed by Benjamini and Hochberg (1995)—see appendix C. The *looking for a job* variable is only measured for those not enrolled in school. Table 8 presents the program impact estimates by site. These results must be interpreted with caution because of small sample sizes at the site level (table 6). The analysis does not examine the likelihood of obtaining a high school credential in Hartford because virtually all program participants entered the program with a high school credential. Opportunity Works participants in Philadelphia were 28 percentage points more likely to apply to an associate's degree program than those in the matched comparison group. In Hartford, participants were more likely to apply to a training program. Program participants in Hartford and South King County were more likely to complete a FAFSA application than members of the matched comparison group. Consistent with the results from the NSC sample, Opportunity Works participants were more likely to attend an associate's degree program in Philadelphia and South King County. In Hartford, the direction of the effect on two-year college attendance is positive, but it is not statistically significant. No site saw a significant effect on four-year college attendance from the follow-up survey. Finally, program participants in Hartford were 29 percentage points more likely to attend a training program than those in the comparison group.

Turning to labor market and disconnection outcomes, Opportunity Works participants who were not in school in all sites were less likely to be looking for a job (i.e., unemployed and unable to find work) at the time of the follow-up interview. In addition, program participants in Hartford and South King County were less likely to be disconnected from work and education (20 percentage points and 40 percentage points less likely, respectively). No significant program effects appeared for any exploratory outcomes in the three sites.

#### TABLE 8

Program Effects by Site for Opportunity Works Participants in the Follow-Up Survey Sample versus the Matched Comparison Group

| Outcome                                  | Hartford | Philadelphia | SKC      |
|--|----------|--------------|----------|
| Educational outcomes                     |          |              |          |
| High school credential                   | а        | 0.122        | 0.000    |
|  |          | (0.077)      | (0.066)  |
| Applied to an associate's degree program | 0.111    | 0.283***     | 0.079    |
|  | (0.068)  | (0.072)      | (0.092)  |
| Applied to a four-year degree program    | 0.042    | 0.043        | 0.000    |
|  | (0.045)  | (0.052)      | (0.037)  |
| Applied to a training program            | 0.181**  | 0.043        | -0.032   |
|  | (0.078)  | (0.083)      | (0.061)  |
| Completed FAFSA                          | 0.282*** | 0.073        | 0.587*** |
|  | (0.084)  | (0.109)      | (0.064)  |
| Attended an associate's degree program   | 0.123    | 0.200**      | 0.177**  |
|  | (0.080)  | (0.078)      | (0.085)  |
| Attended a four-year degree program      | 0.014    | -0.044       | 0.000    |
|  | (0.028)  | (0.048)      | (0.021)  |
| Attended any postsecondary institution   | 0.123**  | 0.156**      | 0.161**  |
|  | (0.061)  | (0.078)      | (0.076)  |

| Outcome                                   | Hartford  | Philadelphia | SKC       |
|---|-----------|--------------|-----------|
| Attended a training program               | 0.288***  | -0.022       | -0.016    |
|   | (0.059)   | (0.055)      | (0.058)   |
| Labor market and disconnection outcomes   |           |              |           |
| Looking for a job                         | -0.212**  | -0.273**     | -0.517*** |
|   | (0.088)   | (0.116)      | (0.082)   |
| Not working and not enrolled in school    | -0.203*** | -0.077       | -0.400*** |
|   | (0.067)   | (0.096)      | (0.080)   |
| Exploratory outcomes                      |           |              |           |
| Goal to graduate from a two-year program  | -0.027    | 0.000        | 0.136     |
|   | (0.081)   | (0.114)      | (0.092)   |
| Goal to graduate from a four-year program | -0.027    | -0.020       | -0.106    |
|   | (0.069)   | (0.113)      | (0.073)   |
| Arrested since baseline                   | -0.044    | 0.026        | 0.000     |
|   | (0.040)   | (0.075)      | (0.030)   |
| Social Provision Score                    | 0.064     | -0.011       | 0.096     |
|   | (0.113)   | (0.082)      | (0.099)   |

Sources: Opportunity Works baseline and follow-up surveys.

**Notes:** <sup>a</sup> No impact estimate is available for this outcome because nearly all program participants already had achieved this outcome at the time of enrollment. Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). We use *t*-tests without controlling for baseline characteristics to test statistical differences in outcomes between treatment and control groups. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. Bold effects are significant at the 10-percent level after adjusting for multiple outcomes, using the procedure developed by Benjamini and Hochberg (1995)—see appendix C. The *looking for a job* variable is only measured for those not enrolled in school.

### **Results for Young Men of Color**

The final analysis examines effects for young men of color from the follow-up survey. There were 110 Opportunity Works participants and 63 members of the comparison group who responded to both the baseline and follow-up surveys and were men of color.<sup>37</sup> As shown in table 9, despite the small sample sizes, significant and positive program effects emerged on the likelihood of applying to an associate's degree program (16 percentage points), completing FAFSA (47 percentage points), and attending an associate's degree program (15 percentage points). No significant effects of program participation appear for labor market and disconnection outcomes for young men of color after adjusting for multiple outcomes, although the treatment effects are as expected. Finally, Opportunity Works young men of color were marginally more likely to be arrested than those in the matched comparison group, although the effect is no longer significant after adjusting the analysis for multiple outcomes.

Program Effects by Site for Opportunity Works Participants in the Follow-Up Survey Sample versus the Matched Comparison Group, Young Men of Color

|  |           | Matched    |            | Standardized |
|--|-----------|------------|------------|--------------|
| Outcome                                  | Treatment | comparison | Difference | effect size  |
| Educational outcomes                     |           |            |            |              |
| High school credential                   | 88.2%     | 87.3%      | 0.009      | 0.03         |
|  |           |            | (0.043)    |              |
| Applied to an associate's degree program | 36.4%     | 20.6%      | 0.159***   | 0.39         |
| Applied to a four year degree program    | 10.2%     | 10 10/     | (0.035)    | 0.04         |
| Applied to a four-year degree program    | 10.370    | 12.170     | -0.019     | -0.06        |
| Applied to a training program            | 28.0%     | 20.6%      | 0.075      | 0.18         |
| ,  | 2010/0    |            | (0.105)    |              |
| Completed FAFSA                          | 68.6%     | 21.6%      | 0.471***   | 1.14         |
|  |           |            | (0.055)    |              |
| Attended an associate's degree program   | 31.5%     | 16.7%      | 0.148***   | 0.40         |
|  | 0.7%      | 0.00/      | (0.048)    | 0.07         |
| Attended a four-year degree program      | 3.7%      | 2.8%       | 0.009      | 0.06         |
| Attended any postsecondary institution   | 33.3%     | 19.4%      | 0 1 3 9*** | 0.35         |
| Attended any postsecondary institution   | 00.070    | 17.470     | (0.046)    | 0.05         |
| Attended a training program              | 29.6%     | 21.3%      | 0.083      | 0.20         |
|  |           |            | (0.095)    |              |
| Labor market and disconnection           |           |            |            |              |
| outcomes                                 |           |            |            |              |
| Looking for a job                        | 19.2%     | 61.6%      | -0.425*    | -0.87        |
|  | 40.00/    | 00.00/     | (0.226)    | 0.00         |
| Not working and not enrolled in school   | 19.8%     | 23.8%      | -0.040     | -0.09        |
| Eveloratory outcomes                     |           |            | (0.047)    |              |
| Goal to graduate from a two-year         |           |            |            | -0.22        |
| program                                  | 60.0%     | 70.0%      | -0.100     | 0.22         |
| F - 0                                    |           |            | (0.080)    |              |
| Goal to graduate from a four-year        |           |            |            | 0.00         |
| program                                  | 65.5%     | 65.5%      | 0.000      |              |
|  | ( 00)     | 1.00/      | (0.224)    | 0.54         |
| Arrested since baseline                  | 6.2%      | 1.0%       | 0.052*     | 0.51         |
| Social Provision Score                   | 3 1 2     | 3.02       | (0.029)    | 0.18         |
|  | 0.12      | 0.02       | (0.192)    | 0.10         |
| Matching quality statistic               |           |            | ÷          |              |
| Pseudo-R <sup>2</sup>                    |           | 0.1778     |            |              |

Sources: Opportunity Works baseline and follow-up surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. We use *t*-tests without controlling for baseline characteristics to test statistical differences in outcomes between treatment and control groups. Standardized effect sizes are represented relative to the standard deviation of the control group's outcome. Bold effects are significant at the 10-percent level after adjusting for multiple outcomes, using the procedure developed by Benjamini and Hochberg (1995)—see appendix C. The *looking for a job* variable is only measured for those not enrolled in school.

### **College Persistence**

The past section demonstrated that the Opportunity Works program had a substantial effect on college enrollment. This section investigates whether Opportunity Works participants stay enrolled in college for more than one semester.

In the first part of this analysis, we use the data from the National Student Clearinghouse and restrict the sample to students in both the treatment and comparison groups who enrolled in college between July 1, 2015 and December 31, 2017. <sup>38</sup> After this restriction, the sample consists of 136 students in the treatment group and 51 in the comparison group. Using the same matching process described earlier, we match college students in the treatment and comparison groups.<sup>39</sup> We define an indicator variable for college persistence as equal to one if a student enrolled in college in the first or second semester after his or her first semester of college enrollment and zero otherwise. For example, if a student first enrolled in college in the 2016 second semester, the indicator for college persistence assumes value one if the student enrolled in college in either semester. The goal is to identify students who came back to college within a year after their first enrollment.

Table 10 shows the share of college students in the treatment and matched comparison groups who came back to college within a year. This analysis is conditional on students enrolling. Note that there is lower persistence in college enrollment among Opportunity Works college enrollees relative to the comparison group. While 64.7 percent of Opportunity Works students came back for a second semester within a year of their first enrollment, 75.7 percent of students in the matched comparison group persisted in college for a second semester.<sup>40</sup>

This result may not be surprising because Opportunity Works helped more "marginal" students to enroll in school—those who would not have attended college otherwise. Given the program's large effect on college enrollment, we might expect that these Opportunity Works students are less likely to persist. Conversely, comparison group members who managed to enroll in college without the benefit of the Back on Track supports may be more stable or motivated on their own and thus more likely able to persist.

| Outcome             | Treatment | Matched comparison | Difference |  |
|---------------------|-----------|--------------------|------------|--|
|                     |           |                    | -0.110**   |  |
| College persistence | 64.7%     | 75.7%              | (0.052)    |  |
| Sample size         | 136       | 55                 |            |  |

#### Impact Estimates for Opportunity Works Participation on College Persistence

Sources: National Student Clearinghouse and Opportunity Works baseline surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). We use *t*-tests without controlling for baseline characteristics to test statistical differences in outcomes between treatment and control groups. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.

To further investigate the benefits from Opportunity Works, despite the somewhat lower persistence of its college enrollees, this study also evaluates the program's effect on the likelihood of enrolling in college for two semesters for *any* participant. This second part of the analysis is conducted without any sample restriction on college enrollment (i.e., it is *not* conditional on college enrollment). The outcome of interest is equal to one if the program participant enrolled in college for two semesters (within a three-semester time frame) and zero if the participant either enrolled in college for only one semester or never enrolled in college. For example, the outcome *two semesters of college enrollment* would be equal to one if a student enrolled in college in the first and second semesters of 2016 and zero for both students who enrolled in the 2016 first semester but did not enroll for the next two semesters and students who never enrolled in college.

Table 11 shows that 32.4 percent of Opportunity Works participants enrolled in college for at least two semesters compared with 12.1 percent in the matched comparison group. This represents a 17.3-percentage-point increase in the likelihood of two-semester college enrollment associated with program participation. Overall, while Opportunity Works students are less likely to persist in college conditional on first enrollment, Opportunity Works participants are still more likely to enroll in two semesters of college education than those in the matched comparison group. The intuition behind this result is that to be enrolled in two semesters a participant must first be enrolled in one semester. Thus, the analysis that does not condition on enrollment in one semester finds higher persistence for Opportunity Works participants, in part, because it increases the likelihood that they will enroll in one semester.

### Impact Estimates for Opportunity Works Participation in Two Semesters of College Enrollment

| Outcome            | Treatment | Matched comparison | Difference |
|--------------------|-----------|--------------------|------------|
| Two semesters of   |           |                    | 0.173***   |
| college enrollment | 32.4%     | 15.1%              | (0.048)    |
| Sample size        | 276       | 262                |            |

Sources: National Student Clearinghouse and Opportunity Works baseline surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.

### Discussion: Does Opportunity Works Help Opportunity Youth?

For the confirmatory education impact results, it is clear that Opportunity Works has a consistent, large, positive effect on postsecondary enrollment. This finding is robust across data sources and appears even more strongly among young men of color than the program population overall. The magnitude of the effect is unusually large, more than doubling postsecondary enrollment overall and increasing it nearly six times over for the young men's subgroup. The findings are consistent across the three sites in the impact study. This suggests that the Back on Track postsecondary bridging framework can receive credit for the positive effect, given the framework was the primary consistent feature across the three diverse impact sites.

The Back on Track postsecondary bridging framework also appears to have helped participants reduce their chance of disconnection from education and employment. However, it did not affect some of the exploratory outcomes around goals for education, justice involvement, or measures of social functioning and support. It could be valuable to consider how to build out the elements of the model that might improve these outcomes, such as mentoring support, which appeared in the original framework but was not implemented in any Opportunity Works site (Anderson et al. 2017).

Jobs for the Future has further refined the Back on Track model to deepen its effectiveness across implementation contexts, and that effort is the focus of a separate implementation evaluation. The lessons from this evaluation, particularly the implementations study, may serve as valuable guideposts to understand where refinement opportunities are and where common practices among the three impact sites may be contributing to such positive, consistent education results.

This study had a relatively short follow-up period. It would be valuable to conduct future research with a longer follow-up period to understand how students fare in the medium- and long-term, given these robust short-term impacts. It would be particularly valuable to gain insight into participants' persistence and success in their postsecondary pursuits and how this translates into longer-term economic and social well-being. It is possible that some of the exploratory outcomes would emerge with meaningful results in a longer time frame, given the location of many of these outcomes in the medium- and long-term segments of the program logic model.

It would also be valuable to deepen the evidence base in the future with an experimental design, if sufficient recruitment efforts could result high demand for a program that is willing to undertake an

experimental study. That would provide strong evidence of program effectiveness. The methods employed here were likely the strongest possible given the implementation constraints in this study. The findings are unambiguous in supporting this intervention's effectiveness in helping opportunity youth access postsecondary pathways.

## Appendix A. Nonresponse Bias Analysis

### TABLE A.1

Baseline Characteristics of Study Participants, by Follow-Up Survey Response Status

|  | Treatment  |               | Comparison |               |  |
|--|------------|---------------|------------|---------------|--|
| Baseline variable  | Respondent | Nonrespondent | Respondent | Nonrespondent |  |
| Female   | 39.6%      | 42.9%         | 52.9%      | 47.1%         |  |
| % Non-Hispanic white (alone)   | 8.4%       | 3.6%          | 15.5%      | 12.2%         |  |
| % Non-Hispanic Black (alone)   | 50.0%      | 63.9%**       | 56.3%      | 55.7%         |  |
| % Hispanic and other Race  | 41.6%      | 32.5%         | 28.2%      | 32.2%         |  |
| % ages 18-19   | 43.2%      | 47.3%         | 53.4%      | 65.7%         |  |
| % ages 20-21   | 39.6%      | 31.9%         | 26.4%      | 24.8%         |  |
| % ages 22 and older  | 17.2%      | 20.9%         | 20.3%      | 9.5%**        |  |
| Foster   | 9.9%       | 18.0%*        | 8.5%       | 11.3%         |  |
| Presence of children   | 19.7%      | 22.2%         | 20.6%      | 16.7%         |  |
| High school diploma or<br>equivalent<br>NSC—enrolled in a<br>postsecondary institution | 73.7%      | 70.0%         | 40.3%      | 32.7%         |  |
| before baseline  | 41.6%      | 24.2%***      | 25.5%      | 15.2%**       |  |
| Ever arrested  | 23.1%      | 23.9%         | 25.0%      | 23.7%         |  |
| Mean grit (scale from 1 to 5)  | 3.65       | 3.75          | 3.60       | 3.50          |  |
| Goal: attend a two-year college<br>Goal: attend a four-year                            | 47.9%      | 47.3%         | 35.7%      | 30.6%         |  |
| college<br>% Currently receive SNAP or   | 63.8%      | 62.6%         | 52.9%      | 52.9%         |  |
| TANF   | 52.2%      | 51.9%         | 57.8%      | 57.1%         |  |
| 2015 second semester/2016<br>first semester<br>2016 second semester/any                | 48.4%      | 28.6%***      | 31.2%      | 34.7%         |  |
| time in 2017   | 51.6%      | 71.4%***      | 68.8%      | 65.3%         |  |
| Hartford   | 38.8%      | 30.8%         | 41.4%      | 27.3%         |  |
| Philadelphia   | 26.1%      | 44.0%***      | 36.3%      | 48.8%**       |  |
| SKC  | 35.1%      | 25.3%*        | 22.3%      | 24.0%         |  |
| Number of observations   | 188        | 91            | 157        | 121           |  |

Sources: Opportunity Works baseline and follow-up surveys.

Note: Asterisks show statistical difference between respondents and nonrespondents. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.

### Appendix B. Matching Quality NSC Sample

The NSC sample consists of 276 Opportunity Works participants. There were 262 people in the unmatched comparison group and 116 retained in the matched comparison group. There are fewer people in the matched comparison group because the nearest-neighbor-matching-with-replacement approach allows for a comparison group member to match with more than one treatment group member if they are the best aligned on observed characteristics for multiple members of the treatment group. This improves matching quality and the resulting estimates.

In table B.1, the "Treatment," "Unmatched comparison," and "Matched comparison" columns show average characteristics of Opportunity Work participants, the unmatched comparison group, and the matched comparison group, respectively, before the program intervention. For example, the share of people ages 18to 19 is 45 percent among Opportunity Work participants, 59 percent within the unmatched comparison group, and 41 percent within the matched comparison group.

The column "Statistical differences" tests whether Opportunity Work participants and the unmatched and matched comparison groups had different baseline characteristics. Opportunity Works participants were less likely to be female, were older, had higher educational attainment at baseline, and were more likely to have a goal of attending both a two-year and four-year college than the unmatched group. Opportunity Works participants were also likely to take the baseline survey earlier in the study. As expected, the matched comparison group looks more like the treatment group in baseline characteristics. The only remaining significant difference between the two groups after matching appears in their likelihood of being in foster care, their goal of attending a four-year college (marginal difference), and their likelihood of being from South King County/Seattle.

As another check, the research team reestimated the propensity score on the matched sample that is, only on participants and matched nonparticipants, to compare how well the baseline characteristics explain the participation probability. This is measured with a statistic called a pseudo-R<sup>2</sup>. Table B.1 reports the pseudo-R<sup>2</sup> values of propensity score estimations before and after matching. After matching, there should be no systematic differences in the distribution of covariates between both groups and, therefore, the pseudo-R<sup>2</sup> should be low. Here, the pseudo-R<sup>2</sup> decreases from 0.1859 before matching to 0.0596 after matching, reflecting the small residual difference between Opportunity Works participants and members of the matched comparison group in their baseline characteristics.

#### TABLE B.1

Baseline Characteristics of Opportunity Works Youth in the NSC Sample, Unmatched Comparison Group, and Matched Comparison Group (Averages)

|  | Treatment | Unmatched | Matched |
|--|-----------|-----------|---------|
| Baseline variable  | Mean      | Mean      | Mean    |
| Female   | 40.7%     | 50.4%**   | 42.2%   |
| % Non-Hispanic white (alone)                                       | 6.9%      | 14.0%     | 4.9%    |
| % Non-Hispanic Black (alone)                                       | 54.4%     | 55.1%     | 60.7%   |
| % Hispanic/Latinx or other race                                    | 38.7%     | 30.9%*    | 34.4%   |
| % ages 18-19   | 44.6%     | 58.5%***  | 42.4%   |
| % ages 20-21   | 36.9%     | 25.7%***  | 42.8%   |
| % ages 22 or older   | 18.5%     | 15.8%     | 14.8%   |
| Foster   | 12.0%     | 9.8%      | 19.8%** |
| Presence of children   | 20.0%     | 18.8%     | 26.4%   |
| High school diploma or equivalent                                  | 72.6%     | 37.0%***  | 74.1%   |
| Enrolled in a postsecondary institution before baseline (from NSC) | 35.9%     | 21.4%***  | 32.4%   |
| Ever arrested  | 23.2%     | 24.1%     | 22.6%   |
| Mean grit (scale from 1 to 5)                                      | 3.68      | 3.57*     | 3.73    |
| Goal: attend a two-year college                                    | 47.8%     | 33.2%***  | 48.7%   |
| Goal: attend a four-year college                                   | 63.8%     | 54.2%**   | 54.9%*  |
| % Currently receive SNAP or TANF                                   | 52.1%     | 57.6%     | 45.0%   |
| 2015 second semester/2016 first semester                           | 42.0%     | 32.4%**   | 43.3%   |
| 2016 Second semester/any time in 2017                              | 58.0%     | 67.6%**   | 56.7%   |
| Hartford   | 36.2%     | 35.9%     | 40.7%   |
| Philadelphia   | 31.5%     | 40.5%**   | 37.5%   |
| South King County/Seattle  | 32.2%     | 23.7%**   | 21.8%** |
| Matching quality statistic   |           |           |         |
| Pseudo-R <sup>2</sup>  |           | 0.1859    | 0.0596  |
| Number of observations   | 276       | 262       | 104     |

Sources: National Student Clearinghouse and Opportunity Works baseline surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Asterisks indicated statistical difference from the treatment group. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.

### Follow-Up Survey Sample

Table B.2 compares the baseline characteristics of program participants with those of the matched and unmatched comparison groups to assess the quality of the propensity score matching for the follow-up survey sample. The matched comparison group looked more like the treatment group in their baseline characteristics.

Compared with unmatched people in the comparison group, Opportunity Works participants were less likely to be female, less likely to be non-Hispanic white, more likely to be Hispanic/Latinx or other race, had higher educational attainment at baseline, and were more likely to have a goal of attending both a two-year and four-year college than the unmatched group. Opportunity Works participants were also more likely to take the baseline survey earlier in the study and were less likely to be from the Philadelphia or South King County sites.

The matched comparison group looked more like the treatment group in baseline characteristics. The only significant differences between the two groups remained in their likelihood of being female and their site of origin (marginal difference). This result supports the quality of the matching procedure. In addition, the pseudo- $R^2$  showed significant improvements in the matching characteristics, reducing from 0.2090 before matching to 0.0682 after matching.

### TABLE B.2

Baseline Characteristics of Opportunity Works Youth in the Follow-Up Survey Sample, Unmatched Comparison Group, and Matched Comparison Group (Averages)

|  | Treatment | Unmatched | Matched |
|--|-----------|-----------|---------|
| Baseline variable  | Mean      | Mean      | Mean    |
| Female   | 39.6%     | 52.9%**   | 25.7%** |
| % Non-Hispanic white (alone)                                       | 8.4%      | 15.5%*    | 7.3%    |
| % Non-Hispanic Black (alone)                                       | 50.0%     | 56.3%     | 47.6%   |
| % Hispanic/Latinx or other race                                    | 41.6%     | 28.2%**   | 45.1%   |
| % ages 18-19   | 43.2%     | 53.4%     | 51.5%   |
| % ages 20-21   | 39.6%     | 26.4%     | 36.1%   |
| % ages 22 or older   | 17.2%     | 20.3%     | 12.4%   |
| Foster   | 9.9%      | 8.5%      | 9.0%    |
| Presence of children   | 19.7%     | 20.6%     | 16.2%   |
| High school diploma or equivalent                                  | 73.7%     | 40.3%***  | 78.2%   |
| Enrolled in a postsecondary institution before baseline (from NSC) | 41.6%     | 25.5%***  | 36.1%   |
| Ever arrested  | 23.1%     | 25.0%     | 29.2%   |
| Mean grit (scale from 1 to 5)                                      | 3.65      | 3.60      | 3.60    |
| Goal: attend a two-year college                                    | 47.9%     | 35.7%**   | 42.6%   |
| Goal: attend a four-year college                                   | 63.8%     | 52.9%**   | 66.1%   |
| % Currently receive SNAP or TANF                                   | 52.2%     | 57.8%     | 51.1%   |
| 2015 second semester/2016 first semester                           | 48.4%     | 31.2%***  | 38.8%   |
| 2016 second semester/any time in 2017                              | 51.6%     | 68.8%***  | 61.2%   |
| Hartford   | 38.8%     | 41.4%     | 49.7%*  |
| Philadelphia   | 26.1%     | 36.3%**   | 20.8%   |
| South King County/Seattle  | 35.1%     | 22.3%***  | 29.5%   |
| Matching quality statistic   |           |           |         |
| Pseudo-R <sup>2</sup>  |           | 0.2090    | 0.0682  |
| Number of observations   | 188       | 157       | 67      |

Sources: National Student Clearinghouse and Opportunity Works baseline surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Asterisks indicated statistical difference from the treatment group. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.

## Appendix C. Multiple Outcomes

### TABLE C.1

Significance Levels after Adjusting for Multiple Outcomes

|   |     | Men of |          |              |     |
|---|-----|--------|----------|--------------|-----|
| Outcome                                   | All | color  | Hartford | Philadelphia | SKC |
| Educational outcomes                      |     |        |          |              |     |
| High school credential                    | *   |        |          |              |     |
| Applied to an associate's degree program  | *** | ***    |          | ***          |     |
| Applied to a four-year degree program     |     |        |          |              |     |
| Applied to a training program             | *** |        | *        |              |     |
| Completed FAFSA                           | *** | ***    | ***      |              | *** |
| Attended an associate's degree program    | *** | ***    |          | **           | *   |
| Attended a four-year degree program       |     |        |          |              |     |
| Attended any postsecondary institution    | **  | ***    |          |              |     |
| Attended a training program               | *** |        | ***      |              |     |
| Labor market and disconnection outcomes   |     |        |          |              |     |
| Looking for a job                         | *** |        | **       | **           | *** |
| Not working and not enrolled in school    | *** |        | ***      |              | *** |
| Exploratory outcomes                      |     |        |          |              |     |
| Goal to graduate from a two-year program  |     |        |          |              |     |
| Goal to graduate from a four-year program |     |        |          |              |     |
| Arrested since baseline                   |     |        |          |              |     |
| Social Provision Score                    |     |        |          |              |     |

Sources: Opportunity Works baseline and follow-up surveys.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement. Standard errors are in parentheses and estimated using the expression derived in Abadie and Imbens (2006). Statistical significance in the three domains that have multiple outcomes are adjusted using a procedure developed by Benjamini and Hochberg (1995). \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.

## Appendix D. Within-Site Match

### TABLE D.1

Impact Estimates for Opportunity Works Participants in the NSC Sample versus the Matched Comparison Group—Within-Site Matching

| Outcomes  | Hartford | Philadelphia | SKC      |
|---|----------|--------------|----------|
| Enrolled in any postsecondary institution         | 0.360*** | 0.160***     | 0.553    |
|   | (0.069)  | (0.009)      | (0.508)  |
| Enrolled in a two-year postsecondary institution  | 0.320*** | 0.200**      | 0.059    |
|   | (0.067)  | (0.079)      | (0.507)  |
| Enrolled in a four-year postsecondary institution | 0.080**  | -0.080       | 0.541*** |
|   | (0.036)  | (0.235)      | (0.050)  |
| Matching quality statistic                        |          |              |          |
| Pseudo-R <sup>2</sup>                             | 0.3088   | 0.2190       | 0.5883   |

Sources: National Student Clearinghouse and Opportunity Works baseline survey.

**Notes:** Propensity score is estimated using a probit model. The matching approach is nearest neighbor with replacement within site. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.

### Notes

- <sup>1</sup> "Table 219.75. Percentage of High School Dropouts among Persons 16 to 24 Years Old (Status Dropout Rate), by Income Level, and Percentage Distribution of Status Dropouts, by Labor Force Status and Years of School Completed: Selected Years, 1970 through 2016," US Department of Education, last updated 2017, https://nces.ed.gov/programs/digest/d17/tables/dt17\_219.75.asp?current=yes.
- <sup>2</sup> "Table 219.80. Percentage of High School Dropouts among Persons 16 to 24 Years Old (Status Dropout Rate) and Number of Status Dropouts, by Noninstitutionalized or Institutionalized Status, Birth in or Outside of the United States, and Selected Characteristics: Selected Years, 2006 through 2016," US Department of Education. last updated 2017, https://nces.ed.gov/programs/digest/d17/tables/dt17\_219.80.asp?current=yes.
- <sup>3</sup> "Table 219.75. Percentage of High School Dropouts among Persons 16 to 24 Years Old (Status Dropout Rate), by Income Level, and Percentage Distribution of Status Dropouts, by Labor Force Status and Years of School Completed: Selected Years, 1970 through 2016."
- <sup>4</sup> "Table 219.75. Percentage of High School Dropouts among Persons 16 to 24 Years Old (Status Dropout Rate), by Income Level, and Percentage Distribution of Status Dropouts, by Labor Force Status and Years of School Completed: Selected Years, 1970 through 2016."
- <sup>5</sup> "Table 219.80. Percentage of High School Dropouts among Persons 16 to 24 Years Old (Status Dropout Rate) and Number of Status Dropouts, by Noninstitutionalized or Institutionalized Status, Birth in or Outside of the United States, and Selected Characteristics: Selected Years, 2006 through 2016."
- <sup>6</sup> "Table 219.75. Percentage of High School Dropouts among Persons 16 to 24 Years Old (Status Dropout Rate), by Income Level, and Percentage Distribution of Status Dropouts, by Labor Force Status and Years of School Completed: Selected Years, 1970 through 2016."
- <sup>7</sup> "Employment, Wages, and Projected Change in Employment by Typical Entry-Level Education," US Department of Labor, last updated April 12, 2091, https://www.bls.gov/emp/tables/education-summary.htm.
- <sup>8</sup> As shorthand and in recognition of the primary short-term goal of postsecondary enrollment, the report will refer to "postsecondary/career bridging" as "postsecondary bridging."
- <sup>9</sup> See CNCS (2014) for a description of the evaluation requirements for SIF grants.
- <sup>10</sup> A "site" in this report refers to the backbone organization and collection of partners implementing Opportunity Works in each city. See the site profiles in the next chapter for a list of partner organizations in each site.
- <sup>11</sup> Note that this is as of the latest program deliverable; it is possible participants engaged longer, but this was not observed by the end of the data coverage period.
- <sup>12</sup> Note that this does not include the most recent two quarters of program data, as data was recorded differently across quarters. Obtaining this information may be possible but was not feasible at the time of writing in May 2019.
- <sup>13</sup> Note that this does not include the most recent two quarters of program data, as data was recorded differently across quarters. Obtaining this information may be possible but was not feasible at the time of writing in May 2019.
- <sup>14</sup> The program data do not define "regular contact" explicitly, but the data files do note that synonyms for this status are "strong rapport" and "strong comfort level."
- <sup>15</sup> The navigators were stretched thin and participants were often not on site to receive these services. Navigators often had to travel to participants' homes to meet them, with one estimating they spent 25 percent of their time at work driving.

- <sup>16</sup> "Graduated" indicates that a student completed their bridging program and enrolled in a postsecondary program.
- <sup>17</sup> Bard seminar is included in dual enrollment
- <sup>18</sup> Note that 40 percent of participants in South King County/Seattle already had a high school credential at program enrollment, so this outcome would not be relevant to them.
- <sup>19</sup> For an in-depth discussion of fidelity to the Back on Track model, see Anderson et al. (2017).
- <sup>20</sup> The original evaluation plan also asked about the following longer-term outcomes: earn college credits, enroll in college for more than one semester, enroll in college for more than one year, earn industry-recognized credentials, earn college credentials, and complete 12 credits of college coursework. It also asked if respondents were more likely to be college ready, but this was not feasible to measure consistently beyond observing college applications and attendance.
- <sup>21</sup> The original evaluation plan also asked about the following longer-term outcomes: more likely to become employed in quality jobs based on wages, hours worked (full/part time), benefits, and likely to earn more than the comparison group.
- <sup>22</sup> The original wording of this question asked if treatment group members were more likely to become employed, but the research team determined that unemployment (among those not in school) was a better measure for if people were meeting their employment goals.
- <sup>23</sup> The original research question asked separately about people of different racial/ethnic groups (e.g., African Americans and Latinx people), different ages, and different gender categories. Because of the explicit focus on young men of color in the Opportunity Works initiative, recognition of intersectional identities' importance in determining life outcomes, sample size restrictions, and concerns about increasing the number of multiple comparisons, the research team simplified these categories into an analysis focused on young men of color.
- <sup>24</sup> Treatment group members took the baseline survey as soon after enrollment as possible. This was generally within the first week of program participation, though there was some variation in individual cases, particularly for early program enrollees in Hartford. In Hartford, the average delay between enrollment and survey completion was 73 days, with a range from 0 to 593 days. In Philadelphia, the average delay was 17 days, with a range from 0 to 113 days. In South King County, the average delay was 56 days with a range from 0 to 258 days.

Where possible, comparison programs also administered the survey early in comparison group members' enrollment. However, some members of the comparison group took the survey at varying times relative to their first engagement with services provided by comparison programs. One reason for this discrepancy is that several comparison programs were ongoing, meaning there was not a "starting point" that was analogous to the treatment programs. In the American Job Center comparison program in Hartford, comparison group respondents enrolled in the study and took the baseline survey after they had left the comparison organization.

- <sup>25</sup> Only males ages 18- to 24-years-old were eligible to participate in the survey initially, but because of changes in the site's recruitment policies, females also became eligible for the study in early 2017.
- <sup>26</sup> Treatment group members took the follow-up survey as soon after a year post-baseline survey as possible. This was generally within 12 to 17 months, though there was some variation in individual cases. In Hartford, the average gap between baseline and follow-up survey completion was 14 months, with a range from 11 to 18 months. In Philadelphia, the average gap was also 14 months, with a range from 11 to 19 months. In South King County, the average gap was 13 months, with a range from 11 to 18 months.
- <sup>27</sup> Beginning in February 2017, the Urban team contacted respondents on a quarterly basis after baseline survey completion to maintain more regular communication and update contact information to improve survey responses when the respondents became eligible for the follow-up survey.

- <sup>28</sup> The Urban team and RSS also attempted other strategies to boost response rates, including increasing the incentive amount to \$30 for refusals, offering a \$10 "finder's fee" for family members that helped RSS survey fielders locate respondents, conducting address searches through online sources, and sending postcards by mail to unreachable respondents.
- <sup>29</sup> "About the Clearinghouse," National Student Clearinghouse, https://studentclearinghouse.org/about/.
- <sup>30</sup> A small subset of students did not have valid birthdates and could not be submitted to the NSC for matching.
- <sup>31</sup> The NSC's matching algorithm is proprietary, but it involves probabilistic matching that reportedly has a very high accuracy rate. Additional information about matching procedures and the interpretation of nonmatches appears in NSC (2017b).
- <sup>32</sup> This strategy leads to the possibility that treatment group members in one site could be matched with comparison group members in another site. While this could cause bias if unobserved site-specific differences are important, it has the advantage of allowing for a closer match between treatment and comparison group members.
- <sup>33</sup> A potential issue with the NSC data is that it might classify students taking reengagement high school courses in community college as enrolled in a postsecondary institution. This misclassification of college enrollment likely affects students in treatment and comparison groups and is potentially netted out when we estimate program effects.
- <sup>34</sup> When estimating within site effects, the analysis allows program participants to match with people in comparison groups from other sites. For example, an Opportunity Works participant in Philadelphia can be matched with a comparison group member from Hartford, if they share most baseline characteristics. As a robustness check, the research team estimated treatment effect restricting matches within the same site in appendix D. Overall, program effects were stronger (more positive) when constraining to within-site matching, but the matching quality was much worse, and therefore those results are not preferred and not presented as the primary results in this report.
- <sup>35</sup> The matching quality for the men of color is poorer than for the overall population (Pseudo-R<sup>2</sup> equals 0.18). Therefore, the estimated program effects for this group are suggestive rather than conclusive.
- <sup>36</sup> The NSC and the survey results for "any postsecondary" are both large and positive, but the magnitudes differ, with larger impact estimates based on data from the NSC (0.272 percentage points) relative to the survey (0.144 percentage points). This difference is expected because of nonresponse in the follow-up survey. If respondents to the follow-up survey were more stable or responsive, as suggested by the bias estimates in appendix A, then they might be expected to attend postsecondary school at higher rates than nonrespondents, regardless of program interventions. Therefore, it would be reasonable for the program's effect to be smaller for this group. Because the NSC results cover a near-census of participants in the study, those are the preferred findings for postsecondary enrollment/attendance.
- <sup>37</sup> The matching quality for the men of color is poorer than for the overall population (Pseudo-R<sup>2</sup> equals 0.177). Therefore, the estimated program effects for this group are suggestive rather than conclusive.
- <sup>38</sup> A student is defined as enrolled in college if he or she is enrolled for 30 days or more in a semester.
- <sup>39</sup> This analysis is exploratory because the matching between college enrollees in the treatment and comparison groups within is poor (Pseudo-R<sup>2</sup> equals 0.20)—primarily because of smaller sample size.
- <sup>40</sup> As a reference, the overall persistence rate for students starting out in fall 2015 in two-year colleges was 63 percent. It was 70 percent for full-time students, 57 percent for part-time students, and 58 percent for non-degree-seeking students (National Student Clearinghouse 2017)

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### **STATEMENT OF INDEPENDENCE**

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