BREAKING BARRIERS

Implementing Individual Placement and Support in a Workforce Setting

Lily Freedman
Sam Elkin
Megan Millenky

mdrc
BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

September 2019

Breaking Barriers

Implementing Individual Placement and Support in a Workforce Setting

Lily Freedman
Sam Elkin, MEF Associates
Megan Millenky

September 2019

mdrc
BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

"Breaking Barriers: Implementing Individual Placement and Support in a Workforce Setting" by Lily Freedman, Sam Elkin, Megan Millenky, MDRC is licensed under CC BY 4.0.

This report was funded with Federal funds under a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The content of this publication does not necessarily reflect the views of the policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply any endorsement of same by the U.S. government.

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

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

Overview

Breaking Barriers was a San Diego-based program that provided employment services to low-income individuals with a range of disabilities and conditions, using the Individual Placement and Support (IPS) approach. IPS focuses on rapid job search and placement alongside support services, based on the theory that employment is an integral part of rehabilitation, progress, and recovery. IPS was originally designed specifically for people with serious mental illness.

Breaking Barriers operated in four program locations from January 2016 through June 2018. Key services included career counseling to establish goals and interests, job search assistance, developing connections with local employers, personalized benefits counseling, referrals to supportive services, and follow-along support once placed in a job.

The current report presents findings from an evaluation of Breaking Barriers, which includes an implementation study, an impact analysis, and a cost study. The implementation study describes the intervention and provides contextual data to help interpret the results of the impact analysis. The cost study measures the costs of operating Breaking Barriers and how these costs compare with those of other services available in the community. The impact analysis employs a random assignment design: Individuals eligible for and interested in receiving Breaking Barriers services were assigned at random to a program group, which was offered Breaking Barriers services, or to a control group, which was referred to other publicly available supports. A total of 1,061 individuals enrolled in the study. Using survey data, the research team measured differences between the program and control groups on employment, earnings, public benefits, and health outcomes over a 15-month follow-up period.

Key Findings

- Breaking Barriers implemented services as intended and with fidelity to the IPS model.
- The characteristics of the Breaking Barriers study sample are somewhat different from those of the populations who most commonly receive IPS.
- There are no statistically significant differences between the program and control groups on the primary outcomes measured — employment, length of employment, and total earnings — during the follow-up period.
- The average cost per person of participating in Breaking Barriers over a 12-month period was $4,340 (in program year 2017 dollars), which is comparable to other IPS programs.

These results are a departure from the findings of other studies of IPS implementation. This may be in part due to the characteristics of the Breaking Barriers study sample. The program may have been better targeted to a group with higher needs that is less likely to find employment on their own. Future analyses of administrative records will help round out these findings.

Contents

List of Exhibits

Table

Figure

Box

Acknowledgments

The Breaking Barriers San Diego evaluation is made possible through the support of many individuals and organizations. It is funded by the U.S. Department of Labor's (DOL) Workforce Innovation Fund. The program was operated by the San Diego Workforce Partnership (SDWP), the Workforce Investment Board for San Diego County.

We are grateful to the SDWP leadership and staff members that participated in the evaluation and greatly appreciated their openness and dedication to the research process. They worked tirelessly to provide services to individuals in their communities, played a critical role in helping to recruit and enroll participants into the evaluation, made time in their busy schedules to participate in interviews, and provided us with essential data about study participants. In particular, we are grateful to Tanissha Harrell, Haley Stayton, Paul Dacanay, Lance Brandenberg, Vicki Brannock, and Nicole Murphy. We also thank the referral partners for their participation in interviews, including those from CalWORKs and the California Department of Rehabilitation.

This research would not have been possible without the work of many individuals at MDRC and MEF Associates, including Peter Baird, Christine Johnston, Mary Farrell, Kimberly Foley, and Hannah Wagner. Dan Bloom, Charles Michalopoulos, and Johanna Walter provided valuable feedback on report drafts. Galina Farberova and her team managed the random assignment system. Melissa Cummings coordinated the production of the report, and Abby Durgan and Jennifer Hausler assisted with fact-checking. Christopher Boland edited the report, and Ann Kottner prepared it for publication. We also thank the other staff members at MDRC not already mentioned who contributed greatly to the research effort, including Nicole Morris and Seth Muzzy.

We also thank Keisha Miles, David Tucker, and their team from the Temple University Institute for Survey Research for overseeing the follow-up survey fielding. In addition, Elizabeth Twamley provided valuable feedback on report drafts.

Finally, we are deeply appreciative of all the individuals who agreed to participate in the research. We send an extra thanks to those who answered our questions about their lives 15 months after study enrollment. Without them, this research would not have been possible.

The Authors

Executive Summary

Low-income adults with disabilities often struggle to find competitive and stable employment. Similarly, state and local agencies look to provide effective employment services to this population in a timely and cost-effective manner. Breaking Barriers was a San Diego-based program that provided employment services to low-income individuals with a range of disabilities and conditions in an effort to improve their employment outcomes. The Breaking Barriers program provided services using a form of supported employment — a vocational rehabilitation approach for individuals with disabilities — called Individual Placement and Support (IPS). This report presents findings from an evaluation of Breaking Barriers conducted by MDRC under a contract with the San Diego Workforce Partnership.

Supported employment focuses on rapid job search and placement alongside support services, based on the theory that employment is an integral part of rehabilitation, progress, and recovery. IPS is a well-known and well-tested type of supported employment, designed specifically for people with serious mental illness. IPS was developed for, and has largely been studied in, community mental health centers. Since its inception in the 1990s, there have been over 30 randomized controlled trials of IPS within and outside of the United States. Meta-analyses of these randomized controlled trials have found that IPS is more likely to result in competitive employment, the primary outcome of IPS, than the control condition being tested.[1] Across most of these randomized controlled trials, members of the study sample exclusively had a serious mental illness and most were not employed at the time of study enrollment. Among the studies of IPS in the United States, study sample members were often receiving Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), or both at the time of study enrollment.

There is limited research and evidence on the effectiveness of IPS for populations that have disabilities or conditions other than serious mental illness. Among the more promising studies include one of IPS for veterans with spinal cord injuries, which had positive employment results, but the sample size was small. In 2011, MDRC led a randomized controlled trial of Minnesota's FAST program in Ramsey County, which offered IPS services to Temporary Assistance for Needy Families (TANF) recipients with physical disabilities, mental disabilities (though not specifically serious mental illness), or both. The study found impacts on employment in the first and fourth quarters of follow-up; however, IPS services were also packaged along with access to medical and mental health support services, and the sample size was fairly small.

[1]Donald E. Frederick and Tyler J. VanderWeele, "Supported Employment: Meta-Analysis and Review of Randomized Controlled Trials of Individual Placement and Support," *PLoS ONE* 14, 2 (2019); Matthew Mordini, Leona Tan, Beate Brinchmann, Min-Jung Wang, Eoin Killackey, Nicholas Glozier, Arnstein Mykletun, and Samuel B. Harvey, "Supported Employment for People with Severe Mental Illness: Systematic Review and Meta-Analysis of the International Evidence," *The British Journal of Psychiatry* 209, 1 (2016): 14-22.

The evaluation of Breaking Barriers presents an opportunity to test the effectiveness of IPS within a broader population (individuals whose primary disability is not necessarily serious mental illness). The evaluation is also an opportunity to understand differences in delivering IPS services in a workforce setting, rather than the mental health center setting where IPS is more commonly implemented.

About Breaking Barriers and the IPS Model

The San Diego Workforce Partnership (SDWP), the Workforce Investment Board for San Diego County, was awarded funding in 2014 from the U.S. Department of Labor's Workforce Innovation Fund to operate Breaking Barriers.[2] The program operated and delivered IPS services to its clients from January 2016 through June 2018, at four program locations in the large and diverse San Diego County. To be eligible for the Breaking Barriers program, applicants needed to be at least 18 years old, be a San Diego County resident, have a self-identified disability, be low-income, be not working or working fewer hours than they wanted, and be a client of a qualified referral partner. (These partners include CalWORKs — California's TANF program — the California Department of Rehabilitation, or County Behavioral Health Services).

IPS is defined by eight key principles, listed below.[3] Adherence to these principles is measured through a well-developed fidelity tool, the IPS Supported Employment Fidelity Scale, which has been tested and widely used in IPS programs.[4]

1. There is a zero-exclusion policy. Every person who wants to participate is eligible.
2. Employment services are integrated with other essential supports (in most IPS programs, specifically with mental health supports).
3. Competitive employment is the main goal.
4. Participants receive comprehensive benefits counseling on how work and earnings interact with public benefits.
5. The job search starts as soon as a person expresses interest in work. There is no, or at least limited, "pre-vocational" training.
6. Employment specialists systematically develop relationships with employers and actively engage in job development.

[2]San Diego Workforce Partnership, "News" (2014), Website: https://workforce.org/news/press-release-6m-awarded-san-diego-workforce-partnership-through-workforce-innovation-fund.

[3]IPS Employment Center, "IPS Practice and Principles" (2017), Website: https://ipsworks.org/index.php/documents/ips-practice-and-principles.

[4]Deborah R. Becker, Sarah J. Swanson, Sandra L. Reese, Gary R. Bond, and Bethany M. McLeman, *Supported Employment Fidelity Review Manua*l (Lebanon, NH: IPS Employment Center, 2015). See Appendix E for more details on the scale.

7. Job supports are available as needed and are not time limited.

8. Client preferences regarding employment are important.

Breaking Barriers delivered various services and supports in adherence to the IPS model. Staff maintained small caseloads, which enabled them to provide clients with individualized support. They worked with clients to establish goals and interests, and provide help completing job applications and finding job opportunities. Staff developed connections with local employers to more effectively connect clients to potential jobs. The program also offered personalized benefits counseling to help participants understand how employment would affect their benefits and referrals to other programs for supportive services. Lastly, after a participant was placed in a job, staff members maintained contact with the participant to stay informed and address any of the participant's needs. These services are expected to lead to outcomes such as higher rates of employment, decreased reliance on TANF and other benefits, and a reduction of barriers to employment.

The Breaking Barriers Evaluation

MDRC, in partnership with MEF Associates, conducted the evaluation of the Breaking Barriers program. The evaluation consists of three main components: an implementation study, an impact analysis, and a cost study. The implementation study describes the intervention as it operates on the ground, identifies challenges, and provides contextual data to help interpret the results of the impact analysis.[5] The cost study focuses on understanding the costs of operating Breaking Barriers and how these costs compare with the costs of other services available in the community.[6]

The impact analysis employs a random assignment research design. Accordingly, individuals eligible for and interested in receiving Breaking Barriers services were assigned at random to a program group, which was offered IPS services through Breaking Barriers, or to a control group, which was not offered Breaking Barriers services, though group members had access to other publicly available services. Because random assignment is designed to result in two groups with similar observed and unobserved characteristics, differences in outcomes between the two groups indicate the effects of Breaking Barriers.

A total of 1,061 individuals were randomly assigned (528 to the program group, 533 to the control group) between January 2016 and early November 2017.[7] Data were collected through a participant follow-up survey, administered 15 months, on average, following random assignment, to measure any differences in outcomes that emerged across the two research groups.

---

[5]The implementation study drew on qualitative data collected through two rounds of site visits, program participation data from the Breaking Barriers management information system, data collected from a participant follow-up survey, and IPS fidelity reviews.

[6]Costs are based on financial summaries and invoices from the program.

[7]Veterans could not be included in the study — due to federal funding requirements — so all eligible veterans received Breaking Barriers services. They were not included in this analysis.

Key Findings

- **Breaking Barriers largely implemented services as intended and with fidelity to the IPS model. However, there was no integration with mental health services as in more traditional IPS programs.**

Information collected from interviews conducted during implementation site visits indicated that Breaking Barriers delivered a set of services that covered most key components of the IPS model. Data collected from the Breaking Barriers management information system confirmed that clients were engaged in the program: Nearly all program group members received at least initial employment services from Breaking Barriers.

IPS fidelity reviews, conducted by an IPS consultant at each job center four times during the study period, determined that the job centers delivered services with fidelity to the IPS model.[8] While fidelity scores varied, each job center received scores from the consultant's reviews that fell within ranges defined as "fair fidelity" or "good fidelity," showing that the program was successfully implementing the IPS employment model. However, because Breaking Barriers services were delivered in a workforce setting rather than a clinical one and its design did not involve clinical partners, the job centers could not receive perfect scores on items in the fidelity scale that focused on the IPS key principle of integration between employment and mental health services.

- **The characteristics — especially barriers to employment — of the Breaking Barriers study sample are somewhat different from the populations who most commonly receive IPS. These characteristics could have made the study sample more employable.**

Overall, the Breaking Barriers study sample is diverse in terms of age, gender, race or ethnicity, and other characteristics. While participants in the study reported a range of physical and mental disabilities at the time of enrollment, 63 percent of the sample reported having some type of mental health disorder, including disorders that would not have been considered serious mental illness. Although having a self-identified disability was an eligibility requirement for the program, the vast majority of study participants (83 percent) described their overall health as excellent, very good, or good.[9] Most study participants also had work experience: 42 percent had been employed in the past year, and 79 percent had been employed in the past five years. Only 22 percent of study participants were receiving SSI or SSDI benefits or both at baseline.

In contrast to Breaking Barriers, many prior studies of IPS had study samples that exclusively had serious mental illness. Relatedly, IPS is more traditionally implemented in a clinical setting, which is different from the workforce setting in which Breaking Barriers operated.

[8]These reviews used the approach developed by the Dartmouth Supported Employment Center for assessing the extent to which programs deliver services with fidelity to the IPS model. IPS fidelity reviews are scored on the 25-item Supported Employment Fidelity Scale.

[9]This measure is based on responses to the first question of the second version of the SF-12 questionnaire, a validated survey that measures physical and mental health through 12 questions directed toward the respondent.

Additionally, there is some indication that Breaking Barriers participants may have had a more substantial recent work history than sample members in other IPS studies. Study samples in other IPS studies also tended to have much higher rates of SSI and SSDI receipt than the Breaking Barriers sample had.

- **Program group members were somewhat more likely to have received a range of employment services than control group members during the follow-up period. However, a large proportion of the control group received at least some services.**

The program group was only somewhat more likely than the control group to have received any help finding or keeping a job (91 percent compared with 78 percent). The workforce setting of this intervention may have influenced the rate at which the control group found employment services. The service contrast was larger (differences ranged from 22 to 28 percentage points) for receipt of specific employment services such as help preparing a résumé and filling out job applications, preparing for job interviews, looking for jobs, and getting referrals to jobs — all key services offered through IPS. Program group members also participated in services related to finding or keeping a job for about one month longer, on average, than control group members did (five months versus four months). This could reflect the higher levels of follow-up and follow-along support services provided to program group members, which are key components of the IPS model.

Findings from the implementation research revealed that there are several other service providers that both program and control group members may have accessed for employment services and related resources, including those targeted to individuals with disabilities. However, there do not appear to have been any other supported employment programs in San Diego targeted at the same population as was Breaking Barriers.

- **There are no statistically significant differences between the program and control groups on the primary outcomes measured — employment, length of employment, and total earnings — during the follow-up period.**

As shown in Table ES.1, there are no statistically significant differences between the program and control groups' employment rates, length of employment, or total earnings over the 15-month follow-up period. Substantial portions of both research groups attained employment at some point during the follow-up period (74 percent of the program group and 71 percent of the control group). Breaking Barriers also did not have any significant impacts on public assistance receipt over the follow-up period, a secondary outcome. There are also no statistically significant differences in self-reported overall health, with about two-thirds of both research groups reporting they were in good health around the time of the follow-up survey. Measures of depression and mental and physical health status using validated scales (not shown) were also similar for both research groups.

Table ES.1

Impacts on Key Outcomes During the 15-Month Follow-Up Period

Outcome	Program Group	Control Group	Difference	P-Value
Ever employed (%)	73.8	70.7	3.1	0.368
Total earnings ($)	11,335.8	10,972.9	362.9	0.762
Months employed	6.7	6.2	0.4	0.352
Household received public assistance (%)				
SSI and/or SSDI	35.7	37.6	-1.9	0.517
Welfare or CalWorks (TANF)	28.9	29.7	-0.7	0.815
Unemployment insurance	6.7	6.0	0.7	0.740
Housing choice voucher	10.5	13.5	-3.0	0.247
Food stamps	52.7	52.5	0.2	0.949
Child support	12.1	12.4	-0.3	0.932
Self-reported overall health[a] (%)				
Excellent, very good, good	67.7	66.2	1.6	0.646
Fair	23.8	25.0	-1.2	0.715
Poor	8.5	8.9	-0.4	0.865
Sample size (total = 657)	333	324		

SOURCE: MDRC calculations based on data from the follow-up survey.

NOTES: SSI = Supplemental Security Income; SSDI = Social Security Disability Insurance; TANF = Temporary Assistance for Needy Families.

Results in this table are regression-adjusted, controlling for pre-random assignment characteristics. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

[a]As measured by question 1 in the second version of the SF-12 questionnaire.

These results diverge from prior research on IPS. In other studies, the differences in the research groups' employment rates are greater, and the control group employment rates are much lower. These differences may be in part due to the characteristics of the study sample, including their recent employment history, relatively low levels of SSI and SSDI receipt, and overall good health, on average.

- **The average cost per person of participating in Breaking Barriers over a 12-month period was $4,340 (in program year 2017 dollars). This cost is comparable to other IPS programs.**

During 2017, the second year in which Breaking Barriers operated, the program cost on average was $4,340 per person. This number is based on the average number of months (8.3) in which study participants received services in the year following random assignment. The estimated costs of Breaking Barriers are within the range of estimated costs of other IPS programs.

As program group members also received services from providers other than Breaking Barriers over the study period, the estimated total cost of employment services that the program group received is somewhat higher than the cost per person of Breaking Barriers. When compared

with the estimated cost of services that the control group received, the net cost of program group services is $3,750.

Conclusion

Breaking Barriers appears to have implemented the IPS program model well. While the workforce setting limited involvement with clinical partners, the IPS fidelity assessments and implementation research suggest that Breaking Barriers largely implemented services as intended and with fidelity to the IPS model. Program staff appropriately delivered many of IPS's core employment services. Further, most program members received a variety of employment services, and assignment to the program group had a positive impact on the receipt of many such services. However, substantial but smaller percentages of the control group also accessed other employment services through other programs operating in the area.

Unlike many previous IPS studies, there were no differences between the program and control groups on any employment outcomes over the 15-month follow-up period, and no pattern of differences on health and household outcomes. This may be in part due to the characteristics of the study sample, including their previous employment history, their receipt of public benefits, their health, and the workforce setting of the program implementation. In the absence of access to Breaking Barriers services, control group members did find other employment services and were able to find employment in the follow-up period at a very high rate (71 percent). This makes it harder to detect statistically significant differences between the research groups. It also raises the question about whether it is better to target the program to a higher-needs population that is less likely to find employment on its own.

While there is no evidence from the current evaluation that Breaking Barriers led to increased employment rates, future analyses using administrative records that include the full study sample will help round out the findings presented here. A survey response bias analysis suggests that results in this report are likely to be valid for individuals who were asked to respond to the survey, but that survey respondents' baseline characteristics differ from those of other sample members. Examining administrative records data in the future will provide information on whether the current results likely apply to the full study sample. In addition, the survey questions counted on the memory of the individuals interviewed regarding their employment history, participation in employment and other services, and benefit receipt. Administrative records — without these limitations — may provide a fuller picture of the effects of the Breaking Barriers program. These data will include employment and earnings captured through the National Directory of New Hires, receipt of public benefits within San Diego County, and additional information on service receipt.

Chapter 1

Introduction and Study Overview

Low-income adults with disabilities often struggle to find competitive and stable employment. Similarly, state and local agencies look to provide effective employment services to this population in a timely and cost-effective manner. The 2018 rates of unemployment — calculated as those people who did not have a job, were available to work, and looked for employment in the preceding month — illustrate this issue. Specifically, the unemployment rate among people with a disability was 8 percent, more than twice the unemployment rate among people without a disability.[1] The San Diego-based program Breaking Barriers provided employment services to people with a range of disabilities in an effort to improve employment outcomes for this population. This report presents findings from an evaluation of the Breaking Barriers program.

Supported employment is a vocational rehabilitation approach for individuals with disabilities. The approach focuses on rapid job search and placement alongside support services, based on the theory that employment is an integral part of rehabilitation, progress, and recovery. Supported employment, often referred to as a "place then train" approach, differs from traditional vocational rehabilitation models where job training occurs before placement — a "train then place" approach.[2] Individual Placement and Support (IPS) is a well-known and well-tested form of supported employment, designed specifically for people with serious mental illness.[3]

IPS originated in the United States in the 1990s.[4] Since then, there have been over 30 randomized controlled trials of the model within and outside of the United States. Meta-analyses of these studies have found that IPS is more likely to result in competitive employment, the primary outcome of IPS, than the control condition being tested.[5] Competitive employment is typically defined as employment in a job paying at least the minimum wage and found in the competitive labor market.[6] Across most of these randomized trials, members of the study sample exclusively had serious mental illness and most were not employed at the time of study enrollment. Additionally, IPS was developed for, and has largely been studied in, community mental health centers. Community mental health centers were developed as a community-based, rather than hospital-based, service for people with serious and persistent mental illness. Services can include day centers, clinical and primary health care, supportive housing, and various support groups.[7] These centers are funded by states, federal grants, and Medicaid dollars.[8] Among the studies of IPS in the United States, study sample members were often receiving Supplemental

[1]U.S. Bureau of Labor Statistics (2019).

[2]Modini et al. (2016).

[3]The term "severe mental illness" is sometimes used as well.

[4] Modini et al. (2016).

[5]Frederick and VanderWeele (2019); Modini et al. (2016).

[6]Bond, Drake, and Pogue (2019).

[7]American Planning Association (n.d.).

[8]National Council for Behavioral Health (n.d.).

Security Income (SSI), Social Security Disability Insurance (SSDI), or both at the time of study enrollment.

There is limited research and evidence on the effectiveness of IPS for populations that have disabilities or conditions other than serious mental illness. A 2019 review of studies of IPS for populations with disabilities *other* than serious mental illness — including other psychiatric disorders, substance use disorders, and musculoskeletal and neurological disorders — concluded that IPS is promising in its effectiveness for some of these groups. However, the only group for whom there has been evidence of the approach is veterans with post-traumatic stress disorder.[9] While there are many examples of the expansion of IPS to populations that do not have serious mental illness, many studies do not provide a rigorous test of IPS for one or more of the following reasons: the programs had low fidelity to the IPS model or fidelity could not be assessed, the sample size was small, or IPS was being tested in conjunction with other services.[10]

Among the more promising studies include a study of IPS for veterans with spinal cord injuries, which had positive employment results, but the sample size was small.[11] In 2011, MDRC led a randomized controlled trial of Minnesota's FAST program in Ramsey County, which offered IPS services to Temporary Assistance to Needy Families (TANF) recipients with physical disabilities, mental disabilities (though not specifically serious mental illness), or both. The study found impacts on competitive employment in the first and fourth quarters of follow-up; however, IPS services were also packaged along with other supports and services, and the sample size was fairly small.[12]

The evaluation of Breaking Barriers presents an opportunity to test the effectiveness of IPS with a broader population (individuals whose primary disability is not necessarily serious mental illness). Breaking Barriers was an IPS program run by the San Diego Workforce Partnership that targeted TANF recipients and other low-income individuals with a range of self-identified mental or physical disabilities or both. The evaluation is also an opportunity to understand differences in delivering IPS services in a workforce setting, rather than the mental health center setting more commonly found in IPS implementation.

Breaking Barriers and the IPS Model

The San Diego Workforce Partnership (SDWP), the Workforce Investment Board for San Diego County, was awarded a grant in 2014 from the U.S. Department of Labor's Workforce Innovation Fund to operate Breaking Barriers.[13] The program operated and delivered IPS services to its

[9]Bond, Drake, and Pogue (2019).

[10]Bond, Drake, and Pogue (2019).

[11]Ottomanelli, Barnett, and Goetz (2014).

[12] Farrell et al. (2013).

[13] San Diego Workforce Partnership (2014).

clients from January 2016 through June 2018, at the four America's Job Centers of California, referred to as job centers through the report, in the large and diverse San Diego County.

See Box 1.1 for the guiding principles of the IPS model. Adherence to these principles is measured through a well-developed fidelity tool, the IPS Supported Employment Fidelity Scale, which has been tested and widely used in IPS programs.[14] IPS programs are encouraged to undergo a fidelity review every year by a trained assessor, who uses the tool to measure the program's fidelity to the model. The tool defines the critical ingredients of IPS in order to differentiate between programs that have fully implemented the model and adhere to its key principles, and those that have not. Research has shown that higher fidelity IPS programs achieve greater employment outcomes than lower fidelity programs.[15]

As shown in Figure 1.1, key IPS services and components provided through Breaking Barriers include the following:

- **Small caseload size.** Employment specialists, the primary staff members who deliver IPS services, maintained small caseloads, allowing participants to receive more individualized help.
- **Career counseling.** Staff members worked with participants to establish career goals and job interests, and to discuss factors that may affect employment.
- **Job search assistance.** Participants received help completing job applications, finding job opportunities, and connecting with job search resources; in many cases, employment specialists accompanied participants to meet employers.
- **Job development.** Staff members developed connections with local employers, helped participants reach out to employers, and talked to employers about particular clients.
- **Personalized benefits counseling.** Staff members spoke with participants about how employment would affect their benefits and referred them to other organizations for more assistance.
- **Supportive services.** Staff members connected participants to other programs for supportive services such as access to clothing, transportation, or child care during the job search.
- **Follow-along services.** After a participant was placed in a job, staff members maintained contact with the participant to stay informed and address any of the participant's needs.

[14]Becker et al. (2015). See Appendix E for more details on the scale.

[15]Kim et al. (2015).

Box 1.1

Key Principles of Individual Placement and Support

Individual Placement and Support (IPS) is defined by the following eight key principles:

1. There is a zero-exclusion policy: Every person who wants to participate is eligible.
2. Employment services are integrated with other essential supports (in most IPS programs, specifically with mental health supports).
3. Competitive employment is the main goal.
4. Participants receive comprehensive benefits counseling on how work and earnings interact with public benefits.
5. The job search starts as soon as a person expresses interest in work. There is no, or at least limited, "pre-vocational" training.
6. Employment specialists systematically develop relationships with employers and actively engage in job development.
7. Job supports are available as needed and are not time limited.
8. Client preferences regarding employment preferences are important.

SOURCE: IPS Employment Center (2017).

Box 1.2 presents the experience of a Breaking Barriers client to illustrate these services and components. Chapter 3 describes Breaking Barriers program services and the implementation of them in further detail.

These services are expected to lead to outputs such as participants receiving career and benefits counseling, being engaged in the job search, having access to greater employment opportunities, meeting with potential employers, and finding suitable employment. Expected outcomes of the program are higher rates of employment, reduction of barriers to employment, and therewith decreased reliance on TANF and other benefits.

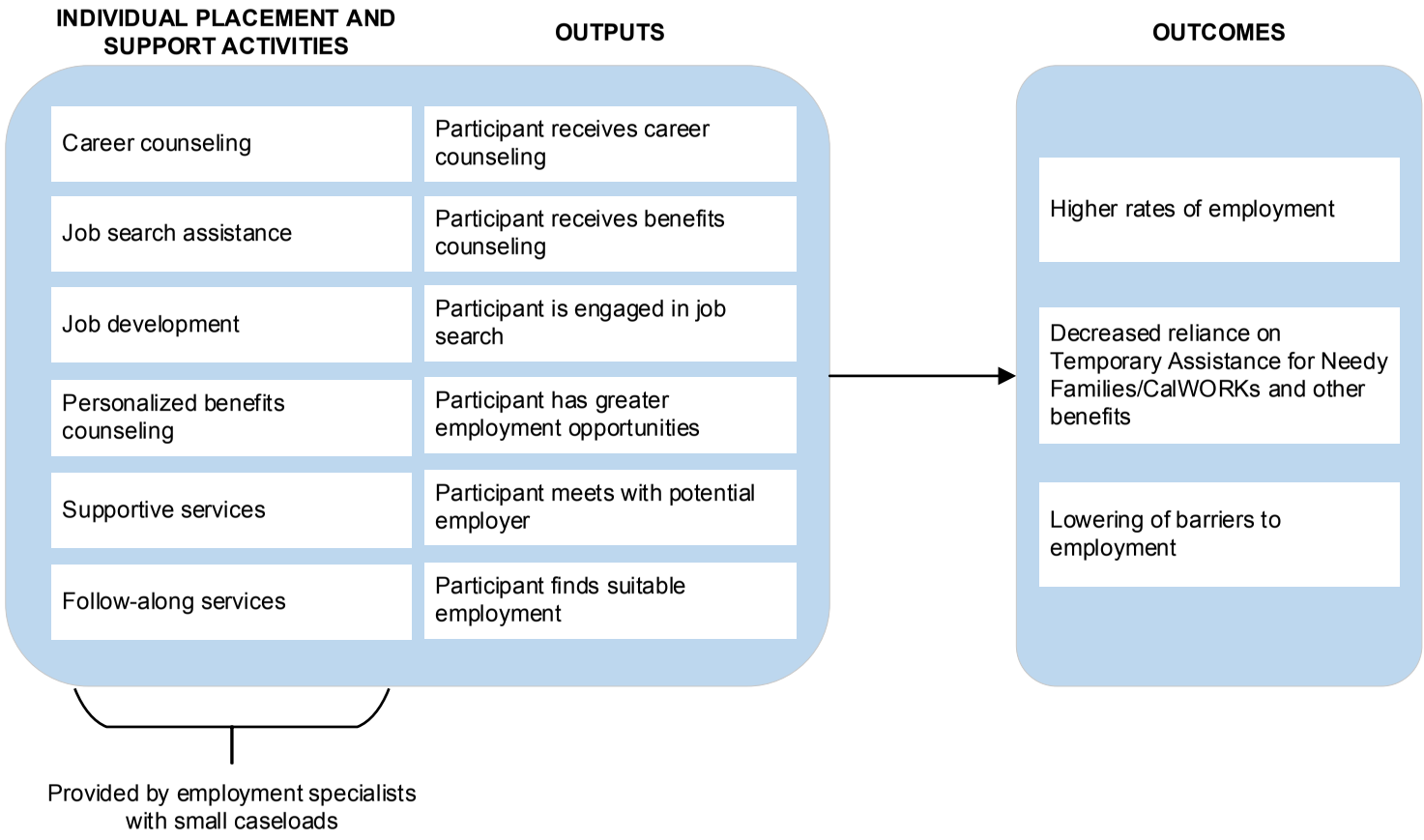
The Breaking Barriers Evaluation

MDRC, in partnership with MEF Associates, conducted the evaluation of the Breaking Barriers program; an evaluation was a requirement of the funding that SDWP received. The Breaking Barriers program and evaluation drew on the promising findings from the study of Minnesota's FAST program in Ramsey County.[16] The evaluation consists of three main components: an

[16]Farrell et al. (2013).

Figure 1.1

Logic Model for San Diego Workforce Partnership's Breaking Barriers San Diego



Box 1.2

A Client's Experience with Breaking Barriers

While the experiences of Breaking Barriers clients differ, the following semi-fictional vignette illustrates the services offered by the program. It draws from stories shared by program staff and clients but does not represent a specific, actual client. The name used is not that of real person.

Rebecca was receiving counseling services and was referred to Breaking Barriers by her counselor. Rebecca experienced depression and also had a physical injury that interfered with her ability to do certain types of work. She qualified to participate in Breaking Barriers as a recipient of CalWORKs (California's TANF program) benefits.

During her first few meetings with her assigned Breaking Barriers employment specialist, which usually took place at a coffee shop near Rebecca's home, the specialist asked her the types of jobs she was interested in, her long-term goals, and her strengths and weaknesses. They discussed the benefits she was receiving and how they would be affected by work. The employment specialist used information gathered during these early meetings to complete a "career profile" and to develop a job search plan with Rebecca. The specialist then helped Rebecca to update and improve her resume.

The specialist then helped Rebecca with her job search. The employment specialist helped her put her resume on an online database, alerted her to openings he had learned about that were related to her interests, and went with Rebecca to job fairs where he helped her talk to employers. As part of job development, the specialist looked for jobs that would interest Rebecca and talked to employers to figure out if their job openings might be a good fit for her. He facilitated meetings when they were good fits. At the same time, the specialist encouraged Rebecca to network, to look for jobs on her own, and to have face-to-face meetings with employers to learn about the types of positions they might have available. During the process, the employment specialist continued to discuss the types of jobs Rebecca was interested in, which changed somewhat over the course of her job search. Rebecca especially appreciated how the employment specialist helped motivate her in general to look for a job. The specialist frequently told her, "don't worry, we'll find something," which kept Rebecca positive throughout the process.

Rebecca submitted a number of applications and had several interviews, many of which the specialist accompanied her to. Rebecca soon found a job at a restaurant but did not enjoy it; she found aspects of it difficult because of her injury. She continued working with the employment specialist to look for another job, focusing on different types of jobs. She soon found another job in a retail setting that she liked better. She needed work clothes for that job, and, while her specialist could not provide them, he helped her find another service that could. Her specialist also helped her understand how to report earnings to CalWORKs, though she eventually chose not to continue with that program. She continues to talk with her specialist every two weeks, usually by phone. He helps her figure out how to deal with situations that come up at work. While she is not interested in looking for another job at the moment, he reminds her that he is available to help if she chooses to do so later. Overall, Rebecca is happy with the amount of time and attention she received from her employment specialist.

implementation study, an impact analysis, and a cost study. The implementation study describes the intervention as it operates on the ground, identifies challenges, and provides contextual data to help interpret the results of the impact analysis. The cost study focuses on understanding the costs of operating Breaking Barriers and how these costs compare with the costs of other services available in the community.

The impact analysis employs a random assignment design. Accordingly, individuals eligible for and interested in receiving Breaking Barriers services were assigned at random to a program group, which was offered IPS services through Breaking Barriers, or to a control group, which were not offered Breaking Barriers services, though members had access to other publicly available services. Because random assignment is designed to result in two groups with similar observed and unobserved characteristics, statistically significant differences in outcomes between the two groups can be attributed to Breaking Barriers. The "intent-to-treat" design includes all sample members in each research group in the analysis, regardless of whether they received Breaking Barriers services or other services, and compares outcomes between the two groups.

A total of 1,061 individuals were randomly assigned (528 to the program group, 533 to the control group) between January 2016 and early November 2017.[17] Data were collected on program and control group outcomes 15 months, on average, following random assignment, to measure any differences in outcomes that emerged across the two research groups. Appendix A provides more detail on the analysis model used to measure these differences.

Data Sources

The analyses in this report draw on the following data sources:

- **Implementation site visit interviews**. The research team made two rounds of site visits to hold interviews with SDWP staff, job center staff at all four San Diego locations, and referral partners at other public agencies. These visits occurred in October 2016 and October 2017, during the study period.
- **IPS fidelity assessments.** An outside IPS consultant conducted four rounds of fidelity assessments for each of the four Breaking Barriers program sites during the period of program operation. Findings from these assessments were used to support the implementation study and assess Breaking Barriers' adherence to the IPS model.
- **Breaking Barriers management information system (MIS).** An MIS was developed specifically for the Breaking Barriers program. The MIS was used to collect baseline demographic and background information on study participants before study enrollment and track program group members' participation in Breaking Barriers services.

[17]Veterans could not be included in the study — due to federal funding requirements — so all eligible veterans received Breaking Barriers services. They were not included in this analysis.

- **Fifteen-month follow-up survey.** A follow-up survey was fielded to study participants, on average, 15 months following enrollment in the study. The information collected in this survey is used to measure impacts on service receipt, employment, public benefits receipt, and physical and mental health status, and to understand program group members' satisfaction with Breaking Barriers. About 6 percent of the full study sample was not fielded the survey due to limited English-speaking abilities. The response rate among the fielded sample was 66 percent (68 percent among the program group and 65 percent among the control group). A survey response bias analysis, detailed in Appendix B, suggests that results in this report are likely to be valid for individuals who were asked to respond to the survey. However, survey respondents have different baseline characteristics than other sample members, which may mean the results do not apply to the full sample.

- **Program cost data.** SDWP provided the research team with a financial summary of its relevant activities and invoices from the job centers related to Breaking Barriers program activities.

In 2018, Breaking Barriers was selected as a research site for another MDRC-led study — Building Evidence on Employment Strategies for Low-Income Families (BEES). The BEES project is funded by the Administration for Children and Families within the U.S. Department of Health and Human Services. BEES will be evaluating the effectiveness of programs that offer employment services to low-income individuals, including Breaking Barriers. With funding from BEES, MDRC will collect administrative records on Breaking Barriers study participants, which will include additional information on study outcomes and service receipt. Results based on these administrative records will be presented in a later report.

Key Findings and Report Overview

The remainder of this report presents findings from the implementation, impact, and cost analyses. Key findings include the following:

- Breaking Barriers largely implemented services as intended and with fidelity to the IPS model. However, there was no integration with mental health services as in more traditional IPS programs.

- The characteristics — especially barriers to employment — of the Breaking Barriers study sample are somewhat different than the populations who most commonly receive IPS. The workforce setting is different than the traditional clinical setting for program implementation.

- The program group was somewhat more likely to have received a range of employment services than the control group during the follow-up period. However, the control group did receive services as well.

- There are no statistically significant differences between the program and control groups on the primary outcomes measured — employment, length of employment, and total earnings — during the follow-up period.
- The average cost per person of participating in Breaking Barriers over a 12-month period was $4,340 (in program year 2017 dollars).

The remainder of the report discusses these findings in detail. Specifically, Chapter 2 discusses study recruitment processes and program administration and presents baseline characteristics of the study sample. Chapter 3 presents findings from the implementation study, including an overview of service delivery, program participation, results from the IPS fidelity assessments, alternative services, and service contrast. Chapter 4 presents 15-month impact findings on employment, income, household, and health outcomes. Chapter 5 provides an overview of the cost analysis and its findings. A concluding chapter summarizes the evaluation's findings, how it relates to other existing IPS literature, and the plans for future analyses.

Chapter 2

Program Administration, Recruitment, and the Study Sample

The San Diego Workforce Partnership (SDWP) designed Breaking Barriers to serve low-income individuals with a range of disabilities. This chapter describes factors of Breaking Barriers' implementation that affected the study sample that enrolled and the population that the program served, based on findings from the implementation site visit interviews. These factors include the context and characteristics of San Diego County, basic elements of how the program was administered, the program's eligibility rules, and its recruitment and enrollment processes. Finally, the chapter presents descriptive statistics on the study sample, drawn from baseline information gathered by program staff at the time of enrollment.

Local Site Context

San Diego County is the fifth most populated county in the United States. The county also boasts great diversity with a higher than average Hispanic population (34 percent, compared with 18 percent nationwide) and Asian population (13 percent, compared with 6 percent nationwide), as well as a higher than average foreign-born population (24 percent, compared with 13 percent nationwide).[1] Economically, the county's unemployment rate was somewhat lower than the national unemployment rate during the period that Breaking Barriers operated.[2] However, at 11.9 percent, the county's poverty rate was close to the national average of 12.3 percent.[3] Through 2016, San Diego County followed California's minimum wage ($10 per hour in 2016 and $10.50 per hour in 2017). However, starting in July 2016, the minimum wage in the city of San Diego was set at a higher level than the rest of the county ($10.50 per hour in 2016 and $11.50 per hour in 2017).

In overseeing workforce services in the county, SDWP divides the county into four distinct regions: Metro, South, North, and East. Breaking Barriers operated out of four job centers (or, centers that provide job search assistance and other workforce services), one located in each of those regions. The areas differ demographically and economically in the following ways:

- *Metro:* The job center in this region providing Breaking Barriers services was in the city of San Diego and covers much of the county's downtown area. The city's demographic characteristics are fairly similar to the county as a whole, though it has a slightly higher poverty rate (14.5 percent).[4] Staff members at

[1] U.S. Census Bureau (n.d.).

[2] San Diego's unemployment rate averaged 4.7 percent in 2016, 4.0 percent in 2017, and 3.3 percent in 2018. These rates can be compared with national rates of 4.9 percent, 4.4 percent, and 3.9 percent, respectively. U.S. Bureau of Labor Statistics (n.d.a).

[3] U.S. Census Bureau (n.d.).

[4] U.S. Census Bureau (n.d.).

this job center described variation among different parts of the Metro region; they characterized the low-skill labor market as strong but said that there was more competition for jobs among the more highly educated.

- *South:* The job center providing Breaking Barriers services in the South region was in the city of Chula Vista, which is close to the border with Mexico. A greater proportion of the population in Chula Vista is Hispanic or Latino compared with the county as a whole (60 percent), and a higher percentage is foreign born (32 percent). While its poverty rate (12.3 percent) is very close to that of the county, interviewees described the region as having areas of high poverty.[5] Staff members noted that the job center serves a fair number of people who only speak Spanish.
- *North.* The North region is known for having some very expensive, higher-income areas; however, it also contains areas that are socioeconomically more disadvantaged. The job center providing Breaking Barriers services was in the city of Oceanside, whose demographic and economic characteristics are relatively similar to the county as a whole.
- *East.* The job center in the East region providing Breaking Barriers services was in the city of El Cajon. A larger portion of El Cajon's population is foreign born compared with the county as a whole (30 percent). Staff members interviewed during the implementation site visits noted that the East region is a multicultural area with large Iranian, Chaldean, and Arab populations, including many refugees. El Cajon's poverty rate is substantially higher than the other areas (23 percent). However, job center staff said the area had a good labor market.

The industries in the area employing the most people in San Diego County in 2017 include the government, professional and business services, education and health services, leisure and hospitality, and retail trade.[6] Staff members interviewed during the implementation site visits mentioned hospitality, construction, janitorial services, and retail among the industries where they had placed clients.

Program Administration and Staffing

SDWP oversaw Breaking Barriers and contracted out for service delivery to four job centers. The job centers are entities funded by SDWP to offer a range of services to job seekers in one

[5] U.S. Census Bureau (n.d.).

[6] This measure is based on data from the Bureau of Labor Statistics' Current Employment Statistics and the San Diego-Carlsbad Metropolitan Statistical Area, which consists of San Diego County. U.S. Bureau of Labor Statistics (n.d.b.).

location.[7] In three of San Diego County's regions, the centers are run by nationwide private sector providers of health and human services that operate job centers throughout the country; centers in the fourth region are operated by a local school district.[8]

SDWP was responsible for developing the program design and procedures, developing and maintaining the management information system (MIS), monitoring the job centers, contracting with the Individual Placement and Support (IPS) consultant who provided training on the model and conducted fidelity reviews, working with the evaluation team, and reviewing hiring decisions. It also contributed to outreach efforts to referral partners. The job centers were responsible for hiring Breaking Barriers staff members (employment specialists who handled most of the program's cases and their supervisors); recruitment, intake, and enrollment (including random assignment) of clients; providing services; and data entry in the MIS.

When fully staffed, the number of full-time Breaking Barriers staff members ranged from two at one job center to five at another (including both employment specialists and their supervisors). The difference reflected the expected number of clients at each center and an expected caseload of no more than 20 active clients per staff member. While SDWP gave hiring guidelines to the job centers and reviewed their choices, the job centers made the hiring decisions for program staff. Managerial staff interviewed at each job center emphasized different aspects of staff members' backgrounds that had played a role in whom they hired. Consequently, the employment specialists hired across the four job centers differed broadly in their backgrounds. For example, one job center hired a former therapist; two hired individuals with background in case management in workforce or social service settings, and two hired individuals based on their experience with job development. All four hired at least one individual with a background in working with people with mental health issues or developmental disabilities or who had experience with IPS.

Early in the implementation period, there were challenges due to staffing turnover at SDWP during the design period and delays in arranging agreements with consultants and referral partners, including the County of San Diego. The most notable early challenges involved difficulties establishing initial relationships with referral agencies. They included difficulties in getting referral agencies to understand the program model; concern about potential overlap (the California Department of Rehabilitation uses vendors that offer versions of what they call "supported employment," though they differ from Breaking Barriers in their target populations or in the nature of their services); difficulties in getting the CalWORKs (California's TANF program) employment services line staff, who could make referrals, to understand how the program could help them reach their employment-related performance targets; and challenges arising from previous SDWP initiatives.

[7]These include services funded by the Workforce Innovation and Opportunities Act, which is administered by the U.S. Department of Labor.

[8]During the time of the evaluation, KRA Corporation operated the job center in the Metro region; ResCare, Inc. operated the job centers in the North and South regions; and the Grossmont Union High School District operated the job center in the East region.

The initial staff hired were trained on the IPS model, evaluation procedures, procedures required by SDWP (including the MIS), and the job center's own internal trainings. As noted in Chapter 1, SDWP contracted with an IPS consultant to conduct the training on the model. She then held weekly group calls with staff members to reinforce lessons, discuss experiences with early cases, and allow them to raise any questions they had. The calls ended once she felt that the staff members did not need them anymore, but she remained available to provide help as needed afterward.

Staff hired later were trained by managers and supervisors and through shadowing the existing or outgoing employees. At some job centers, additional training opportunities existed during the program period, including on topics such as mental health, conflict resolution, and working with individuals with disabilities. There was a substantial amount of staff turnover; for example, only about one-third of the employment specialists and supervisors hired when the program was launched were still at the job centers a year and half later. Neither staff at SDWP and the job centers nor the IPS consultant characterized this level of turnover as unusually high relative to similar programs with which they had worked. However, the time it took to replace staff members was sometimes an issue, in part due to job center hiring procedures. Staff members interviewed said that some clients who did not want to work with anyone new left the program, and that some others received fewer services for a period of time before a new staff member began working with them.

While the employment specialists' caseloads varied across job centers and different points in time, Breaking Barriers staff were overall able to maintain caseloads at levels consistent with or close to consistent with the IPS fidelity guidelines. Employment specialists typically had between 9 and 19 active cases, though in one job center a specialist's caseload got as high as 27 cases.

Program Eligibility

To be eligible for the Breaking Barriers program, applicants needed to meet the following requirements:

- Be at least 18 years old
- Be a San Diego County resident
- Have a self-identified disability
- Be low income
- Not be working or underemployed
- Be a client of one of the following qualified referral partners: (1) CalWORKs, (2) the California Department of Rehabilitation, or (3) the San Diego County Behavioral Health Services

While "low income" was cited as an eligibility criterion, interviews with staff revealed that at least some of the job centers applied the criterion using a threshold higher than what SDWP uses in its Workforce Innovation and Opportunity Act Programs (70 percent of the Lower Living Standard Income Level).[9] Further, the way the program applied this threshold changed over time. Originally, it was applied to household income, but program staff encountered logistical difficulties in verifying income for household members other than the applicant, especially in cases of individuals temporarily staying with friends or living in halfway houses. SDWP therefore allowed the job centers to apply the criteria to individuals instead, using the threshold for one-person households. As a result, it is possible that some individuals enrolled are from households with household incomes above what would be considered low income.

Another change to the application of eligibility rules over the course of study intake related to the criterion that enrollees must be a client of a qualified referral partner. For much of the duration of program enrollment, SDWP required that enrollees have an official referral from one of these sources. Later in the enrollment period, SDWP expanded the criterion to allow enrollment of individuals referred by other sources, so long as they also participated in one of the qualified programs.

Recruitment

Breaking Barriers staff used a variety of methods to recruit program participants that largely centered on the referral partners identified in the eligibility criteria, but also included outreach to other potential referral sources and internal referrals within the job centers. As noted in the previous section, the eligibility rules limited enrollment in Breaking Barriers to participants of three qualified referral partners.

Figure 2.1 shows the referrals of the study sample by source. Each of these referral sources is discussed in more detail below.

CalWORKs

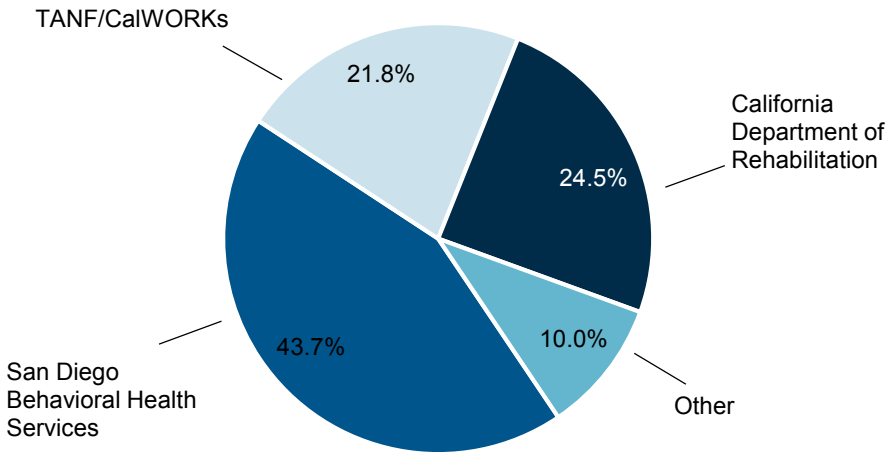
CalWORKs is California's TANF program. In San Diego County, individuals apply online or in person at the county's Family Resource Centers. Individuals receiving cash assistance through CalWORKs are required to participate in work activities unless exempted. The county provides work activities through two contractors.[10] Their employment case managers provide

[9]Some job center staff members said that they were applying a threshold of approximately $30,000 for individuals.

[10]Contractors during the time of the evaluation were Public Consulting Group and ResCare, Inc.

Figure 2.1

Referral Organization



SOURCE: Calculations based on data from the Breaking Barriers program management information system.

NOTE: TANF = Temporary Assistance for Needy Families.

work-related case management services to participants. Disability can be grounds for an exemption from work requirements.

According to baseline data collected at the time of enrollment, CalWORKs accounted for 22 percent of referrals. This share was a smaller one than originally intended in launching Breaking Barriers; the initial vision of Breaking Barriers was that it would primarily serve TANF recipients. However, recruitment from CalWORKs presented challenges throughout the enrollment period. Breaking Barriers staff looked for ways to obtain referrals of both CalWORKs recipients exempt from work requirements due to disability, and those not exempt from work requirements but who may nonetheless have had a disability (perhaps unidentified). While Breaking Barriers staff made various attempts to find ways to connect to the exempt recipients (for example, onsite recruitment at the Family Resource Centers where individuals apply for benefits), doing so never proved as effective as hoped because this group did not interact as much with staff members who could refer them to the program. They had more success in getting referrals from the employment case managers who worked with individuals who were not exempt from work requirements, as the case managers worked with the individuals more regularly and since the work requirements created incentives for the individuals to participate in activities such as Breaking Barriers that could help them find work. Since those case managers did not work with individuals with exemptions, they only had a limited number of individuals with identified disabilities they had on their caseloads. However, they had other individuals on their caseloads facing barriers or exhibiting

behaviors that suggested unidentified disabilities or whose disabilities might become evident through assessments used by the contractors, and the case managers would tell them about Breaking Barriers. To be referred, the individual would either have to disclose their disability or have the disability be otherwise identified.

Ultimately, steady referrals depended on the employment case managers. But at early stages, there were difficulties in helping the CalWORKs contractors understand the referral process and eligibility rules (for example, that disclosing one's disability was sufficient). The case managers did not initially understand Breaking Barriers or how it could help them meet their goals of engaging participants in work activities, and high turnover in those positions made it difficult to sustain that understanding. Further, Breaking Barriers staff took various steps to try to increase CalWORKs referrals, including regular meetings with the CalWORKs contractors to try to promote referrals, both at the managerial and individual staff level, and having employment specialists periodically recruit onsite at the contractors providing employment services.

Department of Rehabilitation

The Department of Rehabilitation (DOR) is California's agency for providing vocational rehabilitation services. Services they provide include vocational counseling, guidance, help with job search, and access to vendors who provide a variety of services to help people with disabilities succeed as employees. Examples of services the vendors provide include help with transportation; work or interview clothes; child care; and access to training, tools, and assistive technologies. There are five DOR offices in San Diego County. In addition, DOR had representatives onsite at each job center for at least a few hours each week. DOR accounted for 25 percent of referrals to Breaking Barriers.

DOR staff interviewed during the implementation study site visits said that they found referrals to Breaking Barriers useful since the program could help their clients obtain successful employment outcomes. They thought their clients who needed more hand holding were those who might be the best fits for Breaking Barriers' one-on-one approach. Relationships between Breaking Barriers staff and DOR were facilitated by the onsite DOR representatives at the job centers.

Behavioral Health Services

Behavioral Health Services (BHS) is a San Diego County program that provides mental health and substance use disorder-related services. The program operates through a network of contractors and county-operated facilities, including fee-for-service providers. However, fees are reduced or waived based on ability to pay. SDWP approved a subset of BHS providers to serve as qualified referral sources for Breaking Barriers. They updated and expanded that list partway through the enrollment period. Examples of BHS contractors include Mental Health Systems (a nonprofit provider of mental health and substance use services), McAlister Institute (a recovery program), and the Mid-Coast Regional Recovery Center (a court-ordered treatment program for clients from jail or in rehabilitation). BHS accounted for almost half (44 percent) of referrals.

Other Referral Sources

Although individuals had to be clients of one of the qualified referral partners to enroll in Breaking Barriers, not all enrollees first connected with the program through a formal referral from one of those partners. Breaking Barriers received walk-ins and internal referrals from elsewhere in the job centers. For most of the enrollment period, the eligibility rules required individuals to have a formal referral from a qualified referral source, and Breaking Barriers staff sent individuals who arrived at the program through other routes back to the qualified programs to obtain such a referral before enrolling them. While in many cases, they were already clients of one of the qualified programs, in some others the individual had to enroll in the other program first before receiving a formal referral. Later in the enrollment period, to widen the pool of eligible participants, SDWP modified the guidelines so that other organizations could refer individuals to Breaking Barriers (though did not change the eligibility requirement that individuals had to be a client of one of the three qualified programs). After that change, job centers began to establish referral relationships with other area community-based organizations. Ten percent of the sample were referred by sources other than the qualified referral sources.

Enrollment Process

Breaking Barriers staff conducted intake either at the job center or in a public place, according to the preference of the participant. This reflects the guidance of the IPS model that providers should deliver a substantial portion of their services in community settings.[11] Eligibility determination consisted of confirming a person's identity, right to work documentation, selective service registration, referral source, and income eligibility. Applicants went through a brief health assessment. Staff members said that most applicants came with a referral form. If not, the job centers referred the participant to enroll at one of the qualified referral sources, who could then refer them back to Breaking Barriers.

After completing other intake materials and confirming program eligibility, employment specialists conducted an informed consent process to enroll an applicant in the study. After completing the paperwork, the specialists then used MDRC's online system to randomly assign a study participant to the program or control group. Results could be shared with applicants immediately. Those assigned to the control group received a list of alternative community resources.

Study Sample Characteristics

Tables 2.1 and 2.2 present baseline characteristics of the study sample. These measures are based on information collected through the brief interview that Breaking Barriers staff conducted with clients at intake, prior to study enrollment. As mentioned in Chapter 1, the Breaking Barriers'

[11]While not one of the eight key IPS principles, community-based services are a recommended feature of the model and part of the scale used to assess fidelity to the IPS model (which Chapter 3 discusses in more detail).

Table 2.1

Characteristics of Sample Members at Study Enrollment

Outcome	Full Sample
Age (%)	
18-24	11.9
25-34	26.9
35-44	23.9
45-59	31.9
60 and older	5.5
Gender (%)	
Female	54.4
Male	45.6
Race/ethnicity[a] (%)	
Hispanic	35.3
White, non-Hispanic	39.9
Black, non-Hispanic	14.5
Other	10.4
Disability type[b] (%)	
Mental health disorder, depression	47.8
Mental health disorder, other psychological disorder	37.7
Substance use	34.4
Musculoskeletal injury or other connective disorder	21.0
Developmental/learning	18.4
Heart condition, blood pressure, or other circulatory system	12.6
Multiple sclerosis, epilepsy or other nervous system	5.1
Vision	3.6
Cancer/neoplasm	1.5
Hearing	1.1
Other	5.3
Self-reported overall health[c] (%)	
Excellent, very good, or good	82.5
Fair	14.9
Poor	2.6
Mental health status, compared with general population norm[d] (%)	
Well below	27.6
Below	12.7
Same or better	59.7
Physical health status, compared with general population norm[d] (%)	
Well below	13.3
Below	11.6
Same or better	75.1

(continued)

Table 2.1 (continued)

Outcome	Full Sample
Marital status (%)	
Never married	54.5
Currently married	17.6
Separated, widowed, or divorced	27.9
Primary language (%)	
English	80.2
Spanish	10.7
Other	9.2
Proficiency in English (%)	
Fluent	83.3
Somewhat fluent	10.5
Not very fluent	4.9
Not at all fluent	1.3
Highest level of education completed (%)	
Less than a high school diploma	18.6
High school degree or GED certificate	61.0
Associate's degree	7.0
Bachelor's degree	10.7
Graduate degree or Ph.D.	2.8
Refugee (%)	7.6
Number of children living at home[e]	1.7
Age of youngest child[f] (%)	
5 and under	47.1
6-12 years	31.5
13-18 years	13.9
19 years and older	7.6
Sample size	1,061

SOURCE: MDRC calculations based on data from the Breaking Barriers management information system.

NOTES: [a]The categories shown here are mutually exclusive.

[b]Not all of these categories are recognized as disabilities by the Social Security Administration.

[c]As measured by question 1 in the second version of the SF-12 questionnaire.

[d]Physical and mental health status was assessed with the second version of the SF-12, standard (4-week recall) version, a validated survey that consists of 12 questions directed toward the respondent. Responses to the SF-12 were scored using Optum PRO CoRE software, which produced normed physical component and mental component summary scores on how these compared with scores for the U.S. 2009 general population.

[e]This measure is among sample members who have children.

[f]This measure is among sample members who have children. This measure includes all children, not just those living at home.

Table 2.2

Benefits and Employment History of Sample Members at Study Enrollment

Outcome	Full Sample
Ever employed (%)	92.1
Ever employed at a job for 6 months or longer (%)	79.6
Employed in the past year (%)	42.1
Number of months worked in past 3 years (%)	
6 months or less	43.5
7 to 12 months	16.1
13 to 24 months	11.7
More than 24 months	20.8
Never worked	7.9
Number of children on TANF[a]	1.5
Currently receiving TANF benefits (%)	28.4
Length of time receiving TANF benefits (%)	
1 to 6 months	11.1
7 to 12 months	4.4
13 to 24 months	3.4
More than 24 months	9.6
Not currently receiving TANF benefits	71.6
Currently receiving SSI/SSDI benefits (%)	21.6
Length of time receiving SSI/SSDI benefits (%)	
1 to 6 months	1.1
7 to 12 months	2.0
13 to 24 months	1.3
More than 24 months	17.2
Not currently receiving SSI/SSDI benefits	78.4
Sample size	1,058

SOURCE: MDRC calculations based on data from the Breaking Barriers management information system.

NOTES: TANF = Temporary Assistance for Needy Families program; SSI = Supplemental Security Income program; SSDI = Social Security Disability Insurance Program.

[a]This measure is among participants who have children.

target population differed somewhat from those typically served in IPS interventions. This section will also highlight some of those differences in more detail.

Overall, the Breaking Barriers study sample is diverse in terms of age, gender, race or ethnicity, and other characteristics. Most sample members were between the ages of 24 and 59 years at the time of study enrollment, and the average age was 40. Just over half of the study sample identified as female.

The disabilities presented in Table 2.1 reflect the self-identified physical disabilities, mental disabilities, or both that sample members reported at intake (sample members could report more than one type).[12] Sixty-three percent of the sample reported having a mental health disorder (not shown; measured as depression or another psychological disorder). The research team did not have the resources to investigate the severity of the mental health issues reported by study sample members, which is a typical point of focus for IPS studies. For example, 48 percent of the study sample reported depression as their disability. However, it is unknown whether the reported depression met the clinical definition of "severe major depression," which would be categorized as a serious mental health illness.[13] Similarly, 38 percent of the sample indicated they had "another psychological disorder" they considered a disability, but no specifics about these disabilities are known. This stands in contrast to most IPS studies, in which the study samples exclusively had serious mental illness.

Furthermore, nearly 50 percent of the sample reported having only one disability (not shown); among this group, substance use and depression were most commonly reported. Among those with two or more disabilities, depression and other psychological disorder were the most commonly reported disabilities. Sample members largely described their overall health as excellent, very good, or good (83 percent).[14] The research team also measured the study sample's mental and physical health status, in relation to the general population, with the second version of the SF-12 questionnaire (discussed in more detail in Chapter 4). The study sample's physical and mental health was comparable to that of the general population: 60 percent of the study sample was similar to or better than the general population with respect to mental health, and 75 percent of the study sample was similar to the general population with respect to physical health.

A significant portion of the sample only reported substance use as a disability type (15 percent), a group that reported better health overall (not shown). Among this group, nearly all reported that their overall health was excellent, very good, or good (99 percent), and their mental and physical health status was also quite strong — 88 percent was the same or better than the general population average with respect to mental health, and 95 percent was the same or better than the general population average with respect to physical health. It is important to note that these measures of health may not be capturing other barriers to employment, unrelated to health, that this group may be experiencing.

The vast majority of the study sample was fluent in English (83 percent), though 20 percent of sample members primarily spoke a language other than English at home. Only 21 percent of study participants received a degree higher than a high school diploma or General Educational Development certificate.

---

[12]Not all of these categories are recognized by the Social Security Administration as disabilities.

[13]Mental Illness Policy Org (n.d.).

[14]This measure is based on responses to the first question of the second version of the SF-12 questionnaire, a validated survey that measures physical and mental health through 12 questions directed toward the respondent.

Based on the information provided, most study participants had some employment experience. Nearly all sample members had some history of employment (92 percent), though many had not been recently employed; at the time of study enrollment, less than half of the sample had been employed in the past year (42 percent). It is hard to say exactly how the employment histories of the Breaking Barriers sample members compare with those in other studies of IPS, but there is some indication that Breaking Barriers participants had a more substantial recent work history. Among a sample of studies reviewed by the research team where information on employment history was available, a couple required that participants not have any employment in the year prior to study enrollment.[15] A few studies reported that, at baseline, around half to three-quarters of the study sample had been employed at some point in the last five years.[16] These rates were lower than the rate of Breaking Barriers sample members who had been employed in the last five years (79 percent). In another IPS study, the average number of years since the sample member's last job, at the time of study enrollment, was 6.0 among the program group and 7.7 among the control group,[17] considerably higher than the average among the Breaking Barriers study sample (3.1 years).

Smaller portions of the Breaking Barriers sample had histories of public benefits receipt. Just under a third of sample members reported receiving TANF benefits at baseline; however, this measure may be an underestimation due to how this information was collected. A small portion (22 percent) of study participants were receiving Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), or both at baseline. In comparison, study samples in other IPS studies often had much higher baseline rates of receiving SSI, SSDI, or both (61 percent to 95 percent),[18] than the Breaking Barriers study sample.

Baseline characteristics by research group are presented in Appendix Tables C.1 and C.2.

[15]Bejerholm et al. (2015); Burns et al. (2007).

[16]Rates ranged from 49 to 73 percent. Bejerholm et al. (2015); Bond et al. (2015); Lehman et al. (2002); Lones et al. (2017).

[17]Twamley et al. (2012).

[18]The measure considered from Gold (2006) reflects the percentage of participants with SSI or SSDI. The paper did not provide the number of those receiving both types of benefits. Bond et al. (2007); Bond et al. (2015); Gold (2006); Lehman et al. (2002).

Chapter 3

Implementation of Program Services

Breaking Barriers represented, among other things, an attempt to bring the Individual Placement and Support (IPS) model into a workforce setting rather than the mental health care setting in which it has more typically been used. This chapter describes how Breaking Barriers implemented its services, including the activities and tools the employment specialists used to support clients' job search, job development activities, benefits counseling, referrals to supportive services (since the Breaking Barriers model did not include provision of such services), and the ongoing support that the program continued to provide after clients found jobs. The chapter next describes the results of the formal fidelity reviews, conducted using the approach developed by the Dartmouth Supported Employment Center, that assessed the extent to which programs deliver services with fidelity to the IPS model. These reviews — which are described later in this chapter and on which Appendix E provides more information — involved assessment on 25 measures related to aspects of program staffing, organizational support and priorities, and service delivery. Finally, the chapter also describes alternative services available to study sample members in both the program and control group from other programs and agencies in San Diego, and the differences in the extent to which the two groups received services — that is, the service contrast — that underlies the study's random assignment design.

The IPS fidelity assessments and information collected from interviews conducted during the implementation site visits suggest that Breaking Barriers largely implemented services as intended and with fidelity to the IPS model. Employment specialists properly delivered many of IPS's core employment services. Further, most program members received a variety of employment services, and assignment to the program group had a positive impact on the receipt of many such services. However, substantial but smaller percentages of the control group also accessed other employment services through other programs operating in the area.

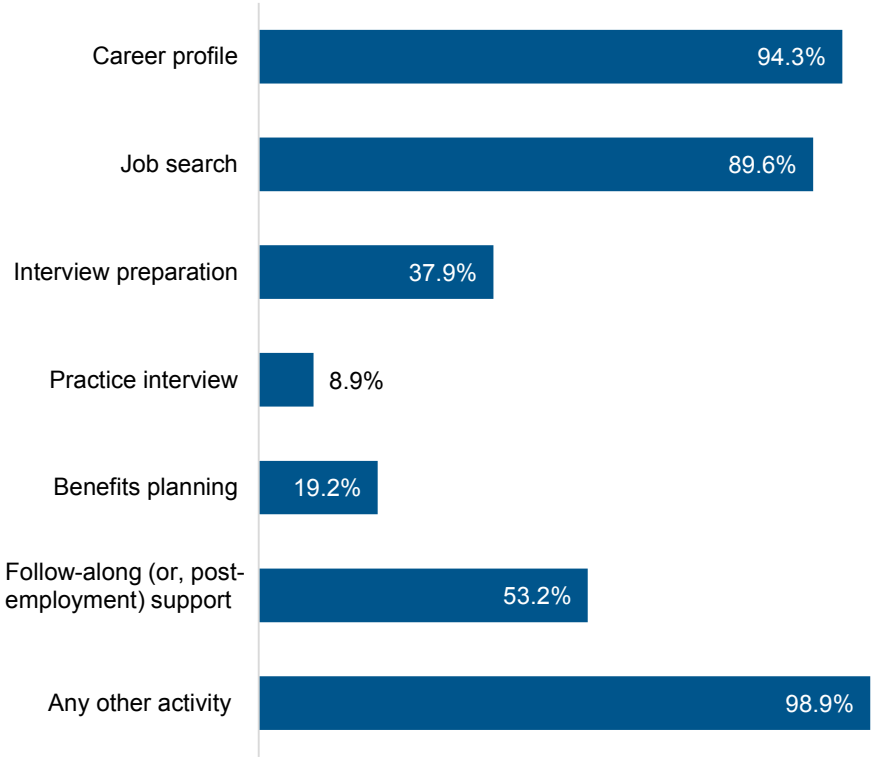
Description of Service Delivery

Information collected during the implementation site visit interviews indicates that Breaking Barriers delivered a set of services that covered most of the key components of the IPS model. This section describes Breaking Barriers' main services and explains how they reflect the IPS principles.

This section also presents management information system (MIS) data that demonstrate that most program group members received at least some services from Breaking Barriers (Figure 3.1). The structure of the MIS, and therefore the activity categories shown in Figure 3.1, does not always align with service components as described below; in the discussion of the services, it is noted where the activities described do or do not align with the figure.

Figure 3.1

Client Received a Service from Breaking Barriers, Program Group



SOURCE:Calculations based on data from the Breaking Barriers program management information system.

Job Search Activities

Job search is the central activity of early participation in IPS services. Breaking Barriers emphasized immediate job search for clients interested in it, consistent with the IPS key principle that job search starts as soon as a person expresses interest in work and without "pre-vocational" training. The approach to job search activities followed guidance from the IPS consultant, whom the San Diego Workforce Partnership (SDWP) engaged to provide training to the initial Breaking Barriers staff and conduct the fidelity reviews. That approach involved development of an individualized career profile and a written job search plan using tools adopted from the Dartmouth Supported Employment Center, as well as rapid contact with employers.

Specialists communicated with clients frequently — as much as daily — in the early stages of working with them, including when developing the career profiles and job search plan. They reported that the frequency of meetings usually decreased after the first few weeks as they shifted more into an active job search. Meetings occurred both in the community and at the offices; several specialists said most of their meetings took place offsite.

The remainder of this section provides more detail on each stage of the job search activities typically conducted within Breaking Barriers.

Career Profile

The first activity conducted with program group members was completing a "career profile." Employment specialists used a questionnaire created by the developers of the IPS model that includes about 200 questions on topics such as educational and work background, short-term and long-term goals, job interests, factors that might affect employment such as scheduling constraints or criminal background, and health and disabilities. Employment specialists began the profile at the same appointment as random assignment or the first one immediately following it. The profile helped specialists initiate a conversation with clients that allowed the specialists to understand their clients' job preferences.

This focus on client job preferences is in line with the IPS key principle that client preferences for work be honored, and it carried over into the next activity, the development of a job search plan. Employment specialists noted that some clients said they were willing to do "anything" but were often not interested in options presented to them, so they would go through actual or hypothetical options with them to better understand the client's real interests. Specialists could work with the clients to update the profile if the clients' preferences evolved over the course of the job search process.

As shown in Figure 3.1, 94 percent of program group members worked on a career profile with their employment specialists. As this is the first service provided under the IPS model, and is often initiated in the same meeting as intake, this high level of engagement is unsurprising, but shows that specialists were delivering this service as the model anticipated.

Job Search Plan

Following completion of the career profile, employment specialists worked with clients to develop a plan to help clients understand the steps in their job search process. Specialists used a template available from the IPS Employment Center that includes a list of jobs in which the clients are interested, preferences related to job characteristics such as location and shifts, steps needed to pursue those jobs, and target dates for completing those steps. The specialists referred to the steps and target dates in the plan when meeting with clients to help keep them on track, and updated the plan as needed.

The MIS did not track job search plan development separately from other job search activities, and therefore this category does not appear in Figure 3.1.

Job Search

One of the IPS fidelity measures is that clients should have their first face-to-face contact (or the employment specialist on behalf of the client) with an employer within 30 days after the first appointment with the employment specialist. Employment specialists reported that they and

the clients would start working on finding a job in the first or second week after random assignment, after finishing the career profile and job search plan.

Employment specialists continued working with clients to understand their interests, skills, and needs, updating the career profile and updating job search plans as needed. They helped clients develop their résumés in preparation for job search, which also served as another opportunity to continue the discussion with the client preferences. They helped clients complete applications, find job leads, connect with job search resources such as job fairs, contact employers, and prepare for interviews or other employer meetings. Specialists looked for jobs together with the client during meetings, and reminded clients of the goals and target dates for meeting those goals included in their job search plans.

Clients varied in employment history and skill level, disability, barriers to employment, and urgency of getting a job quickly. Employment specialists felt IPS's one-on-one approach was important for dealing with this variation. As one interviewee put it, "some [clients] need more hand holding than others." Specialists often played very active roles in the job search process, such as driving them to job fairs,[1] making the first contact with employers (as discussed further in the section on job development), gathering information on the workplace and the employer's need for the client (either with the client or before the client contacts the employer), preparing them for specific interviews, and accompanying clients to meetings or interviews with employers. As described in the section on follow-along support, the employment specialists often continued to actively help the clients adjust to the workplace once hired. However, the degree of direct involvement also depended on client preference.

Job search was consistent with the IPS key principle that clients should be seeking competitive employment, rather than sheltered or non-competitive work. Employment specialists often helped clients find entry-level jobs, though it depended on clients' skills, experience, and interests, and some clients were placed in high-skilled jobs. According to interviewees, common occupations and industries included hospitality, janitorial services, administration, information technology, case management, construction, maintenance, warehouse, caregiving, food service, and retail. In some cases where clients needed jobs particularly quickly (for example, homeless clients or clients on parole), specialists helped them get a first job quickly and then helped them with retention until they could find one that better suited their interests.

Employment specialists noted a number of challenges in helping clients with job search, including unrealistic expectations on the part of clients about what jobs they could get given their skills, serving clients with criminal background, clients' transportation needs, clients requiring supportive services (including clothing); and clients' contact information changing (making it difficult to get in touch with them).

As shown in Figure 3.1, a large majority of the program group — 90 percent — received job search services through Breaking Barriers following program enrollment. (Given the structure of the MIS, these services include all job search assistance provided through Breaking Barriers

[1]This differs by job center as some job centers' policies did not let specialists drive with clients.

except the career profile, interview preparation, and practice interviews.) Some employment specialists began to work with clients on their job search at the same time that they were working with them on their career profile. While there was a small amount of variation among the job centers, specialists at all job centers completed a career profile with and provided job search services to a large majority of their clients. (See Appendix Table D.1.) MIS data show smaller percentages of program group members receiving interview preparation (38 percent) or practice interviews (9 percent). (See Figure 3.1). This may reflect the differing needs of individual clients, but it is also possible that the employment specialists did not record all such activities separately in the MIS if they were delivered as part of a meeting where they were providing other employment services.

Job Development

Active job development is another of IPS's key principles, and the IPS fidelity measures include a standard that requires specialists to make six face-to-face contacts with employers a week, as well as standards related to the quality of those contacts and the diversity of the jobs and employers involved. In Breaking Barriers, job development activities were a mix of specific outreach based on the interests of particular clients and general outreach meant to build a pool of employers. Employment specialists reached out to employers who were hiring or likely to be hiring; approached employers at job panels, career fairs, and similar events; worked with clients to reach out to employers together; arranged with employers to conduct mock interviews; and brought clients to group hiring events. Specialists say they looked for both generic and specific types of positions to help ensure a wide variety of options for clients.

Some specialists would not mention the specific program when talking about it, in part because of the stigma associated with disability. When doing job development for a particular client, how much the specialist described the client to the employer depended on the client's needs and preferences, including whether the client wanted to disclose the disability to the employer.

A result of this job development work was the ability to connect clients directly with employers rapidly. The MIS data show that the Breaking Barriers employment specialists largely followed this principle. (See Table 3.1.) Four out of five program group members (80 percent) had some contact with an employer, and two-thirds of program group members (66 percent) had some contact within 30 days of study enrollment. About half of program group members (54 percent) had an interview while participating in Breaking Barriers. Among those who had some contact with an employer, clients had on average 2.6 recorded contacts with employers, and about half of these were face-to-face contacts. These may have been multiple contacts with the same employer or contacts with different employers.

Job center staff did not always track job development separately by client in the MIS, and therefore this category of services does not appear in Figure 3.1.

Table 3.1

Participation in Breaking Barriers Services

Measure	Full Program Group
Client had any type of contact with an employer (%)	80.2
Client had contact with an employer within 30 days of random assignment (%)	66.4
Number of contacts with employers	2.6
Type of client contact with employer (%)	
Initial client/employer meeting	81.7
Job interview	54.3
Other client/employer meeting	24.5
All employer-client contacts, by type (% of total contacts)	
Face to face[a]	52.0
Client reported employment to employment specialist (%)	55.4
Sample size	530

SOURCE: Calculations based on data from the Breaking Barriers program management information system.

NOTE: [a]The sample size is 425 across all sites for this measure.

Benefits Counseling

The provision of personalized benefits counseling is another key principle of IPS. Breaking Barriers employment specialists talked to clients about how work would affect their benefits, but also referred clients to other organizations including the Department of Rehabilitation (DOR) for more assistance. Specialists reached out to other agencies to better understand their policies in order to better help their clients. In addition, specialists helped clients comply with reporting requirements for other programs related to work.

Figure 3.1 indicates that only 19 percent of program group members were recorded in the MIS as having received benefits planning services. However, interviews with staff members suggest that employment specialists may have only recorded such activities when they involved an exceptional amount of time or effort. Staff members noted that some clients were already aware of the ways in which work would affect their benefits. Further, the need for benefits counseling in Breaking Barriers may be different than what is anticipated by the IPS model as relatively few Breaking Barriers clients were receiving Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI). These specific disability benefits are often the focus of benefits counseling. (As noted in Chapter 2, most studies of IPS programs involved samples with much higher baseline rates of SSI or SSDI receipt than in Breaking Barriers.)

Supportive Services

Breaking Barriers did not directly provide resources for needs such as clothing, transportation, or child care during job search (and this was not one of the IPS key principles). However,

employment specialists could help clients understand how to access available resources from other programs. They referred clients to external providers for such supportive services, and in some cases helped them through the processes needed to obtain the support. DOR was a principal source of support services, including uniforms or work clothes and bus passes. CalWORKs (California's TANF program) recipients could access child care or work clothing from that program. Specialists referred clients to community organizations providing other types of assistance. However, some employment specialists noted that quickly connecting clients to these services during their job search could be a challenge.

The MIS did not track these services separately, and therefore this category of services does not appear in Figure 3.1.

Follow-Along Support

Finally, another key IPS principle is that job support services are continuous as needed; they do not end when the client gets a job and are not time limited. Breaking Barriers offered individualized follow-along support to clients after they found a job. Staff members interviewed said this support involved assisting clients with identified needs on the job; keeping informed of whether the clients' needs had changed; monitoring if clients had lost a job; and helping clients who were interested in changing jobs find a new one. Specific examples of follow-along services that employment specialists provided included helping clients learn how to work with computer technology needed on the job, helping a client learn codes for food used in a supermarket job, submitting pay stubs to CalWORKs on behalf of clients, and helping clients apply for new jobs or for college.

The nature of the follow-along services depended on the client and could include a mix of in-person meetings (including at the place of employment) and contacts via phone, e-mail, or texting. Some clients did not want to meet with specialists after getting a job; some wanted only light checking in such as text messaging; and others received more intensive support. In some cases, specialists also communicated with employers (with the client's permission) to resolve issues or to check in with employers on the client's performance. Employers varied in their willingness to allow specialists support clients while on the job. Box 3.1 provides examples of two clients who received different types of follow-along services.

Figure 3.1 shows that just over half of program group members (53 percent) received follow-along support. Given that just over half of program group members (55 percent) reported to their employment specialists that they had obtained employment at some point while participating in Breaking Barriers (Table 3.1), this number indicates that most who reported finding employment received at least initial follow-along support. Follow-along services could continue indefinitely. While specialists would change the status of clients who did not respond to "inactive," clients could return to the program at any time.

Box 3.1

Two Examples of Follow-Along Support

Two anecdotes shared with the research team in interviews conducted during the implementation site visits demonstrate the variety in the types of follow-up support that the employment supervisors provided.

One client found a job and worked at it for more than 60 days. She felt that her coworkers and supervisor were not treating her well and told her employment specialist about it. The client had not disclosed her disability to the employer, so the specialist could not communicate directly with the employer. The specialist talked with the client about strategies to help her deal with the situation, but in the end, the employer decided to fire her. Afterward, the specialist spoke to the client about why the job was not a good fit, and they revisited her career profile to update the client's interests. In the end, the client found a new job on her own.

In another case, an employment specialist provided hands-on onsite help to a client in a new food services job. The specialist stayed with the client during the client's first shift washing dishes, attended a class on handling food with the client, and visited the client at the job on a regular basis. The specialist also talked to the client about proper workplace behavior, such as being social during breaks rather than while working. The specialist developed a job support plan with the client and made sure accommodations were in place, showed the client how to report wages for public benefits programs, and explained how to manage money. The specialist also helped her access supports through the Department of Rehabilitation.

Service Participation

The MIS shows that nearly all program group members received at least initial employment services from Breaking Barriers, and that many continued to receive employment services from it.[2] Program group members were considered active in Breaking Barriers for an average of almost 10 months.[3] This varied by job center, ranging from an average of about 7 months in the South County job center to almost 12 months in the Metro job center. (See Figure 3.2.)[4]

[2]This finding contrasts with one from the 15-month survey that only two-thirds of the program group surveyed reported receiving any Breaking Barriers services. It is possible that the survey respondents either did not remember the services they had received more than a year earlier or did not remember from where they received them. Because the MIS data provided to the researchers did not include identifiers, it is not possible to match the survey responses with the program data to see if clients reporting no service receipt in the survey were recorded in the MIS as only receiving limited services.

[3]The MIS data do not always distinguish between contacts between staff and clients and attempts by staff to contact clients. Further, due to data limitations, the number of services and contacts per client are unavailable. Inconsistencies in data entry, as well as lack of access to case notes, made it difficult to assess what activities were provided on a given occasion and whether contacts were successful or attempted. Program group members were considered "active" on the Breaking Barriers caseload during periods when Breaking Barriers staff were either in contact with clients or were continuing to attempt to be in touch with clients. This means that the measurement used here is longer than the period of time when clients were actively engaged.

[4]The length of involvement was calculated over the full possible period that a person could have participated in Breaking Barriers until program services ended in 2018. The calculations were based on the time a participant

Figure 3.2

Average Length of Time in Breaking Barriers Activities (Months), Program Group

SOURCE: Calculations based on data from the Breaking Barriers program management information system.

NOTE: Program sample size is 439 across all sites (East, 77; Metro, 176; North, 87; South, 98).

Employment specialists had or attempted contact with virtually all program group members during their first quarter after random assignment (Figure 3.3), which is consistent with the earlier finding that the vast majority of program group members at least began the career profile. The rate of contact declined fairly evenly in subsequent quarters. Employment specialists mentioned several reasons that clients might disengage from the program or from follow-along support, including wanting to pursue non-employment options (for example, going to school or taking care of a child with a disability), moving, incarceration, lack of program requirements once they either reached the CalWORKs' time limit or otherwise decided to leave it. Further, some clients did not want to remain engaged with the program once they were employed. By the second quarter after random assignment, the proportion of clients whom employment specialists contacted or attempted to contact had dropped to about 80 percent, to 65 percent in the third quarter, and to 44 percent by the fourth quarter after random assignment.

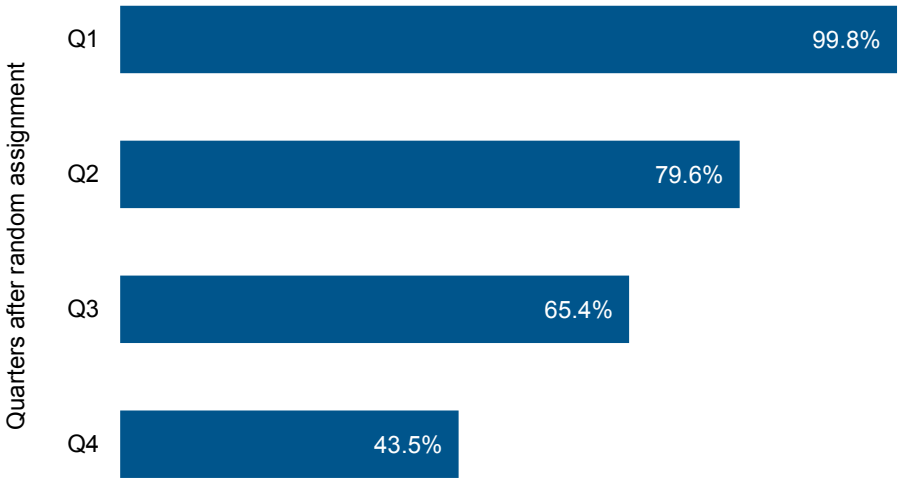
Client Satisfaction

As noted in Chapter 1, a follow-up survey was fielded to study participants approximately 15 months after study enrollment. In addition to questions related to the evaluation's outcomes, the follow-up survey asked program group members a series of questions about their experience with

was marked "active" in the MIS. There may have been some instances in which a participant remained "active" in the system but was no longer receiving services.

Figure 3.3

Successful or Attempted Contact by Employment Specialist at Least Once



SOURCE: Calculations based on data from the Breaking Barriers program management information system.

Breaking Barriers. As shown in Table 3.2, 66 percent of program group respondents reported ever receiving Breaking Barriers services. This percentage is notably much lower than what was calculated from the MIS, discussed in the prior section. The discrepancy could be due to a difference in how the Breaking Barriers program and respondents interpreted "ever receiving services," particularly for those who had a minimal amount of contact with Breaking Barriers staff. The discrepancy could also reflect that the subset of program group members who responded to the survey were more likely to have not had involvement with the program, compared with the program group as a whole.

Program group respondents also reported their current involvement with Breaking Barriers at the time of the follow-up survey. About 12 percent of program group survey respondents reported that they were still receiving Breaking Barriers services. Additionally, a considerable portion reported that they had started the program but had stopped before finding a job (22 percent).

The follow-up survey also included questions to understand how satisfied clients were with the services provided. Among program group respondents who reported ever receiving services from Breaking Barriers, clients overwhelmingly found that the employment specialists were responsive to their needs, were accessible, kept their interests in mind, provided a good level of job search support, and helped them understand their benefits.

Table 3.2

Program Engagement and Satisfaction

Outcome (%)	Program Group
Ever received Breaking Barriers services	66.1
Currently receiving Breaking Barriers services	12.2
Current situation with Breaking Barriers	
Currently working with an employment specialist, has not found job yet	6.4
Found job and currently working with employment specialist	5.8
Started the program and stopped before finding a job	21.9
Started the program and stopped after finding a job	31.6
Never received Breaking Barriers services	34.4
Among program group members who ever received Breaking Barriers services	
Employment specialist was responsive to needs	93.1
Employment specialist kept interests in mind	91.3
Employment specialist was accessible	94.0
Employment specialist helped understand benefits	80.1
Happy with the level of job search support provided by employment specialist	84.1
Sample size	333

SOURCE: MDRC calculations based on data from the follow-up survey.

IPS Fidelity Reviews

SDWP contracted with the consultant who had provided training to Breaking Barriers staff on the IPS model to conduct semi-annual fidelity reviews of Breaking Barriers. These reviews used the approach developed by the Dartmouth Supported Employment Center for assessing the extent to which programs deliver services with fidelity to the IPS model. IPS fidelity reviews are scored on the 25-item Supported Employment Fidelity Scale, where the items relate to aspects of the eight principles of IPS. (Appendix E provides more information on the scale, including a list of its items.) To perform the reviews, the consultant conducted interviews with managerial staff at the job centers and staff and supervisors at Breaking Barriers, observed program activities, and reviewed documentation of program services. The IPS consultant completed four semi-annual fidelity reviews of Breaking Barriers, with the first occurring in June 2016 and the last occurring about December 2017. In addition to assessing fidelity, these reviews also gave the consultant an opportunity to provide feedback to the job centers, including recommendations on ways to improve fidelity.

Overall, these reviews determined that the job centers delivered services with fidelity to the IPS model, even given some aspects of the model that did not occur (for instance, integration of mental health treatment teams). Though the scores varied, each job center obtained scores from the consultant's reviews that fell within ranges defined as "fair fidelity" or "good fidelity," showing that the job centers were successfully implementing the IPS model. Appendix E shows the scores received by the individual job centers in each review.

While the model was successfully implemented overall, the consultant made recommendations for improving fidelity to each job center after each review; for example, the following recommendations were common to two or more of the job centers after the last review:

- Prepare clients to be receptive to follow-along services.
- Aim to increase diversity of job types.
- Increase time in the community for employment specialists.
- Establish a steering committee that continues to review fidelity.
- Develop an action plan to implement fidelity recommendations.

However, because Breaking Barriers was designed to deliver services in a workforce setting rather than a clinical one, and because its design did not involve clinical partners, the job centers could not receive perfect scores on the scale's items that focus on the IPS key principle of integration between employment services and mental health supports. While more traditional IPS programs that involve integrated teams of mental health and employment service providers can obtain the Scale's maximum of 125 points, the job centers could not obtain scores higher than 114 (which is at the top of the range of "good fidelity"). Nonetheless, Breaking Barriers can be considered to have fidelity to the official IPS model because it received sufficient scores on the traditional Supported Employment Fidelity Scale, even without some components of the traditional model in place.[5]

Alternative Services Available in the Community

Both program group and control group members had access to other employment, mental health, and related services. Indeed, since the eligibility rules of Breaking Barriers required enrollment with either CalWORKs, DOR, or a Behavioral Health Services contractor, all study sample members were connected to at least one other type of service provider. Given that this study's random assignment design measured impacts by comparing outcomes from the different experiences of the program group and control group members, it is important in interpreting the impact findings to understand whether program group members who could participate in Breaking Barriers actually received a different set of services than the control group members who could not, or whether the control group members simply received a similar set of services through other programs. This section discusses what other programs in San Diego County provided

[5]Recognizing that IPS-based programs delivered within the structure of their job centers could not achieve the maximum fidelity scores, SDWP worked with the IPS consultant to develop a modified version of the IPS Fidelity Scale that they thought would be better tailored to the nonclinical, workforce development environment. The modified scale partly or fully replaces the four items on which the job centers could not receive full scores with measures that focus on coordination with other partners instead of mental health treatment teams. Unsurprisingly, the scores under the modified scale for the June 2017 and December 2017 reviews were higher than those under the traditional IPS fidelity scale, by an average of 10 points. SDWP plans to use the modified scale for other employment programs informed by the IPS model. SDWP's modified scale is not an official IPS scale and has not been approved by the IPS Employment Center.

overlapping services, based on interviews conducted during the implementation site visits. The following section presents data from the survey on the extent to which both groups actually accessed various types of services.

The site visit interviews revealed that there are a number of other service providers that Breaking Barriers participants may have accessed for employment services and related resources, including those targeted to individuals with disabilities.[6] However, there do not appear to have been any other supported employment programs in San Diego targeted at the same population as Breaking Barriers. The following are among the more prominent programs offering employment services in the area:

- The job centers' standard services (including those within the adult and dislocated worker program) include access to job search resources and career services, as well as referrals to other resources or trainings.
- CalWORKs provides recipients with employment and supportive services.
- For eligible individuals, DOR provides employment-related support services, as well as job-readiness and job search services.
- A variety of nonprofits within San Diego County provide mental health services, substance use treatment, and disability services; examples include Able-Disabled Advocacy, Mental Health Systems, and Goodwill.
- The Enhanced Subsidized Employment program provided subsidized jobs to longer-term unemployed individuals who exceeded the length of time for unemployment insurance.
- Various vocational training opportunities exist in the county.

Employment specialists interviewed felt that there were no other programs with a comparable level of support as Breaking Barriers targeted at the same population in San Diego County. However, at least one DOR vendor offers supported employment for individuals with more severe disabilities. Further, starting in August 2017, one job center began a "Disability Employment Initiative" with some similar features, including follow-along support, that serves a somewhat overlapping population as Breaking Barriers (though it could not serve clients with substance use barriers). This program was only available in the region of the county served by that job center.

Service Contrast

The existence of various other employment and mental health service providers — and the fact that control group members were already connected to at least one other service provider at the

[6]Survey data findings, discussed more in the next subsection, were consistent with these findings from the interviews.

time of study enrollment — raises the question of the extent to which program group members received a different set of services from control group members as a result of their ability to participate in Breaking Barriers. Service receipt differences between the program and control groups are presented in Table 3.3. (See Box 3.2 for a detailed description of how to read this table and others in the report.) These measures are based on self-reported information collected from respondents in the 15-month follow-up survey. Overall, the service contrast was fairly low. Both research groups received employment services at high rates; the program group was somewhat more likely to have received a range of these services.

The program group was only somewhat more likely than the control group to have received any help finding or keeping a job overall (92 percent compared to 78 percent). The service contrast was larger (differences ranged from 22 to 29 percentage points) for receipt of specific employment services such as help preparing a résumé and filling out job applications, preparing for job interviews, looking for jobs, and getting referrals to jobs — all key services offered through IPS. Other IPS studies were not consistent in their discussion of the service contrast. Program group members also participated in services related to finding or keeping a job for about one month longer, on average, than did control group members (five months versus four months). This could reflect the higher levels of follow-along support provided to program group members, which are key components of the IPS model.

Sample members who received any help finding or keeping a job since study enrollment also reported the source of this help, presented in Appendix Table D.2. Differences shown here are non-experimental. The most common sources of help reported by program group members included Breaking Barriers (54 percent) and the Department of Rehabilitation (11 percent). Among control group members who received help finding or keeping a job, the most commonly reported sources of help included the Department of Rehabilitation (31 percent), Family Resource Centers, CalWORKs or welfare-to-work program (17 percent), and another career center program or workforce office (14 percent).

At the time of the follow-up survey, as shown in Table 3.3, small portions of both the program and control groups reported currently receiving help related to finding or keeping a job (20 percent and 18 percent, respectively). The percentages of the program and control groups who were enrolled in education, vocational training classes, or both at the time of the survey were very similar and fairly low overall (21 percent of the program group and 18 percent of the control group).

The survey also collected information on receipt of mental health services, given the population that IPS was originally designed for and its goal of integrating employment services with mental health services. There were no statistically significant differences measured between the two research groups on participation in mental health services; just over half of both received any mental health services during the follow-up period (51 percent of the program group and 55 percent of the control group). This rate was slightly higher among those who had any mental health issue (64 percent, not shown). A goal of IPS is to increase coordination of different types of services, including mental health services. Such coordination could lead to an increase in receipt of

Table 3.3

Service Receipt Differences

Outcome	Program Group	Control Group	Difference	P-Value
Received help finding or keeping a job (%)	91.5	77.7	13.8***	0.000
Preparing a résumé or filing out job applications	76.3	54.2	22.1***	0.000
Preparing for job interviews	68.7	40.1	28.6***	0.000
Looking for jobs or deciding what kinds of jobs to look for	77.9	50.1	27.9***	0.000
Getting referrals to jobs or setting up interviews	67.2	44.7	22.5***	0.000
Planning future career or educational goals	51.6	35.6	16.0***	0.000
Training to learn a new job or skill	23.4	26.4	-3.0	0.376
Supports provided while working	34.6	25.6	9.0**	0.013
On-the-job training	28.5	25.8	2.6	0.454
Other employment service	18.0	18.1	0.0	0.996
Number of months spent participating in services related to finding or keeping a job	4.8	3.7	1.1***	0.007
Participated in classes/workshops about how to act while at work (%)	31.3	32.2	-0.9	0.810
Number of days spent receiving services in the month following random assignment	9.3	7.5	1.8**	0.040
Currently receiving help related to finding or keeping a job (%)	21.0	18.0	3.0	0.338
Currently enrolled in education and/or vocational training classes (%)	21.2	18.4	2.7	0.376
Vocational training program or technical, trade, or adult school	7.8	8.5	-0.7	0.735
2-year or community college	9.7	7.2	2.6	0.243
4-year college or university	2.4	3.7	-1.3	0.333
Graduate school	1.3	0.8	0.4	0.586
Other[a]	3.1	3.6	-0.5	0.719
Received help or services related to mental health (%)	51.7	54.7	-3.0	0.405
Frequency of help or services related to mental health (%)				
Twice per week or more	13.5	10.2	3.3	0.205
Once per week	9.3	14.2	-4.9*	0.056
2-3 times per month	9.9	10.2	-0.3	0.902
Once per month	12.6	10.8	1.9	0.450
Less than once per month	6.3	9.2	-2.9	0.178
Never	48.3	45.4	2.9	0.427
Sample size (total = 661)	335	326		

SOURCE: MDRC calculations based on data from the follow-up survey.

NOTES: Results in this table are regression-adjusted, controlling for pre-random assignment characteristics.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
[a]Other includes high school classes, GED classes, and English as a second language classes.

mental health services. As discussed earlier, Breaking Barriers did not have the capacity to integrate employment services with mental health treatment, which may explain why there were no differences in receipt of this service.

Box 3.2

How to Read Table 3.3

Table 3.3, and the impact tables in Chapter 4, use a similar format, illustrated below. In this case, the receipt of employment services is shown for both the program and control groups. The row of data shows that 91.2 percent of the program group and 78.0 percent of the control group received any help finding or keeping a job.

The "Difference" column in the table below shows the difference between the proportions of the two research groups that received employment services during the follow-up period — that is, the program's estimated effect, or impact, on receipt of employment services. For example, the estimated impact on receiving help finding or keeping a job can be calculated by subtracting 78.0 from 91.2, yielding a 13.2 percentage point difference.

Differences marked with asterisks are "statistically significant," meaning that they are larger than would be generally expected if the program had no true effect; thus, they suggest the offer of program services had some effect although the size of the effect is uncertain. The number of asterisks indicates whether the estimated impact is statistically significant at the 10 percent (one asterisk), 5 percent (two asterisks), or 1 percent (three asterisks) level. The lower the level (or the more asterisks), the less likely that the impact could have been generated by chance.

For example, as shown below, Breaking Barriers had a statistically significant impact of 13.2 percentage points on the proportion of participants who received help finding or keeping a job; that is participants who were offered Breaking Barriers services were 13.2 percentage points more likely, on average, to receive help finding or keeping a job than those who were not offered Breaking Barriers services. This impact is statistically significant at the 1 percent level — meaning that there is a less than 1 percent probability that this impact is due to chance. The p-value shows the exact level of significance.

Service Receipt Differences

Outcome	Program Group	Control Group	Difference	P-Value
Received help finding or keeping a job (%)	91.2	78.0	13.2***	0.000

Appendix Table D.2 also presents the source of help or services related to mental health among study sample members who reported receiving this service. Among both the program and control groups, the most common sources of help related to mental health were the county's Family Health Centers (22 percent for both groups) and a private therapist or psychiatrist (20 percent for the program group and 23 percent for the control group).

Chapter 4

Impacts on Employment, Health, and Household Outcomes

Based on the implementation findings presented in Chapter 3, Breaking Barriers provided a reliable implementation of the Individual Placement and Support (IPS) model in a workforce setting with a low-income population with a range of disabilities. It implemented the IPS model with fidelity across all four program site locations. However, while the program group was more likely to have received a wider range of employment services than the control group, the program group was only slightly more likely to have received any employment services during the follow-up period than the control group. In the absence of access to Breaking Barriers' services, control group members were still connected to at least one other service provider, and the vast majority received help related to finding or keeping a job. This context is important for interpreting the impact findings presented in this chapter.

This chapter presents impact findings from the evaluation, based on information collected through the 15-month follow-up survey administered to study participants. The primary outcomes measured over the 15-month follow-up period were employment, earnings, and length of employment. Secondary outcomes included household public assistance receipt and income, and physical and mental health status. Given the random assignment design of the study, any statistically significant differences between the two research groups — estimated effects that would be very unlikely to occur if the program truly had no effect — that emerge on these outcomes can reliably be attributed to the Breaking Barriers program. Appendix A details the analysis model used to measure these estimated effects.

In sum, there are no statistically significant differences between the program and control groups on any employment or earnings outcomes measured, and no pattern of differences on health and household outcomes. As noted in Chapter 1, results from a survey response bias analysis presented in Appendix B suggest that results in this report are likely to be valid for individuals who were asked to respond to the survey. However, survey respondents have different baseline characteristics than other sample members, which may mean the results presented here do not apply to the full study sample. Additionally, this chapter will explore some possible reasons for the lack of impacts. While there is no evidence from the current evaluation that Breaking Barriers led to increased employment rates, future analyses with administrative records on a larger portion of the sample will help confirm or refute these findings.

Employment Outcomes

As discussed throughout this report, the primary goal and expected outcome of Breaking Barriers and the IPS model is employment for participants. Table 4.1 presents 15-month impacts on employment and other related outcomes. (See Box 3.2 for a detailed description of how to read the

Table 4.1

Impacts on Employment Outcomes in the 15-Month Follow-Up Period

Outcome	Program Group	Control Group	Difference	P-Value
Ever employed since random assignment (%)	73.8	70.7	3.1	0.368
Total earnings since random assignment ($)	11,335.82	10,972.95	362.87	0.762
Number of months employed since random assignment	6.7	6.2	0.4	0.352
Currently employed (%)	60.9	57.0	3.9	0.294
Hourly wage (main current job)[a] (%)				
Not currently working	44.0	49.0	-5.0	0.210
Less than $10	4.8	3.2	1.6	0.346
$10 to $11.49	12.2	10.4	1.8	0.512
$11.50 to $12.99	20.8	20.7	0.1	0.971
$13.00 to $15.00	10.2	8.6	1.7	0.500
More than $15.00	8.0	8.1	-0.1	0.964
Hours worked per week (across all current jobs)	17.2	16.5	0.7	0.615
Sample size (total = 648)	329	319		

SOURCE: MDRC calculations based on data from the follow-up survey.

NOTES: Results in this table are regression-adjusted, controlling for pre-random assignment characteristics.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
[a]The sample for this measure includes only those for whom wage information was available and those who were not currently working (N=573).

tables in this chapter.) In the 15-month period following study enrollment, there are no statistically significant differences between the rates at which the program and control groups had ever been employed (74 percent and 71 percent, respectively) in the period since study enrollment. The program group earned about $363 more than the control group during this period; however, this difference is not statistically significant. The program and control groups were also employed for about the same length of time (seven months and six months, respectively). Additionally, there are no statistically significant differences between the two research groups' employment situations — employment rates, hourly wages, or number of hours worked per week — at the time of the follow-up survey interview.

Among sample members who were currently employed at the time of the follow-up survey, the majority had jobs at a private-sector employer. Around half of those currently employed were offered health insurance and paid vacation through their current job. The most commonly reported industries among those currently employed were food service, retail, administration, and customer service. Among those who were never employed during the follow-up period, the most commonly reported reason for not working was having an injury, illness, or disability.

These results diverge from prior research on IPS. In other studies, the differences in the research groups' employment rates are greater, and the control group employment rates are much lower. In one meta-analysis of 30 randomized controlled trials, among the studies with a 12- to

18-month follow-up period, differences between program and control groups' competitive employment rates ranged from 6 to 48 percentage points and were on average about 26 percentage points.[1] As shown in Figure 4.1, no control group in any of the studies had a competitive employment rate over 39 percent, and several had rates of 12 percent or below, as compared with the 71 percent employment rate of the Breaking Barriers' control group. Due to data and resource limitations, the research team was not able to distinguish competitive employment from non-competitive employment for the Breaking Barriers sample. However, even if the measure includes some non-competitive employment, it is unlikely that this would explain the large differences in employment rates between the Breaking Barriers study sample and participants in prior IPS studies. One explanation for the differences in these results is that the majority of the other IPS studies referenced in Figure 4.1 tested the effectiveness of IPS exclusively on individuals with serious mental illness, individuals who were receiving mental health services, or both. As discussed elsewhere in this report, the conditions and disabilities reported by the Breaking Barriers study sample were not limited to mental health issues.

Additionally, the low rates of baseline Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) receipt among the study sample may help explain the sample's higher employment rates, compared with other studies. As previously discussed, research samples in other IPS studies often had much higher baseline rates of SSI and SSDI receipt than the Breaking Barriers study sample. SSI and SSDI recipients may have more serious disabilities that prevent them from working and may face a disincentive to work, as their benefits end once they start earning a certain level of income.

Furthermore, as discussed in Chapter 2, it is possible that the Breaking Barriers study sample members were more likely to have more recent employment histories at baseline than participants in other studies of IPS, which may also contribute to the high rates of employment overall. In a few selected studies where this information was reported, the percentage of the study sample that had been employed in the past five years ranged from 49 to 73 percent.[2] These rates are considerably lower than the percentage of the Breaking Barriers study sample that had been employed in the past five years: 79 percent (not shown). Some study participants were also employed when they enrolled in the study, despite unemployment being one of the original eligibility requirements for Breaking Barriers. Again, due to resources, the research team cannot investigate exactly what portion of the study sample was employed at baseline, but this topic will be explored in a future publication.

As discussed in Chapter 1, this evaluation adds to some existing, though limited, research on the effectiveness of IPS with a group that does not exclusively have serious mental illness. Among groups without exclusively serious mental illness, there is only evidence on IPS for veterans with post-traumatic stress disorder (PTSD).[3] In one study with this population, the control

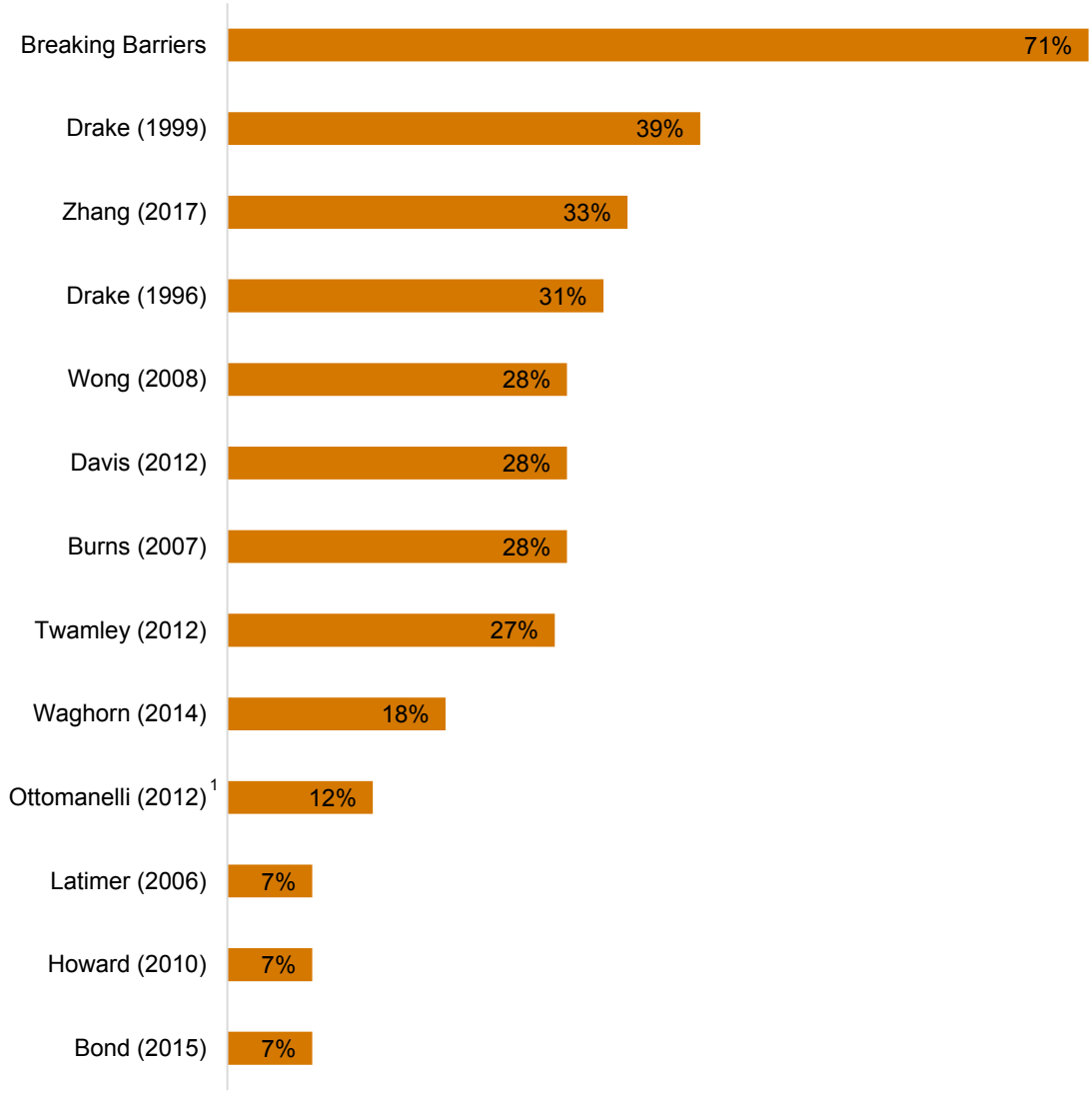
[1]Frederick and VanderWheele (2019). This only includes studies where competitive employment rates over the follow-up period were available for both program and control groups.

[2]Bejerholm et al. (2015); Bond et al. (2015); Lehman et al. (2002); Lones (2017).

[3] Bond, Drake, and Pogue (2019).

Figure 4.1

Control Group Employment Rates During Follow-Up Period



SOURCE: Non-Breaking Barriers measures collected from Frederick and Vanderweele (2019) or journal article for respective study, if not included in Frederick and Vanderweele (2019). Employment rates reflect competitive employment, except for Breaking Barriers.

NOTE:
[1]This study included two control groups. The number presented here is the rate for the control group at the interventional site.

group's employment rate was also very low in comparison with the Breaking Barriers control group's employment rate.[4] While the average number of years since the last job among this sample was similar to that among the Breaking Barriers sample (almost three years for both research groups), no one in the sample from the study of veterans with PTSD was employed at the time of study entry, unlike the Breaking Barriers participants.

Health and Household Outcomes

This section presents impact findings on secondary outcomes related to public assistance receipt, household income, and health status. As outlined in the program's logic model, Breaking Barriers aimed to increase employment for the individuals it served and thereby reduce their reliance on public assistance. In the IPS model, work is considered a part of the treatment and thus a person's health status could improve through program participation. There is no trend of statistically significant differences on these outcomes between the two research groups.

As shown in Table 4.2, Breaking Barriers did not have any significant impacts on public assistance receipt; there were no differences between the program and control group rates of public assistance receipt or months of public assistance receipt. The benefits most commonly received by survey respondents during the follow-up period were food stamps (CalFresh — California's SNAP program), SSI, SSDI, and welfare (CalWORKs — California's TANF program). These results align with the impact findings on employment; had Breaking Barriers led to an increase in employment rates, a decrease in public assistance receipt would have been more likely. The program and control groups' rates of receiving SSI, SSDI, or both in the follow-up period were also somewhat higher (36 and 38 percent for the program and control group members who responded to the survey, respectively) than they were at baseline (22 percent of the full sample).

Survey respondents also reported the income received by their household in the prior month. There are some statistically significant differences across the two groups within individual categories of income. However, looking at the distribution of income overall, there is no statistically significant difference. This finding aligns with the lack of any statistically significant differences on employment and earnings outcomes.

Impacts on secondary physical and mental health outcomes are presented in Table 4.3. There are no statistically significant differences between the program and control groups on any outcomes related to physical or mental health. Small portions of the program and control groups had major depression (23 percent of the program group and 26 percent of the control group) at the time of follow-up.[5] Overall, self-reported health worsened since random assignment for a significant portion of the study sample (48 percent among the program group and 45 percent

[4]Davis et al. (2018).

[5]This measure is based on responses to the Patient Health Questionnaire (PHQ-9), a nine-item scale used to diagnose depression in clinical settings.

Table 4.2

Impacts on Household Benefits and Income Receipt in the 15-Month Follow-Up Period

Outcome	Program Group	Control Group	Difference	P-Value
Received public assistance since random assignment (%)				
SSI and/or SSDI	35.7	37.6	-1.9	0.517
Welfare or CalWorks (TANF)	28.9	29.7	-0.7	0.815
Unemployment insurance	6.7	6.0	0.7	0.740
Housing choice voucher	10.5	13.5	-3.0	0.247
Food stamps	52.7	52.5	0.2	0.949
Child support	12.1	12.4	-0.3	0.932
Number of months received public assistance since random assignment				
SSI	3.3	3.5	-0.2	0.738
SSDI	2.1	2.8	-0.6	0.115
Welfare or CalWorks (TANF)	3.2	3.1	0.0	0.914
Unemployment insurance	0.3	0.3	0.0	0.888
Housing choice voucher	1.3	1.5	-0.1	0.687
Food stamps	6.6	6.5	0.0	0.943
Child support	1.5	1.2	0.3	0.528
Household income in past month (%)				
None	4.3	4.4	-0.1	0.972
$500 or less	11.5	12.8	-1.3	0.654
Over $500 to $1,000	20.8	22.3	-1.5	0.672
Over $1,000 to $1,500	18.8	13.2	5.7*	0.080
Over $1,500 to $2,000	15.8	11.6	4.2	0.175
Over $2,000 to $2,500	9.2	9.4	-0.2	0.943
Over $2,500	19.5	26.3	-6.8*	0.064
Sample size (total = 644)	329	315		

SOURCE: MDRC calculations based on data from the follow-up survey.

NOTE: SSI = Supplemental Security Income; SSDI = Social Security Disability Insurance; TANF = Temporary Assistance for Needy Families.
Results in this table are regression-adjusted, controlling for pre-random assignment characteristics.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

among the control group). Again, this difference is not statistically significant. Still, the majority of the sample remained in good health: About two-thirds of both groups reported that their overall health was excellent, very good, or good.[6]

Mental and physical health status, at the time of follow-up, was measured with the second version of the SF-12 instrument, a validated survey that consists of 12 questions directed toward the respondent.[7] SF-12 scoring software aggregates responses to these 12 questions and produces a physical component summary score and a mental component summary score for each sample

[6]This measured is based on responses to the first question on the second version of the SF-12 questionnaire.
[7]Maruish (2012).

Table 4.3

Impacts on Physical and Mental Health Outcomes

Outcome (%)	Program Group	Control Group	Difference	P-Value
Exhibits signs of major depression[a]	23.0	26.1	-3.1	0.336
Change in self-reported overall health since random assignment				
Health improved	18.5	20.3	-1.9	0.532
Health stayed the same	33.6	34.8	-1.2	0.757
Health worsened	47.9	44.9	3.0	0.413
Self-reported overall health[b]				
Excellent, very good, good	67.7	66.2	1.6	0.646
Fair	23.8	25.0	-1.2	0.715
Poor	8.5	8.9	-0.4	0.865
Mental health status, compared with general population norm[c]				
Well below	28.9	27.6	1.3	0.693
Below	11.9	10.8	1.0	0.690
Same or better	59.2	61.6	-2.4	0.521
Physical health status, compared with general population norm				
Well below	21.8	21.2	0.6	0.821
Below	9.3	11.9	-2.6	0.293
Same or better	68.9	66.9	2.0	0.536
Sample size (total = 657)	333	324		

SOURCE: MDRC calculations based on data from the follow-up survey.

NOTES: Results in this table are regression-adjusted, controlling for pre-random assignment characteristics.
Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
[a]Depression is measured using the Patient Health Questionnaire (PHQ-9), a nine-item scale used to diagnose depression in clinical settings. Response categories range from 0 = "not at all" to 3 = "nearly every day," where higher scores indicate more frequent occurence of depression symptoms. If the item score sum is greater than or equal to 10, the respondent is considered to exhibit signs of major depression.
[b]As measured by question 1 in the second version of the SF-12 questionnaire.
[c]Physical and mental health status was assessed with the second version of the SF-12, standard (4-week recall) version, a validated survey that consists of 12 questions directed toward the respondent. Responses to the SF-12 were scored using Optum PRO CoRE software, which produced normed physical component and mental component summary scores on how these compared with scores for the U.S. 2009 general population.

member. These scores are normed and can be compared with a 2009 U.S. general population with mean physical and mental component summary scores of 50.[8] Higher summary scores are associated with better health.

Table 4.3 presents two outcomes based on these summary scores: how the sample's mental component summary score (mental health status) and physical component summary score

[8]A high physical component score reflects few or no physical limitations, a good energy level, and overall good health. A high mental component score reflects frequent positive affect, little psychological distress, no limitations in ability to carry out typical activities due to emotional issues, and overall good health. Maruish (2012).

(physical health status) each compare with that of the general population.[9] Overall, the mental and physical health of both research groups was similar to or better than that of the general population, on average: 60 percent of the program group and 62 percent of the control group had a mental health status at least as good as the general population average, and 69 percent of the program group and 67 percent had a physical health status at least as good as the general population on average.

Subgroup Analyses

Appendix Tables F.3 through F.6 present exploratory subgroup analyses to assess whether Breaking Barriers had different impacts among subgroups of the study sample, as defined by certain baseline characteristics. The following four subgroups were chosen, as these are characteristics thought to influence how study participants may have benefitted from the program: educational attainment, disability type, employment history, and time of random assignment (enrolled in the study during the program's first versus second year of operation).

There are a few differences, some statistically significant ones, between impacts by educational attainment. Individuals with less education may have higher barriers to employment, and therefore may benefit more from a program such as Breaking Barriers, compared with those with more education. The difference in impacts by educational attainment suggests some evidence that the program may have been more effective for sample members with no postsecondary education, compared with those with a postsecondary education, with respect to employment and health outcomes. However, due to the number of outcomes measured across four subgroups, it is possible that these statistically significant differences may have emerged by chance.

There are few other patterns of differences in impacts that emerged among the other subgroups.

Again, it is important to note that these are exploratory analyses, which can inform future research for this population and this intervention. The evaluation did not have sufficient statistical power to detect smaller differences among subgroups.

[9]The categories shown for these outcomes are defined by SF-12 scoring software as follows: "Well below" indicates the score is 10 points or more below the general population norm; "below" indicates the score is 5 to 9 points below the general population norm; and "same or better" indicates that the score is less than 5 points below the general population norm.

Chapter 5

Cost Analysis

This chapter analyzes the costs of operating the Breaking Barriers program. First, the analysis identifies the costs of delivering Breaking Barriers services to clients. Then, the analysis calculates an average cost per person of participation, incorporating the costs of participation for the San Diego Workforce Partnership (SDWP) and the job centers. Since Chapter 4 showed that many control group members also received employment services from other programs, the chapter also calculates a net cost of the employment services received by Breaking Barriers participants (that is, net of the costs of the employment services they would have otherwise received).

The analysis finds that the average cost per person of participating in Breaking Barriers over a 12-month period was $4,340. This is somewhat lower than the average cost of operating Individual Placement and Support (IPS) programs examined in Bond (2012), though within the range of variation that other studies have found.[1] The estimated net cost of employment services, meaning the amount by which costs for the program group exceeded costs for the control group, was $3,750.

Estimating the Costs of Breaking Barriers Participation

The estimates of the costs of operating Breaking Barriers relied primarily on financial data provided by SDWP. The analysis focuses on costs during the 12-month period from July 2016 through June 2017. This period was selected for two main reasons. First, it aligns with SDWP's fiscal year (FY) 2017, and therefore it was easy for SDWP to provide data for it. Second, since this period began sufficiently long after Breaking Barriers was launched, it is reasonable to assume that it does not include startup costs; the costs measured for this period should be consistent with costs of the ongoing program. Because this is the period of focus, all costs are expressed in FY 2017 dollars.

Overall Costs of the Breaking Barriers Program

SDWP provided the research team with a financial summary of its grant-funded expenses for the Breaking Barriers program during this period, as well as summary invoices from the job centers and from MDRC in its capacity as the evaluation partner.[2] Components of the costs that these summaries contained included the following:

[1]Latimer et al. (2004). It is unclear the extent to which those costs reflect mental health services that were not part of the Breaking Barriers model.

[2]The MDRC invoice summary covers a slightly different time period: October 2016 through September 2017. The calculation assumes costs would have been the same over the July 2016 through June 2017 period.

- **Personnel costs** attributed to the program, including salaries, wages, benefits and insurance, and payroll taxes for SDWP staff and invoiced personnel costs for the job centers.
- Other **direct costs**, such as costs related to space and maintenance, computers and communications, meeting expenses, and so on, as well as other contractor and consultant costs, including those invoiced by the job centers and other contractors.
- **Indirect costs** such as organizational administrative and managerial costs.
- **In-kind costs** reported by the job centers in their invoices to SDWP, including both cash and noncash in-kind costs. The extent of these costs and what they covered differed by job center, with the largest categories being personnel costs (including support staff time funded through other means and contributions from partner organizations); facilities infrastructure costs not paid out of the Breaking Barriers contracts; and "participant costs" which included some support services, work experience wages, and related items provided to participants.

The financial summary and invoices also included expenses that did not reflect the cost of delivering Breaking Barriers services. These expenses included costs attributable to the evaluation, including grant funds used to pay the evaluation team led by MDRC, costs to SDWP in overseeing and participating in the evaluation, and costs to the job centers related to involvement in the evaluation's data collection and random assignment processes (including the time spent recruiting and enrolling control group members who were not offered Breaking Barriers services). The cost estimates presented in this chapter do not incorporate these expenses.[3]

In total, the expenses of Breaking Barriers over the period from July 2016 through June 2017, not including costs attributable to the evaluation, totaled approximately $1.3 million.[4]

Costs Per Client

The next step in the analysis is to calculate average costs of participating in Breaking Barriers by dividing the total costs for the 12-month period ($1.3 million) by the total number of months of participation in the program during the same period. Months of participation come from the MIS data; added up across all Breaking Barriers participants, there were a total of approximately 2,500 months of participation during the 12-month period.[5] Dividing the total costs

[3]The financial summary that SDWP provided identified expenses with SDWP that were attributable to the evaluation. The research team estimated evaluation-related costs on the part of the job centers based on information gathered in interviews conducted during the implementation site visits about the amount of time employment specialists and supervisors spent on outreach and intake.

[4]The total grant SDWP received was for $6 million over a five-year period, including evaluation activities.

[5]As with the analysis in Chapter 3, the measure of "participation" used in this calculation is the length of time clients are marked as "active" in the MIS. This includes both periods of active engagement with clients and periods during which Breaking Barriers staff were actively attempting to contact clients.

by the total months of participation shows that the average monthly cost of participation in Breaking Barriers during this period was $524.

Analysis of the MIS data shows that program group members on average participated in Breaking Barriers for approximately 8.3 out of the 12 months following random assignment. Multiplying that average by the average monthly cost of participation ($524) provides an estimate of $4,340 as the program's cost per client over a 12 months period.

Table 5.1 shows the per-person costs broken out by available categories of cost. The majority of costs are attributable to grant-funded personnel costs, but both other direct and indirect costs and in-kind costs make up notable portions of the total per-client expenses.

Table 5.1

Cost of Breaking Barriers

Cost Category	Cost ($)	Percentage of Total (%)
Personnel costs	2,120	49
Other direct and indirect costs	1,720	40
In-kind costs		
Personnel	210	5
Facilities infrastructure	160	4
Participant	100	2
Other direct and indirect costs	40	1
Total	4,340	100

SOURCE: Calculations based on financial data provided by the San Diego Workforce Partnership, including data on the expenses of their contractors (America's Job Centers of California and MDRC), and program participation data from the Breaking Barriers management information system.

Comparison to Cost Estimates of Other IPS Programs

In a brief summary of evidence about the IPS model as a service approach for people with serious mental illness in Bond and Drake (2012), it was estimated that "the annual cost of IPS averages only $5,500 per client in 2012 dollars," citing earlier papers Latimer et al. (2004) and Salkever (2011). Adjusting for inflation for comparability to the Breaking Barriers cost estimate, that is the same as about $5,800 in FY 2017 dollars. In other words, Breaking Barriers' cost of $4,340 per client is approximately one-fourth less than other IPS programs serving a more traditional target population. However, in Latimer et al. (2004), it is shown that there is a wide range among the earlier cost estimates of IPS programs; the costs of the programs considered in the paper (in FY 2017 dollars) range from approximately $2,200 to about $11,600.[6] Therefore, the estimated costs of Breaking Barriers are still within the range of estimated costs of IPS programs.

[6]Latimer et al. (2004).

The Net Cost of Breaking Barriers Employment Services

As discussed in Chapter 3, survey results show that while both program group and control group members received job search and job-readiness services from sources other than Breaking Barriers, program group members received fewer such services from these sources. This finding suggests that some of the costs of delivering Breaking Barriers services may be offset by a reduction in the use of employment services from other sources. This section estimates a net cost of Breaking Barriers, defined as the additional cost of providing Breaking Barriers services beyond the cost of what the control group received in employment services.

Table 5.2 presents an estimated cost of overall employment services, including from both Breaking Barriers and other sources, for the program and control groups.[7] Overall, the net cost of Breaking Barriers employment services was $3,750, somewhat lower than the estimated cost per client of participating in Breaking Barriers services.

Table 5.2

Cost of Employment Services

Source	Program Group Cost ($)	Control Group Cost ($)	Net Cost ($)
Breaking Barriers	4,340	0	4,340
Non-Breaking Barriers employment services	1,490	2,080	-590
Total	5,830	2,080	3,750

SOURCE: Calculations based on financial data provided by the San Diego Workforce Partnership, including data on the expenses of their contractors (America's Job Centers of California and MDRC), and program participation data from the Breaking Barriers management information system. Costs of non-Breaking Barriers employment services are estimated based on the findings from the Workforce Investment Act Gold Standard study.

[7]The costs of other employment services were not directly available to the researcher team. Therefore, these measurements reflect an estimate of the cost of key Workforce Investment Act services from Mastri and McCutcheon (2015), applied to data from the survey on how often and for how long sample group members accessed job search services.

Chapter 6

Conclusion

Individual Placement and Support (IPS) is a well-known and well-tested form of supported employment, designed specifically for people with serious mental illness. There is great interest among policymakers, practitioners and program developers to understand whether the model can be effectively extended to other populations. The evaluation of Breaking Barriers presents an opportunity to test the effectiveness of IPS with a broader population. The evaluation is also an opportunity to understand differences in delivering IPS services in a workforce setting, rather than the community mental health center setting more commonly found in IPS implementation.

As shown in previous chapters, the Breaking Barriers implementation of the IPS program model appears to have been strong. The workforce setting did limit involvement with clinical partners, which is a key IPS principle. Even with that limitation, the IPS fidelity assessments and implementation research suggest that Breaking Barriers largely implemented services as intended and with fidelity to the IPS model. The fidelity scores corroborate this finding. Program staff appropriately delivered many of IPS's core employment services. Further, most program group members received a variety of employment services, and assignment to the program group had a positive impact on the receipt of many such services. However, substantial but smaller percentages of the control group also accessed employment services through other programs operating in the area.

Unlike many previous IPS studies, there were no differences between the program and control groups on any employment outcomes over the 15-month follow up period, and no pattern of differences on health and household outcomes. This may be in part due to the characteristics of the study sample, including their previous employment history, their receipt of public benefits, and their health, and the workforce setting of the program implementation. For example, the study sample's recent histories of employment and relatively low levels of benefit receipt may present lower barriers to employment than in previous tests of the IPS model. In the absence of access to the IPS model through Breaking Barriers, control group members did find other employment services and were able to find employment in the follow-up period at a very high rate (71 percent). The relatively high employment rates across the study sample may also reflect a strong job market. These factors make it harder to detect statistically significant differences between the research groups and indicates that Breaking Barriers did not markedly improve, on average, upon the services already available in the community.

The lack of differences also raises the question about whether the program is better targeted to a higher-need group that is less likely to find employment on its own. Throughout the recruitment period, individual job centers experienced difficulties at times connecting with recruitment partners and getting the word out about the program. As noted in Chapter 2, these difficulties led to some loosening of the eligibility requirements for program participation over time — for example, the expansion of possible referral sources.

While there is no evidence from the current evaluation that Breaking Barriers led to increased employment rates, future analyses using administrative records that will include the full study sample will help round out the present findings. A survey response bias analysis presented in Appendix B suggests that results in this report are likely to be valid for individuals who were asked to respond to the survey. However, it also shows that survey respondents have different baseline characteristics than other sample members, which may mean the results presented in this report do not apply to the full study sample. As previously mentioned, the follow-up survey was not fielded to those who could not speak English well (about 6 percent of the study sample) due to resource limitations of the study for translating and fielding materials in a variety of languages. In addition, the survey questions counted on the memory of those interviewed regarding their employment history, participation in employment and other services, and benefit receipt. Administrative records — without these limitations — may provide a fuller picture of the effects of the Breaking Barriers program. These data will include information on employment and earnings captured through the National Directory of New Hires,[1] benefit receipt within San Diego County, and receipt of additional services outside of Breaking Barriers.

Breaking Barriers is just one example of an implementation of the IPS model with a non-serious mental illness population. Other ongoing and recent studies will continue to provide evidence around how the IPS model can possibly be expanded to serve a broader population. For San Diego and other locations, the smaller caseload and key principles of IPS are enticing, but also come with a price tag. Other studies will continue to add to this body of knowledge on this supported employment model.

[1]The National Directory of New Hires includes quarterly employment and earnings information on Unemployment Insurance-covered employment and federal employees.

Appendix A

Analysis Model

The basic estimation strategy is to compare average outcomes for both the program and control groups. Regression adjustment in a linear regression model increases the power of the statistical tests.

Outcome data from the follow-up survey were processed according to standard procedures to check for outliers or other irregularities. Five outlier values of current hourly wage were set to missing.

The main impact analysis used the following model:

$$Y_{ij} = \alpha + \beta P_{ij} + \delta X_{ij} + \gamma_j + \varepsilon_{ij}$$

where Y_{ij} is the outcome measure of interest (such as "ever employed" or "total earnings") for sample member *i* in program location *j*;

β is the estimate of the impact of the program on the average value of the outcome;

P_i is an indicator for membership in the program group;

X_i is the series of variables representing the baseline covariates for sample member *i*, including years of age, race, or ethnicity (black, white, Hispanic, or other); whether or not English was the sample member's primary language spoken; whether or not the sample member was employed in the prior year; current receipt of SSI, SSDI, or both; current receipt of TANF benefits; whether or not the sample member has a postsecondary degree; whether or not the sample member has any mental health disorder; overall self-reported health (excellent, very good, or good; fair; or poor); and how the mental and physical health statuses (as measured by the SF-12 component summary scores) individually compare with the general population (well below, below, same or better);

δ is the set of regression coefficients for X_i;

γ represents fixed effects for program locations;

and ε_{ij} is the random error term for sample member *i* in program location *j*.

For an observation with a missing baseline covariate (see the list for Xi above), that covariate was assigned the average sample value, and a dummy variable indicating "missing" for that covariate was set to 1 and thus included in the analysis model with Xi. Fewer than 3 percent of observations had missing values for any given covariate. Missing values for outcome variables were not imputed; observations with missing values for an outcome variable were dropped from the impact analysis for that outcome.

Appendix B

Survey Response Bias Analysis

The Breaking Barriers 15-month follow-up survey collected information from study participants on receipt of employment and mental health services, employment since random assignment, mental and physical health status, household income and public assistance receipt, and satisfaction with the program. The survey was fielded to a subset of the research sample; among this subset, a portion of the sample did not respond to the survey. Because the survey results represent only a subset of the Breaking Barriers study sample, it is necessary to assess the reliability of any survey-based impacts in two ways. First, if participants who responded to the survey differ significantly from those who did not to respond to the survey, or from those who were not fielded the survey, impacts may not be generalizable to the full study sample. Second, if program group members who responded to the survey differ significantly from control group members who responded to the survey, estimates of the program's effects using the survey could be biased.

This appendix presents a description of the survey fielding efforts, assesses whether the impact estimates from the survey represent the program's effects for the full study sample, and assesses the validity of the survey results for estimating program impacts. The analysis found that, (1) respondents differed from non-respondents on a few baseline characteristics, but these differences were not jointly statistically significant, (2) program group respondents did not differ from control group respondents on baseline characteristics, and (3) there were jointly statistically significant differences in baseline characteristics when comparing the fielded sample with the non-fielded sample, and also when comparing the respondent sample with the remaining study sample. Overall, the analysis suggests that there are limitations in generalizing the results to the full research sample.

Survey Administration and Follow-up Period

The follow-up survey was fielded to a subset of the research sample: 995 out of a total of 1,061 sample members. This subset is referred to as the "fielded sample." (See Appendix Box B.1.) The survey was not fielded to sample members who reported, at the time of study enrollment, that their English-speaking abilities were limited (about 6 percent of the full study sample). Sample members who were interviewed for the survey are referred to as "survey respondents" or the "respondent sample." A total of 661 sample members responded to the survey, for an overall response rate of 66 percent among the fielded sample. The program group had a slightly higher response rate (68 percent) than the control group (65 percent).

Fielding of the survey took place between July 2017 and November 2018. Study participants were contacted by the survey firm first via phone to complete the survey; if they could not be reached, a field representative of the survey firm followed up in person. Due to the evaluation's budget limitations, the survey was fielded over three separate periods, which each lasted approximately 3 months. During each period, the survey firm targeted a cohort of individuals who enrolled in the study within a specific seven- to eight-month period. The first cohort, which enrolled in the study between January 2016 and August 2016, responded to the survey sometime

Appendix Box B.1

Key Samples

Research Sample. All individuals in the study randomly assigned between January 2016 and early November 2017.

Fielded Sample. Sample members in the research sample who were selected for the survey interview.

Nonfielded Sample. Sample members in the research sample who were not selected for the survey interview.

Respondent Sample. Sample members who completed the survey.

Nonrespondent Sample. Sample members in the fielded sample who were not interviewed because they were not located, refused to be interviewed, or for other reasons.

between July 2017 and October 2017. The second cohort enrolled in the study between September 2016 and April 2017 and completed the survey sometime between February 2018 and early May 2018. The final cohort, which was randomly assigned between May and November 2017, completed the survey sometime between September and early December 2018.

Because the individuals in a single cohort had a range of random assignment dates, the follow-up periods ranged from 10 to 19 months. The average time from random assignment to survey completion, among all survey respondents, was 15 months.

Comparisons Between Respondents and Nonrespondents

Appendix Table B.1 shows selected characteristics for survey respondents and nonrespondents, based on data collected by Breaking Barriers at the time of study enrollment. Overall, there are few significant differences between the respondent sample and the nonrespondent sample. Respondents were slightly more likely to have had no work experience. Nonrespondents were more likely to be in the middle age group (35 to 44 years old), and respondents were more likely to be at the lower and upper end of the age range. Those with less work experience, and those who are relatively young and relatively old, may be less likely to have steady employment and therefore easier to reach for an interview.

These differences were also tested in a logistic regression model, in which the probability of response was regressed on the baseline characteristics shown in Appendix Table B.1. A test of joint significance indicated that when the baseline characteristics are taken as a whole, there is no statistically significant difference between respondents and nonrespondents.

Appendix Table B.1

Selected Baseline Characteristics of Respondents and Nonrespondents to the 15-Month Survey

Characteristic (%)	Respondents	Nonrespondents	Full Fielded Sample	
Male	43.6	48.1	45.1	
Has mental health disorder	61.8	64.0	62.5	
Age				*
18-24	13.8	9.9	12.5	
25-34	26.9	26.9	26.9	
35-44	21.2	28.4	23.6	
45-59	31.8	30.2	31.3	
60 and older	6.4	4.5	5.7	
Race/ethnicity				
Hispanic	35.5	34.3	35.1	
White, non-Hispanic	41.2	39.2	40.5	
Black, non-Hispanic	13.3	16.3	14.3	
Other	10.1	10.2	10.1	
Primary language				
English	85.3	85.3	85.3	
Spanish	8.8	9.6	9.1	
Other	5.9	5.1	5.6	
Highest level of education achieved				
Less than a high school diploma	15.1	17.7	16.0	
High school diploma or GED certificate	61.9	64.3	62.7	
Associate's degree	7.8	6.6	7.4	
Bachelor's degree	12.0	9.0	11.0	
Graduate degree or Ph.D.	3.2	2.4	2.9	
Number of months worked in past 3 years				*
6 months or less	43.4	45.9	44.3	
7 to 12 months	15.5	16.8	15.9	
13 to 24 months	12.0	11.7	11.9	
More than 24 months	20.5	21.9	21.0	
Never worked	8.6	3.6	7.0	
Sample size	661	334	995	

SOURCE: Calculations based on data from the Breaking Barriers management information system.

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

Comparisons Between Research Groups in the Survey Respondent Sample

Although random assignment research designs ensure that the program and control groups are similar to each other at the time of study enrollment, there is a possibility that the selective nature of the survey response process could result in differences between the two groups of respondents. If differences emerge, then the impact estimates derived from the respondent sample may be biased.

Overall, program and control group respondents look nearly the same across baseline characteristics. Selected baseline characteristics for program and control group respondents are shown in Appendix Table B.2; there are no statistically significant baseline differences between the two groups. These differences were also tested in a logistic model, in which the probability of research group assignment was regressed on the baseline characteristics shown in Appendix Table B.2. A test of joint significance confirmed that the baseline characteristics of program group respondents and control group respondents do not differ.

Comparisons Between the Fielded Sample and the Nonfielded Sample

As discussed earlier, the survey was not fielded to a subset of study participants who had limited English-speaking abilities (the nonfielded sample). If there is evidence that the fielded sample differs from the nonfielded sample, there are limitations in the generalizability of the survey results to the full study sample. Appendix Table B.3 presents selected baseline characteristics for sample members included in the fielded sample and sample members in the nonfielded sample. There are a few statistically significant differences between the two groups: Sample members who were fielded the survey were less likely to have a mental health disorder, more likely to have at least a high school diploma or GED, and more likely to have had any work history, than sample members not fielded the survey.

These differences were also tested in a logistic model, in which the probability of whether the sample member was fielded the survey was regressed on the baseline characteristics shown in Appendix Table B.3. A test of joint significance indicated that there is a statistically significant difference overall between the baseline characteristics of the fielded sample and the nonfielded sample. These results suggest limitations in generalizing the survey-based impact findings beyond the survey respondent sample.

Comparisons Between Survey Respondents and the Remaining Study Sample

An additional comparison can be done between survey respondents and all other sample members (the nonrespondents and those not fielded the survey), to confirm that the survey-based impact findings should not be generalized to the full study sample. Appendix Table B.4 presents differences between the respondent sample and remaining study sample across selected baseline characteristics. Respondents were more likely to be female, more likely to be either at the lower or upper end of the age range, more likely to have English as their primary language, and more likely to have higher levels of education, compared with nonrespondents and those not fielded the survey.

Appendix Table B.2

Selected Baseline Characteristics of Program and Control Group Respondents to the 15-Month Survey

Characteristic (%)	Program Group	Control Group	Full Respondent Sample
Male	44.2	42.9	43.6
Has mental health disorder	63.6	59.9	61.8
Age			
18-24	13.7	13.8	13.8
25-34	25.1	28.8	26.9
35-44	21.8	20.6	21.2
45-59	32.5	31.0	31.8
60 and older	6.9	5.8	6.4
Race/ethnicity			
Hispanic	35.0	36.0	35.5
White, non-Hispanic	38.3	44.1	41.2
Black, non-Hispanic	15.3	11.2	13.3
Other	11.4	8.7	10.1
Primary language			
English	83.9	86.7	85.3
Spanish	10.1	7.4	8.8
Other	6.0	5.9	5.9
Highest level of education achieved			
Less than a high school diploma	13.5	16.7	15.1
High school diploma or GED certificate	62.2	61.7	61.9
Associate's degree	8.1	7.4	7.8
Bachelor's degree	12.3	11.7	12.0
Graduate degree or Ph.D.	3.9	2.5	3.2
Number of months worked in past 3 years			
6 months or less	42.7	44.1	43.4
7 to 12 months	14.6	16.4	15.5
13 to 24 months	11.9	12.0	12.0
More than 24 months	21.8	19.1	20.5
Never worked	9.0	8.3	8.6
Sample size	335	326	661

SOURCE: Calculations based on data from the Breaking Barriers management information system.

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

These differences were also tested in a logistic regression model, in which the probability of response was regressed on the baseline characteristics shown in Appendix Table B.4. A test of joint significance found that there is a statistically significant difference overall between the baseline characteristics of the respondent sample and the remaining study sample. These results further confirm the limitations in generalizing the survey results to the full study sample.

Appendix Table B.3

Selected Baseline Characteristics of Fielded Sample and Non-Fielded Sample

Characteristic	Fielded	Non-Fielded	Full Sample	
Male (%)	45.1	53.0	45.6	
Has mental health disorder (%)	62.5	73.9	63.2	*
Age	39.6	41.7	39.8	
Race/ethnicity (%)				
Hispanic	35.1	37.5	35.3	
White, non-Hispanic	40.5	31.3	39.9	
Black, non-Hispanic	14.3	17.2	14.4	
Other	10.1	14.1	10.4	
Has high school diploma/GED certificate or higher (%)	84.0	42.4	81.4	***
Number of months worked in past 3 years (%)				***
6 months or less	44.3	31.8	43.5	
7 to 12 months	15.9	18.2	16.1	
13 to 24 months	11.9	9.1	11.7	
More than 24 months	21.0	18.2	20.8	
Never worked	7.0	22.7	7.9	
Sample size	995	66	1,061	

SOURCE: Calculations based on data from the Breaking Barriers management information system.

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

Appendix Table B.4

Selected Baseline Characteristics of Respondents to the 15-Month Survey and Remaining Study Sample

Characteristic (%)	Respondents	Non-Respondents and Non-Fielded	Full Sample	
Male	43.6	48.9	45.6	*
Has mental health disorder	61.8	65.6	63.2	
Age				***
18-24	13.8	8.8	11.9	
25-34	26.9	26.8	26.9	
35-44	21.2	28.5	23.9	
45-59	31.8	32.0	31.9	
60 and older	6.4	4.0	5.5	
Race/ethnicity				
Hispanic	35.5	34.8	35.3	
White, non-Hispanic	41.2	37.9	39.9	
Black, non-Hispanic	13.3	16.4	14.4	
Other	10.1	10.9	10.4	
Primary language				***
English	85.3	71.7	80.2	
Spanish	8.8	13.8	10.7	
Other	5.9	14.5	9.2	
Highest level of education achieved				***
Less than a high school diploma	15.1	24.3	18.6	
High school diploma or GED certificate	61.9	59.4	61.0	
Associate's degree	7.8	5.8	7.0	
Bachelor's degree	12.0	8.5	10.7	
Graduate degree or Ph.D.	3.2	2.0	2.7	
Number of months worked in past 3 years				
6 months or less	43.4	43.6	43.5	
7 to 12 months	15.5	17.0	16.1	
13 to 24 months	12.0	11.3	11.7	
More than 24 months	20.5	21.3	20.8	
Never worked	8.6	6.8	7.9	
Sample size	661	400	1,061	

SOURCE: Calculations based on data from the Breaking Barriers management information system.

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

Appendix C

Supplementary Tables for Chapter 2

Appendix Table C.1

Characteristics at Study Enrollment, by Research Group

Outcome	Program Group	Control Group	Full Sample	
Age (%)				
18-24	12.3	11.4	11.9	
25-34	24.6	29.1	26.9	
35-44	25.2	22.7	23.9	
45-59	32.0	31.7	31.9	
60 and older	5.9	5.1	5.5	
Gender (%)				*
Female	51.5	57.4	54.4	
Male	48.5	42.6	45.6	
Race/ethnicity[a] (%)				*
Hispanic[a]	36.6	34.0	35.3	
White, non-Hispanic	36.4	43.5	39.9	
Black, non-Hispanic	16.4	12.5	14.4	
Other	10.7	10.1	10.4	
Disability type[b] (%)				
Mental health disorder, depression	46.5	49.1	47.8	
Mental health disorder, other psychological disorder	39.5	35.8	37.7	
Substance use	34.9	34.0	34.4	
Musculoskeletal injury or other connective disorder	21.3	20.8	21.0	
Developmental/learning	19.0	17.9	18.4	
Heart condition, blood pressure, or other circulatory system	15.0	10.2	12.6	**
Multiple sclerosis, epilepsy or other nervous system	5.1	5.1	5.1	
Vision	3.2	4.0	3.6	
Cancer/neoplasm	1.3	1.7	1.5	
Hearing	0.9	1.3	1.1	
Other	5.5	5.1	5.3	
Self-reported overall health[c] (%)				
Excellent, very good, or good	82.2	82.8	82.5	
Fair	15.3	14.5	14.9	
Poor	2.5	2.7	2.6	
Mental health status, compared with general population norm[d] (%)				
Well below[d]	27.0	28.2	27.6	
Below	14.1	11.3	12.7	
Same or better	58.9	60.6	59.7	

(continued)

Appendix Table C.1 (continued)

Outcome	Program Group	Control Group	Full Sample	
Physical health status, compared with general population norm[d] (%)				
Well below[d]	13.3	13.2	13.3	
Below	11.4	11.8	11.6	
Same or better	75.3	75.0	75.1	
Marital status (%)				
Never married	55.7	53.4	54.5	
Currently married	18.0	17.2	17.6	
Separated, widowed, or divorced	26.3	29.4	27.9	
Primary language (%)				**
English	78.0	82.3	80.2	
Spanish	13.1	8.3	10.7	
Other	8.9	9.4	9.2	
Proficiency in English (%)				
Fluent	82.2	84.3	83.3	
Somewhat fluent	11.6	9.4	10.5	
Not very fluent	4.9	4.9	4.9	
Not at all fluent	1.3	1.3	1.3	
Highest level of education completed (%)				
Less than a high school diploma	18.8	18.3	18.6	
High school degree or GED certificate	60.1	61.9	61.0	
Associate's degree	6.8	7.2	7.0	
Bachelor's degree	10.8	10.6	10.7	
Graduate degree or Ph.D.	3.4	2.1	2.7	
Refugee (%)	7.0	8.1	7.6	
Number of children living at home[e]	1.8	1.5	1.7	**
Age of youngest child[f] (%)				
5 and under[f]	48.5	45.5	47.1	
6-12 years	32.5	30.4	31.5	
13-18 years	12.2	15.6	13.9	
19 years and older	6.8	8.5	7.6	
Sample size	528	533	1,061	

SOURCE: MDRC calculations based on data from the Breaking Barriers management information system.

NOTES: [a]The categories shown here are mutually exclusive.
[b]Not all of these categories are recognized as disabilities by the Social Security Administration.
[c]As measured by question 1 in the second version of the SF-12 questionnaire.
[d]Physical and mental health status was assessed with the second version of the SF-12, standard (4-week recall) version, a validated survey that consists of 12 questions directed toward the respondent. Responses to the SF-12 were scored using Optum PRO CoRE software, which produced normed physical component and mental component summary scores on how these compared with scores for the U.S. 2009 general population.
[e]This measure is among sample members who have children.
[f]This measure is among sample members who have children. This measure includes all children, not just those living at home.

Appendix Table C.2

Benefits and Employment History at Study Enrollment, by Research Group

Outcome	Program Group	Control Group	Full Sample	
Ever employed (%)	91.7	92.5	92.1	
Ever employed at a job for 6 months or longer (%)	78.6	80.6	79.6	
Employed in the past year (%)	43.0	41.2	42.1	
Number of months worked in past 3 years (%)				
6 months or less	42.0	44.9	43.5	
7 to 12 months	15.7	16.4	16.1	
13 to 24 months	11.4	12.1	11.7	
More than 24 months	22.5	19.1	20.8	
Never worked	8.3	7.5	7.9	
Number of children on TANF[a]	1.6	1.3	1.5	***
Currently receiving TANF benefits (%)	30.1	26.6	28.4	
Length of time receiving TANF benefits (%)				
1 to 6 months	11.2	10.9	11.1	
7 to 12 months	4.5	4.2	4.3	
13 to 24 months	3.0	3.8	3.4	
More than 24 months	11.4	7.7	9.5	
Not currently receiving TANF benefits	69.9	73.4	71.6	
Currently receiving SSI/SSDI benefits (%)	22.3	20.9	21.6	
Length of time receiving SSI/SSDI benefits (%)				
1 to 6 months	1.5	0.8	1.1	
7 to 12 months	2.7	1.3	2.0	
13 to 24 months	1.3	1.3	1.3	
More than 24 months	16.9	17.5	17.2	
Not currently receiving SSI/SSDI benefits	77.7	79.1	78.4	
Sample size	528	530	1,058	

SOURCE: MDRC calculations based on data from the Breaking Barriers management information system.

NOTES: SSI = Supplemental Security Income; SSDI = Social Security Disability Insurance; TANF = Temporary Assistance for Needy Families.

[a]This measure is among participants who have children.

Appendix D

Supplementary Tables for Chapter 3

Appendix Table D.1

Additional Measures on Participation in Breaking Barriers Services, by Site

Measure	East	Metro	North	South
Contacted at least once by employment specialist (%)				
Q1	100.0	99.6	100.0	100.0
Q2	77.2	85.8	77.8	71.3
Q3	60.8	73.6	63.0	55.7
Q4	45.5	55.7	34.5	28.6
Client received a service from Breaking Barriers (%)				
Career profile	97.5	95.1	89.8	95.7
Job search	96.2	86.7	90.7	91.3
Interview preparation	35.4	52.4	25.0	24.3
Practice interview	8.9	12.4	9.3	1.7
Benefits planning	27.8	12.9	32.4	13.9
Post-employment support	59.5	48.0	58.3	55.7
Any other activity	100.0	98.7	98.1	100.0
Sample size	79	225	108	115

SOURCE: Calculations based on data from the Breaking Barriers program management information system.

Appendix Table D.2

Source of Services Received

Outcome	Program Group	Control Group
Primary source of help finding or keeping a job (%)		
Breaking Barriers	54.0	1.3
Another career center program or workforce office	7.9	14.4
Family Resource Centers, CalWORKs, or welfare-to-work program	9.4	17.4
Department of Rehabilitation counselor	11.0	30.7
A clubhouse or behavioral or mental health organization	6.1	13.7
A community-based organization, social services organization, or education classes	6.3	14.2
Other	5.2	8.3
Sample size (total = 543)	294	249
Source of help or services related to mental health (%)		
Family Health Centers of San Diego	22.4	22.0
Mental Health Club House	5.5	3.7
Private therapist or psychiatrist	20.0	22.6
Department of Rehabilitation or other county/public program	8.2	3.9
Mental Health Systems	8.3	10.1
Nonprofit, community, or social services organization	11.9	14.6
Health, mental health, or primary care center	15.8	15.4
Other	7.8	7.8
Sample size (total = 347)	172	175

SOURCE: MDRC calculations based on data from the follow-up survey.

Appendix E

Individual Placement and Support Fidelity Reviews and the Supported Employment Fidelity Scale

As described in Chapter 3, this study's conclusion that the job centers delivered Breaking Barriers services with fidelity to the IPS model relied on formal semi-annual fidelity reviews based on the 25-item Supported Employment Fidelity Scale. This appendix briefly describes the reviews and the scale. More information is available in Becker et al. (2015).

The developers of the IPS model recommend the fidelity reviews to help programs ensure they are fully implementing the IPS model. The reviews consist of a site visit by trained reviewers during which the reviewers interview various staff at the organization, including both those directly delivering IPS services (such as the employment specialists or employment specialist supervisor) and organizational leaders; observe internal meetings; observe IPS staff members developing jobs; and review documents. After the visit, the reviewer provides the program with a report that presents the program's score from the review on each of the 25 items, explains why the scores were given, and provides recommendations of steps the program can take to improve their score on items where they did not obtain the highest rating.

The scale consists of 25 items that each focus on a central feature of the IPS model. Appendix Table E.1 presents these items. They represent a mix of items related to the way the program is staffed, organizational buy-in to the IPS approach and adherence to its principles; integration and collaboration among employment services, mental health services, and vocational rehabilitation; and the specific services delivered. These items reflect the organizational conditions and service approaches that the designers of the IPS model determined can best reflect the eight key principles of IPS.

Reviewers rate each item on a scale from 1 to 5, with 1 reflecting no implementation of the item's criteria, and 5 reflecting full implementation. Therefore, possible total scores for the complete set of 25 items range from 25 to 125. The developers of the scale defined ranges to describe a program's level of fidelity as follows:

- Exemplary Fidelity: 115 to 125
- Good Fidelity: 100 to 114
- Fair Fidelity: 74 to 99
- Not Supported Employment: 73 and below

Fidelity Ratings of Breaking Barriers

The consultant conducted reviews of the Breaking Barriers program at each job center four times over the course of the program's operation. The visits occurred at or around June 2016, December 2016, June 2017, and December 2017. Those scores are presented in Appendix Figure E.1. All scores either fell within the "good fidelity" range or the higher end of the "fair fidelity" range. In three of the four job centers, scores improved after the first review.

As noted in Chapter 3, because Breaking Barriers was designed to deliver services in a workforce setting rather than a clinical one, and because its design did not involve clinical partners, the job centers could not receive perfect scores on the scale's items that focus on the IPS key principle of integration between employment and mental health services. These items are the following:

- Integration of Rehabilitation with Mental Health Treatment Through Team Assignment
- Integration of Rehabilitation with Mental Health Treatment Through Frequent Team Member Contact
- Role of Employment Supervisor
- Assertive Engagement and Outreach by Integrated Treatment Team

While more traditional IPS programs that involve integrated teams of mental health and employment service providers can obtain the scale's maximum of 125 points, the job centers could not obtain scores higher than 114 (which is at the top of the range of "good fidelity").

Appendix Table E.1

The 25 Items on the Supported Employment Fidelity Scale

ITEM	DESCRIPTION
Staffing	
Caseload Size	Employment specialists have individual employment caseloads. The maximum caseload for any full-time employment specialist is 20 or fewer clients.
Employment Services	Employment specialists provide only employment services.
Staff Vocational Generalists	Each employment specialist carries out all phases of employment services, including intake, engagement, assessment, job placement, job coaching, and follow-along support before step down to a less intensive employment support from another MH practitioner.
Organization	
Integration of Rehabilitation with Mental Health Treatment Through Team Assignment	Employment specialists are part of up to 2 mental health treatment teams from which at least 90% of the employment specialist's caseload is comprised.
Integration of Rehabilitation with Mental Health Treatment Through Frequent Team Member Contact	Employment specialists actively participate in weekly mental health treatment team meetings (not replaced by administrative meetings) that discuss individual clients and their employment goals with shared decision-making. Employment specialist's office is in close proximity to (or shared with) their mental health treatment team members. Documentation of mental health treatment and employment services are integrated in a single client chart. Employment specialists help the team think about employment for people who haven't yet been referred to supported employment services.
Collaboration Between Employment Specialists and Vocational Rehabilitation Counselors	Employment specialists and VR counselors have frequent contact for the purpose of discussing shared clients and identifying potential referrals.
Vocational Unit	At least 2 full-time employment specialists and a team leader comprise the employment unit. They have weekly client-based group supervision based on the supported employment model in which strategies are identified and job leads are shared. They provide coverage for each other's caseload when needed.
Role of Employment Supervisor	Supported employment unit is led by a supported employment team leader. Employment specialist's skills are developed and improved through outcome-based supervision. All five key roles of the employment supervisor are present.
Zero Exclusion Criteria	All clients interested in working have access to supported employment services regardless of job readiness factors, substance abuse, symptoms, history of violent behavior, cognitive impairments, treatment nonadherence, and personal presentation. These apply during supported employment services, too. Employment specialists offer to help with another job when one has ended regardless of the reason that the job ended or the number of jobs held. If VR has screening criteria, the mental health agency does not use them to exclude anybody. Clients are not screened out formally or informally.

(continued)

Appendix Table E.1 (continued)

ITEM	DESCRIPTION
Agency Focus on Competitive Employment	Agency promotes work through multiple strategies. Agency intake includes questions about interest in competitive employment. Agency displays written postings (e.g., brochures, bulletin boards, posters) about employment and supported employment services. The focus should be with the agency programs that provide services to adults with severe mental illness. Agency supports ways for clients to share work stories with other clients and staff. Agency measures rate of competitive employment and shares this information with agency leaders and staff.
Executive Team Support for SE	Agency executive team members (e.g., CEO/Executive Director, Chief Operating Officer, QA Director, Chief Financial Officer, Clinical director, Medical Director, Human Resource Director) assist with supported employment implementation and sustainability. All five key components of executive team are present.
Services	
Work Incentives Planning	All clients are offered assistance in obtaining comprehensive individualized work incentives planning (benefits planning) before starting a new job and assistance accessing work incentives planning thereafter when making decisions about changes in work hours and pay. Work incentives planning includes SSA benefits, medical benefits, medication subsidies, housing subsidies, food stamps, spouse and dependent children benefits, past job retirement benefits and any other source of income. Clients are provided information and assistance about reporting earnings to SSA, housing programs, VA programs, etc., depending on the person's benefits.
Disclosure	Employment specialists provide clients with accurate information and assist with evaluating their choices to make an informed decision regarding what is revealed to the employer about having a disability.
Ongoing, Work-Based Vocational Assessment	Initial vocational assessment occurs over 2-3 sessions and is updated with information from work experiences in competitive jobs. A vocational profile form that includes information about preferences, experiences, skills, current adjustment, strengths, personal contacts, etc. is filed in the client's clinical chart and is updated with each new job experience. Aims at problem-solving using environmental assessments and consideration of reasonable accommodations. Sources of information include client, treatment team, clinical records, and with the client's permission, from family members and previous employers.
Rapid Job Search for Competitive Job	Initial employment assessment and first face-to-face employer contact by the client or the employment specialist about a competitive job occurs within 30 days (one month) after program entry.

(continued)

Appendix Table E.1 (continued)

ITEM	DESCRIPTION
Individualized Job Search	Employment specialists make sure employer contacts are aimed at making a good job match based on clients' preferences (relating to what each person enjoys and their personal goals) and needs (including experience, ability, symptomatology, health, etc.) rather than the job market (i.e., those jobs that are readily available). An individualized job search plan is developed and updated with information from the vocational assessment/profile form and new job/educational experiences.
Job Development – Frequent Employer Contact	Each employment specialist makes at least 6 face-to-face employer contacts per week on behalf of clients looking for work. (Rate for each then calculates average and use the closest scale point.) An employer contact is counted even when an employment specialist meets an employer twice in one week, and when the client is present or not present. Client specific and generic contacts are included. Employment specialists use a weekly tracking form to document employer contacts and the form is reviewed by the supervisor on a weekly basis.
Job Development – Quality of Employer Contact	Employment specialists build relationships with employers through multiple visits in person that are planned to learn the needs of the employer, convey what the SE program offers to the employer, and describe client's strengths that are a good match for the employer.
Diversity of Job Types	Employment specialists assist clients in obtaining different types of jobs.
Diversity of Employers	Employment specialists assist clients in obtaining jobs with different employers.
Competitive Jobs	Employment specialists provide competitive job options that have permanent status rather than temporary or time-limited status, (e.g., transitional employment positions). Competitive jobs pay at least minimum wage, are jobs that anyone can apply for, and are not set aside for people with disabilities. (Seasonal jobs and jobs from temporary agencies that other community members use are counted as competitive jobs.)
Individualized Follow-Along Supports	Clients receive different types of support for working a job that are based on the job, client preferences, work history, needs, etc. Support can be provided by a variety of people including treatment team members (i.e., medication changes, social skills training, encouragement), family, friends, co-workers (i.e., natural support) and employment specialist. Employment specialists also provide employer support (e.g., educational information, job accommodations) at client's request. Employment specialists offer help with career development, i.e., assistance with education, a more desirable job, or more preferred job duties.

(continued)

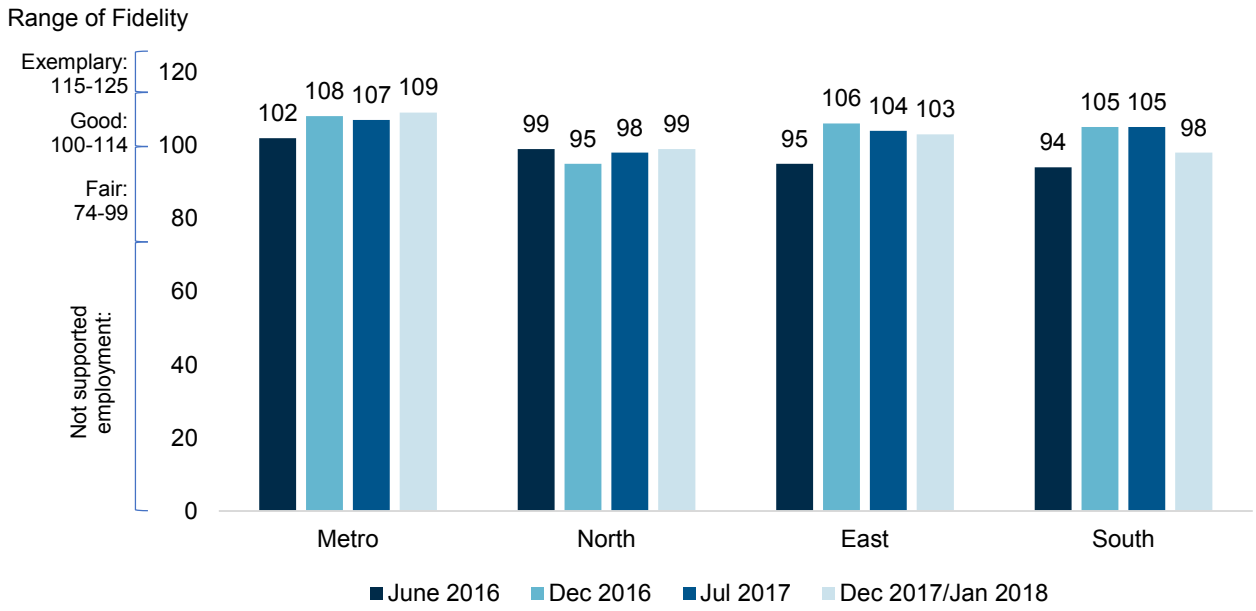
Appendix Table E.1 (continued)

ITEM	DESCRIPTION
Time-Unlimited Follow-Along Supports	Employment specialists have face-to-face contact within 1 week before starting a job, within 3 days after starting a job, weekly for the first month, and at least monthly for a year or more, on average, after working steadily and desired by clients. Clients are transitioned to step-down job support from a mental health worker following steady employment. Employment specialists contact clients within 3 days of learning about a job loss.
Community-Based Services	Employment services such as engagement, job finding and follow-along support are provided in natural community settings by all employment specialists. (Rate each employment specialist based upon their total weekly scheduled work hours then calculate the average and use the closest scale point.)
Assertive Engagement and Outreach by Integrated Treatment Team	Service termination is not based on missed appointments or fixed time limits. Systematic documentation of outreach attempts. Engagement and outreach attempts made by integrated team members. Multiple home/community visits. Coordinated visits by employment specialist with integrated team member. Connect with family, when applicable. Once it is clear that the client no longer wants to work or continue in SE services, the team stops outreach.

Source: Breaking Barriers Individual Placement and Support Fidelity Review reports, which follow Becker et al. (2015).

Appendix Figure E.1

Individual Placement and Support Fidelity Ratings for Breaking Barriers, by Program Site



SOURCE: Data are from the fidelity reviews conducted by an Individual Placement and Support consultant.

Appendix F

Supplementary Tables for Chapter 4

Appendix Table F.1

Impacts by Educational Attainment at Baseline

Outcome	No Postsecondary Education				Any Postsecondary Education				H-Statistic
	Program	Control	Impact	P-value	Program	Control	Impact	P-value	
Ever employed (%)	74.8	69.6	5.2	0.324	72.3	71.6	0.7	0.883	
Total earnings ($)	12,375.81	9,542.03	2,833.78	0.108	10,403.21	12,341.78	-1,938.57	0.250	††
Months employed	7.1	6.1	1.0	0.151	6.4	6.3	0.1	0.899	
Currently employed (%)	62.7	55.5	7.2	0.208	59.0	57.6	1.4	0.777	
Physical health is the same or better than the general population norm[a] (%)	77.6	67.7	9.9 **	0.040	62.0	66.6	-4.6	0.271	††
Mental health is the same or better than the general population norm[a] (%)	62.2	60.1	2.1	0.712	56.8	62.7	-5.9	0.236	
Received public assistance (%)									
SSI and/or SSDI	31.0	34.4	-3.4	0.445	39.7	39.4	0.3	0.938	
Welfare or CalWorks (TANF)	28.9	30.8	-1.9	0.692	28.6	29.8	-1.2	0.766	
Unemployment insurance	6.3	3.2	3.1	0.239	7.2	8.1	-0.8	0.770	
Housing choice voucher	11.3	14.3	-3.0	0.465	9.3	13.3	-4.1	0.231	
Food stamps	51.3	53.7	-2.4	0.650	54.8	51.2	3.6	0.441	
Child support	14.6	6.8	7.8	0.148	11.1	17.1	-6.1	0.309	†
Sample size	143	141			184	176			

SOURCE: MDRC calculations based on data from the follow-up survey.

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

SSI = Supplemental Security Income; SSDI = Social Security Disability Insurance; TANF = Temporary Assistance for Needy Families.

The H-statistic is used to assess whether the difference between subgroup impacts is statistically significant. Statistically significant differences between subgroups are indicated as follows: ††† = 1 percent, †† = 5 percent, † = 10 percent.

[a]Physical and mental health status was assessed with the second version of the SF-12, standard (4-week recall) version, a validated survey that consists of 12 questions directed toward the respondent. Responses to the SF-12 were scored using Optum PRO CoRE software, which produced normed physical component and mental component summary scores on how these compared with scores for the U.S. 2009 general population.

Appendix Table F.2

Impacts by Disability Type at Baseline

Outcome	No Mental Health Disorder				Any Mental Health Disorder				H-Statistic
	Program	Control	Impact	P-Value	Program	Control	Impact	P-Value	
Ever employed (%)	83.4	74.8	8.6	0.118	68.8	67.1	1.7	0.700	
Total earnings ($)	14,568.00	13,110.75	1,457.26	0.552	9,857.69	9,383.49	474.20	0.723	
Months employed	8.1	6.6	1.5 *	0.065	6.0	5.9	0.1	0.846	
Currently employed (%)	73.5	62.6	11.0 *	0.072	53.8	52.6	1.2	0.813	
Physical health is the same or better than the general population norm[a] (%)	78.6	75.5	3.0	0.522	63.2	61.7	1.6	0.715	
Mental health is the same or better than the general population norm[a] (%)	77.1	76.1	1.0	0.863	48.0	53.3	-5.3	0.276	
Received public assistance (%)									
SSI and/or SSDI	36.0	36.8	-0.9	0.865	35.7	37.9	-2.2	0.564	
Welfare or CalWorks (TANF)	18.5	26.5	-8.1	0.107	35.3	31.5	3.8	0.349	†
Unemployment insurance	4.5	3.1	1.4	0.601	8.1	7.7	0.4	0.889	
Housing choice voucher	7.8	13.3	-5.6	0.188	12.3	13.0	-0.6	0.847	
Food stamps	43.0	49.4	-6.4	0.277	58.1	54.8	3.3	0.463	
Child support	11.3	4.7	6.6	0.263	14.5	16.3	-1.8	0.762	
Sample size	119	127			210	190			

SOURCE: MDRC calculations based on data from the follow-up survey.

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

SSI = Supplemental Security Income; SSDI = Social Security Disability Insurance; TANF = Temporary Assistance for Needy Families.

The H-statistic is used to assess whether the difference between subgroup impacts is statistically significant. Statistically significant differences between subgroups are indicated as follows: ††† = 1 percent, †† = 5 percent, † = 10 percent.

[a]Physical and mental health status was assessed with the second version of the SF-12, standard (4-week recall) version, a validated survey that consists of 12 questions directed toward the respondent. Responses to the SF-12 were scored using Optum PRO CoRE software, which produced normed physical component and mental component summary scores on how these compared with scores for the U.S. 2009 general population.

Appendix Table F.3

Impacts by Employment History at Baseline

Outcome	Not Employed in Past Year				Employed in Past Year				H-Statistic
	Program	Control	Impact	P-Value	Program	Control	Impact	P-Value	
Ever employed (%)	64.8	61.7	3.1	0.531	85.8	83.5	2.3	0.627	
Total earnings ($)	9,612.33	8,117.13	1,495.21	0.309	14,423.05	15,932.71	-1,509.65	0.493	
Months employed	5.4	5.1	0.4	0.508	8.3	8.2	0.1	0.879	
Currently employed (%)	54.4	46.9	7.6	0.135	69.4	70.8	-1.3	0.819	
Physical health is the same or better than the general population norm[a] (%)	67.1	61.9	5.2	0.213	71.2	75.3	-4.1	0.418	
Mental health is the same or better than the general population norm[a] (%)	57.0	61.7	-4.7	0.336	61.5	63.1	-1.6	0.787	
Received public assistance (%)									
SSI and/or SSDI	42.4	44.4	-2.0	0.602	26.2	27.7	-1.5	0.765	
Welfare or CalWorks (TANF)	25.8	28.0	-2.2	0.592	32.2	31.9	0.3	0.946	
Unemployment insurance	5.1	2.0	3.1	0.122	8.0	11.5	-3.4	0.371	
Housing choice voucher	10.1	15.9	-5.8 *	0.098	11.5	9.8	1.7	0.670	
Food stamps	50.1	48.0	2.1	0.645	54.3	59.9	-5.6	0.334	
Child support	4.3	14.7	-10.4 **	0.047	20.9	7.9	13.0 **	0.048	†††
Sample size	188	185			136	128			

SOURCE: MDRC calculations based on data from the follow-up survey.

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

SSI = Supplemental Security Income; SSDI = Social Security Disability Insurance; TANF = Temporary Assistance for Needy Families.

The H-statistic is used to assess whether the difference between subgroup impacts is statistically significant. Statistically significant differences between subgroups are indicated as follows: ††† = 1 percent, †† = 5 percent, † = 10 percent.

[a]Physical and mental health status was assessed with the second version of the SF-12, standard (4-week recall) version, a validated survey that consists of 12 questions directed toward the respondent. Responses to the SF-12 were scored using Optum PRO CoRE software, which produced normed physical component and mental component summary scores on how these compared with scores for the U.S. 2009 general population.

Appendix Table F.4

Impacts by Time of Random Assignment

	Late				Early				
Outcome	Program	Control	Impact	P-Value	Program	Control	Impact	P-Value	H-Statistic
Ever employed (%)	77.9	75.6	2.3	0.615	68.2	66.4	1.8	0.734	
Total earnings ($)	12,787.88	11,960.27	827.61	0.639	9,986.43	9,836.87	149.57	0.929	
Months employed	7.0	6.6	0.3	0.609	6.3	5.8	0.4	0.561	
Currently employed (%)	63.0	61.0	2.0	0.705	57.6	53.7	3.9	0.476	
Physical health is the same or better than the general population norm[a] (%)	68.3	64.9	3.5	0.443	69.2	69.3	-0.1	0.987	
Mental health is the same or better than the general population norm[a] (%)	59.1	60.9	-1.8	0.740	58.8	62.7	-3.9	0.467	
Received public assistance (%)									
SSI and/or SSDI	33.3	38.3	-5.0	0.259	38.0	37.2	0.8	0.847	
Welfare or CalWorks (TANF)	29.6	25.8	3.8	0.376	28.9	32.9	-4.0	0.378	
Unemployment insurance	9.4	5.5	3.9	0.202	3.9	6.4	-2.5	0.324	
Housing choice voucher	10.0	11.3	-1.3	0.708	12.0	15.0	-3.0	0.446	
Food stamps	55.9	58.1	-2.2	0.646	48.8	47.4	1.4	0.776	
Child support	11.1	6.8	4.3	0.440	15.4	15.6	-0.2	0.974	
Sample size	175	162			154	157			

SOURCE: MDRC calculations based on responses to the Breaking Barriers follow-up survey.

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

SSI = Supplemental Security Income; SSDI = Social Security Disability Insurance; TANF = Temporary Assistance for Needy Families.

The H-statistic is used to assess whether the difference between subgroup impacts is statistically significant. Statistically significant differences between subgroups are indicated as follows: ††† = 1 percent, †† = 5 percent, † = 10 percent.

"Early" is considered January 2016 though November 2016. "Late" is considered December 2016 through the end of random assignment (early November 2017).

[a]Physical and mental health status was assessed with the second version of the SF-12, standard (4-week recall) version, a validated survey that consists of 12 questions directed toward the respondent. Responses to the SF-12 were scored using Optum PRO CoRE software, which produced normed physical component and mental component summary scores on how these compared with scores for the U.S. 2009 general population.

References

Becker, Deborah R., Sarah J. Swanson, Sandra L. Reese, Gary R. Bond, and Bethany M. McLeman. 2015. *Supported Employment Fidelity Review Manual.* Lebanon, NH: IPS Employment Center.

Bejerholm, Ulrika, Cecilia Areberg, Caisa Hofgren, Mikael Sandlund, and Miles Rinaldi. 2015. "Individual Placement and Support in Sweden — A Randomized Controlled Trial." *Nordic Journal of Psychiatry* 69, 1: 57-66.

Bond, Gary R., Michelle P. Salyers, Jerry Dincin, Robert E. Drake, Deborah R. Becker, Virginia V. Fraser, and Michael Haines. 2007. "A Randomized Controlled Trial Comparing Two Vocational Models for Persons with Severe Mental Illness." *Journal of Consulting and Clinical Psychology* 75, 6: 968-982.

Bond, Gary R., Sunny Jung Kim, Deborah R. Becker, Sarah J. Swanson, Robert E. Drake, Izabela M. Krzos, Virginia V. Fraser, Sheila O'Neill, and Rochelle L. Frounfelker. 2015. "A Controlled Trial of Supported Employment for People with Severe Mental Illness and Justice Involvement." *Psychiatric Services* 66, 10: 1027-1034.

Bond, Gary R., and Robert E. Drake. 2012. "Making the Case for IPS Supported Employment." *Administration and Policy in Mental Health and Mental Health Services Research* 41, 1: 69-73.

Bond, Gary R., Robert E. Drake, and Jaqueline A. Pogue. 2019. "Expanding Individual Placement and Support to Populations with Conditions and Disorders Other Than Serious Mental Illness." *Psychiatric Services* 70, 6: 488-498.

Burns, Tom, Jocelyn Catty, Thomas Becker, Robert E Drake, Angelo Fioritti, Martin Knapp, Christoph Lauber, Wulf Rössler, Toma Tomov, Jooske van Busschbach, Sarah White, and Durk Wiersma. 2007. "The Effectiveness of Supported Employment for People with Severe Mental Illness: A Randomised Controlled Trial." *Lancet* 370, 9593: 1146-1152.

Davis, Lori L., Tassos C. Kyriakides, Alina M. Suris, Lisa A. Ottomanelli, Lisa Mueller, Pamela E. Parker, Sandra G. Resnick, Richard Toscano, Alexandra A. Scrymgeour, Robert E. Drake. 2018. "Effect of Evidence-Based Supported Employment vs Transitional Work on Achieving Steady Work Among Veterans with Posttraumatic Stress Disorder A Randomized Clinical Trial." *JAMA Psychiatry* 75, 4: 316-324.

Farrell, Mary, Peter Baird, Bred Barden, Mike Fishman, and Rachel Pardoe. 2013. *The TANF/SSI Disability Transition Project: Innovative Strategies for Serving TANF Recipients with Disabilities.* New York: MDRC.

Frederick, Donald E., and Tyler J. VanderWeele. 2019. "Supported Employment: Meta-Analysis and Review of Randomized Controlled Trials of Individual Placement and Support." *PLoS ONE* 14, 2.

Gold, B. Paul, Neil Meisler, Alberto B. Santos, Mark A. Carnemolla, Olivia H. Williams, and Jennie Keleher. 2006. "Randomized Trial of Supported Employment Integrated with Assertive Community Treatment for Rural Adults with Severe Mental Illness." *Schizophrenia Bulletin* 32, 2: 378-395.

IPS Employment Center. 2017. "IPS Practice and Principles." Website: https://ipsworks.org/index.php/documents/ips-practice-and-principles.

Kim, Sunny Jung, Gary R. Bond, Deborah R. Becker, Sarah J. Swanson, and Sandra Langfitt-Reese. 2015. "Predictive Validity of the Individual Placement and Support Fidelity Scale (IPS-25): A Replication Study." *Journal of Vocational Rehabilitation* 43, 3: 209-216.

Latimer, Eric A., Philip W. Bush, Deborah R. Becker, Robert E. Drake, Gary R. Bond. 2004. "The Cost of High-Fidelity Supported Employment Programs for People with Severe Mental Illness." *Psychiatric Services* 55, 4: 401-406.

Lehman, Anthony F., Richard Goldberg, Lisa B. Dixon, Scot McNary, Leticia Postrado, Ann Hackman, and Karen McDonnell. 2002. "Improving Employment Outcomes for Persons with Severe Mental Illness." *Archives of General Psychiatry* 59, 2: 165-172.

Lones, Carrie E., Gary R. Bond, Mark P. McGovern, Kathryn Carr, Teresa Leckron-Myers, Time Hartnett, and Deborah R. Becker. 2017. "Individual Placement and Support (IPS) for Methadone Maintenance Therapy Patients: A Pilot Randomized Controlled Trial." *Administration and Policy in Mental Health and Mental Health Services Research* 44, 3: 359-364.

Maruish, Mark E. (ed.). 2012. *User's Manual for the SF-12v2 Health Survey (Third Edition).* Lincoln, RI: QualityMetric Incorporated.

Mastri, Annalisa, and AnnaMaria McCutcheon. 2015. *Costs of Services Provided by the WIA Adult and Dislocated Worker Programs.* Oakland, CA: Mathematica Policy Research and Social Policy Research Associates.

Mental Illness Policy Org. n.d. "What is 'Serious Mental Illness and What is Not?" Accessed June 24, 2019. Website: https://mentalillnesspolicy.org/serious-mental-illness-not.

Modini, Matthew, Leona Tan, Beate Brinchmann, Min-Jung Wang, Eoin Killackey, Nicholas Glozier, Arnstein Mykletun, and Samuel B. Harvey. 2016. "Supported Employment for People with Severe Mental Illness: Systematic Review and Meta-Analysis of the International Evidence." *The British Journal of Psychiatry* 209, 1: 14-22.

National Council for Behavioral Health. n.d. "Community Mental Health Act." Website: www.thenationalcouncil.org/about/national-mental-health-association/overview/community-mental-health-act.

Ottomanelli, Lisa, Scott D. Barnett, and Lance L. Goetz. 2014. "Effectiveness of Supported Employment for Veterans with Spinal Cord Injury: 2-Year Results." *Archives of Physical Medical and Rehabilitation* 95, 4: 784-790.

San Diego Workforce Partnership. 2014. "News." Website: https://workforce.org/news/press-release-6m-awarded-san-diego-workforce-partnership-through-workforce-innovation-fund.

Twamley, Elizabeth W., Lea Vella, Cynthia Z. Burton, Deborah R. Becker, Morris D. Bell, and Dilip V. Jeste. 2012. "The Efficacy of Supported Employment for Middle-Aged and Older People with Schizophrenia." *Schizophrenia Research* 135, 1-3: 100-104.

U.S. Bureau of Labor Statistics. 2019. "Economic News Release." Website: www.bls.gov/news.release/disabl.nr0.htm.

U.S. Bureau of Labor Statistics. n.d.a. “Labor Force Statistics from the Current Population Survey.” Website: www.bls.gov/cps/#tables.

U.S. Bureau of Labor Statistics. n.d.b. “State and Metro Area Employment, Hours, & Earnings.” Website: www.bls.gov/sae.

U.S. Census Bureau. n.d. “Quick Facts.” Website: www.census.gov/quickfacts/fact/table/US/PST045218.