



Expanding Opportunities & Reducing Barriers to Work: Mississippi Final Report

Evaluation of Pilot Projects to Promote Work and Increase State Accountability in the Supplemental Nutrition Assistance Program



(Evaluation of USDA, Supplemental Nutrition Assistance Program (SNAP) Employment and Training Pilots)

May 2022

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Glossary

ABAWD	Able-bodied adult without dependents. 18- to 49-year-old adult who is not disabled and does not have dependents
BCCS	Basic Community College Services. One of two treatment groups
CARES Act	Coronavirus Aid, Relief, and Economic Security Act. An economic stimulus bill signed into law on March 27, 2020 that implemented a variety of programs to address issues related to the onset of the COVID-19 pandemic
CNA	Certified nursing assistant
Control group	A group of individuals enrolled in a SNAP Employment and Training (E&T) pilot that was eligible for services available through existing SNAP E&T programs if such programs were available to the control group in the pilot location
ECCS	Enhanced Community College Services. One of two treatment groups
EDGE	Ethics, Discipline, Goals, Employment. The SNAP Employment and Training pilot implemented in Mississippi
EMCC	East Mississippi Community College
Food security	Having access at all times to enough food for an active, healthy life. Individuals who experienced food access limitations due to lack of money or other resources are said to be food insecure
GED	General Education Development. A group of subject tests which, when passed, certify that the test taker has high school-level academic skills
HMO	Health maintenance organization
ICC	Itawamba Community College
ICP	Individual career plan
ITT	Intention-to-treat analysis. An analytical method where individuals are evaluated based on their initial random assignment group regardless of whether they received the treatment
JCJC	Jones County Junior College
JMG	Jobs for Mississippi Graduates
LWIA	Local workforce investment area. A group of one or more counties that provide workforce development services
MDCC	Mississippi Delta Community College
MDES	Mississippi Department of Employment Security
MDHS	Mississippi Department of Human Services
MGCCC	Mississippi Gulf Coast Community College
MIS	Management information system
NSPARC	Mississippi State University's National Strategic Planning and Analysis Research Center

PPO	Preferred provider organization
Random assignment	An experimental technique for assigning individuals enrolled in a SNAP Employment and Training pilot into research groups (a treatment or control group)
Research group	A group of individuals enrolled in a SNAP Employment and Training pilot that was either eligible for enhanced services (a treatment group) or eligible for services available through existing SNAP E&T programs where available (a control group)
SNAP	Supplemental Nutrition Assistance Program. A Federal nutrition assistance program
SNAP E&T	A program that assists SNAP participants in obtaining employment by providing services, such as job search assistance, job skills training, education, work experience, or workfare, and supports, such as assistance with transportation and child care costs
SSI	Supplemental Security Income. A Federal income supplement program
TABE	Test of Adult Basic Education. A standardized placement test to assess academic readiness
TANF	Temporary Assistance for Needy Families. A Federal grant program designed to help needy families achieve self-sufficiency
Treatment group	A group of individuals enrolled in a SNAP Employment and Training pilot that was eligible for the enhanced set of services developed under the pilot
UI	Unemployment insurance. A Federal program to provide unemployment benefits to eligible workers
USDA	U.S. Department of Agriculture
Very low food security	A severe form of food insecurity characterized by disrupted eating patterns and reduced food intake
WIA	Workforce Investment Act Gold Standard Evaluation. The most recent national study of the Adult and Dislocated Worker program services conducted in 2012
WIC	Supplemental Nutrition Program for Women, Infants, and Children. A Federal assistance program that provides food, health care referrals, and nutrition education to low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children
WIN	Workforce Investment Network
WIOA	Workforce Innovation and Opportunity Act
Work registrant	SNAP participant who has not met any Federal exemptions from SNAP work requirements and is therefore required to register for work
WorkKeys	A workplace skills assessment that measures a range of hard and soft skills

Overview

This report presents findings from the evaluation of a SNAP Employment and Training (SNAP E&T) pilot—Ethics, Discipline, Goals, Employment (EDGE)—that was implemented in Mississippi from March 2016 to February 2019. This was one of 10 pilots Congress authorized and funded under the Agricultural Act of 2014 that offered enhanced SNAP E&T services to assist SNAP participants in obtaining employment. EDGE was mandatory and offered in 29 counties. The Mississippi Department of Human Services (MDHS) targeted able bodied adults without dependents—adults ages 18 to 49 who are not disabled and have no dependents—for EDGE. It enrolled 3,051 SNAP participants in the pilot, randomly assigning them in roughly equivalent numbers to one of three groups: the Enhanced Community College Services (ECCS) group (eligible for enhanced services and any other employment and training services available in the community), the Basic Community College Services (BCCS) group (eligible for enhanced services (fewer than the ECCS group) and any other employment and training services available in the community), and the control group (eligible for existing SNAP E&T services and any other employment and training services available in the community). The ECCS group was required to enroll in a four-week career readiness course, and was offered intensive case management, support services, and a choice of three pathways—academic (basic education, post-secondary education, or occupational skills training), work (subsidized or unsubsidized employment), and life skills (work or behavioral skills). The BCCS group was offered the three pathways, similar support services (but less transportation assistance), and less-intensive case management than the ECCS group.

MDHS was able to coordinate with five community colleges to create a network of career navigation, employment, education, and occupational skills training activities for those in EDGE (ECCS and BCCS) groups. Although staff struggled to enroll and retain individuals, EDGE group members reported having positive experiences with their career navigators and the support they received in finding jobs. Despite the EDGE staff having challenges getting individuals to engage in services, those in EDGE were more likely than control group members to start an activity, complete an activity, and receive a support service. Their increased engagement led to an increase in earnings over time for both the ECCS and BCCS groups based on UI data and an increase in rates of SNAP participation for the BCCS group but not the ECCS group. EDGE did not impact employment for the ECCS or BCCS groups. EDGE group members earned significantly more than control group members; thus, the overall benefits of the pilot outweighed the costs.

Because the ECCS and BCCS groups had rates of employment that were similar to the rates for the control group, the relative increase in earnings suggests that ECCS and BCCS group members obtained higher-paying jobs relative to the control group. The economic conditions in the pilot area and process for offering services may help explain why EDGE group members earned significantly higher earnings than control group members. While designing EDGE, MDHS believed that jobs were available in the community, but those that pay higher wages required training and credentials. Unlike the control group, the EDGE group had access to education and occupational skills training through the community colleges. Some resulted in licenses or credentials, which would prepare EDGE group members for higher paying jobs. Also, all EDGE services and activities were offered at one location and did not require referrals to other providers or locations, which reduced the opportunities for individuals to leave EDGE before completing services. All of these factors contributed to increases in the percentage of individuals who participated in employment or training-related activities for both the ECCS and BCCS groups. (For the ECCS group in particular, EDGE nearly doubled the percentage of individuals who participated in

these activities relative to the control group.) Individuals in the EDGE group also participated for twice as many months as the control group and for two to three times as many hours per week.

Executive Summary

The Supplemental Nutrition Assistance Program (SNAP) is the primary source of nutrition assistance for many individuals and families with low incomes. SNAP provides monthly benefits to help participants obtain adequate access to food; for some program participants, it also provides work supports through SNAP Employment and Training (E&T) programs to help them become economically self-sufficient. Although States are required to administer a SNAP E&T program, they have flexibility in determining and designing its services and activities. States typically offer SNAP participants some case management and support services, and a range of activities, that includes job search assistance or training, occupational skills training, and basic education.

Because SNAP E&T programs are so varied and are administered at the State or local level, information about the most effective approaches for helping SNAP participants gain skills and find work is limited. For this reason, as part of the Agricultural Act of 2014, Congress authorized and funded the SNAP E&T pilots to test innovative strategies for connecting SNAP participants with jobs that would increase their incomes and reduce their need for public assistance. In 2015, the U.S. Department of Agriculture’s Food and Nutrition Service (FNS) awarded grants to 10 States—California, Delaware, Georgia, Illinois, Kansas, Kentucky, Mississippi, Vermont, Virginia, and Washington—which represented diverse service areas and populations. The pilots varied in whether they operated statewide or only in selected areas, and whether they focused on urban communities, rural communities, or both. The majority of individuals the pilots targeted were unemployed or underemployed and faced significant barriers to employment, such as being homeless or having a criminal history or substance use disorder. Pilots generally expanded the types and amounts of services provided through States’ existing SNAP E&T programs. Services typically included (1) a comprehensive skills or clinical assessment to determine an individual’s work readiness, skills, and barriers to employment; (2) case management services that developed and supported a detailed individualized work and barrier-reduction plan; and (3) support services,¹ such as transportation assistance, child care, housing assistance, and training or work supplies that helped reduce barriers to both engagement in the pilot and employment. The pilots also offered a range of employment and training-related activities, such as independent job search, job readiness training, job search assistance, basic education, occupational skills training, and work-based learning opportunities (such as subsidized employment, work experience, internships, and work study). Each pilot enrolled 3,000 to 7,000 individuals, for a total of 44,359 individuals across the 10 pilots.

Services are resources provided or administered to individuals, such as assessments, case management, and support services.

Activities are employment or training-related events in which individuals participate, such as job search assistance training, basic education, occupational skills training, or work-based learning.

The authorizing legislation also required a rigorous, longitudinal evaluation of the pilots to assess whether the innovative strategies they used were successful in connecting SNAP participants with jobs that increased their incomes and reduced their need for public assistance benefits. This report summarizes

¹ Referred to as participant reimbursements in the SNAP E&T program; however, for this report, we describe the package of services as support services.

evaluation findings for one State—Mississippi.² It provides a detailed description of the pilot’s design and implementation and, using data for up to three years following random assignment, examines the services individuals received and assesses the effectiveness of those services in improving individuals’ outcomes. The report also includes findings from the cost-benefit analysis, which itemizes specific monetary costs and benefits of pilot services, and assesses whether the benefits of the services and activities offered through the pilot were large enough to offset their costs.

Mississippi pilot background

In March 2016, the Mississippi Department of Human Services (MDHS), which administers SNAP, began enrollment in its pilot, Ethics, Discipline, Goals, Employment (EDGE) in 29 counties. The 29 counties include both urban and rural areas and are located in five community college districts. From March 2016 to September 2018, MDHS enrolled 3,051 SNAP participants in the pilot, mostly targeting able-bodied adults without dependents (ABAWDs).

In contrast to the State’s existing SNAP E&T program, which was mandatory and focused primarily on job search and workfare, MDHS’ EDGE offered intensive services with two variations: Enhanced Community College Services (ECCS) and Basic Community College Services (BCCS), both mandatory. Under ECCS, individuals were offered a four-week career readiness course called the EDGE class, intensive case management, and access to three pathways based on an individual’s career plan. The pathways included academic (basic education, post-secondary education, or occupational skills training), work (subsidized or unsubsidized employment or internships), and life skills (additional work or behavioral skills). ECCS also offered support services, including transportation, training-related items, and work-related items (uniforms, books, and tools). Under BCCS, individuals were offered the three pathways (the EDGE class was not available to them), support services similar to ECCS, and less-intensive case management.

Evaluation overview

The evaluation included the following four components:

1. An *implementation analysis* that documented the context and operations of each pilot
2. A *participation analysis* that examined the characteristics, participation levels, and service paths of individuals in the pilots
3. An *impact analysis* that identified what works, and for whom, by examining impacts on employment and earnings; public assistance receipt; and other outcomes, such as food security, health, well-being, and housing
4. A *cost-benefit analysis* that estimated the return on each dollar invested in the pilots

The evaluation used an experimental research design in which individuals eligible for SNAP E&T who were enrolled in the pilot were randomly assigned into the ECCS group, the BCCS group, or a control group in roughly equivalent numbers. Individuals assigned to the ECCS or BCCS groups (the EDGE group collectively) were eligible for the enhanced set of services described above, whereas control group members were eligible for services available through the existing SNAP E&T program in the State.

² Similar reports for each pilot and a summary report are available at www.fns.usda.gov/research-and-analysis.

Individuals in the ECCS, BCCS, and control groups continued to be eligible for any other employment and training services available in their communities. Through random assignment, the three groups were, on average, similar across a range of characteristics at the time they enrolled in the pilot. They differed only in the services they subsequently were eligible to receive. This research design allows us to confidently attribute differences in outcomes between the groups to the EDGE services rather than to other potential causes.

For the evaluation, we collected and analyzed several types of data including the following:

- **Implementation data** from interviews with EDGE staff and EDGE group members to understand the planning and implementation of the pilot and provide context for other analyses
- **Administrative service use data** to describe participation in services and activities
- **Unemployment insurance (UI) wage records** to measure employment and earnings
- **SNAP administrative data** to measure participation in SNAP, Temporary Assistance for Needy Families (TANF), and Medicaid, and the amount of SNAP and TANF benefits
- **12- and 36-month follow-up survey data** to provide additional information about individuals' service receipt, employment, and earnings, as well as food security, health, well-being, and housing status
- **Cost data** from grantees and providers and time-use data to estimate the cost of services and net costs and benefits to individuals, the government, and society

EDGE overview

MDHS developed EDGE to offer education, occupational skills training, and support services that would help SNAP participants obtain middle-skill jobs. It targeted ABAWDs because they were most in need of services and, beginning in 2016, would be facing both Federally mandated limits on the amount of time they could receive SNAP and mandatory SNAP E&T work requirements. MDHS administered EDGE and contracted with Mississippi State University's National Strategic Planning and Analysis Research Center to help plan and develop systems to monitor and oversee EDGE. MDHS also contracted with five community colleges to provide case management, the EDGE class, and pathway services, and with Jobs for Mississippi Graduates to provide case management and to conduct outreach.

Individuals who were enrolled in the pilot and assigned to the EDGE group were sent to one of the five community colleges, which served 29 counties across Mississippi. Individuals in the ECCS group met with a career navigator and were scheduled to start the next available EDGE class; individuals in the BCCS group met with a career navigator to create an individual career plan (ICP) and start one of the pathways. Individuals in the control group participated in 30 days of up-front job search followed by workfare. Tuition assistance and General Education Development (GED) classes also were available to control group members in some counties.

Services and activities offered to EDGE group members included:

EDGE class. During the four-week EDGE class, individuals in the ECCS group completed the Test of Adult Basic Education (TABE) and WorkKeys assessments. They then participated in career readiness workshops where they learned about potential careers; learned basic computer concepts; took a Myers Briggs personality test; learned work readiness skills, such as professional image, interviewing skills, and on-the-job behavior; conducted mock interviews; learned about financial awareness; developed

communication and customer service skills; and learned about teamwork and problem solving. They also worked on their ICP throughout the four weeks and finalized it at the end of the class.

Pathways. After the ECCS group completed the EDGE class and BCCS group members created their ICPs, individuals entered one of three pathways based on their plan: academic, work, or life skills. The academic pathway allowed individuals to choose basic education courses, preparation for the GED, academic classes at the community college, or occupational skills training. Availability of classes and trainings varied by college. The work pathway provided individuals with an opportunity to get a subsidized job with an employer in the community for up to 320 hours at \$9 per hour. The life skills pathway enabled individuals to participate in activities and classes related to developing work readiness or behavioral skills. Those who completed their pathways received help finding employment and could receive up to 90 days of retention services (case management and support services) after finding employment.

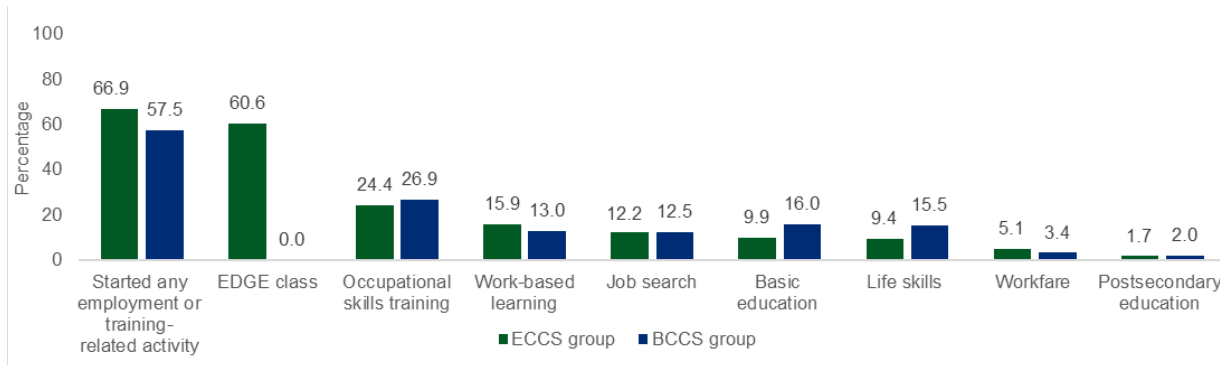
Case management and support services. EDGE group members received case management from career navigators at the colleges. The intention was for the ECCS group to receive intensive career navigation (weekly meetings during the EDGE class and monthly meetings during the pathways or as needed), and the BCCS group to receive a “lighter touch” career navigation (no more than two contacts per month). However, in most of the colleges, the BCCS group received more intensive career navigation than was planned; career navigators often provided intensive case management to both groups, reaching out to all individuals weekly. The meetings for both groups took place in person or over the telephone, and staff contacted individuals through email or via text message in between meetings.

During the meetings, career navigators determined what types of barriers individuals had and what supports might be needed to mitigate them. Generally, both EDGE groups could receive supports for transportation, training or personal needs, and work items. If they successfully completed each week of the EDGE class, ECCS group members also received additional gas cards that were not available to the BCCS group.

Participation in EDGE services and activities

About two-thirds of ECCS group members received services, meaning they started an assessment or ICP, or an employment or training-related activity offered by EDGE, whereas almost all BCCS group members did so. Most of those in the ECCS group who engaged in EDGE also started an employment or training-related activity (67 percent; Exhibit ES.1) such as an EDGE class, occupational skills training, basic education, or work-based learning, while a smaller percentage of BCCS group started one (58 percent). Among those who started activities, 74 percent of ECCS group members and 53 percent of BCCS group members completed at least one activity, with completion rates by type of activity typically ranging between 60 and 70 percent. Among individuals who started an activity, completion rates for the ECCS group were highest for the EDGE class (76 percent) and work-based learning (71 percent) and lowest for workfare (25 percent); for the BCCS group, they were highest for work-based learning (63 percent) and lowest for basic education (27 percent). Of those who completed education and training, only 7 percent obtained a credential, certification, or degree (including GEDs). Many of the individuals who completed an occupational skills training program received a certification or credential (14 percent of ECCS group members and 16 percent of BCCS group members).

Exhibit ES.1. About two-thirds of ECCS group members and over a half of BCCS group members started an employment or training-related activity, with most starting an EDGE class (ECCS), occupational skills training, or work-based learning



Source: SNAP employment and training evaluation, administrative service use data.

Note: Estimates are based on data from 1,015 ECCS group members and 1,006 BCCS group members.

EDGE was designed to provide more intensive case management to ECCS group members than to BCCS group members; however, a higher proportion of the BCCS group had contact with a career navigator than in the ECCS group, and the BCCS group had more contacts, on average. Most EDGE group members (90 percent of ECCS group members and 85 percent of BCCS group members) received some type of support service, with the majority receiving transportation assistance and few receiving other support services such as training supports or work-related items. On average, ECCS and BCCS group members who received support services received \$533 and \$291 in total support service payments, respectively.

EDGE group members spent an average of six months in EDGE. However, most individuals exited EDGE within their first year, and about half of exits happened within the first three months of enrollment. Exits often resulted from noncompliance with work requirements and subsequent sanction. As shown below, many individuals who enrolled in the pilot exited SNAP in the first 12 months after random assignment.

Differences in service receipt for the EDGE and control groups

Whether EDGE impacted individuals' employment, earnings, and receipt of public assistance depends, in part, on whether there were differences between the EDGE and control groups in their receipt of services and their participation in and completion of activities. To provide context for the impacts of EDGE, we examined differences in service receipt between the three research groups.³ Data were collected in the 12- and 36-month follow-up surveys and captured all types of services and activities, regardless of whether they were provided through EDGE, through existing SNAP E&T, or were generally available in the community through programs such as Work Innovation and Opportunity Act (WIOA) or through community colleges, nonprofits, or other organizations.

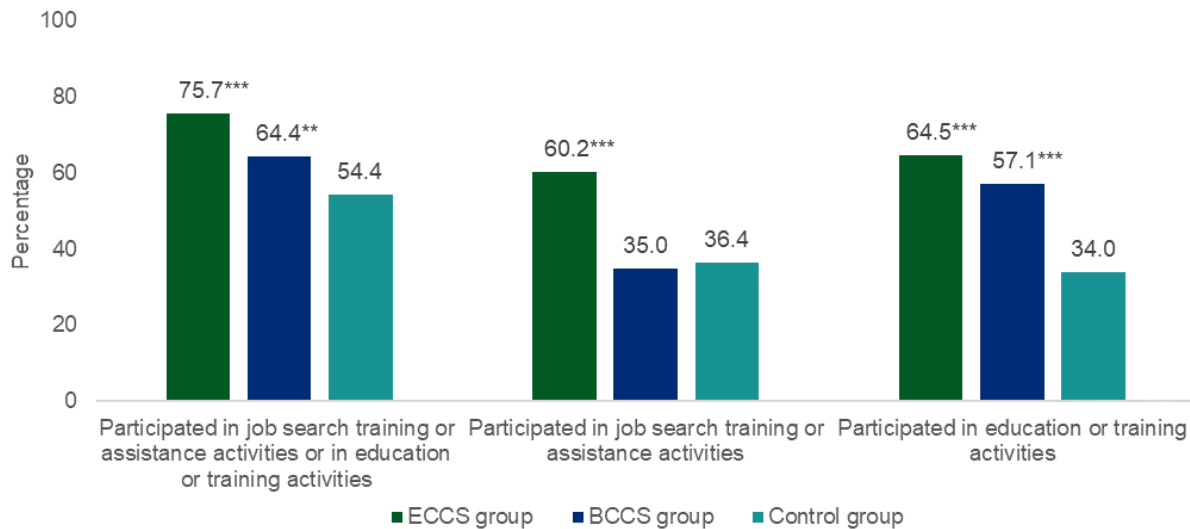
During the three years following random assignment, the ECCS and BCCS groups were more likely than the control group to participate in job search training activities and in education and training activities.

³ In this analysis, "service receipt" includes both services (assessments, case management, and support services) and employment and training-related activities.

Seventy-six percent of the ECCS group and 64 percent of the BCCS group participated in a job search training or assistance activity or education or training activity compared to 54 percent of the control group (Exhibit ES.2). Rates of participation in job search-related or education or training activities were 24 and 31 percentage points higher, respectively, among the ECCS group relative to the control group.

Individuals in the BCCS group were also more likely to participate in education or training activities than those in the control group (24 percentage point difference) but had similar rates of participation in job search training or assistance activities. The significant difference between the EDGE and control groups in rates of participation of education and training activities was observed in Years 1 and 2, but not in Year 3. The ECCS and BCCS groups also had higher rates of participation than the control group in most types of activities, including occupational skills training (26 and 18 percentage point differences), general job skills training (24 and 16 percentage point differences), and education (20 and 13 percentage point differences).

Exhibit ES.2. Over a three-year period, the ECCS and BCCS groups participated in activities offered by EDGE, existing SNAP E&T, or the community at higher rates than the control group



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

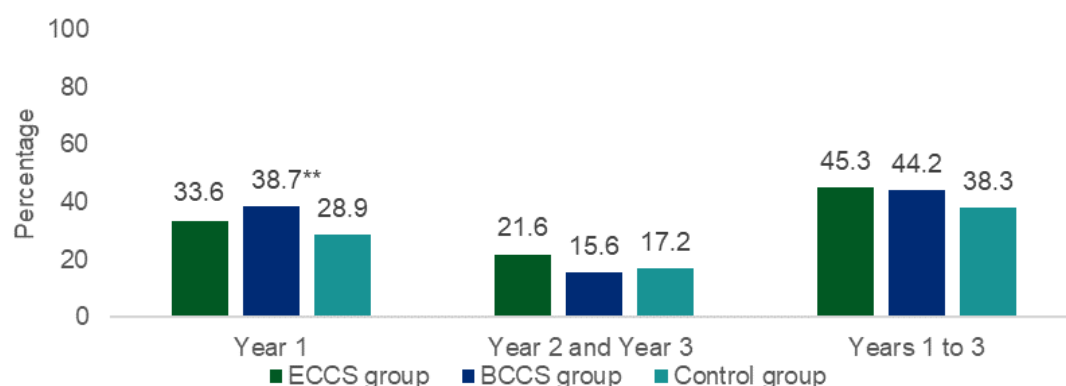
Notes: Estimates cover the 36 months following random assignment. Estimates are based on data from 399 ECCS group members, 415 BCCS group members, and 368 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

EDGE group members also were more likely than control group members to complete an activity. Overall, ECCS and BCCS group members were 26 and 12 percentage points more likely than control group members to complete any type of education or training activity, respectively. Differences between the two groups in rates of completion were larger in the first year after random assignment than in the second and third years. Relative to the control group, the ECCS group spent, on average, about two months longer and nine hours more per week in activities and the BCCS group spent, on average, about three months longer and five hours more per week in activities. The ECCS and BCCS groups were also more likely than the control group to receive an occupational certificate or license (21 and 13 percentage point differences).

The ECCS and BCCS groups were just as likely as the control group to receive case management. Forty-four to forty-five percent of each group received case management, compared to 38 percent of the control group, which was not a statistically significant difference (Exhibit ES.3). However, ECCS and BCCS group members had more contacts with an employment professional or case manager relative to control group members (5 contacts each for the ECCS and BCCS groups versus 3 contacts for the control group).

Exhibit ES.3. ECCS and BCCS group members were just as likely as control group members to receive case management



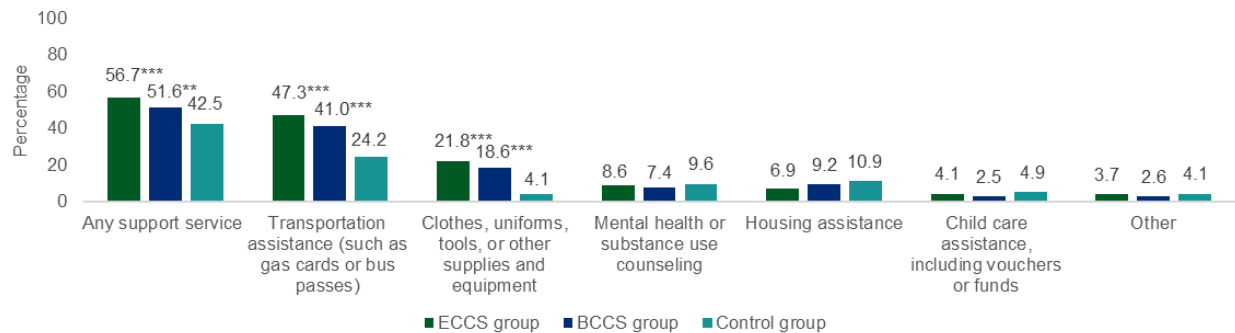
Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Notes: Estimates cover the 36 months following random assignment. Estimates are based on data from 399 ECCS group members, 415 BCCS group members, and 368 control group members. The 12-month survey requested information about receipt of case management and support services between the date of random assignment and the date of the 12-month interview. The 36-month survey requested information about receipt of case management and support services between the date of the 12-month interview and the date of the 36-month interview. As a result, it is not possible to provide quarterly estimates in any year or to estimate receipt of assistance separately in Years 2 and 3.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

ECCS and BCCS group members were more likely than control group members to receive support services. Around 57 percent of individuals in the ECCS group and 52 percent in the BCCS group received any support service compared to 43 percent in the control group (Exhibit ES.4). The largest differences between the ECCS or BCCS groups and the control group were observed for transportation assistance and clothes, uniforms, tools, or other supplies and equipment.

Exhibit ES.4. ECCS and BCCS group members were more likely than control group members to receive support services



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Notes: Estimates cover the 36 months following random assignment. Estimates are based on data from 399 ECCS group members, 415 BCCS group members, and 368 control group members. "Other" included assistance with payment of utilities such as electricity, phone, heat, or gas; food assistance; and assistance with medical care.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

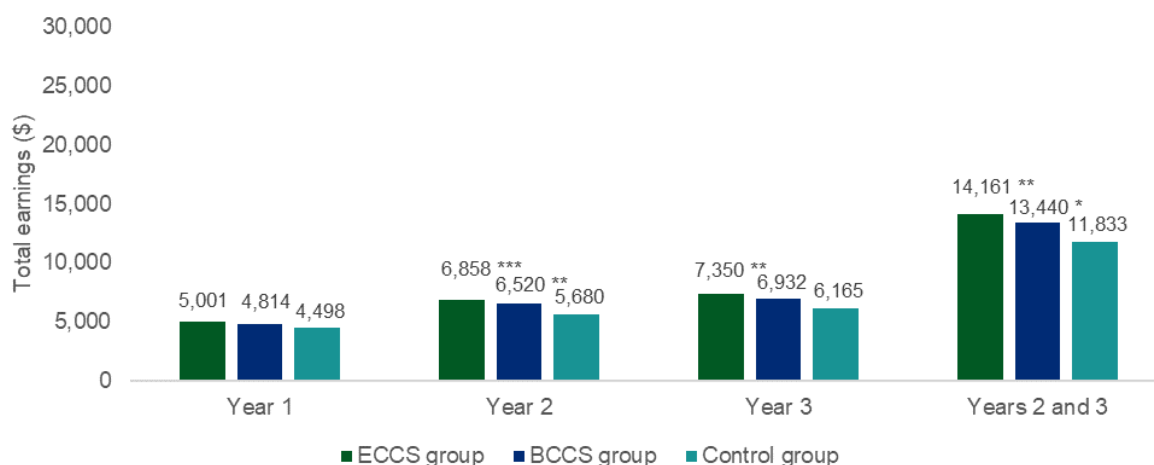
Impacts of EDGE on employment and SNAP participation outcomes

We estimated the impacts of EDGE on individual outcomes over the three years following random assignment. Before analyzing the data, we selected two primary outcomes: earnings (based on both the UI and survey data) and SNAP participation. Analyses of earnings and employed were based on both UI and survey data due to differences in data coverage or quality, or in the analysis samples and time periods covered in the data. Instead of focusing on outcomes in Year 3, we focused on those over a two-year period consisting of Years 2 and 3 after random assignment. This approach balanced potential concerns about how the COVID-19 pandemic may have affected outcomes in Year 3 with measuring impacts on outcomes after individuals had sufficient time to participate in EDGE activities in Year 1. The estimated impacts on other outcomes are considered exploratory and are used to support findings for the earnings and SNAP participation outcomes by examining whether they had similar impacts.

Earnings. Based on UI data, EDGE led to an increase in average earnings over the two-year period (Years 2 and 3) (Exhibit ES.5). Each research group experienced increases in average earnings over time, but the EDGE group earned more than the control group in Year 2 (for the ECCS and BCCS groups) and Year 3 (for the ECCS group only). Similarly, based on survey data, each research group experienced increases in average earnings over time, but differences between the EDGE and control groups were not statistically significant over the two-year period or in individual years (Exhibit ES.6).

SNAP participation. EDGE increased the likelihood that BCCS group members participated in SNAP in the two-year period (Years 2 and 3) but had no effect on ECCS group members. About 62 percent of ECCS group members, 64 percent of BCCS group members, and 60 percent of control group members participated in SNAP during this period (Exhibit ES.7). SNAP participation rates decreased from about 99 percent for the ECCS and BCCS groups and 98 percent for the control group in Year 1 to 43, 46, and 47 percent in Year 3, respectively. In Year 3, ECCS group members were less likely than control group members to participate in SNAP (43 versus 47 percent). This pattern of findings is consistent with the fact that EDGE increased earnings for the ECCS group in Years 2 and 3.

Exhibit ES.5. EDGE increased earnings for the ECCS and BCCS groups (UI data)

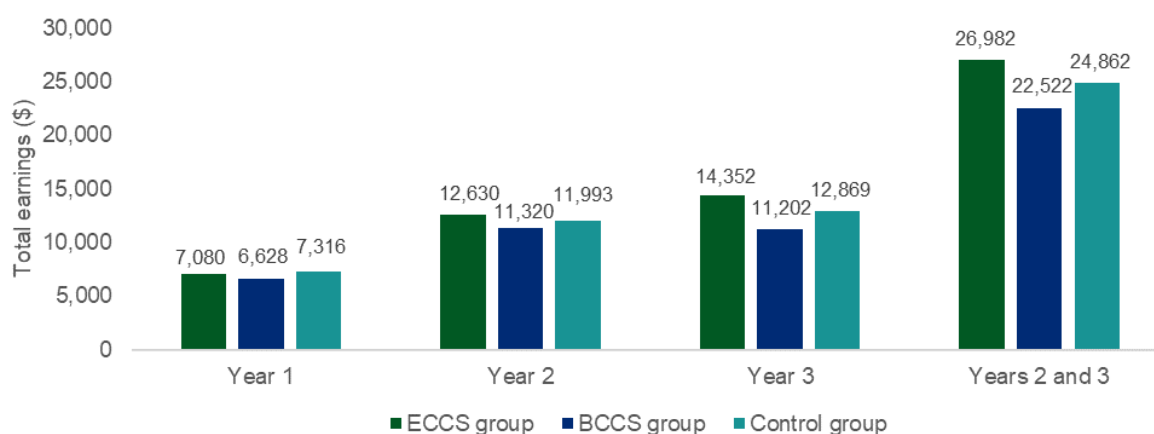


Source: SNAP employment and training evaluation UI wage records, weighted data.

Note: Estimates are based on data from 737 ECCS group members, 736 BCCS group members, and 735 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Exhibit ES.6. Earnings in Years 2 and 3 combined were higher for the ECCS group than the control group, but this difference was not statistically significant (survey data)

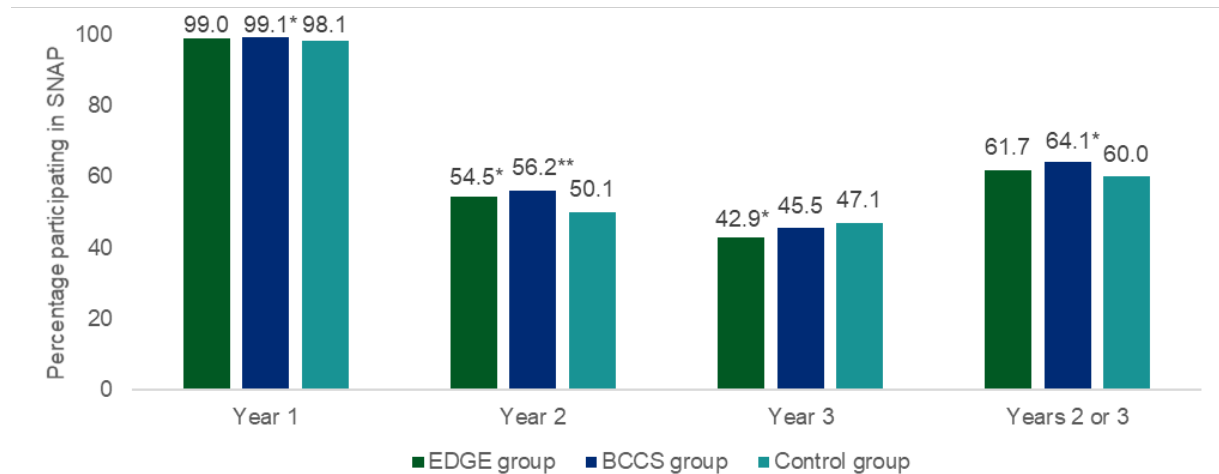


Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Exhibit ES.7. SNAP participation rates based on SNAP administrative data were slightly higher for the BCCS group than the control group in each year and in years 2 and 3 combined, but were similar for the ECCS and control groups



Source: SNAP employment and training evaluation SNAP administrative data, weighted data.

Note: Estimates are based on data from 737 ECCS group members, 736 BCCS group members, and 735 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Employment, hours worked, and other job characteristics. Based on both UI and survey data, EDGE did not lead to an increase in the percentage of individuals who were employed in the two-year period (Years 2 and 3) following random assignment. In both data sources, the employment rates in Years 1, 2, and 3, individually, were similar across research groups with one exception. For the BCCS group only, EDGE led to a 5 percentage point increase in employment in Year 2 after random assignment, but the magnitude of the difference was smaller and not statistically significant in Year 3.

Employment rates provide information about the percentage of individuals employed during a given time period but do not describe the extent or duration of employment. To assess these employment characteristics, we examined the average amount of time individuals were employed each year. Findings were similar to those for rates of employment. Both data sources generally showed that the ECCS, BCCS, and control groups were employed for similar numbers of quarters/months in each year. Also, there were no impacts of EDGE on hours worked and few impacts on the characteristics of jobs among the employed. The majority of employed individuals in both research groups received an employer-offered benefit, but those in the BCCS group who were employed were almost twice as likely as the control group to work less than 20 hours per week and were less likely than the control group to receive dental insurance (42 versus 66 percent), health insurance (49 versus 69 percent), and pension or retirement benefits (48 versus 63 percent). Employed ECCS group members generally received benefits similar to those of employed control group members.

SNAP benefits and exit. There were few impacts of EDGE on the average SNAP benefits received, both in absolute terms and as a percentage of the maximum benefit amount. Average SNAP benefit amounts for the ECCS and BCCS groups were \$179 and \$273 greater than those for the control group in Year 1, but the differences grew smaller and became statistically insignificant by Year 3. There were similar findings for benefits received as a percentage of the maximum possible benefit. Average SNAP benefit

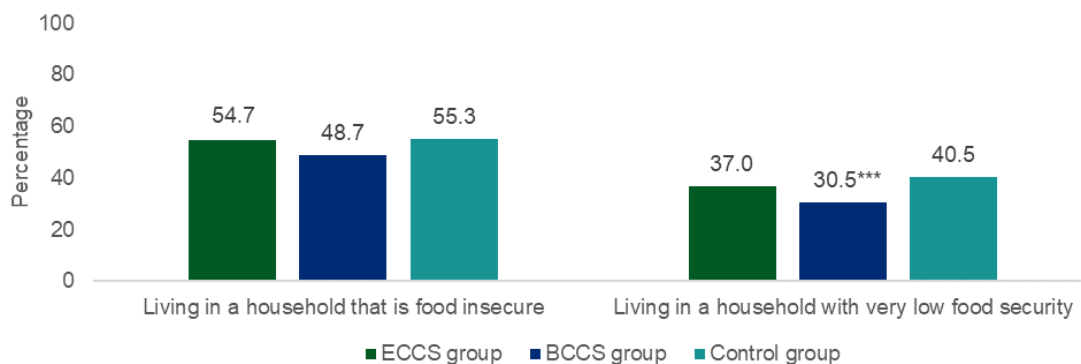
amounts as a percentage of the maximum benefit were greater for ECCS and BCCS group members than for the control group in Year 1 (48 and 52 versus 41 percent) but differences between EDGE and control group members were smaller and not statistically significant in Year 3.

EDGE group members had similar likelihoods of exiting SNAP across the three years relative to control group members—93 to 94 percent of each group exited SNAP at some point during the three years after random assignment. Individuals who exited SNAP included those who left and did not re-enter SNAP in the three-year period, as well as those who left and re-entered before the end of the period. Thus, even though 7 percent of the EDGE group participated in SNAP for the full three years, SNAP participation at the end of this period was 21 percent, reflecting that individuals left and re-entered SNAP during the three-year period. These patterns of exiting and re-entering SNAP resulted in each research group having a similar number of SNAP spells. About 51 percent of the ECCS and BCCS groups had a single SNAP spell (meaning they either remained on SNAP for the full three-year period or exited and did not re-enter), between 32 and 33 percent had two spells, and between 16 and 17 percent had three or more spells. For the control group, these percentages were 49, 34, and 17 percent, respectively.

Impacts of EDGE on other outcomes

Rates of food insecurity were similar in the ECCS, BCCS, and control groups. About 55 percent of ECCS group members and 49 percent of BCCS group members were food insecure compared to 56 percent of control group members (Exhibit ES.8). For very low food security—a severe form of food insecurity—there was an 10 percentage point decrease for the BCCS group relative to the control group (31 versus 41 percent). The very low food security rate for ECCS group members also was lower than the rate for control group members but the difference was smaller (4 percentage points) and not statistically significant.

Exhibit ES.8. EDGE did not affect food insecurity, but decreased the rate of very low food security for the BCCS group relative to the control group



Source: SNAP employment and training evaluation 36-month survey, weighted data.

Note: Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

There were no statistically significant differences between the EDGE and control groups for other outcome measures related to health, well-being, and housing status. Around thirty percent of the ECCS, BCCS, and control groups screened positively for depression. The three research groups had similar levels of health, and self-esteem and self-efficacy scores. The largest proportion of each research group

owned or rented a home or apartment (46 percent of the ECCS group and 52 percent of the BCCS group versus 55 percent of the control group), and similar percentages of each group were homeless (2 and 4 versus 4 percent).

EDGE costs relative to benefits

EDGE costs. MDHS and its partners and providers reported spending \$11,361,122 from April 2015 to December 2018 on the planning and implementation of EDGE (\$1,089,769 during the planning period, \$1,602,220 for recruitment, and \$8,669,133 for EDGE services and activities). The FNS grant funded 78 percent of these costs; partners and providers leveraged other funding sources for the remaining 22 percent. Administration costs accounted for 48 percent of total costs, including time for staff meetings, supervision, and other activities (\$5,433,090). Direct services accounted for 29 percent of total costs (\$3,236,044), with work-based learning and case management being the largest share of those costs.

Costs relative to benefits. In the cost-benefit analysis, we measured the difference in the average costs of all services received by ECCS, BCCS, and control group members—that is, the differential costs of EDGE services—and compared the differential costs of EDGE to the value of benefits received by ECCS and BCCS group members. As in the analysis of services received, we considered costs associated with all services and activities, including those delivered by EDGE as well as community programs and organizations. This approach reflects the fact that impacts of EDGE on individuals' outcomes, such as earnings, were influenced by *all* services individuals received during the 36-month follow-up period, not just those received through EDGE.

Based on data from the survey, the estimated total cost of all ECCS group services was \$7,173,518, and the estimated total cost of all BCCS group services was \$6,829,419 including costs for both direct services and ongoing administration. These costs sum to over \$14,000,000, which is about 62 percent higher than the cost of EDGE services alone (\$8,669,133). This indicates that some ECCS and BCCS group members received services from community programs and organizations while they were enrolled in EDGE. The services received by the control group measure what services would have been available to the ECCS and BCCS group members if EDGE were not in place. The estimated costs of all services received by control group members were \$2,007,671, including costs for direct services and ongoing administration. On average, the total costs of all direct services and activities received by ECCS and BCCS group members were \$4,565 and \$3,673, respectively. The total costs of all services control group members received through existing SNAP E&T and the community were \$1,909, on average.

Estimates of the benefits received by ECCS and BCCS group members reflect earnings and fringe benefits they accrued during the 36-month follow-up period. These data were obtained from the two sources of data used in the impact analysis: (1) UI wage records and (2) 36-month survey data. For the cost-benefit analysis, we used a framework to comprehensively list ECCS and BCCS group benefits and costs relative to the control group from multiple perspectives, including those of (1) individuals enrolled in EDGE, (2) government and taxpayers, and (3) society as a whole—the sum of the other two perspectives. For each perspective, we estimated the net benefit (the difference between total benefits and total costs). A positive net benefit means the benefits outweighed the costs, whereas a negative net benefit means the costs outweighed the benefits. The net benefits of all services ECCS and BCCS group members received were positive for society during the 36-month follow-up period based on UI wage records. The net benefit to society was \$274 per ECCS group member and \$300 per BCCS group member, on average. The findings based on UI wage records were robust to changes in assumptions about benefits and costs from all perspectives, such as the values of fringe benefits, taxes, and present values.

However, according to survey data, the net benefits of all services ECCS and BCCS group members received were negative for society (by \$624 and \$4,474, respectively).

Main conclusions and discussion

The goal of the 10 SNAP E&T pilots was to test innovative strategies for increasing SNAP participants' employment and earnings and reducing their need for public assistance benefits. Through its comprehensive data collection and rigorous experimental design, this evaluation assessed whether EDGE—the innovative SNAP E&T program Mississippi designed and implemented targeting ABAWDs—was effective in achieving these goals.

MDHS was able to coordinate with five community colleges to create a network of career navigation, employment, education, and occupational skills training activities for its SNAP participants. Although staff struggled to enroll and retain individuals, EDGE group members reported having positive experiences with their career navigators and the support the navigators provided in helping them find job opportunities. Despite the EDGE staff having challenges getting individuals to engage in services, those in EDGE were more likely than control group members to start an activity, complete an activity, and receive support services. Their increased engagement led to an increase in earnings over time based on UI data. EDGE group members earned significantly more than control group members; thus the overall benefits of the pilot outweighed the cost of implementing it.

EDGE impacts in context of employment and training literature. The EDGE study findings are consistent with the previous literature that has often found small labor market effects of employment and training programs for low-income populations offering similar services as EDGE. The literature suggests that programs serving low-income populations can typically engage individuals and increase their receipt of services relative to those received by the study control groups in their local areas. The differences for service receipt can be large, especially for receipt of occupational skills training and subsidized employment, translating into positive effects on the percentages of individuals who participate in training activities and the attainment of associated certificates and credentials. However, few of the studies have found that the programs lead to long-term increases in earnings or independence from public assistance (at least over the time period covered by many studies, which is typically less than four years).

There are notable exceptions, however, that align with the results found in EDGE, supporting that the types of activities offered by EDGE (such as job readiness training and occupation skills training) are effective in improving labor market outcomes. As a result, it is important to understand how take-up and completion of EDGE activities, as well as challenges experienced in implementation may have contributed to the evaluation findings.

Discussion of EDGE impacts. EDGE increased earnings relative to the control group for both the ECCS and BCCS groups based on UI wage data. Because the ECCS and BCCS groups had rates of employment that were similar to the rates for the control group, the relative increase in earnings suggests that ECCS and BCCS group members obtained higher-paying jobs relative to the control group. This is a notable accomplishment given the prevalence and extent of barriers EDGE group members faced—only 5 percent were employed at the time of random assignment, and nearly 30 percent did not have a high school diploma.

The economic conditions in Mississippi may help explain why EDGE group members earned significantly higher earnings than control group members. While designing EDGE, MDHS and community college staff believed that jobs were available in the community, but those that pay higher

wages required training and credentials. Unlike control group members, EDGE group members had access to education and occupational skills training activities through the community colleges, and some of these offered licenses and credentials upon completion, which would prepare EDGE group members for higher paying jobs. The availability of these opportunities led to increases in the percentage of individuals who participated in employment or training-related activities for both the ECCS and BCCS groups. (For the ECCS group in particular, EDGE nearly doubled the percentage of individuals who participated in these activities relative to the control group.) Individuals in the EDGE group also participated for twice as many months as the control group and for two to three times as many hours per week.

The process for offering services also could have contributed to these findings. All EDGE services and activities were primarily offered at one location—the community college—which may have led to less drop off. Although there often was drop off between enrollment and individuals first going to the community college (the SNAP agency conducted pilot enrollment and referred individuals to the community college), once there, the community college provided case management, support services, occupational skills training, adult education, and work-based learning opportunities on site. Treatment group members did not have to work with multiple providers or receive referrals to other locations to obtain the full package of services. This “one-stop” type of provider may have contributed to treatment group members staying in services and participating in activities at higher rates than the control groups who likely would have had to work with multiple providers to obtain similar services.

EDGE also led to increases in the percentage of individuals who ultimately completed these activities and in the percentage of individuals who received occupational certificates or licenses. For the ECCS group, EDGE more than doubled the rate of completion of activities relative to the control group. The percentage of EDGE group members who received occupational certificates or licenses was also higher than the percentage of the control group—more than three times as large for the ECCS group and more than twice as large for the BCCS group. Moreover, EDGE’s effect on the rate of participation in and completion of activities extended through Year 2 after random assignment. Even though many individuals participated in EDGE activities mostly in Year 1, the ECCS and BCCS groups continued to have higher participation and completion rates through Year 2.

EDGE also led to higher rates of receipt of support services. EDGE group members received additional transportation support to help them attend the community college courses, and in some instances, financial support to repair their personal vehicles that they could then use to commute work. The increases in the percentage of individuals who received support services, relative to the control group, were not as large as the increases in rates of participation in and completion of activities. However, the higher rates of receipt of support services among EDGE group members, particularly transportation assistance, may have allowed individuals to overcome barriers associated not only with starting employment or training-related activities but also sustaining participation over time and ultimately completing the activity. Some staff reported that without transportation, SNAP participants often sought out readily available and easily accessible low-wage jobs to meet their immediate needs.

An important factor to consider when assessing the magnitude of these impacts is that while EDGE group members were more likely than control group members to participate in activities, the overall impacts on outcomes such as earnings could have been diluted by those who did not participate in activities. (Close to one-third of ECCS group members and close to half of BCCS group members did not participate in a substantive activity.) To assess this possibility, we conducted an exploratory analysis to compare impacts for individuals who did and did not start an employment or training-related activity but found no

discernable differences in impacts. We also compared impacts among individuals who completed activities with those for individuals who started but did not complete them. Although impacts on earnings and employment were larger among those who completed activities than those who did not, the differences across groups were not statistically significant. However, the pattern of findings suggests that the completion of EDGE employment or training-related activities may have played a role in connecting some individuals to meaningful employment and in the magnitude of the impact on earnings.

Although EDGE generally led to increased earnings, it did not result in reduced participation in SNAP. It is possible that the increase in earnings partly reduced SNAP benefit amounts as a percentage of the maximum benefit (the difference between research groups in benefits as a percentage of the maximum benefit was positive in early quarters and grew negative and statistically insignificant by later quarters), but the increase in earnings was not large enough to make individuals ineligible to receive SNAP. It is also possible that the increase in earnings did reduce the likelihood of participating in SNAP, but this reduction was offset by some EDGE group members being more likely to continue to participate in SNAP because of the EDGE-provided education and training activities. Some individuals may have also continued to participate in SNAP because the EDGE-provided services addressing barriers to employment would be discontinued if they did not.

When considering the overall findings from the EDGE pilot, there are a few additional factors that may have contributed to the results, including the following:

- **Earnings impacts might depend on the type of activities in which individuals participated.** There were earnings impacts for all EDGE group members, but impacts may differ for specific activities, such as occupational skills training or work-based learning. Assessing the effectiveness of services and activities separately and in combination would help to identify promising practices for improving outcomes.
- **The COVID-19 pandemic may have hindered our ability to capture the full extent of impacts in Year 3.** Outcomes measured in Year 3 for participants who were randomly assigned in the pilot between April 2017 and December 2017 could have been affected by the COVID-19 pandemic, which began to dramatically affect life in the United States in March 2020. We found evidence of impacts on earnings in the two-year period (Years 2 and 3) for the ECCS and BCCS groups. Both groups had impacts in Year 2, but only the ECCS group had an impact in Year 3. Given that earnings were higher for both groups relative to the control group in the period before the pandemic, it is possible that the pandemic impacted the ECCS and BCCS groups more than the control group. This may have diminished the size of the impact for the ECCS group in Year 3 and resulted in a statistically insignificant impact for the BCCS group in Year 3. However, it is also possible that EDGE increased earnings for the BCCS group only a short period after individuals stopped participating in activities or completed them, and the impact on earnings for the ECCS group would have diminished in Year 3, regardless of the pandemic.
- **The positive impact on earnings for the ECCS and BCCS groups contributed to the net benefit to society for each group also being positive, according to UI wage records.** When interpreting the magnitudes of the net benefits to society of \$210 for the ECCS group and \$296 for the BCCS group, it is important to consider that EDGE services were new and experimental. Even though we excluded the costs of planning and recruitment in considering the cost differential between EDGE and control group services, the costs of EDGE group services were likely higher for the three years of the pilot than they would have been if administered over a longer period of time.

Overall, a key lesson from the EDGE pilot for SNAP E&T program administrators is that in areas where higher paying jobs are available, but workers need training and credentials to qualify, offering SNAP participants education and occupational skills training aligned with employers' needs could help increase individuals' earnings. The model MDHS used—partnering with community colleges that were already providing education and training and had connections to employers in the community to move individuals into employment post-training—could be replicated by other SNAP administrators. Importantly, MDHS and the community colleges offered transportation support to EDGE group members that allowed them to access services at the community college and travel to their jobs. This proved to be crucial for EDGE's success and would likely be an essential support service to provide to SNAP participants in other rural communities. Notably, offering reimbursement for gas was not sufficient, as many EDGE group members either did not own their own car or owned an unreliable one. Understanding the specific transportation needs of the target population in advance of launching a program like EDGE is important for identifying options that meet the needs of those who participate.

I. Introduction

The Supplemental Nutrition Assistance Program (SNAP) is the primary source of nutrition assistance for many individuals and families with low incomes. SNAP provides monthly benefits to help participants obtain adequate access to food; for some program participants, it provides work supports through SNAP Employment and Training (E&T) programs to help them become economically self-sufficient. Although States are required to administer a SNAP E&T program, they have flexibility in designing and determining its services and activities. States typically offer participants assessments and support services and a range of activities, including job search assistance or training, occupational skills training, and basic education.

Despite the importance of SNAP E&T programs, information about the most effective approaches that help SNAP participants gain skills and find work is limited. For this reason, as part of the Agricultural Act of 2014, Congress authorized and funded SNAP E&T pilots to test innovative strategies for connecting SNAP participants with jobs that would increase their incomes and reduce their need for public assistance benefits. In 2015, the U.S. Department of Agriculture’s Food and Nutrition Service (FNS) awarded grants to 10 States—California, Delaware, Georgia, Illinois, Kansas, Kentucky, Mississippi, Vermont, Virginia, and Washington.⁴ This legislation also funded a rigorous, longitudinal evaluation of these pilots.

The pilots varied in their target populations, geographic reach, and the number of individuals enrolled. The majority of individuals the pilots targeted were unemployed or underemployed and faced significant barriers to employment, such as being homeless or having a criminal history or substance use disorder. Some pilots operated statewide, whereas others operated in select areas of the State, such as counties, community college districts, or local workforce investment areas. Most pilots offered services in both rural and urban areas, but a few focused only on rural or urban communities. Each pilot enrolled 3,000 to 7,000 individuals, for a total of 44,359 individuals across the 10 pilots.

The SNAP E&T pilots generally expanded the types and amounts of services provided through States’ existing SNAP E&T programs. Services typically included (1) a comprehensive skills or clinical assessment to determine an individual’s work readiness, skills, and barriers to employment; (2) case management services that developed and supported a detailed individualized work and barrier-reduction plan; and (3) support services,⁵ such as transportation assistance, housing assistance, and training or work supplies (for example, uniforms, books, clothes, or tools) that helped reduce barriers to both engagement in the pilot and employment. The pilots also offered

Services are resources provided to or administered with individuals, such as assessments, case management, and support services.

Activities are employment or training-related events in which individuals participate, such as job search assistance training, basic education, occupational skills training, or work-based learning.

⁴ SNAP in California is administered by the counties. The FNS grant was awarded to the State SNAP agency and the State oversaw the pilot, but only Fresno County conducted and primarily administered it. We refer to the Fresno pilot as “California.”

⁵ Referred to as participant reimbursements in the SNAP E&T program; however, for this report, we describe the package of services as support services.

a range of employment and training-related activities, such as independent job search, job readiness training, job search assistance, basic education, occupational skills training, and work-based learning opportunities (such as subsidized employment, work experience, internships, and work study).

The activities the pilots offered generally were more expansive than those offered under existing SNAP E&T programs, which in most States tended to focus on less intensive independent job search and job search assistance. Moreover, while the pilots were operating, existing SNAP E&T programs could not fund some of the activities and services the pilots provided, such as subsidized employment,⁶ substance use disorder counseling, and mental health counseling. Appendix A provides a summary of each pilot's characteristics, including the target population, pilot location, and pilot start and end dates, and Appendix B provides more detail about the SNAP E&T program and work requirement policies.

This report summarizes evaluation findings for one State—Mississippi.⁷ It provides a detailed description of the pilot's design and implementation, the services individuals received, and the effectiveness of those services in improving individuals' outcomes. The report also includes findings from the cost-benefit analysis, which itemizes specific monetary costs and benefits of pilot services, and assesses whether the benefits of the services and activities offered through the pilot were large enough to justify their costs.

A. Overview of Mississippi's pilot

Mississippi began enrollment in its pilot, Ethics, Discipline, Goals, Employment (EDGE), in 29 counties on March 23, 2016 (Exhibit I.1). The 29 counties included both urban and rural areas and are located in

Exhibit I.1. Pilot locations



five community college districts: Itawamba, Mississippi Delta, East Mississippi, Jones County Junior College, and Mississippi Gulf Coast Community Colleges. Among the five districts, the Mississippi Gulf Coast Community College district is the most populated and includes the cities of Gulfport and Biloxi; the East Mississippi Community College district, in a rural area of the State, is the least populated. In the year before Mississippi began EDGE enrollment, the average unemployment rate in the State was 7.0 percent (Bureau of Labor Statistics 2019).

The Mississippi Department of Human Services (MDHS) administers SNAP. Its SNAP E&T program that existed at the start of the pilot and continued to serve control group members is mandatory for able bodied adults without dependents (ABAWDs)—adults ages 18 to 49 who are not disabled and have no dependents—and was first implemented in January

2016. ABAWDs who are not working 20 hours per week or do not meet an exemption must participate in the SNAP E&T program. They must complete a 30-day up-front job search. If they do not find a job after 30 days, they must participate in workfare. A few counties also offer a tuition assistance program through local community colleges and General Education Development (GED) classes in the community. Individuals can also access occupational skills training at Workforce Investment Network (WIN) job centers, through funding from Workforce Innovation and Opportunity Act (WIOA) programs.

⁶ The Agriculture Improvement Act of 2018 (P.L. 115-334) made subsidized employment an allowable SNAP E&T component; the final rule published in January 2021 (FNS 2021) permitted States to begin offering it as an E&T component in March 2021.

⁷ Similar reports for each pilot and a summary report are available at www.fns.usda.gov/research-and-analysis.

MDHS developed EDGE to offer education, occupational skills training, and support services that help SNAP participants obtain middle-skill jobs. Like the existing SNAP E&T program, the pilot targeted ABAWDs (Exhibit I.2). MDHS administered EDGE and contracted with Mississippi State University's National Strategic Planning and Analysis Research Center (NSPARC) to help plan and develop systems to monitor and oversee it. MDHS also contracted with the community college in each of the five regions and with Jobs for Mississippi Graduates to offer services to two EDGE treatment groups: the Enhanced Community College Services (ECCS) group and the Basic Community College Services (BCCS) group. The ECCS group received a four-week career readiness course called the EDGE class, intensive case management, support services (including transportation, training-related items, and work-related items), and access to three pathways based on an individual's career plan. The pathways were academic (basic education, post-secondary education, or occupational skills training), work (subsidized or unsubsidized employment or internships), and life skills (additional work or behavioral skills). The BCCS group was offered the three pathways (the EDGE class was not available to them), fewer support services, and less-intensive case management.

Exhibit I.2. Pilot characteristics

Characteristics	
Pilot operation period	March 2016 to February 2019
Location	29 counties
Grantee agency	Mississippi Department of Human Services
Key partner	Mississippi State University's National Strategic Planning and Analysis Research Center (NSPARC)
Key providers	East Mississippi Community College Itawamba Community College Jones County Junior College Mississippi Delta Community College Mississippi Gulf Coast Community College Jobs for Mississippi Graduates
Target population	Able-bodied adults without dependents (ABAWDs)
Number enrolled	3,051
Program type	Mandatory
Existing SNAP E&T program	Mississippi offered limited services through its mandatory program; the control group received 30 days of up-front job search followed by workfare, plus transportation support. Tuition assistance and GED classes were available in some counties.
Key EDGE services	<i>For the ECCS group:</i> • A four-week EDGE class • Three pathways—academic (basic education, post-secondary education, or occupational skills training), life skills (additional work or behavioral skills), or work (subsidized or unsubsidized employment or internships) • Support services • Intensive case management <i>For the BCCS group:</i> • Three pathways (academic, life skills, or work) • Support services • Limited case management

From March 2016 to September 2018, Mississippi enrolled 3,051 SNAP participants in the pilot. Individuals enrolled were randomly assigned in roughly equivalent numbers to the ECCS group, the BCCS group, and a control group (that received existing SNAP E&T services). MDHS continued providing services until February 2019.

B. Evaluation of SNAP E&T pilots

The evaluation included the following four components:

1. An *implementation analysis* that documented the context and operations of each pilot
2. A *participation analysis* that examined the characteristics, participation levels, and service paths of individuals in the pilots
3. An *impact analysis* that identified what works, and for whom, by examining impacts on employment and earnings; public assistance receipt; and other outcomes, such as food security, health, well-being, and housing
4. A *cost-benefit analysis* that estimated the return on each dollar invested in the pilots

The evaluation of each pilot used an experimental research design in which individuals eligible for SNAP E&T who were enrolled in the pilot were randomly assigned into treatment and control groups that were offered differing arrays of services. Random assignment ensures that any differences in outcomes between the two groups are a result of the enhanced services and not driven by the differences in the characteristics of the individuals who did and did not receive those services. Treatment group members were eligible for the enhanced set of services developed under the pilot, and control group members were eligible for services available through existing SNAP E&T programs in the State; both the treatment and control groups continued to be eligible for any other services available in their communities. Through random assignment, the treatment and control groups within a pilot were, on average, similar across a range of characteristics at the time they enrolled. They differed only in the services they subsequently were eligible to receive.

FNS published an evaluation report that presented interim findings in Mississippi for each component of the evaluation (Mabli et al. 2021). The implementation and cost analyses described the planning and early implementation periods of the pilots, and the participation and impact analyses focused on the 12-month period following random assignment for those enrolled through 2017. We reported these findings for most of the individuals (2,208, or 72.4 percent) who eventually enrolled in the pilots.

The interim report described several notable findings:

- **Implementation.** Mississippi successfully developed a new service model for EDGE, created partnerships, and enrolled individuals within a year of receiving the grant. The pilot model was mostly implemented as intended, but staff found it difficult to do so at the same time they were implementing other major policy changes (a new mandatory SNAP E&T program). Staff also had difficulty attracting ABAWDs and keeping EDGE group members engaged in services after enrollment.
- **Participation.** Over 90 percent of individuals in the ECCS and BCCS groups met with a career navigator, started an assessment, or received a support service. However, less than two-thirds of the ECCS and BCCS groups ultimately started an employment or training-related activity. About 90 percent in both groups left the pilot during their first year.

- **Impact.** Although the ECCS and BCCS groups were more likely than the control group to start and complete job search training activities and education and occupational skills training activities, EDGE did not lead to an increase in employment and earnings, but did lead to an increase in the likelihood of participating in SNAP within the first year after individuals enrolled.

This final evaluation report builds on the interim report to provide more conclusive evidence about the ultimate effectiveness of the pilot's services. The full effects of the enhanced services may not have materialized during the short-term, 12-month follow-up period examined in the interim report, especially for some individuals still receiving services at the 12-month point. Therefore, this report focuses on individuals' outcomes over a period of up to 36 months after random assignment, allowing an assessment of relatively longer-term impacts including, for some individuals, those measured after MDHS stopped providing services in February 2019. In addition, the final evaluation report includes participation and impact analyses for all individuals who enrolled in the pilot, including those who enrolled in 2018. Finally, the implementation and cost analyses in the interim report described the planning and early implementation periods of the pilots but did not cover the full period during which the State offered services and incurred costs. This report expands the implementation analysis to include the full period during which the pilot was implemented and discusses the potential for its sustainability and replicability. It also builds on the interim cost analysis to determine the net benefit (relative to costs) of providing EDGE services.

C. Organization of this report

The remainder of this report is organized as follows:

- Chapter II presents the data and methodology used to conduct the analyses in the evaluation.
- Chapter III describes how enrollment changed over time and the characteristics of the individuals who enrolled.
- Chapter IV describes the pilot's planning and implementation, the ways in which its implementation differed from the original design, challenges experienced, and responses to these challenges. It also describes the sustainability and replicability of EDGE.
- Chapter V presents findings from the participation analysis, which describe the services that individuals in the ECCS and BCCS groups received.
- Chapter VI describes differences in the services received by the ECCS and BCCS groups and the control group.
- Chapter VII presents findings from the impact analysis, which describes the impact of EDGE on employment, earnings, benefit receipt, and other outcomes.
- Chapter VIII describes the costs of services the ECCS and BCCS groups received and compares the costs and benefits of those services.
- Chapter IX offers conclusions.
- Appendix A describes the primary characteristics of the 10 pilots; Appendix B provides an overview of the SNAP E&T program; and Appendices C to H present detailed findings from the analyses described in Chapters V through VIII, as well as additional subgroup analyses.

II. Data and methodology

This chapter describes the sources of the data we collected for the evaluation and how we used them in the analyses. We discuss how we obtained the data and the types of information each source contained. We also explain which individuals we included in each analysis and the methods we used to address the evaluation's research objectives. A technical supplement in a separate volume describes the data and methodology in detail (Dotter et al. 2022).⁸

A. Data sources

We collected data to support the evaluation from a variety of sources:

1. **Baseline registration form.** After obtaining study consent, pilot intake staff collected baseline information about individuals in the pilot, including their demographic characteristics, employment histories, and receipt of public assistance. We collected baseline data for all EDGE (ECCS and BCCS) and control group members.
2. **Implementation data.** We collected most of the implementation data during three rounds of site visits to the State, during which we collected information about implementation, challenges, and lessons learned during different periods of pilot operation:
 - Round 1 (August 2016): The planning and early implementation periods
 - Round 2 (June 2017): The first full year of pilot operations
 - Round 3 (September 2018): The last year of pilot operations, as well as planning for the end of the pilot and sustainability of its services

We also collected information during technical assistance and monitoring site visits and telephone calls throughout the planning and service delivery periods.

The site visits included interviews with MDHS and State-level staff, partner staff, and EDGE service providers; structured observations of service provider operations; in-depth interviews with four EDGE group members; three focus groups that included either EDGE group members who engaged in services or those who never engaged or stopped engaging before completing services; and one focus group with employers that provided subsidized employment to EDGE group members.

3. **Administrative service use data.** MDHS and its partner and providers collected and shared administrative data that documented the types of training, education, and services they provided to ECCS and BCCS group members and, where applicable, control group members. The administrative data analyzed for this report included information on service receipt from the date of random assignment for each individual through either the last known date of service or the end of EDGE's service period (February 2019).
4. **Unemployment insurance wage records.** We obtained data on employment status and earnings from State unemployment insurance (UI) wage records. We obtained data for each individual in the pilot

⁸ The supplement provides additional information about the analysis approach, including details on the study design, analytic weights, approach to addressing missing data, and the impact estimation approach.

who had earnings for 8 quarters (two years) before the date of random assignment, at least 12 quarters after random assignment for individuals randomly assigned through September 2017, and at least 8 quarters after random assignment for individuals randomly assigned after September 2017. The data contained earnings amounts for each quarter, which we also used to construct indicators of quarterly employment status.

5. **SNAP administrative data.** MDHS provided SNAP administrative caseload data. We used these data to construct measures of receipt of public assistance (receipt of SNAP and Temporary Assistance for Needy Families [TANF]), SNAP and TANF benefit amounts, and income. We also used these data to characterize individuals' recent history of SNAP participation. MDHS provided monthly data for all individuals in the pilot from one year before random assignment through December 2020.
6. **12- and 36-month follow-up surveys.** The 12- and 36-month follow-up surveys were important sources of service receipt and outcomes data examined in this report. We conducted telephone surveys about 12 months after random assignment with individuals enrolled in the pilot through December 2017 (1,182 ECCS, BCCS, and control group members). We also conducted telephone surveys about 36 months after random assignment among individuals who responded to the 12-month survey (805 ECCS, BCCS, and control group members). The 12-month survey asked for information about individuals' service receipt, employment, and earnings in the 12 months after random assignment. The 36-month survey asked for similar information for the period between the 12- and 36-month surveys. These surveys also provided data for measures of household food security status, health, well-being, and housing status around the time of the interview. The survey data complemented the UI wage records and provided more detail on individuals' employment and earnings, including the number of jobs they held over time; the job start and end dates (if applicable); and characteristics of the jobs, such as hours worked per week, weekly earnings, job type, fringe benefits, and occupation.
7. **Cost data.** To estimate EDGE costs, we collected data from cost workbooks completed by MDHS and its partner and providers through the end of the EDGE service period. The workbooks were the basis for calculating total costs and describing the categories of costs for the ECCS and BCCS groups, including those for staff, direct services, supplies and equipment, and overhead and operations. In addition, to estimate the total cost of each type of service, we administered a time-use survey to collect data on the percentage of time direct service providers spent on each type of service for ECCS and BCCS group members. As described in the technical supplement, we used data from other sources to estimate the costs of control group services and the dollar values of benefits included in the cost-benefit analysis.

B. Analysis approach

The findings presented in this report are based on a comprehensive set of analyses.

1. Implementation analysis

The implementation analysis summarized and synthesized the data collected through the site visits and during technical assistance and monitoring. The analysis focused mainly on the data collected from formal interviews, but we incorporated the information from technical assistance and monitoring into findings when appropriate. Information from the focus groups and case studies is included to provide context; however, it is important to note that we collected these data from small numbers of EDGE

individuals and employers, and their experiences and opinions are not necessarily representative of the entire EDGE group or all employers.

We organized the data by topic, interviewee, and pilot office to facilitate analysis by type of respondent (for example, MDHS or provider) and pilot location within the State. We developed tables and synthesized information across respondents to describe the flow of services and how they changed over time, the challenges staff faced, and lessons learned.

2. Participation analysis

The participation analysis used administrative service use data recorded by service providers to summarize engagement and participation in services and activities following random assignment for the two EDGE groups (ECCS and BCCS; control group members were not included in this analysis). The data measured individuals' receipt of services and participation in activities during the entire service period in which individuals could have been engaged in services (March 2016 through February 2019). All individuals enrolled in the two EDGE groups (through September 2018) are included in the main analysis presented in the report. However, to understand service receipt patterns in the group of individuals on which the impact analysis is based, we re-estimated several participation analyses in the appendix using individuals randomly assigned through December 2017 (Appendix Table D.1).⁹

We created timelines for each EDGE group member to describe when they started to receive services and, for those who completed services, end dates. These timelines allowed us to estimate the order in which individuals typically proceeded through activities and the length of time they spent on each one and in EDGE overall.

3. Analysis of differences in service use between EDGE and control groups

This analysis statistically compared receipt of services among EDGE and control group members over the 36 months following random assignment. Comparing the differences between EDGE groups and the control group in service use provided context for understanding the impacts on employment, earnings, and receipt of public assistance.

The analysis was based primarily on 12- and 36-month survey data, which were available for both EDGE and control group members randomly assigned through December 2017.¹⁰ The 12-month survey data provided information on service receipt and participation in activities from the date of random assignment through approximately 12 months later, whereas the 36-month survey provided similar information from the date of the 12-month interview until about 36 months after random assignment. We combined these 12- and 36-month survey data to form a single longitudinal data file that describes, for each member of the EDGE and control groups, the employment-related services and education and training activities in which they participated during the 36-month period following random assignment, including type and

⁹ Due to the limitation of available data, the main impact analyses restricted the individuals included to those randomly assigned through December 2017 so we could have a long enough period to analyze 36-month outcomes.

¹⁰ The analysis also used administrative data analyzed in the participation analysis when information on the use of specific services was available for both EDGE and control group members; we present some statistics in Appendix E.

duration.¹¹ The survey data captured any type of service received, regardless of whether it was provided through EDGE, existing SNAP E&T, or providers in the community, such as Workforce Innovation and Opportunity Act (WIOA) programs, community colleges, nonprofits, or other organizations.

We compared regression-adjusted averages of measures of service receipt for the EDGE and control groups. To improve the precision of the estimates, the regressions controlled for the characteristics of individuals as measured at the time of random assignment, including demographic characteristics (such as age, educational attainment, and number of children in the household) and economic characteristics (such as employment status and earnings). We weighted the observations to ensure that the differences were representative of all individuals enrolled in the pilot before the end of 2017. We constructed the weights to reflect the random assignment process, survey design, and survey nonresponse, and used t-tests to determine whether service receipt differences between the EDGE and control groups were statistically significant.

4. Analysis of impacts on employment and well-being outcomes

To estimate how EDGE affected individuals' outcomes, we compared the average outcomes of the EDGE and control groups over the 36 months following random assignment. Because EDGE and control group members' baseline characteristics on average were the same at the time of random assignment (see Chapter III and Appendix C), differences in their outcomes after random assignment can be attributed to differences in the services offered to individuals in each group.

We used three data sources to measure outcomes: (1) UI wage records, (2) SNAP administrative data, and (3) 12- and 36-month follow-up survey data. The outcomes examined included employment status, earnings, and job characteristics, such as hours worked and occupation. We measured employment and earnings by quarter and year, using the start and end dates of jobs reported in the surveys. Household food security status was measured over the 30 days before each survey period, whereas health, well-being, and housing status were generally measured at the time of each survey interview.

We estimated impacts for most outcomes for individuals randomly assigned through December 2017. However, because UI wage records were available only through September 2020, estimates of impacts on employment and earnings measured using UI wage data include only those individuals randomly assigned through September 2017.

We analyzed outcomes related to earnings and employment using both UI wage records and survey data. Findings for these parallel analyses may differ because of differences in data coverage or quality, or in the analysis samples and time periods covered in the follow-up data. For example, UI wage records are not subject to the recall error that presents a potential problem in surveys. However, UI wage records do not cover all types of jobs, exclude jobs in certain industries, do not contain information on job

¹¹ The activities measured in the survey included (1) job search assistance or job search training and (2) education and occupational skills training. Job search assistance or job search training activities included those that helped individuals with resume writing, interviewing, and networking. Education and occupational skills training activities included education in the form of adult basic education or General Education Development (GED) courses, English as a second language (ESL) classes, or college courses; occupational skills training programs that prepared individuals for specific occupations; general job skills training programs that helped individuals learn widely applicable job skills and readied them for work; and work-based learning activities, such as paid or unpaid internships and apprenticeships.

characteristics, and are subject to other reporting errors.¹² The omissions are nontrivial, and workers in sectors with no or partial coverage in UI wage records comprise about 10 percent of U.S. employment (Hotz and Scholz 2002; Kornfeld and Bloom 1999). Additionally, UI wage records do not cover workers who are casually employed, such as day laborers or part-time helpers, and exclude most cash-only work and work that is part of the “gig economy” (Abraham et al. 2018; Katz and Krueger 2016, 2019). Survey data also have limitations. In addition to the potential for recall error, these data were not available for everyone enrolled in the pilot because some individuals did not respond to the survey. Also, the characteristics and experiences of individuals who responded to the survey may have differed from those who did not respond.¹³

Further, the time periods for which data were available differed for the UI and survey data, which means that analysis samples for 36 months of follow-up were different for the two data sources. Survey data included individuals randomly assigned from March 2016 through December 2017, whereas UI wage records for EDGE included individuals randomly assigned from March 2016 through September 2017. The shorter time frame for the UI wage records reflects a typical lag in the availability of these administrative data associated with employer reporting schedules and the need for State agencies to process data after employers have reported them. Finally, we note that even though there are differences between the data sources, each should provide unbiased estimates of the impacts of EDGE on the outcomes they measure because the EDGE and control groups were balanced on individual characteristics at the time of random assignment.

With an experimental design, unbiased impact estimates are attainable from the differences between average outcomes of the EDGE and control groups. We estimated impacts on outcomes by comparing regression-adjusted averages for each research group to improve the precision of estimates and adjust for small baseline differences between groups that may have arisen by chance or because of survey nonresponse or missing administrative records data. Regressions controlled for individuals’ characteristics as measured at the time of random assignment.¹⁴ We used t-tests to determine whether there were significant differences between the EDGE and control groups that were unlikely to have occurred purely by chance.¹⁵

¹² In particular, UI wage records do not cover self-employed workers, railroad employees, workers in service for relatives, most agricultural labor, some domestic service workers, and part-time employees of nonprofit organizations (U.S. Department of Labor 2014).

¹³ An analysis of the differences in individual characteristics of survey responders and nonresponders, and the differences between research groups, is in the technical supplement.

¹⁴ The full set of characteristics and additional information on their selection can be found in the technical supplement.

¹⁵ Analyses in this report tested for statistical significance at the 0.01, 0.05, and 0.10 levels. We used the 0.10 level because the evaluation was assessing the effectiveness of new interventions for which there was no previous evidence of effectiveness for SNAP participants. A more stringent statistical significance threshold often is used when evaluating ongoing programs for which there is an established literature on program effects based on prior studies. Using a more stringent statistical significance threshold in the current evaluation would have reduced statistical power and limited our ability to identify and highlight promising sets of services offered through the pilots. By using a 0.10 statistical significance level, the evaluation aimed to build knowledge in the field of workforce development for SNAP participants on which future SNAP E&T evaluations can expand, and eventually apply more stringent tests of effectiveness once programs and service models have been established for a longer period of time.

We calculated average outcomes for research groups by applying weights to each observation to help ensure that estimated differences between the EDGE and control groups were representative of all individuals enrolled in the pilot in the State. We constructed these weights to reflect the random assignment process and, for analyses based on the survey data, adjust for survey nonresponse bias based on observable characteristics recorded prior to random assignment.

We estimated the impact of EDGE on many outcomes and across several subgroups, performing statistical tests for each. However, the likelihood that some estimates are found statistically significant simply by chance increases with the number of estimates tested, potentially leading to the false discovery of impacts not really caused by EDGE. To help guard against this problem, known as multiple comparisons bias, we selected two primary (confirmatory) outcomes before analyzing the data: (1) earnings (based on both the UI wage records and survey data) and (2) SNAP participation in the two-year period (Years 2 and 3) after random assignment. We defined the primary outcomes over this period of available data because many EDGE group members were expected to be engaged in education and training in the first year, which could have reduced their opportunity for employment during that time. Although it is typical to examine longer-term effects of employment and training programs on outcomes by using a time period farthest from when individuals participated in activities, we did not consider Year 3 outcomes among our primary outcomes due to concerns about the adverse effects of COVID-19 on individuals' outcomes in that year. (For about 52 percent of individuals who were randomly assigned through December 2017, the COVID-19 pandemic took place during their third year after random assignment [with the start of the pandemic defined by the nationwide enactment of the CARES Act on March 27, 2020].) Although EDGE's effect on employment was important to assess in the evaluation, we excluded employment from the set of primary outcomes due to our focus on the two-year period (Years 2 and 3); the rate of employment is a more suitable outcome when measuring impacts over a narrower period of time such as a month or quarter. For example, employment was included as a primary outcome for the interim evaluation of this study, which focused on the fourth quarter from random assignment only. In the final evaluation, we used the estimated impacts on employment and other outcomes, as well as for subgroups, to support findings for the primary outcomes by examining whether they fit within a pattern of similar impacts. We view these analyses as exploratory, providing policy-relevant but less rigorous evidence about the effects of EDGE. This information could be valuable for continuous program improvement and identifying potential hypotheses for more rigorous examination in the future.

5. Cost analysis

The cost-benefit analysis compares the benefits individuals enrolled in EDGE received in dollar terms through changes in earnings and public assistance with the costs of the services provided during the EDGE service period. The analysis estimates the extent to which the benefits exceeded the costs of providing services to the EDGE group compared with the benefits and costs of providing services to the control group. In this section, we present the methods used for the cost-benefit analysis.

Description of costs. For the cost-benefit analysis, we estimated three groups of costs: (1) the costs of EDGE; (2) the costs of all services provided to EDGE group members through EDGE and the community; and (3) the costs of all services provided to control group members through existing SNAP E&T and the community. For each group of costs, we estimated the total costs, costs by service type (such as case management or education), and costs per individual. The difference between the costs of all services EDGE and control group members received is the basis for the cost-benefit analysis.

Costs of EDGE. The costs of the EDGE, included those for planning, recruiting, and delivering services. We based the estimates of EDGE costs on cost data provided by MDHS and its partner and providers with direct subcontracts through the FNS grant. These data were reported through standardized cost workbooks submitted for the planning period and on a quarterly schedule during service delivery. DHS, five community colleges, JMG, and NSPARC each submitted workbooks with their own cost information. They submitted workbooks for the planning period (April 2015–March 2016) and for 12 quarterly service delivery periods (April 2016–February 2019) through the end of services and closeout activities, which occurred in August 2019.

- **Total costs.** The workbooks captured data on a set of four core cost categories, or cost ingredients, including staff, direct services, supplies and equipment, and overhead and operating costs. These costs included those paid for with FNS grant funds and those paid for with funds leveraged from other sources. We used the cost ingredients to build an estimate of the total costs of EDGE by summing them across the four cost categories.¹⁶
- **Costs by service type.** In addition to the cost workbooks, a web survey collected data on the percentage of time provider staff spent on key services for EDGE group members—for example, management, assessments, and job readiness or life skills workshops (such as a job club or job readiness training). We allocated the costs of (1) staff, (2) supplies and equipment, and (3) overhead and operating costs to direct service costs using the percentage of time staff reported spending on these key direct services.
- **Costs per individual.** To estimate the costs of serving the average individual and the range of costs for serving all EDGE group members through EDGE, we used individual-level data on participation in services to attribute a cost to each service in which the individual engaged. We used administrative service use data collected by MDHS and its partner and providers on participation in EDGE services only. We used data on the unit (or per-service) cost of EDGE services to estimate the total cost of services for each individual in the administrative service use data. We then estimated the mean cost of services for an individual.

Costs of all services received by EDGE group members. In addition to estimating the costs of EDGE, we estimated the cost of *all* services that EDGE group members received from the EDGE and the community. We used the costs of all EDGE group services in the cost-benefit analysis because the benefits EDGE group members could have accrued through changes in employment and earnings were a product of all services in which they participated during the follow-up period, not just the EDGE services.

- **Total costs, costs by service type, and costs per individual.** We estimated the costs of all services EDGE group members received per individual using the same method we used to estimate the per individual costs of EDGE. We used individual-level data on participation in services to attribute a unit cost to each service in which each individual engaged and estimated the mean and range of costs per individual. We summed the individual-level estimates to get an estimated total cost of all services EDGE group members received.

¹⁶ The ingredient, or build-up, methodology used for the cost data collection and analysis has been used in similar evaluations of public workforce programs and is detailed in Levin, Henry M., and Patrick J. McEwan. *Cost-Effectiveness Analysis: Methods and Applications*. Thousand Oaks, CA: SAGE Publications, 2001.

We used the unit costs of EDGE services and individual-level participation data from the 12- and 36-month follow-up surveys to estimate the costs of all services EDGE group members received. We chose to use the survey data to estimate the cost differentials between the EDGE and control groups because, unlike the administrative service use data, the survey data were collected for both the EDGE and control groups. In addition, these data reflect all services both groups received, thus maximizing the comparability of the two sets of service costs.

Costs of all services received by control group members. Most grantees were unable to report detailed information on costs for the services received by control group members. As a result, we estimated the costs of all services control group members received using recently published data on the costs of similar services offered through the WIOA Adult and Dislocated Worker programs. Services for the control group were generally similar to or a subset of WIOA services, including case management, assessments, job clubs, job readiness training, independent job search (called resource room visits), education, occupational skills training, work-based learning, and support services. For case management and all employment and training-related activities, we used cost data from the WIA (Workforce Investment Act) Gold Standard Evaluation, which were collected using the same methodology as this evaluation and the same workbook and cost ingredients (staff, direct service, supply and equipment, and overhead and operating costs).¹⁷ For cost estimates of support services, we used 2018 FNS-583 form data on reported costs of support services in existing SNAP E&T programs. We adjusted the cost estimates to 2016 dollars to facilitate a direct comparison with EDGE group cost workbook estimates, which we also adjusted to 2016 dollars.

- **Total costs, costs by service type, and costs per individual.** We used the same method to estimate the costs of all control group services that we used to estimate the costs of all EDGE group services. We attributed the WIOA unit cost of each service to individual-level data on participation in the services control group members reported receiving through the community in the 12- and 36-month follow-up survey data. We estimated the mean and range of costs per individual and summed the individual-level estimates overall and by service type to estimate the costs of all services control group members received.

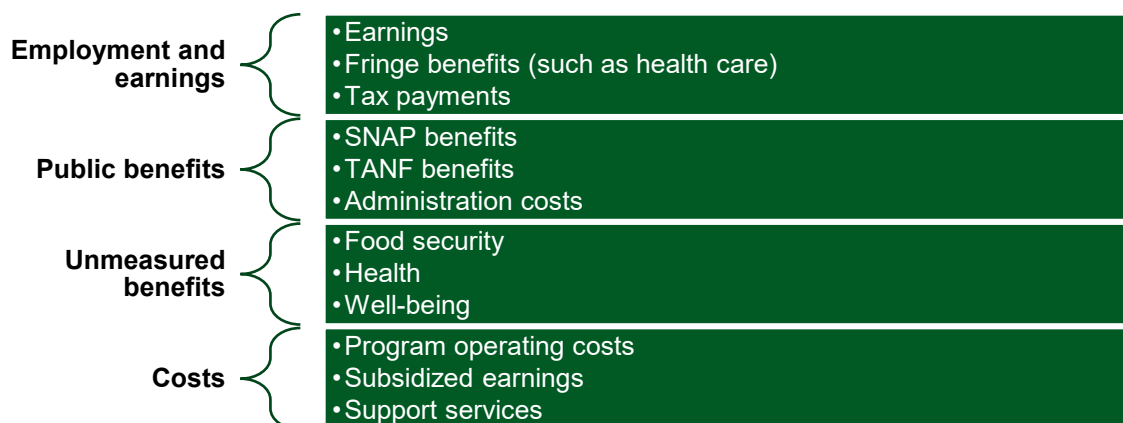
Approach to cost-benefit analysis. The cost-benefit analysis used a framework to present a comprehensive listing of EDGE group benefits and costs, relative to the control group, from three perspectives: (1) individuals enrolled in EDGE, (2) government and taxpayers, and (3) society as a whole, which represents the sum of the other two perspectives. The framework is similar to an accounting ledger, listing benefits and costs as dollar values that could be positive from one perspective or negative (a cost) from another. All costs and benefits are expressed as the difference between the EDGE group and the control group, and reflect all services those individuals received during the 36-month follow-up period.

Measures of costs and benefits. Given FNS' and Congress's goals for the SNAP E&T pilots, the primary benefits of interest were (1) increased earnings (through increased employment), which reflect individuals' increased productivity from participating in services; and (2) reduced need for public assistance benefits, such as SNAP or TANF (Exhibit II.1). Additional benefits to government and

¹⁷ The WIA Gold Standard Evaluation is the most recent national study of the Adult and Dislocated Worker program services, conducted in 2012 and with findings published in 2016. WIA was reauthorized in 2014 under the WIOA. Although WIOA made important changes to the workforce system, it did not significantly change the basic set of services offered, nor who was eligible to receive them. We refer to the WIA Gold Standard Evaluation as WIA because that was the name of the authorization at the time the data were collected.

taxpayers, as well as society, include taxes that individuals pay as part of their post-service employment and reductions in public assistance benefits. The primary costs of interest include costs for operating program services and providing subsidized earnings and support services to individuals while they are engaged in services. While operating costs and resources provided to individuals are a cost to government and taxpayers, the latter are a benefit to individuals.

Exhibit II.1. Measures of costs and benefits



Although we can attribute a dollar value to benefits such as earnings, fringe benefits like health care, or SNAP benefits, there are other benefits and costs associated with changes in employment and earnings that are more difficult to value. Changes in the rates of food insecurity and well-being (such as improved housing or health status or lower rates of depression) are important outcomes that could be associated with a change in employment and earnings. It is challenging to quantify the dollar value of these benefits reliably—for example, it is difficult to attribute a dollar value to a one-point change on the depression or food security scales used to assess the presence and extent of these issues. Outcomes such as a change in depression or food security might have more value than can be represented by a change in earnings or expenditures, given the relationship of those outcomes to overall and long-term health and well-being. In addition, there are other potential costs to individuals related to employment, such as changes in child care or transportation needs. We did not make assumptions about the values of these benefits or costs because they could influence estimates with a high degree of uncertainty. However, it is important to recognize the potential value of these costs and benefits to individuals, government and taxpayers, and society.

Costs and benefits by perspective. The findings of the cost-benefit analysis depend on the perspective from which the costs and benefits are considered. For example, an increase in tax payments because of an increase in employment and earnings is a cost to individuals but a benefit to government and taxpayers. We considered variation in the costs and benefits by perspective:



Individuals enrolled in EDGE could have realized benefits from increased post-program earnings and incurred costs from decreased benefit receipt. Individuals did not incur costs for services but benefitted from receiving subsidized wages and support services while receiving services.



Government and taxpayers (meaning everyone other than individuals) paid costs to fund the services and could have realized benefits from increased taxes from individuals and decreased benefit receipt and program administration costs.



Society as a whole experienced the overall effect of the costs and benefits to individuals and government and taxpayers. Costs or benefits to society were the sum of the costs and benefits to individuals and government and taxpayers. For example, if taxes were a cost to individuals and a benefit to government and taxpayers, there would be a net neutral (zero) benefit to society.

Summary measures. To estimate the net benefit, we took the difference between total benefits and costs for each perspective. A negative net benefit is a net cost from that perspective. We also estimated the return to society on each dollar invested by estimating the ratio of benefits to costs. A benefit-cost ratio greater than 1 suggests that overall benefits of all EDGE group services exceeded their costs. A benefit-cost ratio less than 1 suggests that the benefits of all EDGE group services, relative to the services EDGE group members would have received otherwise, did not outweigh their costs within the 36-month follow-up period. In other words, the costs exceeded the benefits realized.

Accounting for benefits accruing later than costs. The costs of services were incurred during the time when individuals were enrolled in services, but the benefits of those services likely did not accrue fully until a later date. We adjusted the costs and benefits in two ways to make their dollar values comparable during the baseline year of 2016, when EDGE started incurring service costs and individuals started accruing benefits.

- **Price deflator.** To account for inflation, we used the implicit gross national product price deflator from the Bureau of Economic Analysis to convert costs and benefits occurring in later years into constant 2016 dollars.
- **Discount rate:** A dollar in the baseline year was worth more than a dollar in later years because it could have been invested and earned interest. To account for this effect, we used a discount rate to convert all costs and benefits incurred in later years into constant 2016 dollars based on the 30-year Treasury bond rate on January 1, 2016 (approximately when EDGE started), which was 2.98 percent.

Sensitivity analyses. Like most cost-benefit analyses, our estimates required many assumptions. We examined the sensitivity of our findings to changes in these assumptions to assess whether our results were robust to these changes. We assessed whether our results differed for each of the following changes:

- **Alternative discount rates.** We used an alternative Treasury bond rate to assess the sensitivity of estimates to different rates of return through the discount rate. We tested the sensitivity of our findings to using alternative discount rates of 2 percent and 4 percent.
- **Alternative fringe benefit rates.** We used an alternative fringe benefit rate to assess the sensitivity of estimates to the assumption that the average fringe benefits were worth 20.9 percent of earnings (according to the Department of Labor's National Compensation Survey). We tested the sensitivity of our findings to using fringe rates that were decreased and increased by 5 percent of earnings.

- **Alternative tax rates.** We used a single marginal tax rate based on the mean earnings impact and characteristics of individuals in EDGE at enrollment. Because individuals' effective tax rates could vary based on their earnings and other deductions, we tested the sensitivity of our findings to using tax rates that were decreased and increased by 5 percent.
- **Alternative assumption that subsidized earnings are not included in UI wage record estimates of earnings.** We assumed that subsidized earnings provided to individuals engaged in work-based learning activities were reported to State UI agencies and were included in UI wage record estimates of earnings. It is possible that not all providers reported subsidized earnings to State UI agencies. We tested the sensitivity of our findings to the alternative assumption that subsidized earnings were *not* included in UI wage record estimates of earnings, but instead were a direct transfer benefitting individuals. We assumed subsidized earnings were included in 36-month survey estimates of self-reported earnings.
- **Alternative assumption that treatment group members only received services through EDGE.** The main analysis assumes that ECCS and BCCS group members received additional services outside of EDGE through existing SNAP E&T and the community during the pilot period. We use data from the 12- and 36-month follow-up surveys to estimate service receipt for ECCS and BCCS group members and assume any difference in estimated costs of EDGE and all services ECCS and BCCS group members received based on the survey is attributed to services received outside of EDGE. Survey data are self-reported and could over or underestimate the services that ECCS and BCCS group members received. This sensitivity analysis uses the alternative assumption that ECCS and BCCS group members only received services through EDGE and estimates the net benefits using these alternate estimates of costs.

6. Subgroup analyses

For many of these analyses, we examined subgroups that may have been affected differently by the services offered to the EDGE group.

Subgroups defined by baseline characteristics. We analyzed a subset of service use and impacts among groups of individuals defined by their status at the time of enrollment, such as the presence of children in the household, work experience, income, age, and presence of severe barriers to employment. For all subgroup analyses, we conducted F-tests to assess research group differences in service receipt or impacts across subgroups. These findings are included in the appendices.

Subgroups defined by the timing of pilot enrollment. We analyzed a subset of service use and impacts by enrollment time period. We divided individuals enrolled through December 2017 into two groups based on when they were enrolled in the pilot—those enrolled before versus after the midway point of the pilot's full enrollment period (March 2016 to June 2017 versus July 2017 to December 2017). We meant the mid-enrollment distinction to capture differences between earlier and later cohorts, independent of how specific pilot operations changed over time. There could have been changes both within and outside of the pilot that contributed to differences in outcomes before and after the mid-enrollment point, including shifts in local labor market demand, changes in implementation policies or practices, or characteristics of individuals. We used t-tests to determine whether the magnitude of differences between EDGE and control groups varied across enrollment periods.

Subgroups defined by whether individuals started or completed activities. The main findings presented in this report do not differentiate between individuals enrolled in the pilot who participated in activities

and those who did not. These estimates provide information about impacts that can be expected for all SNAP participants who were offered the EDGE activities. However, because some individuals did not engage in EDGE or start an activity, these estimates mask how well individuals who did participate in such activities may have fared. For this reason, we conducted additional analyses to examine impacts among SNAP participants who did engage in the pilot and participate in activities.

We estimated differences in service receipt between EDGE and control groups, as well as impacts on outcomes among individuals who started a pilot activity compared with those who did not, and among those who completed an education or training activity compared to those who started but did not complete an activity.

To conduct this non-experimental analysis, we used a rich set of baseline data collected from all individuals enrolled in the pilot to estimate EDGE group members' propensity for starting an activity using regression-based predictive models. These models were then used to predict control group members' propensities to start an activity had they been in the EDGE group. The resulting propensity scores were then used to define subgroups of individuals in each research group based on the percentages of the EDGE group that started an activity. We repeated this process for EDGE group members who did not start an activity, completed an employment or training activity, completed a job search or job search training activity, or started but did not complete an activity.¹⁸

C. Study limitations

This evaluation of the SNAP E&T pilots used an experimental design, rigorous analysis methods, and a multifaceted longitudinal data set to assess whether the pilots were effective in connecting SNAP participants with jobs that increased their incomes and reduced their need for public assistance benefits. Because individuals were randomly assigned to EDGE and control groups, we can confidently attribute differences in outcomes between the groups to EDGE services rather than differences in the characteristics of the research groups when they enrolled in the pilot, such as differences in education, work readiness, or barriers to employment.

Nonetheless, the evaluation has several methodological limitations:

- 1. Some analyses did not include all individuals who enrolled in EDGE.** We have about three years of follow-up data for most, but not all, individuals who enrolled in the pilot. Because the reporting and data collection schedules did not always align, we had to limit some analyses to a subset of the individuals enrolled in the pilot. For example, we collected survey data only from individuals randomly assigned through December 2017. Similarly, although we collected UI wage records for all individuals who were randomly assigned, those randomly assigned later in the enrollment period contributed less than three years of data to the analysis. Thus, it is possible the analyses that included a full three years of data for all individuals who were randomly assigned might produce different findings. We assessed the sensitivity of our findings to these limitations by using the UI wage records for *all* individuals who were randomly assigned to estimate two-year impacts of the pilot on outcomes and compared these impacts to those for individuals randomly assigned through September 2017—those for whom we had three-year observation periods. Our findings were robust to this restriction,

¹⁸ Additional information regarding these procedures can be found in the technical supplement which accompanies the report.

suggesting that the need to restrict the populations included in some analyses did not affect the main conclusions of the evaluation.

- 2. Survey nonresponse may have led to potential bias in estimates of service receipt and outcomes.** Data collected from the 12- and 36-month follow-up surveys played an important role in understanding differences between the EDGE and control groups in receipt of services available through SNAP E&T and in the community, as well as estimating impacts on employment, earnings, and food security and well-being outcomes. With the exception of employment and earnings data in the UI wage records, much of this information is not available through other data sources. Even when it is available, there are fundamental differences between UI and survey data in the types of jobs covered and the information available to assess job quality. However, because we collected survey data from individuals 12 and 36 months after random assignment, we were unable to locate a nontrivial percentage of individuals enrolled in the pilot via telephone or residential address; thus, they could not participate in the survey. (The response rates of the 12- and 36-month surveys were 66 and 68 percent, respectively.) As a result, characteristics of individuals who responded and did not respond to the survey could have differed between EDGE and control groups. If true, this situation would bias the estimates of pilot impacts. To address this possibility, we performed a comprehensive nonresponse bias analysis, using information collected before random assignment, and constructed and applied survey weights based on these analyses to ensure that findings were representative of all individuals who enrolled in the pilot.
- 3. Having incomplete control group data in the cost-benefit analysis led to the use of estimated costs of control group services.** The cost-benefit analysis compares the costs of EDGE group services with their counterfactual—those services individuals would have received in the absence of the EDGE group services. Most grantees were unable to report detailed information on costs for the services received by control group members, so we estimated those costs using the unit costs of services that were similar to those the control group received, using data from a recently published evaluation of the WIOA Adult and Dislocated Worker program. As a result, the difference in the costs of services represented in the cost-benefit analysis could be over- or underestimated.
- 4. The assessment of EDGE’s effectiveness on individuals who participated in activities was not based on an experimental research design.** The subgroup analysis examining differences in pilot impacts among individuals who did and did not start or complete an activity was important for assessing pilot effectiveness among individuals who engaged in the pilot. However, an important limitation of this analysis is that it was not based on an experimental design. The experimental design in the main analysis randomly assigned individuals who enrolled in the pilot to the EDGE group or the control group. Individuals in the EDGE group chose whether to start an activity and/or complete one based on factors we could not necessarily observe. Thus, because individuals were not randomly assigned to start or complete activities, there is a risk that the factors predisposing individuals to greater participation in activities may have influenced their likelihood of gaining employment or earning higher wages, independent of their starting or completing an activity. To account for this potential bias, we used a rich set of baseline data available for all individuals enrolled in the pilot to generate weights that balanced the characteristics of EDGE group members who started or completed an activity and control group members who would have had a high propensity to start or complete one had they been in the EDGE group, thereby reducing the risk of selection bias.

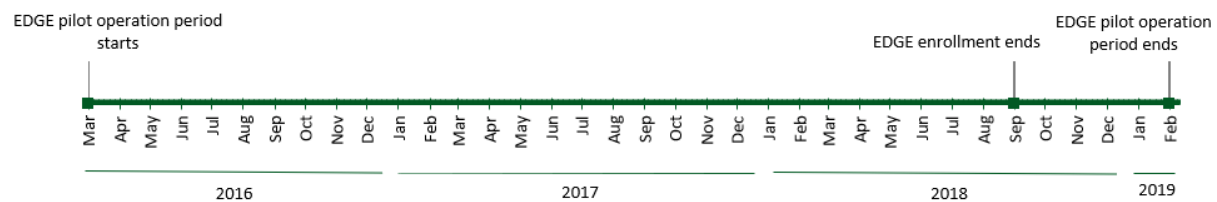
III. EDGE enrollment and characteristics

This chapter describes patterns of enrollment in the pilot and the local economic context in which the pilot operated. It also describes the characteristics of enrolled individuals at the time of random assignment and compares the characteristics of those who enrolled in the pilot earlier to the characteristics of those who enrolled later.

A. Patterns of enrollment

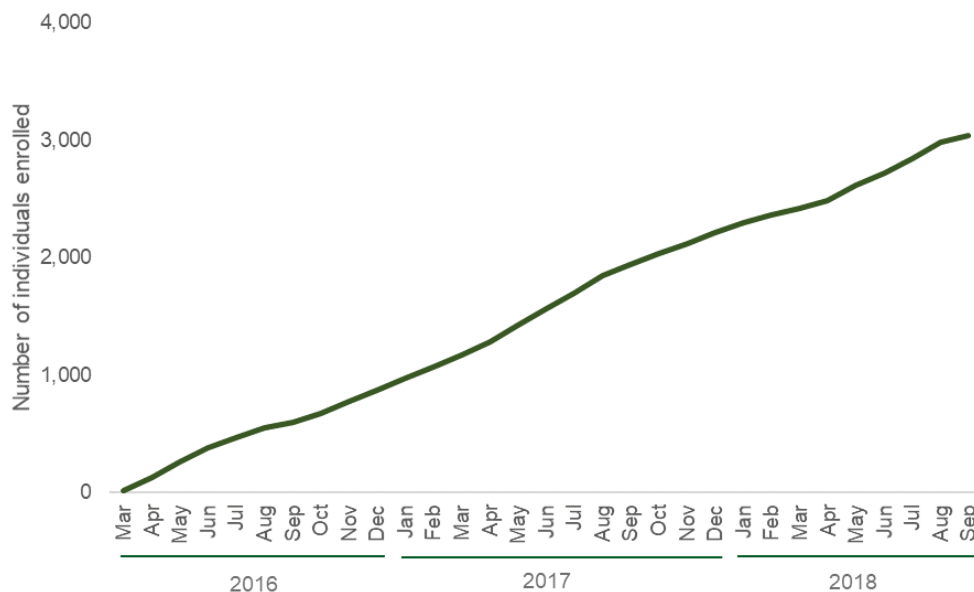
From March 2016 to September 2018, Mississippi enrolled 3,051 individuals in the pilot (Exhibit III.1). SNAP participants who enrolled in the pilot were randomly assigned in roughly equivalent numbers to the ECCS group, the BCCS group, and a control group. The number of individuals enrolled increased steadily over time, averaging about 87 individuals per month in 2016, 112 individuals per month in 2017, and 93 individuals per month in 2018 (Exhibit III.2).

Exhibit III.1. Overview of pilot enrollment



Source: SNAP employment and training evaluation enrollment data (March 2016 to February 2019).

Exhibit III.2. Cumulative number of individuals enrolled in each month of the enrollment period



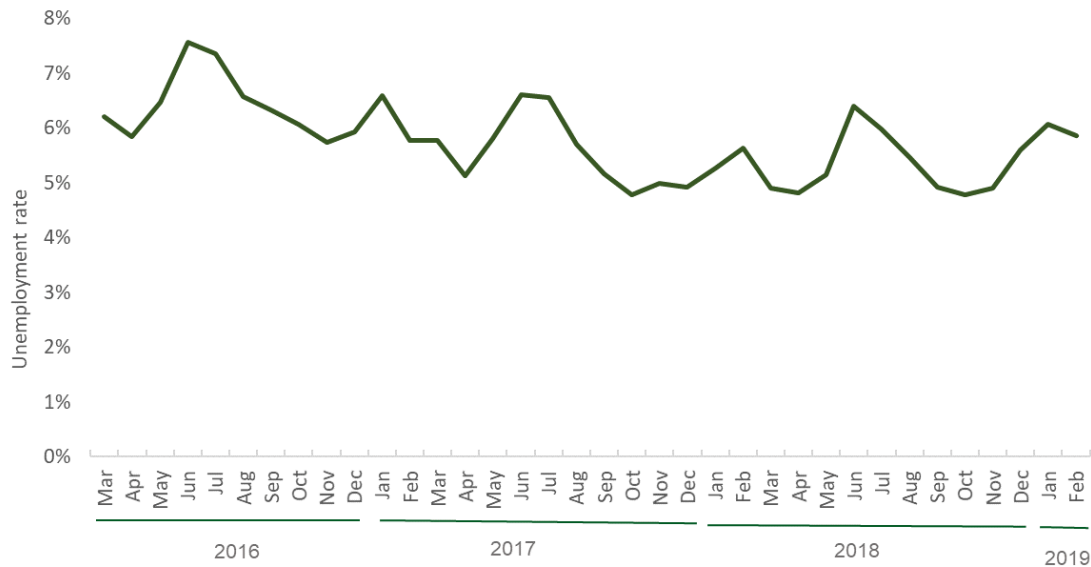
Source: SNAP employment and training evaluation enrollment data (March 2016 to September 2018).

Note: All values are numbers of individuals enrolled and include ECCS, BCCS, and control group members. Individuals enrolled in the pilot include all ECCS, BCCS, and control group members who completed baseline enrollment registration and did not subsequently revoke their consent to participate in the evaluation of the pilot (3,041 out of the 3,051 enrolled individuals).

B. Local economic context in the EDGE pilot area over time

The counties in which EDGE operated experienced fairly consistent unemployment rates during the pilot operation period, with average monthly unemployment across these areas between 4.8 and 7.6 percent (Exhibit III.3). Average monthly unemployment peaked at 7.6 percent in June 2016, and generally was between 5.8 percent and 7.4 percent during the first year of pilot operation (March 2016 to March 2017). From April 2017 until the pilot stopped offering services in February 2019, unemployment fluctuated between 4.8 and 6.6 percent.

Exhibit III.3. Local unemployment rate in the EDGE pilot area for each month of pilot operation



Source: Bureau of Labor Statistics Local Area Unemployment Statistics (March 2016 to February 2019).

Note: All values are average monthly unemployment rates across the 29 counties in which the pilot operated.

Common occupations among the general population in the regions of the pilot remained fairly consistent from 2016 through 2019 (Bureau of Labor Statistics 2020). The most common occupations throughout this period were office and administrative support such as office clerks, customer service representatives, administrative assistants, and accounting and auditing clerks; sales and related occupations such as cashiers and retail salespersons; production occupations such as assemblers and fabricators, upholsterers and sewing machine operators, and welders; food preparation and serving related occupations such as fast food and counter workers, waiters and waitresses, and restaurant and fast food cooks; healthcare practitioners and technical occupations such as registered or vocational nurses, emergency medical technicians, and pharmacy technicians; and transportation and material moving occupations such as freight, stock, and material movers, stockers, and tractor-trailer truck drivers (Exhibit III.4).

Among the general population, median hourly wages for these occupations in 2016 ranged from \$8.97 (food preparation and serving related occupations) to \$15.53 (production occupations). Wages grew by \$0.25 to \$1.26 per hour from 2016 to 2019.

Exhibit III.4. Common occupations and median wages in Mississippi's pilot area over time

Wage (hourly in dollars)	2016	2019
Office and Administrative Support Occupations	13.28	14.54
Production Occupations	15.53	16.22
Sales and Related Occupations	10.10	10.65
Food Preparation and Serving Related Occupations	8.97	9.22
Transportation and Material Moving Occupations	12.38	12.90

Source: Bureau of Labor Statistics

Note: Data in this table represent the most common jobs per one thousand individuals in each of the pilot areas. The areas included in this table (Northeast Mississippi, Northwest Mississippi, Southeast Mississippi, Gulfport-Biloxi-Pascagoula, and Hattiesburg) are defined by the Bureau of Labor Statistics and may not fully align with the areas of Mississippi in which the pilot was offered.

C. Characteristics of enrolled individuals

The baseline registration form captured demographic, residential, and economic characteristics at the time of random assignment for individuals who enrolled in the pilot. Exhibit III.3 and Appendix Table C.1 show the key characteristics of individuals who enrolled from March 2016 to December 2017—the individuals on whom many of this report's analyses are based.¹⁹ The majority of enrollees were Black, non-Hispanic (70 percent); a slight majority were male (53 percent). The average age was 32, and all enrollees were between 18 and 49 years old, with 70 percent between 25 and 49 years old. Almost one-third did not have a high school diploma or equivalent education.

Around 20 percent of individuals lived in rural areas, and the rest of the enrollees were split between living in micropolitan or metropolitan areas (48 and 32 percent, respectively).²⁰ 28 percent were married or cohabiting, and very few lived in households with children (3 percent), as EDGE primarily enrolled ABAWDs (96 percent).

The majority of individuals had been employed at some point (88 percent), but only 5 percent were employed at the time of random assignment (Exhibit III.5). About 18 percent were employed consistently in the two years preceding random assignment, meaning they were employed for at least seven out of the preceding eight quarters, whereas 45 percent either were not employed or were employed for only one of the preceding eight quarters.

We also assessed individuals' barriers to employment based on whether they completed high school and if they were employed in the 12 months before random assignment. Although 85 percent faced the fewest

¹⁹ Compared to analyzing outcomes for all enrolled individuals, analyzing them for individuals who were randomly assigned through December 2017 allows for a longer period of about three years to observe service receipt and impacts on outcomes. As shown in Appendix Table C.1, the characteristics of this group of individuals were similar to those for all individuals enrolled in the pilot.

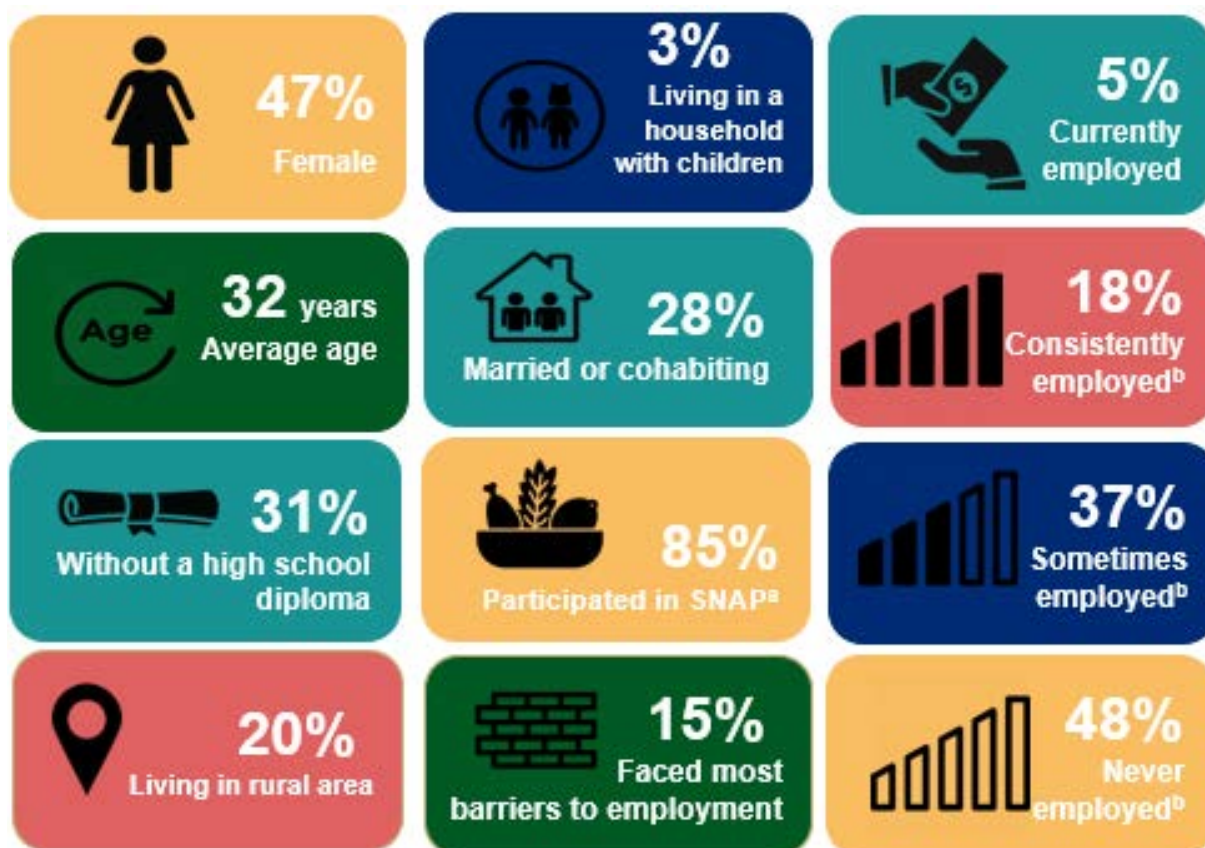
²⁰ Urbanicity is measured using the Economic Research Service's 2010 Rural-Urban Commuting Area (RUCA) codes. Metropolitan areas are urbanized areas of 50,000 people or more or areas in which most or many commuters in the area commuted to an urbanized area. Micropolitan areas are large urban clusters of 10,000 to 49,999 or areas in which most commuters in the area commuted to a large urban cluster. Rural areas are defined as small urban clusters of 2,500 to 9,999 people or areas in which most commuters in the area commuted to a small urban cluster. This definition includes areas outside of urbanized areas and urban clusters.

III. EDGE enrollment characteristics

or moderate numbers of barriers, 15 percent faced the most barriers, defined as not being employed in the past 12 months and not completing high school or the equivalent.

Most individuals (85 percent) had participated in SNAP in the year before enrolling in the pilot, while 15 percent enrolled in SNAP for the first time in the preceding year at the time of random assignment. About 44 percent participated for one to six months of the year, and 41 percent participated for more than six months.

Exhibit III.5. Baseline characteristics of individuals enrolled in the pilot



Source: SNAP employment and training evaluation baseline information registration form (March 2016 to December 2017 data).

Note: All values are percentages unless otherwise noted. Individuals enrolled in the pilot through December 2017 include all ECCS, BCCS, and control group members who completed baseline enrollment registration and did not subsequently revoke their consent to participate in the evaluation of the pilot (2,208 out of the 3,051 enrolled individuals).

^a Participated in SNAP reflects any SNAP participation in the year before random assignment based on SNAP administrative records. All individuals who enrolled into the pilot were required to be on SNAP at the time of random assignment.

^b Employment experience is defined using UI wage record data for the two years before random assignment. "Consistently employed" includes individuals who were employed for at least 7 out of 8 quarters preceding random assignment. "Sometimes employed" includes individuals who were employed for 2 to 6 quarters preceding random assignment. "Never employed" includes individuals who were employed for at most 1 quarter preceding random assignment.

D. Characteristics of individuals who enrolled earlier versus later

Some analyses in this report examine differences in service receipt and impacts between individuals who were enrolled earlier versus later in the enrollment period. Below we summarize differences in baseline characteristics of EDGE group members in these two groups of individuals.

Later enrollees in the ECCS group were less likely than earlier enrollees to be Hispanic (1 versus 2 percent), to be employed full time (0 versus 1 percent), to have experienced short-term unemployment in the quarters before random assignment (53 versus 60 percent), and be married or cohabiting (4 versus 37 percent; Appendix Table C.4). Later enrollees were more likely than earlier enrollees to be unemployed at random assignment and never having worked in the past (16 versus 10 percent). Additionally, later enrollees in the ECCS group were less likely than earlier enrollees to live in a metropolitan area (22 versus 37 percent) and more likely to live in a micropolitan area (57 versus 42 percent).

Later enrollees in the BCCS group were more likely to have a high school or equivalent education (67 versus 56 percent), but less likely to have an educational certificate (2 versus 6 percent; Appendix Table C.4). Similar to the ECCS group, later enrollees in the BCCS group were less likely to be married or cohabiting (8 versus 36 percent), less likely to live in a metropolitan area (25 versus 34 percent), and more likely to live in a micropolitan area (54 versus 47 percent) compared to earlier enrollees.

There was no difference between later and earlier enrollees for the ECCS or BCCS groups in having zero months of SNAP participation in the year before random assignment. However, later enrollees in the ECCS groups were more likely to have participated in SNAP for 1 to 3 months in the year before random assignment (36 versus 26 percent), but less likely to have participated for 7 to 9 months (8 versus 13 percent). The monthly trend and rates of SNAP participation for the earlier and later enrollees in BCCS group were similar to those of the ECCS group.

IV. Implementation analysis

In this chapter, we describe the implementation of the EDGE pilot based on qualitative analysis of data collected through staff interviews, focus groups, and case studies of individuals in EDGE. Data presented in this chapter were collected during the planning, implementation, operational, and close-out periods, from March 2015 through September 2018 (Exhibit IV.1 provides a pilot timeline).

Exhibit IV.1. Pilot timeline

Pilot activity	Date
Grant awarded	March 2015
Enrollment began	March 2016
Enrollment ended	September 2018
Services ended	February 2019

In the following sections, we provide information about the pilot background and describe the planning and early implementation process. We then detail services and operations, including the recruitment and enrollment processes; control group services and pathways; and EDGE group (ECCS and BCCS) services and pathways, management and collaborations, service receipt patterns, barriers among EDGE group members, staffing, and performance reporting. We also discuss the sustainability and replicability of EDGE services after the pilots ended, and summarize the key findings discussed in this chapter. Unless otherwise noted, each section describes the policies implemented, not what was planned.

A. Pilot background

MDHS, in collaboration with NSPARC, applied for the SNAP E&T pilot grant so they could provide SNAP participants the education and training required for middle-skill jobs that would help them reach self-sufficiency. MDHS senior leadership saw the pilot as an opportunity to create a work program similar to what it offered through its TANF program. MDHS chose to target ABAWDs because they were most in need of services and, beginning in 2016, would be facing Federally mandated limits on the amount of time they could receive SNAP. The services made available through EDGE would help some ABAWDs meet these requirements.

While MDHS was planning for and beginning enrollment in the pilot, staff also were redesigning their existing SNAP E&T program. The redesigned program started around the same time as the pilot. Before January 2016, MDHS offered a voluntary SNAP E&T program in which few individuals participated. The program, called the tuition assistance program, offered financial support to SNAP participants to take classes at seven community colleges throughout the State. MDHS changed the SNAP E&T policy to make it a mandatory program for ABAWDs, starting in January 2016, because the governor decided not to apply for a waiver of the ABAWD time limits. Therefore, MDHS revised its SNAP E&T program to offer assessments, job search, workfare, tuition assistance to attend community college, and referrals to occupational skills training for ABAWDs.

MDHS developed the pilot in collaboration with NSPARC, five community colleges, and a community-based organization—Jobs for Mississippi Graduates (JMG). MDHS had a pre-existing relationship with NSPARC, JMG, and Itawamba Community College (ICC) through its tuition assistance program, but not with the other four colleges. MDHS chose to collaborate with NSPARC because of its expertise in data

collection and managing similar projects. NSPARC's roles were to help develop EDGE services, create a management information system (MIS), and oversee the MIS data collection. MDHS and NSPARC invited all Mississippi community colleges to participate in EDGE. Only 5 of the 15 community colleges ultimately agreed to participate: East Mississippi Community College (EMCC), ICC, Jones County Junior College (JCJC), Mississippi Delta Community College (MDCC), and Mississippi Gulf Coast Community College (MGCCC). The community colleges provided career navigation, employment, and occupational skills training activities to individuals assigned to EDGE, and monitored compliance with the SNAP E&T requirements among ABAWDs. JMG staff also provided career navigation services at each of the 5 community colleges and helped with recruitment and outreach activities. JMG navigators were expected to provide career navigation to part of the target population (those 18 to 24 years old), as they had experience through JMG in supporting recent graduates, students at risk of dropping out, and students who needed assistance transitioning from school to work. All partners and providers received funding from the grant to provide services or support implementation. However, the community colleges could refer EDGE group members to other services available in the community, such as WIOA programs; the pilot would not reimburse for those services.

The new EDGE services available at the community colleges were offered to individuals enrolled in the pilot across 29 counties that were in close proximity to the five participating community colleges, had low employment, and had training needs for middle-skill jobs. The ECCS group, which was testing more extensive services, received a four-week career course called the EDGE class, plus intensive case management. After completing the EDGE class, individuals moved into one of three pathways (academic, work, or life skills), depending on their individual career plan. They could receive support services designed to mitigate potential barriers, which included providing driver's license fees, immunization costs, car repairs, or eyeglasses (training or personal supports); transportation assistance; and clothing, tools, and shoes needed for employment (work supports). Individuals in the BCCS group, which received more services than the control group but fewer than the ECCS group, did not receive the EDGE class; rather, they advanced directly into the three pathways. They also received only light-touch case management but were offered similar support services, with the exception of the additional gas cards that the ECCS group received during the EDGE class.

B. Pilot planning and implementation

MDHS led the planning process in collaboration with NSPARC, with involvement from the community colleges and JMG in developing EDGE services and activities. Working with NSPARC, MDHS developed the policy and procedures for how the pilot would be implemented and made the necessary changes to its SNAP eligibility system. NSPARC developed the MIS, called CaseMod, and coordinated the colleges' involvement in the planning process. The community colleges developed the four-week EDGE class curriculum with input from JMG, and each community college determined how EDGE would be implemented at its location. The planning process started in April 2015 and continued through the beginning of enrollment in the pilot on March 23, 2016.

EDGE was staffed by individuals from all of the partner and provider agencies. Two existing MDHS State office staff managed the pilot—one as project director and the other as an assistant. Existing MDHS county staff were responsible for recruitment and enrollment. The community colleges hired new full-time staff to provide EDGE services, including a project director and up to two navigators. JMG also hired five navigators, stationing one at each of the five community colleges. NSPARC used existing staff

to create the MIS and manage data collection. New staff at the colleges and JMG were hired between August 2015 and January 2016, in the middle of the planning phase.

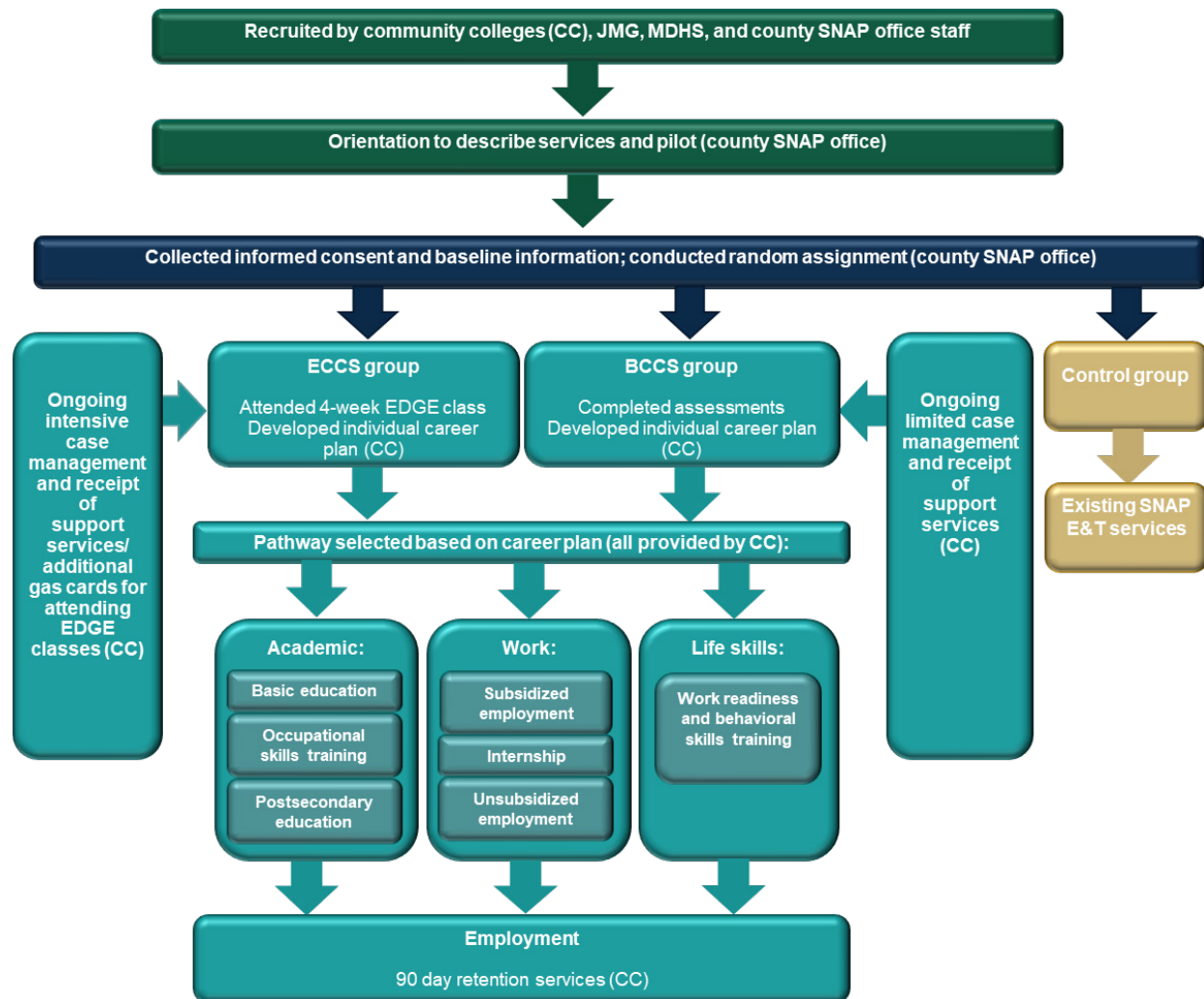
The main challenge during the planning period was beginning enrollment in the pilot on time. The start date was pushed back several times—from January 2016 to February 2016, and finally to March 23, 2016. The delays were caused in part by delays in completing the development of CaseMod. It was a work in progress throughout early implementation and underwent several changes, causing some college staff to encounter challenges in learning how to use the system. MDHS State office staff would have liked the system to have been completed before the pilot started so staff would know more about how it worked and its capabilities.

For more information about pilot planning and implementation, please see the Expanding Opportunities & Reducing Barriers to Work: Mississippi Interim Report (Mabli 2021).

C. Pilot services and operations

When MDHS began enrollment in the pilot in March 2016, it was targeted to non-exempt ABAWDs who were not working 20 hours or more a week. As illustrated in Exhibit IV.2, SNAP eligibility staff in county offices, supported by the community college and JMG staff, recruited ABAWDs during certification interviews. Although SNAP E&T was mandatory in Mississippi, participation in the pilot was voluntary. ABAWDs could choose to participate in the study and potentially be randomly assigned to EDGE or opt out of the study and receive existing SNAP E&T services. Individuals who volunteered to participate in the study were randomly assigned to one of two EDGE groups (ECCS or BCCS) or the control group. Those assigned to the EDGE groups were referred to the local community college to meet with a career navigator; those assigned to the control group received existing SNAP E&T services offered through the county office. At the community college, individuals in the ECCS group started the next available EDGE class, whereas those in the BCCS group met with a career navigator to complete an assessment and create an individual career plan (ICP). After the ECCS group finished the EDGE class (during which they completed an ICP) and the BCCS group created their ICPs, individuals entered one of three pathways based on their plan: academic, work, or life skills. The ECCS group received intensive case management; gas cards (if they successfully completed each week of the EDGE class); and other support services for transportation, training or personal needs, and work items. The BCCS group received less-intensive case management and was eligible for support services but not a gas card. Those in both groups who completed their pathways received help in finding employment and could receive up to 90 days of retention services (case management and support services) after finding employment.

Exhibit IV.2. Pilot flow and pathways



1. Recruitment and enrollment

ABAWDs first learned about the pilot during their SNAP certification interview. If an ABAWD did not meet an exemption and was not working at least 20 hours per week, the eligibility worker told the individual about the mandatory SNAP E&T requirements and that the pilot was an option to meet those requirements. Individuals were then referred, both verbally and through a notice sent in the mail, to meet with county staff to learn more about the pilot and complete an employability assessment form, which included questions about their education, work history, and barriers to employment.

In July 2016, MDHS moved the main discussion about EDGE and enrollment from the certification interview to a group SNAP E&T orientation. Early in the implementation period, MDHS found that one county was successfully using a group SNAP E&T orientation with a charismatic staff person to engage and ultimately enroll ABAWDs in the pilot. Instead of focusing on engagement during the certification interviews, county staff would refer ABAWDs (verbally and in writing) to a SNAP E&T orientation held on another day at the county office, where they would learn more about EDGE. During the orientation, ABAWDs completed the employability assessment form; those who were interested then immediately

met with a county staff person to start enrollment. However, some counties did not implement this approach because there were too few ABAWDs in their area to use a group process.

During the enrollment process, a county staff person reviewed the assessment form, conducted the consent process for the pilot, completed the baseline data collection, and conducted random assignment—assigning individuals to the ECCS, BCCS, or control group. Individuals assigned to the control group met with the SNAP E&T caseworker to determine which activities they would complete—usually job search followed by workfare. Individuals assigned to either of the EDGE groups were told (verbally and through a notice) to contact the community college project director within five days to set up an appointment.

MDHS had trouble meeting its enrollment targets throughout the three years of EDGE. Staff reported the following three main recruitment challenges:

1. County staff struggled to get ABAWDs to attend orientations.
2. Individuals who attended an orientation reported that the lack of reliable transportation would prevent them from attending services and activities, so they chose not to enroll.
3. The counties did not have enough staff to dedicate to recruitment and marketing.

To mitigate these issues, MDHS and providers did the following:

- **Transportation.** Because of the large number of ABAWDs who faced transportation barriers that prevented them from enrolling in the pilot, the colleges secured transportation providers to help encourage SNAP participants to enroll. In 2017, three of the five community colleges worked with transportation providers. Two of them collaborated with transportation providers that picked up individuals at their homes; one collaborated with a bus service that had dedicated bus stops. In addition, the counties began to give all individuals enrolled in the EDGE group an up-front transportation stipend to help with the cost of getting to the college. Both college and county staff reported that these additional transportation supports helped increase enrollment.

In 2018, a few colleges secured additional transportation providers. One added a bus line that ran at night for individuals attending night classes. Another was forced to end its contract with its transportation provider due to the company's legal issues. It started using taxis to pick up individuals at their homes as a replacement service.

- **Marketing and outreach.** MDHS, the community colleges, and JMG each took steps to try to increase pilot enrollment through marketing and outreach strategies. MDHS created a flyer in July 2016 and instructed the counties, colleges, and JMG to post it in their buildings, distribute it in the community, and mail it to eligible ABAWDs. MDHS also put information about the pilot on its website and created a radio ad that aired in some counties. In addition, MDHS developed a video showing the success story of an individual in the EDGE group; it was shown in the lobbies of county offices. The colleges made efforts to increase interest in the pilot by attending county orientations to talk to ABAWDs about available college services and calling potentially eligible ABAWDs to tell them about the pilot. They also started identifying current college students who were receiving SNAP benefits and referring them to MDHS to enroll in the pilot. The JMG navigators focused on recruiting potentially eligible SNAP participants in the community by doing presentations at churches and schools. In 2018, the counties and colleges expanded the use of success stories by sharing them during orientations. Some asked individuals who successfully completed EDGE to attend the orientations; others asked county staff to share examples of these stories. MDHS also created a marketing video that explained EDGE and introduced some of the opportunities available at the

colleges. The counties showed the video to SNAP participants during the orientation or one-on-one meetings.

- **Dedicated county pilot staff.** In May 2018, MDHS designated a staff person in each county office to serve as an EDGE navigator. The navigator's role was to lead the orientations and help the county reach its enrollment targets. Although State office staff and one college director felt this approach made a big difference in helping to meet the State's enrollment targets, the navigators felt they were already doing the prescribed navigator activities and that the designation did not make a difference.

When the pilot began, the expected end date for enrollment was December 31, 2017. In summer 2017, MDHS and FNS agreed to extend enrollment through May 2018 to provide more time to reach their enrollment target. Due to continued challenges in reaching their target, MDHS and FNS agreed to extend the enrollment period again, to August 31, 2018, which was later further extended to September 14, 2018 in all but three of the pilot counties. In those three counties, enrollment ended on May 25, 2018. MDHS successfully enrolled 3,051 individuals by September 14, 2018, and officially ended enrollment for the pilot.

In April 2018, MDHS also decided to extend all EDGE services for individuals at four of the five community colleges through February 2019 to allow those who enrolled in the pilot last to receive up to six months of services. One of the five colleges decided not to extend services beyond December 2018 and did not provide a reason for this decision.

2. Control group services and pathways

County SNAP E&T caseworkers provided existing SNAP E&T program services statewide. After being randomly assigned to the control group, individuals met one on one with a SNAP E&T caseworker to review their employability assessment and, in some counties, develop an ICP. Individuals enrolled in the control group were instructed to complete an online employment profile on Mississippi Works (a State-run career website), including an assessment of their work history, and then complete 30 days of job search. After the 30 days, if they did not find a job, they had to participate in workfare (via volunteer opportunities in the community). Individuals in the control group could also attend GED classes, if desired, or seek other training opportunities at Mississippi Department of Employment Security (MDES) job centers or other local providers. In the counties served by ICC, MDHS also provided assistance with tuition to take classes at ICC. However, most individuals participated in job search and workfare.

Individuals in the control group were eligible to receive transportation assistance (\$50 per month) and could be referred to other support services, such as food pantries or free clothing closets, if they were available in their county. Control group members were required to meet with their caseworker monthly to check in about the status of their job search or participation in workfare. One county staff person reported helping control group members with job applications and interviewing tips during these meetings, but others reported the meetings were mainly focused on compliance.

3. EDGE group services and pathways

Individuals randomly assigned to the EDGE group were instructed to call the community college project director to discuss available services in more detail. They were also instructed to complete an online employment profile on Mississippi Works. If the individual was assigned to the ECCS group, that person was scheduled to attend the next available EDGE class. During the first day of the class, individuals were oriented to EDGE. In some community colleges, individuals assigned to the ECCS group met one on one

with the college project director to complete paperwork and the Test of Adult Basic Education (TABE) before starting the class or, if they could not start the class immediately, be assigned to other activities while they waited. If the individual was assigned to the BCCS group, that person was scheduled to meet one on one with a career navigator to be oriented and complete an ICP. During this initial meeting, the career navigator assessed the individual's education, skills, and work experience, and the barriers to reaching the person's goals. At some community colleges, everyone assigned to the BCCS group also took the TABE during this initial meeting or subsequent meetings. In other colleges, they took the TABE only if it was required for the occupational skills training in which they were interested.

EDGE class. All of the individuals assigned to the ECCS group took the four-week EDGE class as soon as possible after being randomly assigned, depending on the college schedule. During the class, individuals took the TABE if they had not done so before entering the class, as well as the WorkKeys assessments: Reading for Information, Applied Mathematics, and Locating Information. The individuals also worked on their ICP throughout the four weeks and finalized it at the end of the class. Other activities included in the EDGE class were a career readiness workshop; learning about potential careers; basic computer skills; a Myers-Briggs personality test; learning work readiness skills, such as professional image, interviewing skills, and on-the-job behavior; mock interviews; financial awareness, including balancing a checkbook; communication and customer service skills; and teamwork and problem solving.

Initially, the EDGE class was offered in only one location at each community college; individuals were expected to attend the class in person. However, many individuals faced transportation barriers that made it difficult for them to attend the class so, beginning in 2017, most colleges began offering the EDGE class in multiple locations to help mitigate this challenge. Some colleges offered it in satellite campus locations on a rotating basis, and one allowed individuals to take a self-directed version of the class online. As previously discussed, some colleges also developed free transportation services to help individuals get to the EDGE class.

Education, training, and work pathways. After individuals assigned to the ECCS group completed the EDGE class, including developing an ICP, and those assigned to the BCCS group completed their ICPs, they entered one or more of the three pathways. EDGE group members could choose to enter more than one pathway during their time in EDGE and, schedules permitting, could participate in multiple pathways at the same time.

Education and training. The first pathway was academic. Individuals could choose to take basic education courses or prepare for the GED test, take academic classes at the community college, or attend occupational skills training classes. They could choose to take any of the courses available at the colleges, but the number and type of available courses varied by school, and not all courses were offered at all times. Some colleges tried to steer individuals into short-term occupational skills training they could complete within the service period and that would lead to employment. Individuals could receive a \$650 voucher toward paying for classes at the college and could receive additional funding if EDGE resources were available.

Most EDGE group members needed occupational skills training to get a job that would pay well. College staff reported that individuals who took short-term training classes, such as the certified nursing assistant training and the manufacturing skills basic certification, were able to get jobs as a result. The most common occupational skills training pursued by EDGE group members was for welding, certified driver's license, certified nursing assistant, pharmacy technician, basic manufacturing, and phlebotomy. Individuals had a harder time entering longer-term occupational skills training because they often had to

wait for those programs to begin. For example, one individual interviewed for a case study said she joined EDGE in June 2017 and had to wait until August 2018 to start her nine-month training program in medical coding and billing. She said that in the interim, she “*was just waiting around.*”

Work-based learning. In the work pathway, individuals could get a subsidized job with an employer in the community. Individuals could work 320 hours at \$8.50 an hour. (When appropriate, individuals also could obtain an unsubsidized job or internship.) The colleges were tasked to develop partnerships with employers to offer these opportunities, but doing so proved to be a challenge for most of them. College staff reported that some employers were not interested in working with EDGE and the target population. Some employers had had previous negative experiences with hiring SNAP participants or were concerned about hiring EDGE group members without knowing their backgrounds. Other employers wanted the college to commit to providing a certain number of employees by a certain date, but the schools were unable to do so. In April 2017, MDHS again emphasized to the colleges the need to create more subsidized employment opportunities for individuals. As a result, the colleges increased their efforts to create employer partnerships by reaching out to additional employers, attending job fairs, meeting with civic organizations, and partnering with MDES. One college also had EDGE group members identify their own opportunities by approaching employers in which they were interested and sharing information about the subsidy program. The colleges’ efforts were successful; they tripled the number of employer partnerships by August 2017. In 2018, the colleges continued to expand the number of available subsidized employment opportunities. One college partnered with local city governments to do so, which helped EDGE group members living in cities where they faced transportation challenges. A college director indicated that it took some time for EDGE to build credibility among employers, but once a few employers successfully participated in EDGE, the word spread and other employers also agreed to participate.

EDGE group members reported having mixed experiences with subsidized employment opportunities. Some individuals found their placements were helpful because they were related to their occupational skills training (such as at a medical center), whereas others had less helpful experiences because they were placed in menial jobs (for example, at a retail store) that did not align with their career interests. Most individuals said their placements did not lead to full-time employment.

Overall, employers reported having a positive experience with EDGE staff and the individuals placed at their organizations. Some employers said they were planning to hire the individuals full time after their subsidy ended. They thought EDGE’s subsidized employment offering was beneficial to them as a way of building their workforce and filling their labor needs. They also thought it was beneficial to EDGE group members by building their skills and self-worth.

Life skills. The life skills pathway enabled individuals to participate in activities and classes related to developing work readiness or behavioral skills. The community colleges offered these classes to ECCS group members who needed additional assistance in developing skills after completing the EDGE class, and to BCCS group members who needed to develop these skills at any point in their pathway. EDGE group members could participate in the life skills pathway at the same time as the other pathways, or complete it first before moving on to the academic or work pathways.

Case management. EDGE group members received case management from career navigators at the colleges. The ECCS group received intensive career navigation (weekly meetings during the EDGE class and monthly meetings during the pathways, or as needed); the BCCS group received “lighter-touch”

career navigation (no more than two contacts per month). These meetings took place in person or over the telephone; staff contacted individuals through email or via text message in between meetings.

In most of the colleges, the BCCS group received more intensive career navigation than planned. Career navigators in several of the colleges said they provided intensive case management to both groups, reaching out to all individuals weekly. One career navigator indicated that she reached out to individuals assigned to the BCCS group to make sure they were on the right track and following their career plans. Another said the BCCS group had many needs, so she reached out to individuals assigned to the group more often than was indicated by the EDGE guidance.

Although it was intended for JMG career navigators to support EDGE group members ages 18 to 24, the colleges had discretion on how to assign EDGE group members to navigators. In most colleges, the JMG navigators were integrated into the college staff and worked with EDGE group members regardless of age. Some JMG navigators worked only with BCCS group members, whereas others worked with both ECCS and BCCS group members.

During focus groups, many EDGE group members reported having positive experiences with their career navigators. They said their navigators provided them with emotional support, connected them with support services, and helped them find job opportunities. Some individuals had more negative experiences—either not hearing from their navigators enough or at all after the EDGE class ended, or feeling that their navigator did not give them correct information about the occupational skills training classes and requirements. A few others reported having trouble reaching their navigators. The four individuals who participated in case studies mainly had positive experiences with their navigators,

An individual's experience in the ECCS group

This individual entered the EDGE program to further her education. She lacked a high school diploma after dropping out of high school in the 9th grade to care for her siblings when her parents got sick. She had always wanted to go back to school but was in an abusive marriage that prevented her from doing so. EDGE gave her the opportunity to pursue her education after she got a divorce. She said, *"When I found out about the EDGE program, I was very excited."* Over the years, she had held various jobs—most recently as a full-time custodian for four years. She left that job because she was injured and under a doctor's care. Subsequently, she had been caring for her grandchildren.

As part of the ECCS group, she completed the four-week EDGE class, took adult education classes in math, and obtained her GED. She attended woodworking training, received a subsidized job in the field, and then began earning credentials in welding. Her next step was to pursue a commercial driver's license to become a truck driver and see the rest of country. *"I'll get a chance to travel,"* she reported, when asked why she wanted to pursue that career. *"I have never left the State of Mississippi, and that would be a good thing...Get a chance to go out and explore a little bit."*

Through EDGE, she has received assistance in getting an eye exam and eyeglasses, car repairs, gas cards, and the tools and books she needed for her welding class. She spoke with her career navigator daily and described her as being *"very respectful...very helpful."* *"I just love her,"* she said. *"She's very hands on with you."*

While participating in EDGE, she faced some health challenges, requiring her to end her subsidized job early and sometimes request the college's contracted transportation company to pick her up for school. Despite these challenges, she reported making great progress in the program, and had been attending classes daily for a year and half. *"School just got me now,"* she said.

She was very grateful for the opportunity to pursue her education through EDGE. She thought the program was very helpful and that the credentials she was obtaining would help her get a job that paid well. She already had recommended EDGE to her family members and friends, and planned to continue promoting the program in her community. She said, *"Without them [the staff] and without me coming through their program, I wouldn't know where I would be at right now."*

describing them as being “*wonderful*,” “*helpful*,” and “*supportive*.” However, one EDGE group member said her navigator was hard to reach.

Support services. All EDGE group members received support services, which included transportation assistance; personal and training supports; and work item supports for tools, uniforms, and other equipment needed for work and training. Support services were also available to pay for school supplies and assessment fees. If ECCS group members attended every day of the EDGE class and met class expectations, they could also receive a \$50 gas card at the end of each week.

Many individuals in the EDGE group needed transportation assistance and received transportation support to help pay for gas. When EDGE started, the guidance for the amount of transportation assistance individuals could receive, in addition to the EDGE class gas card, was either a flat amount not to exceed \$50, or 54 cents per mile. In April 2016, soon after EDGE began enrollment, MDHS chose to lower the mileage reimbursement rate to 10 cents per mile due to budget concerns. Some college staff reported that 10 cents per mile was not enough to cover individuals’ transportation expenses.

During the first two years of EDGE, the number of individuals who received training or personal supports was lower than MDHS expected. In April 2017, MDHS State office staff once again emphasized to the colleges the importance of offering training and personal supports to EDGE group members to increase service engagement. After receiving additional guidance from MDHS, career navigators reported they felt better equipped to help individuals with their training and personal needs. During case management meetings, career navigators started talking with individuals about potential barriers and how EDGE could help. This approach resulted in an increase in the number of training and personal supports individuals received.

Several of the colleges started offering additional training and personal supports in 2018, including arranging for EDGE group members to get eye exams, dental appointments, and physical exams in the community. A few colleges reported partnering with specific companies to provide EDGE group members with items like uniforms and car repairs instead of having them search for their own provider, which helped smooth the process for these individuals. This assistance involved, for example, buying uniforms in bulk or sending EDGE group members to an approved auto repair shop. One college also started offering EDGE group members minutes for their cell phones.

Job retention. Individuals were offered 90 days of retention services once they completed EDGE and obtained employment. During this period, individuals continued to receive case management as needed, which generally was expected to include monthly in-person meetings. During these meetings, career navigators discussed any issues the individuals might be having at their jobs and how the career navigator could help. Individuals also may have received support services at some community colleges during the retention period.

4. EDGE group services management, partnerships, and communication

MDHS State office staff oversaw implementation of EDGE across counties and colleges. The MDHS State office project director’s role was to manage and monitor the overall implementation of EDGE. However, due to staffing constraints, the project director was not able to provide on-the-ground monitoring. Day-to-day management and monitoring were delegated to the college project directors for college implementation and regional and county directors for county implementation. MDHS State office staff noted they would have liked more face-to-face interaction and staff on the ground to monitor performance and oversee and guide implementation.

The MDHS project director held weekly and then biweekly calls with NSPARC and the college directors to manage implementation. During the calls, the team would discuss case-specific issues and questions, as well as policy and procedural changes. Any changes to EDGE policies and procedures that emerged from these discussions were documented in written bulletins and shared with the county offices.

Partner and provider communication was mostly effective, but a few challenges emerged. All partner and provider staff agreed that communication was frequent and open between the organizations, and they worked together to solve problems. Beginning in 2017, most of the colleges instituted monthly meetings with their associated counties to discuss any issues and individual cases. However, some college project directors reported having communication challenges with JMG staff about their roles and responsibilities because the latter were not college employees and their work was directed by the JMG executive director. MDHS State office staff also said that communication with the colleges could have been improved early in the pilot, particularly regarding the need to place individuals enrolled in EDGE into 80 hours of services each month to retain SNAP benefits and monitor their compliance with the SNAP E&T requirements. The colleges seemed surprised by this responsibility and were not prepared to implement it at the beginning of EDGE.

Staff considered the collaboration between MDHS and the community colleges to be successful. MDHS was able to leverage the services the colleges were already providing in the community to help SNAP participants move into employment. Staff felt the colleges also had a direct link to employers and an understanding of industry needs. In addition, by working together, the colleges and MDHS learned more about each other's services and thus will be able to work together to better serve individuals in the future. Having multiple community college providers was also an advantage because the colleges could share information and best practices across the State, and brainstorm on how best to support individuals in EDGE; the community college directors met monthly to do so.

5. EDGE group services and participation trends

Enrollment numbers were lower than the monthly targets and overall goal, so fewer individuals received services than originally planned. Of those enrolled, many ultimately did not participate in an employment or training-related activity (they exited or lost SNAP benefits due to a sanction before entering an activity). The majority of individuals in the ECCS group did start the EDGE class, but few individuals in the BCCS group started one of the pathways.

One barrier to participation for EDGE group members was that most of the colleges struggled to provide the required 80 hours of services per month to each individual because of the timing of available classes and occupational skills training programs. The colleges did not always have a course available for an EDGE group member to join and needed to find other activities to fulfill the 80-hour requirement. Some college staff voiced concerns about the 80-hour requirements and felt individuals were being placed into “filler activities” or forced to do “busy work” in between courses.

Having additional availability of occupational skills training placements would have created a better experience for both staff and EDGE group members. With more availability, career navigators would have been able to place EDGE group members into occupational skills training more quickly and not have had to find other activities for individuals to complete to meet their 80-hour work requirement. Having more occupational skills training opportunities also would have helped individuals progress more quickly through EDGE. Career navigators could only offer an individual the courses available when they joined EDGE, despite their interests. Colleges offered some training programs only during certain times of the

year, whereas they offered others only if a minimum enrollment target was met. One navigator said it was a challenge to figure out how to serve individuals when occupational skills training was not available at the time they were participating in activities. To help mitigate these challenges, one college started a partnership with a local training provider to provide certified nursing assistant and phlebotomy training to EDGE group members, starting in January 2018.

College staff reported that basic education and work-based learning were popular activities among EDGE group members who participated. They reported that many individuals in EDGE needed basic skills training. Some began to receive that training through the EDGE class or were referred to adult basic education. Individuals who lacked a GED also took GED classes. Work-based learning was also in high demand among individuals enrolled in the EDGE group. If individuals were work ready, they could be placed in a work-based learning opportunity. Some individuals would take a class and participate in work-based learning at the same time; others participated in work-based learning while they waited for their occupational skills training course to begin. One college director felt that individuals in the ECCS group were more likely to pursue occupational skills training and education after taking the EDGE class, where they were exposed to classroom work, whereas individuals in the BCCS group were more likely to participate in work-based learning.

Drop-off points and exits. The EDGE model included several potential drop-off points, or places in the flow of services that created obstacles or opportunities for individuals to stop participating or not move to the next step in the process. On average, EDGE was expected to last three months, but many EDGE group members exited before that time. Many dropped out before ever meeting with college staff. One college project director suggested that most of the individuals who dropped out did so within the first month after enrollment. The director indicated that some individuals might have been intimidated by the EDGE class and the requirement to take the TABE early in the class. Some people took the TABE and never came back.

Many of these early exits were due to sanctions. MDHS began the sanction process with individuals who did not engage in services within seven days after referral to the community college. Others who did engage generally stopped showing up to class or meetings with career navigators, and the navigators were unable to reach them to learn why or to try to re-engage them. If the career navigator could not reach an individual, the colleges would notify MDHS to start the conciliation process. If MDHS determined that an individual did not have good cause for not participating in activities, he or she would lose SNAP benefits (and not be eligible for EDGE). For the first instance, individuals were sanctioned for two months and then had to show they were in compliance before becoming eligible for SNAP again. For subsequent offenses, individuals were sanctioned for six months and had to show they were in compliance for the second instance, 12 months and show compliance for the third instance, and permanently for the fourth instance. Other common reasons for exiting EDGE were individuals finding a job and leaving before completing activities or lacking transportation to attend classes. Staff reported, however, that few individuals in EDGE successfully completed activities and exited because they found a job.

During focus groups, EDGE group members who left the pilot before finishing services reported they stopped participating because they lost SNAP benefits or met an exemption that meant it was no longer mandatory to participate. A few also stopped participating because their career navigator left, at which point either the community college told them erroneously that they had completed services or they chose not to continue with the new navigator. Some individuals in the focus group said that after they were notified they were noncompliant with their work requirements, they chose not to re-engage in services

because the reporting requirements were too burdensome and the amount of their benefit was not worth the effort.

Participation trends. Many EDGE group members faced transportation barriers that prevented them from participating; the colleges struggled to address these barriers. In some areas, individuals needed to travel for more than an hour by car to get to the college—a disincentive for some individuals or a barrier for those who did not have access to transportation. Even in areas where the commute was not as long, public transportation often was not available, and some people did not have reliable vehicles. Staff also reported that the transportation stipend (10 cents per mile) was not enough to cover the cost of participation. Over time, most of the colleges offered bus or shuttle services through collaboration with other providers to help individuals get to the colleges; even then, however, some EDGE group members struggled to get to their bus stop. Transportation was the top reason cited by MDHS, county, and college staff for why more individuals did not engage in services.

Another barrier that might have contributed to individuals not engaging in services was low educational attainment. This issue may have hindered some individuals from engaging in classroom work or obtaining a GED; some individuals may have been afraid to participate after years of being out of school or having a history of not doing well in school. However, a few college staff perceived that some individuals were not motivated to participate in activities and were reluctant to become employed because they were worried about losing benefits and thus not being better off financially. Additional barriers included mental and physical health issues, family responsibilities, criminal histories, and homelessness. College and county staff reported that EDGE group members faced similar barriers when seeking or retaining employment, including lack of transportation, educational attainment (lacking a high school diploma), and training and workplace skills. A number of individuals also experienced unstable housing, which made it difficult to keep a job.

EDGE group members at one community college also had less time to participate than did individuals at the other colleges. At this college, EDGE ended two months earlier. However, enrollment also ended earlier, so individuals had up to six months to receive EDGE services. During a focus group held in September 2018, a few individuals at this college reported they were sorry to hear EDGE was ending. One group member voiced frustration about not being informed sooner by EDGE staff that it would be ending. This individual had not completed his certificate program in welding and thought he had more time in EDGE to do so.

6. Staffing

MDHS used existing staff in the State and county offices to implement the pilot, and the community colleges hired new staff for key roles, such as project directors and navigators. Using existing staff and not hiring additional employees was challenging for MDHS; county staff reported there were too few staff in the county offices to effectively recruit and enroll ABAWDs in the pilot while implementing the ABAWD work requirements and continuing to fulfill their other ongoing duties. MDHS State office staff also would have liked additional staff assigned to the pilot to help with management and oversight, including monitoring county and college activities “on the ground.” MDHS State office staff found it difficult to manage the pilot in addition to performing other duties.

The MDHS State office, counties, colleges, and NSPARC experienced staff turnover, but there was no reported effect on the pilot or delivery of EDGE services. At the MDHS State office, the project director moved to a new role in the department, and a new project director was hired in December 2016. However,

the original director continued to play an advisory role. Several counties had turnover in county directors and a few supervisors and eligibility workers. Two colleges lost directors, and several career navigators left their positions in 2016 and 2017. The college project directors said they needed to train the new staff and reassign EDGE group member cases as a result, but that there was no negative impact on the pilot. In each case, existing staff filled the gaps until new staff were hired, and they did not raise any major concerns. In 2018, most of the colleges experienced turnover among their career navigators. A few reported that career navigators left because they knew the pilot was ending and their job would be eliminated. During focus groups, a few EDGE group members spoke about communication issues at one community college after their career navigator left, including being told they had completed EDGE services when they had not. Another EDGE member complained about high career navigator turnover. He said, *“we didn’t have the same advisors all through the whole [program]. By the time we ended, our advisors were all gone.”* The IT project director at NSPARC also left his position, although with no reported effect on the pilot.

Staff satisfaction with the pilot was mixed in 2016 and 2017 but improved in 2018. County staff generally reported less satisfaction than college staff. MDHS county staff who were focused on recruiting and enrolling SNAP participants in the pilot were frustrated when ABAWDs did not show up for orientation and when those who did attend ultimately did not want to enroll in the pilot. Staff also found it difficult to juggle the new work and current workloads; they often suggested there were not enough staff in the office to get everything done. Several county directors suggested that each county should have had one full-time staff person dedicated to the pilot. The county staff also suggested that it was disappointing to have to assign individuals to the control group, especially those who seemed most interested in or in need of EDGE services, whereas others assigned to the EDGE group did not engage in services. By 2018, some county staff reported being more comfortable with the pilot and excited to have EDGE as an option for SNAP participants.

College staff were more satisfied with the pilot. They believed in the EDGE model, enjoyed working with EDGE group members, and felt the accomplishment when individuals succeeded. However, college staff did identify a few challenges, including needing more structure and clearer guidelines from MDHS and NSPARC earlier in the process, and needing to adjust processes because several changes in policies and procedures after the pilot began enrollment. College staff reported wanting more—perhaps annual—training on the pilot’s policies and procedures. They also reported challenges in learning pilot policies and the skills required to implement them, such as public speaking and effectively communicating with people on the phone. Like the county staff, some college staff also felt disappointed when individuals enrolled in the EDGE group did not continue with services or succeed. As one navigator noted, *“When you try so hard to make a difference and [the individual] won’t let you, it’s a frustration.”* Another navigator said that she felt hurt and let down when individuals dropped out of EDGE after both the individual and the navigator had worked so hard to help them succeed. She said many people faced mental health challenges that made it difficult for them to participate, and that the navigators could not provide these individuals with the counseling they needed.

7. Performance management

As mentioned previously, county and community college staff used the CaseMod MIS to document the services received by individuals enrolled in EDGE. MDHS State office staff used data from CaseMod to track EDGE performance weekly and shared the reports with county and college staff. MDHS also reviewed the data to monitor whether individuals were progressing through services as expected.

MDHS State office staff also used a report from the SNAP administrative data system to track performance. This report tracked, by randomization group and county, the number of individuals who consented to the evaluation, were still active in the pilot, and had a closed SNAP case. State office staff and the county directors used this report to monitor enrollments and case closures among individuals enrolled in the pilot.

MDHS used several other reports and data collection activities to help manage the pilot and monitor progress. It used one report to track weekly referrals from the counties to the colleges to ensure that the colleges were picking up all of the individuals assigned to the EDGE group. In November 2016, the MDHS State office and the counties began tracking the number of individuals who progressed through the up-front enrollment process to help better understand drop-off points. At that time, the MDHS State office also began collecting monthly surveys from county offices and colleges to track enrollments and service use, and understand barriers to participation. In January 2017, the MDHS State office started tracking participation in the EDGE class in each of the community colleges to gather data on the number of individuals assigned to the ECCS group who started and completed the class.

D. Sustainability and replicability

Staff shared their insights as to how they would implement EDGE differently if given the opportunity, their plans for sustaining EDGE, and what would be required to replicate it.

If MDHS and the colleges were implementing the pilot again, they would make several changes to implementation process, but the EDGE model mainly would remain the same. Staff said they would provide more transportation support to EDGE group members and offer classes closer to individuals' homes or remotely to help mitigate transportation barriers. Staff said they would keep the funding available for training and personal supports but increase the amount and work to eliminate individuals' barriers soon after they started services. One career navigator said she would hire a mental health professional to support individuals facing mental health challenges; another suggested offering food to EDGE group members during the school day. Staff felt that creating more subsidized employment opportunities before starting the pilot and having a staff person at the community college dedicated to job development would have increased the opportunities available to EDGE group members. One college staff person suggested allowing EDGE group members the option of not taking the EDGE class if they preferred to start training immediately; another suggested shortening it to a two-week class. State, county, and college staff agreed they would not limit EDGE to ABAWDs if they were to offer it again. Staff perceived that volunteers would be easier to engage than ABAWDs, who were required to participate, and SNAP participants with children could benefit from EDGE.

As of September 2018, MDHS did not have plans to continue EDGE after February 2019. State office staff said they did not have the funding to sustain it. They also reported being discouraged from continuing EDGE because of how difficult it was to get people to participate. However, MDHS was working on creating Skills2Work, a 50-50 partnership with some of the community colleges, to offer free education, training, and wraparound support services to ABAWDs going forward. As of November 2020, MDHS was offering Skills2Work to work registrants through four training providers, including EMCC and another community college not involved in EDGE.

If MDHS or another State chose to replicate EDGE, they would need the following:

- Strong partnerships with community colleges or other training providers to offer services and connections to personal and training support providers in the community that would offer support

services to EDGE group members, and clear communication about each partner's roles and expectations from the beginning

- A pipeline of subsidized employment opportunities and employer partnerships, ideally developed before EDGE begins
- An understanding of the barriers SNAP participants face in program engagement and employment, and a plan to help mitigate those barriers before launching EDGE; this plan could be facilitated by having SNAP participants involved in program planning
- Enough staff to offer intensive career navigation to all EDGE group members
- Funding to provide the EDGE class, including additional gas cards; training and education; subsidized wages; career navigation; and support services

E. Key implementation analysis findings

Key findings from EDGE's planning, implementation, operations, and close-out periods are summarized below.

- **Strong partnerships established during the planning phase were a key element of EDGE.** Partnering with the community colleges allowed MDHS to provide more robust SNAP E&T services to ABAWDs than it could provide on its own, including an array of education and training courses designed to prepare SNAP participants for the workforce. Maintaining these partnerships required constant, open communication from the beginning. Although representatives from all partners were involved in the planning phase, MDHS State office and college staff suggested that including the college project directors and career navigators earlier in the planning process would have helped with determining the colleges' roles and expectations and creating buy-in. MDHS planned to build on its relationships with the community colleges to continue offering SNAP E&T services in partnership with them after the pilot ended.
- **MDHS planned to support EDGE group members' transportation needs, but more robust services were needed.** The design of EDGE included providing individuals up to \$50 a month to reimburse them for their travel expenses in the form of a gas card or check. Soon after EDGE began, MDHS and the colleges realized the transportation barriers EDGE group members faced would not be solved by gas reimbursements alone. Group members did not own vehicles or those they did own were unreliable, there was limited public transportation, and often individuals' commutes to the colleges were quite long. To provide help, the colleges worked to secure transportation options for EDGE group members throughout the service period, including hiring transportation companies to pick individuals up at their homes and expanding college-affiliated bus lines. Some colleges also offered classes in multiple locations or online. However, transportation continued to be a challenge that EDGE group members faced throughout the service period. Offering more robust transportation services and more flexibility around where individuals could receive EDGE services from the beginning might have increased initial participation and ongoing engagement.
- **Various marketing and recruitment strategies were used over time to fill available training slots.** MDHS initially did not create a marketing plan, as it expected to have more than enough ABAWDs interested in the pilot. However, the number of ABAWDs decreased rapidly after the ABAWD work requirements were instituted. Throughout the service period, MDHS and the colleges increased their marketing efforts, including creating and hanging posters in the county offices, recording videos explaining EDGE and highlighting success stories, having college staff present at

SNAP E&T orientations, and, in the final year, designating staff in the county offices to focus on enrolling SNAP participants. Creating a marketing and recruitment plan before launching the pilot and dedicating more resources to recruitment early on might have helped increase the number of EDGE group members.

- **Community college schedules limited available training, which meant that some EDGE group members had to wait for courses; having more ongoing courses available could have helped.** Although the county offices enrolled ABAWDs in the pilot throughout the year, start dates for education and training courses at the community colleges varied. Some programs were offered throughout the year, but others were offered on a more limited schedule or started at the beginning of a spring or fall semester. As a result, EDGE group members either had a set number of training options from which to choose that started soon after they enrolled or had to wait several months or longer for their chosen course to begin. Some coaches suggested the college should have offered more training programs more frequently to provide needed options and lessen wait times. One college eventually partnered with another local provider to expand its offerings.
- **Creating and filling subsidized job opportunities was challenging; involving EDGE group members in the effort proved helpful.** The colleges were tasked with developing subsidized employment opportunities for individuals enrolled in the EDGE group, but few had been developed by the end of 2016. The colleges had to continue to work on creating opportunities throughout the service period. College staff reported that employers were hesitant to hire SNAP participants or wanted the colleges to commit to sending them a certain number of workers, which was not possible. They also noted it was hard to create opportunities in the fields for which EDGE group members were being trained. Additionally, staff said that some group members were not ready for or committed to the subsidized jobs they were offered. Others did not have transportation to get to the jobs. One college director asked EDGE group members identify their own employment opportunities. Once they did so, group members would reach out to the employers about the opportunities and colleges would offer a wage subsidy. It was a lesson learned, as a director pointed out: *“Instead of spending so much time finding employers, I would have made participants part of that process sooner. We now... make a plan [with participants] targeting specific jobs. I wish I had started doing that sooner.”*

V. Participation analysis

In this chapter, we present findings on the services that EDGE group members (both the ECCS and BCCS groups) received and the employment or training-related activities in which they chose to participate. Using the administrative service use data recorded by service providers, we examine overall engagement in EDGE, the types of activities in which individuals participated, the order in which they typically proceeded through them, and how long they spent in each type of activity. The chapter also presents details about participation in education, occupational skills training, and work-based learning activities; receipt of support services; receipt and intensity of case management services; and the timing of and reasons for exiting EDGE. In addition, to account for potential differences in the implementation and availability of services for individuals who enrolled at different times, we estimated several service receipt measures by enrollment timing and describe differences in participation between those who enrolled in the pilot earlier compared to those who enrolled later.²¹ Appendix D contains additional data on the characteristics of those who did or did not complete EDGE activities and a discussion of service receipt among subgroups, based on characteristics at the time of random assignment, as indicated in the baseline registration form.

A. Participation in EDGE

After random assignment, EDGE group members were instructed to call the community college project director to learn more about EDGE services and to complete an online employment profile in the Mississippi Works system. Individuals assigned to the ECCS group were scheduled to attend the next available EDGE class. Individuals assigned to the BCCS group were scheduled to meet one on one with a career navigator to complete an individual career plan, which assessed the individual's level of education, skills, and work experience, and identified any barriers to reaching their goals. Both the ECCS and BCCS group were offered basic education, postsecondary education, occupational skills training, life skills training, and work-based learning, but the ECCS group first had to complete the EDGE class. Individuals also may have been participated in job search and workfare to help them meet their work requirement of 80 hours per month, but these were not key activities in the EDGE model.

1. Overall engagement in EDGE

About two-thirds of ECCS group members received services, meaning they started an assessment or ICP or an employment or training-related activity offered by EDGE, whereas almost all BCCS group

²¹ The pilot extended enrollment over a 31-month period, but the service period was fixed. Consequently, the service period for individuals who enrolled later was shorter than for those who enrolled earlier. For example, individuals who enrolled in 2016 could have received services for up to 36 months. In contrast, individuals who enrolled in 2017 could only receive services up to 26 months; those who enrolled in 2018 could only receive services for up to 14 months. This range is large across the entire pool of EDGE group members (Appendix Table D.2), but most group members (78 percent) had a potential window of at least 12 months in which to receive services, and more than a third (about 35 percent) were enrolled early enough to allow for 24 months of services. However, the actual participation rates show that only 8 and 10 percent of ECCS and BCCS group members, respectively, participated in services for 12 months, and nearly 1 percent of each group participated for 24 months. Therefore, the variation in the service periods does not appear to have affected actual participation in services, as most EDGE group members stopped participating before 12 months after random assignment (Appendix Table D.2).

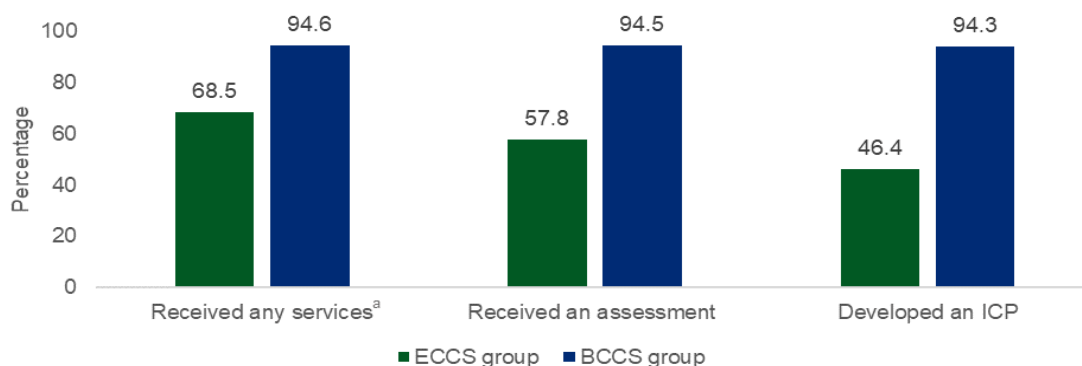
V. Participation analysis

members did so (Exhibit V.1).²² The lower engagement for the ECCS group may be related to the EDGE class; ECCS group members had to attend the classes in specific locations and at set times, whereas the BCCS group members could make appointments for the first meeting that worked for their schedule. About 58 percent of ECCS group members received an assessment²³ at the start of the EDGE class, and 46 percent developed an ICP toward the end of the four-week EDGE class. In contrast, almost all individuals in the BCCS group were assessed (95 percent) and developed an ICP (94 percent), which generally happened during their initial meeting with a career navigator.

After random assignment, about two-thirds of ECCS group members received services, and more than half completed assessments. Almost all BCCC group members received services and assessments.

When comparing the baseline characteristics (age, gender, race and ethnicity, education, employment status, and presence of children in the household) of individuals who did and did not receive services or an assessment, we find few differences between the two groups. ECCS group members who received services or were assessed were less likely than those who did not receive services or were not assessed to be male and to have less than a high school diploma or equivalent. BCCS group members who were assessed were more likely than those who were not assessed to be ages 18 to 24, female, Black, non-Hispanic, and to not have worked in the past (Appendix Table D.12).

Exhibit V.1. Percentage of EDGE group members who engaged in services



Source: SNAP employment and training evaluation administrative service use data.

Note: Estimates are based on data from 1,015 ECCS group members and 1,006 BCCS group members.

^a“Received any services” measures engagement based on starting assessments, an ICP, or employment or training-related activities; the measure does not include receiving an orientations, case management, or support services.

ICP = individual career plan

²² The measure does not include case management and support services because individuals often engaged once to meet with a case manager or get a support service but did not return for more meaningful activities and services.

²³ The assessed measure includes both formal and informal assessments. EDGE staff tracked only formal assessments in their assessment measure, which showed that 24 percent of the BCCS group started an assessment, but the formal assessment captures only whether an individual completed assessments, such as TABE or WorkKeys. It does not capture the informal assessments that career navigators conducted with individuals during the four-week EDGE classes or during the first meeting with BCCS group members to assess education level, employment history, and interests. Therefore, individuals in the ECCS group who entered the EDGE classes, and those in the BCCS group who created an ICP, should also be considered assessed. When including informal assessments, there was no difference between these numbers for the ECCS group but the rate of assessment increased for the BCCS group.

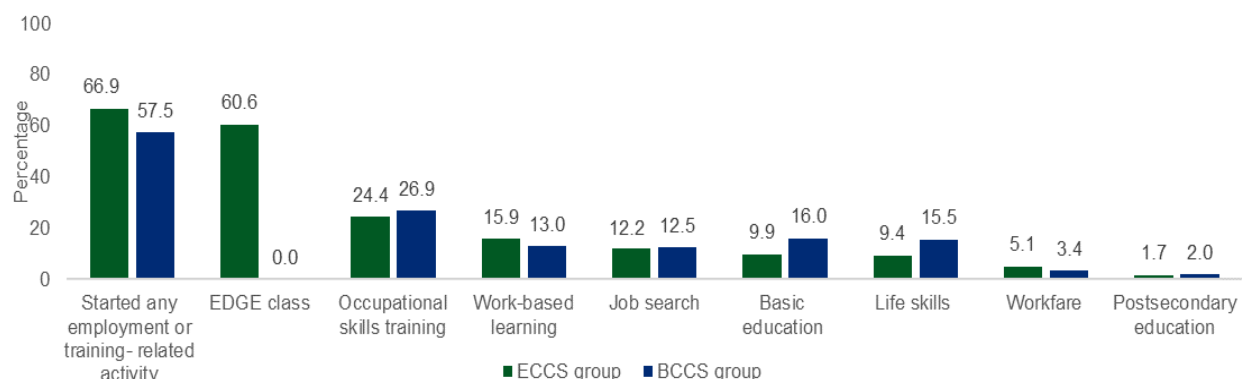
Length and timing of engagement. On average, individuals in the ECCS and BCCS groups who engaged in services spent about five months (154 days and 161 days, respectively) in EDGE (Appendix Table D.5). Overall, most individuals in the ECCS and BCCS groups began receiving services within the first quarter after random assignment (66 percent and 91 percent, respectively), with the remaining individuals generally engaging within the first year (Appendix Table D.6).

2. Engagement in activities

Most of those in the ECCS group members who engaged in EDGE also started an employment or training-related activity (67 percent); a smaller percentage of the BCCS group started an activity (58 percent; Exhibit V.2). About 60 percent of the ECCS group members started the EDGE class, but less than one-quarter of individuals went on to start other activities—such as occupational skills training (24 percent), work-based learning (16 percent), and job search (12 percent)—after completing the class. Individuals in the BCCS group most commonly started occupational skills training (27 percent), basic education (16 percent), life skills (16 percent), and job search (13 percent).

Nearly 70 percent of ECCS group members and 60 percent of BCCS group members participated in an activity.

Exhibit V.2. Percentage of EDGE group members who started an activity



Source: SNAP employment and training evaluation administrative service use data.

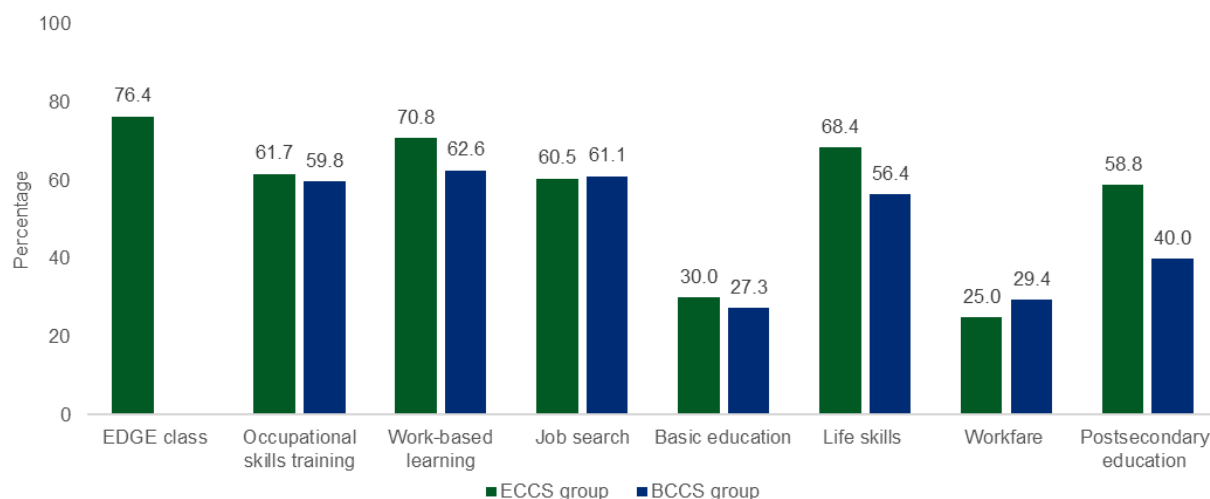
Note: EDGE class was not available to the BCCS group. Estimates are based on data from 1,015 ECCS group members and 1,006 BCCS group members.

Among those who started activities, 74 percent of ECCS group members and 54 percent of BCCS group members completed at least one (Appendix Table D.3). Completion rates by type of activity were generally between 60 and 70 percent, with a few exceptions. About three-quarters of ECCS group members who started the EDGE class completed it. Both the ECCS and BCCS groups had lower rates of completion (between 25 and 30 percent) for basic education and workfare (Exhibit V.3). BCCS group members also had a lower rate of completion for postsecondary education (40 percent). There were few significant differences in the baseline characteristics of individuals who did and did not complete activities; ECCS group members who

Most ECCS group members who started an activity completed it, but only about half of BCCS group members did so.

completed the EDGE class were more likely than those who did not complete it to have a high school diploma or the equivalent at random assignment, and those who completed occupational skills training were more likely than those who did not complete it to be female (Appendix Table D.13). BCCS group members who completed basic education and life skills training were more likely than those who did not to have a high school diploma or the equivalent at random assignment.

Exhibit V.3. Percentage of EDGE group members who completed an activity, among those who started one



Source: SNAP employment and training evaluation administrative service use data.

Note: EDGE class was not available to the BCCS group. Estimates are based on data from 679 ECCS group members and 578 BCCS group members.

Length and timing of engagement. Individuals in both the ECCS and BCCS groups who started an activity spent an average of about six months participating in EDGE (Appendix Table D.5). ECCS group members spent the most time in postsecondary education (282 days) and the least in the EDGE class (29 days). BCCS group members also spent the most time in postsecondary education (159 days), which is almost 125 days less than the ECCS group, on average. These differences may be because only a small percentage of either group started postsecondary education and a larger percentage of ECCS group members completed it than BCCS group members (60 percent compared to 40 percent, respectively). Other lengths of time in activities were relatively similar across the two groups.

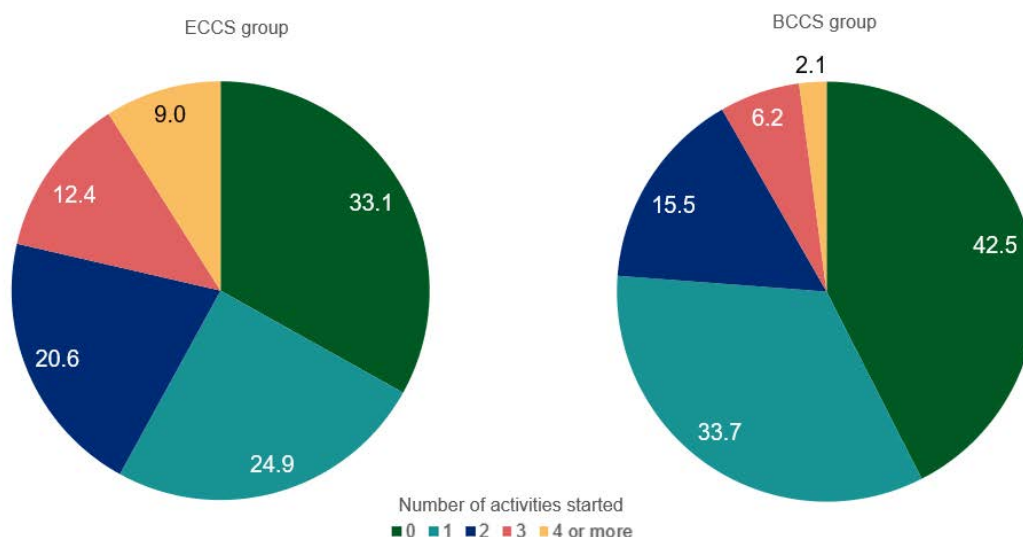
Most individuals in the ECCS group started an activity in the first quarter after random assignment (64 percent), with 1 percent starting in Quarter 2 and less than 1 percent starting in the subsequent quarters (Appendix Table D.6). Most BCCS group members also started an activity in the first quarter after random assignment (50 percent), but 2 to 3 percent started activities in Quarters 2 and 3 before tapering off. The timing of activity completion was more varied between the ECCS and BCCS groups. The largest percentage of ECCS group members who started an activity completed it in the first quarter (45 percent), with another 1 percent completing in Quarters 1 through 5. Completion rates among the BCCS group occurred over time: 13 percent completed in Quarter 1, 11 percent completed in Quarter 2, and 2 to 3 percent completed in Quarters 3 and 4.

Number and order of activities. Exhibit V.4 shows that most EDGE group members either did not start an employment or training-related activity (33 percent of ECCS and 43 percent of BCCS group members) or engaged in just one (25 percent of ECCS and 34 percent of BCCS group members). As was expected

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from the design of EDGE services, the majority (79 percent) of ECCS group members who started an activity started the EDGE class first. Other activities ECCS group members started first were workfare (7 percent) and job search (6 percent; Appendix Table D.5); ECCS group members may have started other activities first while waiting for the EDGE class to begin. For the BCCS group, there was much more variation in the pathways into activities; 29 percent of individuals started occupational skills training first; 22 percent started basic education first; and 19 percent started life skills first. Among those who participated in just one activity, the majority of the individuals in the ECCS group (76 percent) participated only in the EDGE class, and BCCS group participated in only occupational skills training (35 percent) or basic education (26 percent).

Exhibit V.4. Number of activities started by EDGE group members (percentage)



Source: SNAP employment and training evaluation administrative service use data.

Note: Estimates are based on data from 1,015 ECCS group members and 1,006 BCCS group members.

For ECCS group members who participated in more than one activity, the most common combination of activities was the EDGE class first and then occupational skills training (20 percent of individuals). The average length of time between starting the two activities was almost three months (83 days), which suggests that individuals were not moving on to other activities until they completed the EDGE class (Appendix Table D.5). For those in the BCCS group who participated in more than one activity, the most common combination of activities was life skills first and then occupational skills training (7 percent of individuals); the average length of time between activities was about two months (65 days). In general, among individuals who started more than one activity, there was more than a month—sometimes a four month period—between starting the first activity and then starting the second. This finding suggests that individuals generally did not engage in multiple activities simultaneously. They likely had completed or were close to completing one activity before moving to the next.

Earlier versus later enrollment. Because some service and EDGE policies changed over time, we examined whether there were differences in start and completion rates of employment or training-related activities for those who enrolled in the pilot earlier versus later. Overall, we found no significant differences across periods in the rates of starting or completing activities (Appendix Table D.4).

B. Education, occupational skills training, and work-based learning

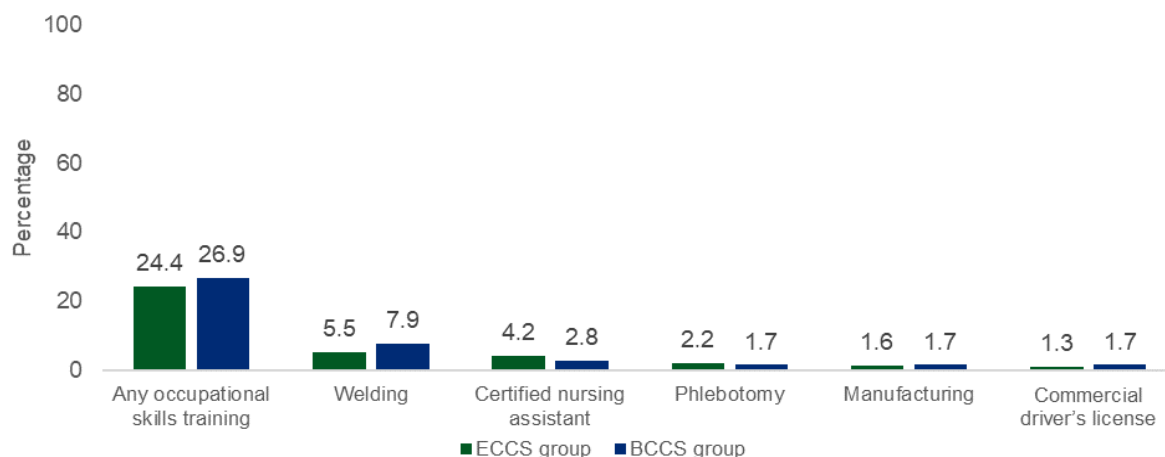
Among just education, occupational skills training, or work-based learning activities (excluding EDGE class, independent job search, life skills, and workfare), less than half of EDGE group members started one of these activities (38 percent of ECCS and 47 percent of BCCS; Appendix Table D.7). Among those who started one of these activities, 64 percent of ECCS group members and 52 percent of BCCS group members completed at least one of them. Thus, about two-thirds of all individuals who started an employment or training-related activity participated in education, training, or work-based learning. This section describes the types of education and occupational skills training EDGE group members started and completed, as well as any degrees or certifications they earned. We also describe the types of work-based learning in which individuals participated and the average value of any subsidies they received.

1. Education and occupational skills training

Less than one-quarter of ECCS and BCCS group members participated in an education activity. Engagement in education activities was somewhat higher for the BCCS group than the ECCS group. Almost one in five BCCS group members (16 percent) started basic education, and 2 percent started postsecondary education. In the ECCS group, 10 percent started basic education, and 2 percent started postsecondary education. Because overall engagement in education was relatively low, few ECCS or BCCS group members obtained an education degree or certificate (2 percent and 1 percent, respectively). Those who did mostly obtained high school equivalency certifications (Appendix Table D.7). Most degrees were GEDs (90 percent of ECCS group members and 79 percent of BCCS group members) and associate's degrees (15 and 14 percent, respectively).

About one-quarter of both ECCS and BCCS group members participated in some type of occupational skills training (Exhibit V.5). Individuals had many choices for occupational skills training, so no one type of training had a large percentage of RISE group members starting it. The five most common types of training started were for welding, certified nursing assisting (CNA), phlebotomy, manufacturing, and commercial driver's licensing. These five types of training accounted for about 60 percent of the trainings started.

Exhibit V.5. Percentage of EDGE group members who started any occupational skills training, and the five most common types of training



Source: SNAP employment and training evaluation administrative service use data.

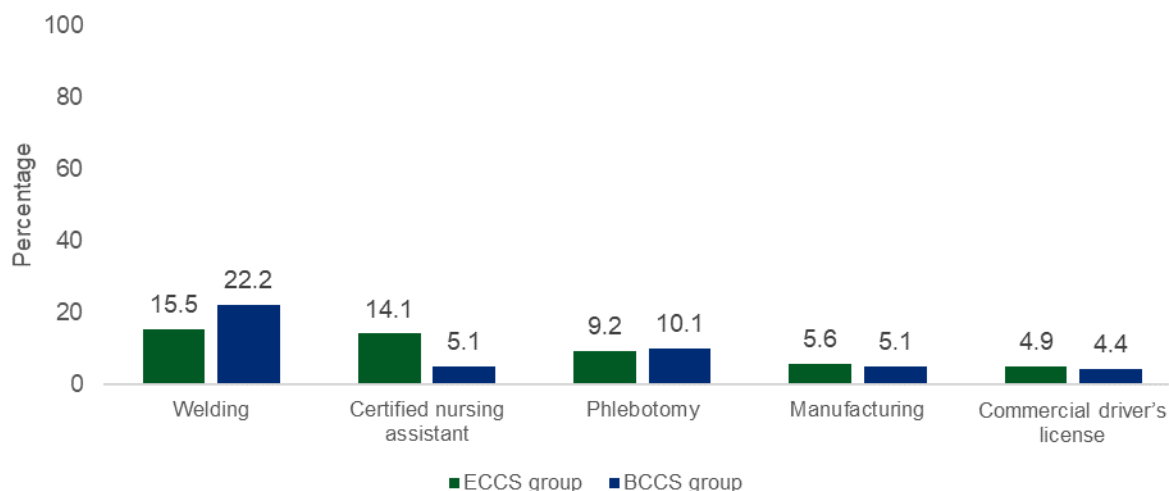
Note: Estimates are based on data from 1,015 ECCS group members and 1,006 BCCS group members.

Among those who started an occupational skills training, the completion rate was highest for BCCS group members starting manufacturing training (94 percent) and ECCS group members starting commercial drivers' training (69 percent). Completion rates were lower for the other trainings in the top five. In the ECCS group, 65 percent completed CNA training, 59 percent completed phlebotomy, 50 percent completed manufacturing, and 43 percent completed welding. In the BCCS group, 68 percent completed CNA training, 59 percent completed commercial drivers' training, 49 percent completed welding, and 47 percent completed phlebotomy.

About 15 percent of EDGE group members earned an occupational skills training credential or certification.

Many of the individuals who completed an occupational skills training program received a certification or credential (14 percent of ECCS group members and 16 percent of BCCS group members; Appendix Table D.7). The most common credential earned by both groups was for welding (16 percent of ECCS group members and 22 percent of BCCS group members); a CNA was the second most common for ECCS group members (14 percent) and Phlebotomy (10 percent) was for BCCS group members (Exhibit V.6). ECCS and BCCS group members earned certification and credentials between Quarters 1 and 8 (and in Quarter 9 for the BCCS group), but most individuals in both groups earned them within the first four quarters after random assignment (Appendix Table D.6).

Exhibit V.6. Percentage of EDGE group members who earned the five most common credentials, among those who received a credential



Source: SNAP employment and training evaluation administrative service use data.

Note: Estimates are based on data from 142 ECCS group members and 158 BCCS group members.

2. Work-based learning

Relatively few EDGE group members participated in work-based learning activities (16 percent of ECCS and 13 percent of BCCS group members; Exhibit V.7). EDGE mainly offered subsidized employment opportunities that provided individuals an opportunity to gain paid work experience but generally did not

Few EDGE group members participated in work-based learning; almost all participated in subsidized employment.

transition into permanent employment. Internships and on-the-job training opportunities were also available for some individuals. Most individuals who started work-based learning completed it (71 percent of ECCS group members and 63 percent of BCCS group members). EDGE group members who participated in subsidized employment were paid \$8.50 an hour on average.

Exhibit V.7. Percentage of EDGE group members who participated in work-based learning and average earnings

Type of service	ECCS group	BCCS group
Started work-based learning (%)	15.9	13.0
Type of work-based learning, among those who started (%)		
Subsidized employment	90.7	90.1
Internship	8.1	7.6
On-the-job training	5.6	3.8
Completed work-based learning (%)	11.2	8.2
Completed work-based learning, among those who started (%)	70.8	62.6
Average per-hour wages per person, among those who started (\$)	8.50	8.50
Sample size	1,015	1,006

Source: SNAP employment and training evaluation administrative service use data.

C. Support services

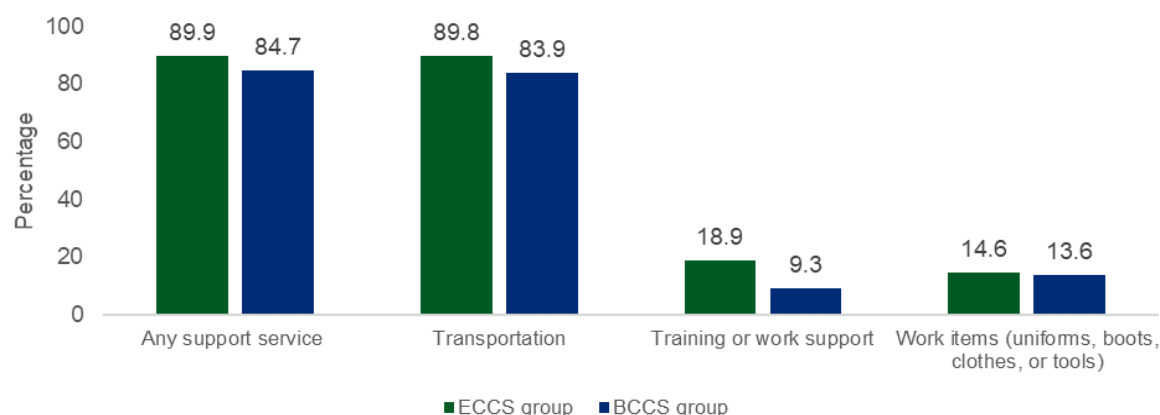
Most of the ECCS and BCCS group members received at least one support service (90 percent and 85 percent, respectively). Most of these individuals received transportation assistance (90 percent of the ECCS group and 84 percent of the BCCS group; Exhibit V.8). Nineteen percent of ECCS group members and 9 percent of BCCS group members received a training or work support, such as car repairs, eyeglasses, or needed immunizations, and almost 15 percent of both groups received support for purchasing work items, such as uniforms, boots, or tools.

Almost all individuals started receiving support services within their first quarter after random assignment (89 percent of ECCS and 82 percent of BCCS group members; Appendix Table D.6).

Most EDGE group members received a support service, most commonly for transportation.

Individuals who received a support service received some type of support service for three months on average.²⁴ They received transportation assistance for the longest period of time (three months). Individuals received work items and training or work supports for less than one month, meaning these support services were likely one-time payments.

²⁴ Individuals who received support services in more than one month did not necessarily receive them in consecutive months.

Exhibit V.8. Percentage of EDGE group members who received support services, by type

Source: SNAP employment and training evaluation administrative service use data.

Note: Estimates are based on data from 1,015 ECCS group members and 1,006 BCCS group members.

Although a similar percentage of ECCS and BCCS group members received support services, BCCS group members received fewer dollars of support services. On average, ECCS group members received a total of \$533 in support service payments, whereas BCCS group members received a total of \$291 (Exhibit V.9). The average amounts for those receiving each type of support service were largest for training or work support (\$974 for ECCS group members and \$841 for BCCS group members). The total average amount for transportation was \$305 for ECCS group members and \$178 for BCCS group members, and work items was \$142 for ECCS and \$136 for BCCS group members.

Exhibit V.9. Amount of support services received among those who received support services

Type of service	Average amount: ECCS	Average amount: BCCS
Average total dollar value of support services paid per person (\$)	532.90	290.80
Training or work support	974.40	840.50
Transportation	305.00	177.80
Work items (uniforms, boots, clothes, or tools)	142.10	136.40
Sample size	912	852

Source: SNAP employment and training evaluation administrative service use data.

Support services in relation to other measures. We assessed whether participation in EDGE and employment or training-related activities differed for those who did and did not receive a support service. On average, ECCS group members who received a support service remained in EDGE for an average of 76 days longer than those who did not, and those in the BCCS group remained in EDGE 65 days longer (Appendix Table D.8). In addition, 98 percent of ECCS group members and 93 percent of BCCS group members who started an employment or training-related activity received a support service, compared with 74 percent of ECCS group members and 73 percent of BCCS group members who did not start an activity. Virtually all individuals who completed an activity received a support service (99 percent of ECCS group members and 96 percent of BCCS group members). Individuals who started and completed an employment or training-related activity received more in support services than those who started one but did not complete it (\$882 versus \$713 for ECCS group members and \$605 versus \$410 for BCCS group members; Appendix Table D.8). These differences likely reflect that those who completed activities were in EDGE longer (which resulted in more monthly assistance).

Earlier versus later enrollment. Those who enrolled in the pilot later were more likely to receive support services than those who enrolled earlier (96 percent compared to 84 percent for ECCS group members, 92 percent compared to 78 percent for BCCS group members; Appendix Table D.4). This difference may have been influenced by changes to the availability of support services in 2017 and 2018.

D. Case management

The EDGE model was designed to provide intensive case management to the ECCS group consisting of weekly contacts while in the EDGE class and monthly contacts when individuals moved into one of the pathways, or more frequently as needed. The EDGE model included light-touch case management for the BCCS group, consisting of no more than two contacts per month. However, data show that on average, the BCCS group members had more contact with career navigators than the ECCS group did, which indicates that the model was not implemented as intended. Exhibit V.10 shows that 70 percent of individuals in the ECCS group had at least one contact with a career navigator, whereas 76 percent of BCCS group members did. On average, ECCS and BCCS group members who had any contact with a career navigator had six contacts while in EDGE. On average, BCCS group members were in contact with a career navigator for about 186 minutes (or three hours) while they were in EDGE, compared with 151 minutes or two-and-a-half hours of contact for ECCS group members (Exhibit V.10). About half of the contacts in both groups were in person, but a large percentage were also conducted by telephone (44 percent of ECCS group contacts and 37 percent of BCCS group contacts). The average number of contacts per month with career navigators ranged from two to three through Quarter 10 for the ECCS group, and from two to four through Quarter 12 for the BCCS group (Appendix Table D.6).

Most EDGE group members were in contact with a career navigator. Contrary to the design, BCCS group members had more contact than ECCS group members.

Exhibit V.10. Amount and type of EDGE group members' contacts with career navigators

Contact	ECCS: Amount and type	BCCS: Amount and type
EDGE members with any contact (%)	69.5	75.8
Average number of contacts per person (#)	3.9	4.5
Average number of contacts per person, among those with contact (#)	5.6	5.9
Average number of contacts per person per month, among those with contact (#)	1.6	1.7
Average total time for case management contact, among those with a contact (minutes) ^a	151.3	186.4
Among contacts, type of contact (%)		
In person	49.4	56.5
Telephone	44.0	37.4
Electronic (email, text, social media)	4.8	4.2
Sample size	1,015	1,006

Source: SNAP employment and training evaluation, administrative service use data.

Note: Data in this table represent all contacts that case managers documented between themselves and individuals in EDGE. Some of these contacts included indirect communications (such as mailing documents to an individual), but even these contacts likely provided a needed service that helped the individual. We did exclude some contacts, such as leaving a phone message or sending mass mailings, where applicable.

^aThe number of minutes represents the total amount of time each individual was in contact with a career navigator among all contacts, averaged across all individuals who had a contact.

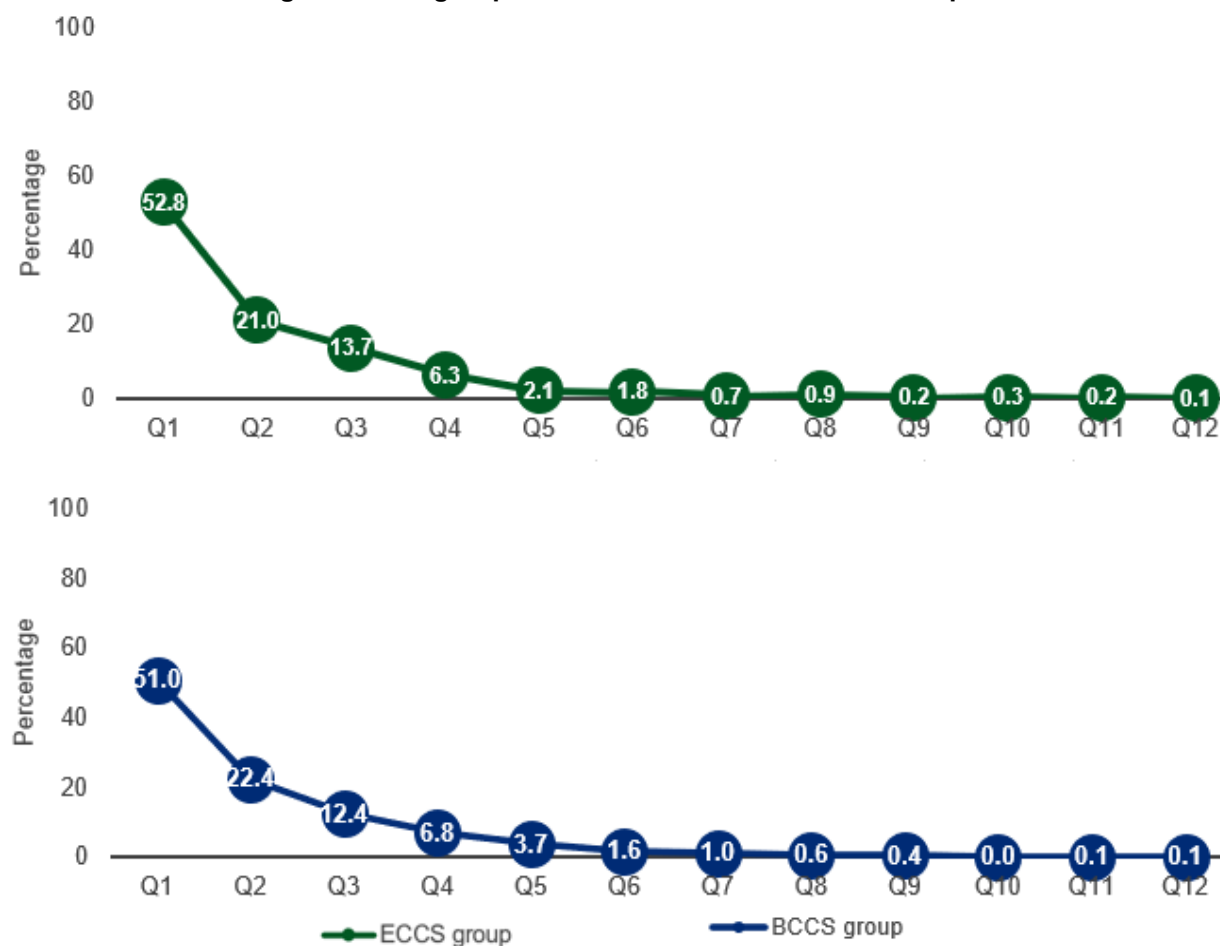
Earlier versus later enrollment. Those in the ECCS group who enrolled in the pilot later were more likely to have contact with a career navigator than those who enrolled earlier (74 percent compared to 65 percent; Appendix Table D.4). There were no differences for the BCCS group.

E. Extent and timing of EDGE exits

Almost all EDGE group members (94 percent of ECCS and 93 percent of BCCS) exited the pilot during their first year after random assignment (Exhibit V.11). About half of the individuals in both groups left in the first quarter after random assignment (53 percent of ECCS and 51 percent of BCCS); about one-fifth left in Quarter 2; and between 12 and 13 percent left EDGE in Quarter 3. About two-thirds of ECCS group members and half of BCCS group members (68 percent and 53 percent, respectively) exited after they participated in an employment or training-related activity. Only about 15 percent of those who exited later re-entered EDGE (Appendix Table D.10).

More than half of individuals exited EDGE within their first quarter after random assignment; by the end of their first year, almost all had exited EDGE.

Exhibit V.11. Percentage of EDGE group members who exited within each quarter



Source: SNAP employment and training evaluation administrative service use data.

Note: Estimates are based on data from 1,015 ECCS group members and 1,006 BCCS group members.

There were few differences in the characteristics of those who left EDGE early (in Quarter 1) and those who left later (after Quarter 1). ECCS group members who exited earlier were more likely than those who exited later to be male (an 8 percentage point difference) and ages 18 to 24 (a 5 percentage point difference; Appendix Table D.11). BCCS group members who exited earlier were less likely to live in a household with children (a 2 percentage point difference) and to be Black, non-Hispanic (a 5 percentage point difference).

EDGE staff did not document the reasons for exit, but most indicated that exits were often associated with losing SNAP benefits, generally related to noncompliance with work requirements that resulted in a sanction. Based on SNAP administrative data, 54 percent of ECCS group members and 51 percent of BCCS group members exited SNAP in the month before, in the month of, or in the month after they exited EDGE (Appendix Table D.10).

Using UI wage data, we examined the employment patterns of EDGE group members around the time of their exit from EDGE. About 42 percent of ECCS and 36 percent of BCCS group members were already employed at the time of exit (at least three months before exit; Appendix Table D.10). Twenty-six percent of ECCS group members and 20 percent of BCCS group members became employed around the time of exit (between two months before to two months after the exit date), whereas 32 percent of ECCS group members and 44 percent of BCCS group members did not become employed around the time of their exit from EDGE.

VI. Differences in service receipt for the EDGE and control groups

In this chapter, we describe how EDGE and control group members differed in their receipt of services based on participation in EDGE, existing SNAP E&T programs and activities, or other services and programs available in communities. Understanding differences in service receipt is important for interpreting findings about the impacts of EDGE on employment, earnings, and receipt of public assistance (discussed in Chapter VII). Impacts on these outcomes are unlikely to occur without a meaningful difference in the services received by the EDGE and control groups.

In presenting findings, we begin with a description of differences between the research groups in participation in job search training or assistance activities and education or training activities. We also examine differences in participation in specific components of education or training activities, including general job skills training, occupational skills training, education, and work-based learning activities.²⁵ We then examine differences between the two groups in rates of completion, the amount of time spent in different activities, and receipt of case management and support services. (We discuss how these differences varied across a select number of subgroups in Appendix E.) Unless noted otherwise, participation in activities and receipt of services are measured over the 36-month period after random assignment.

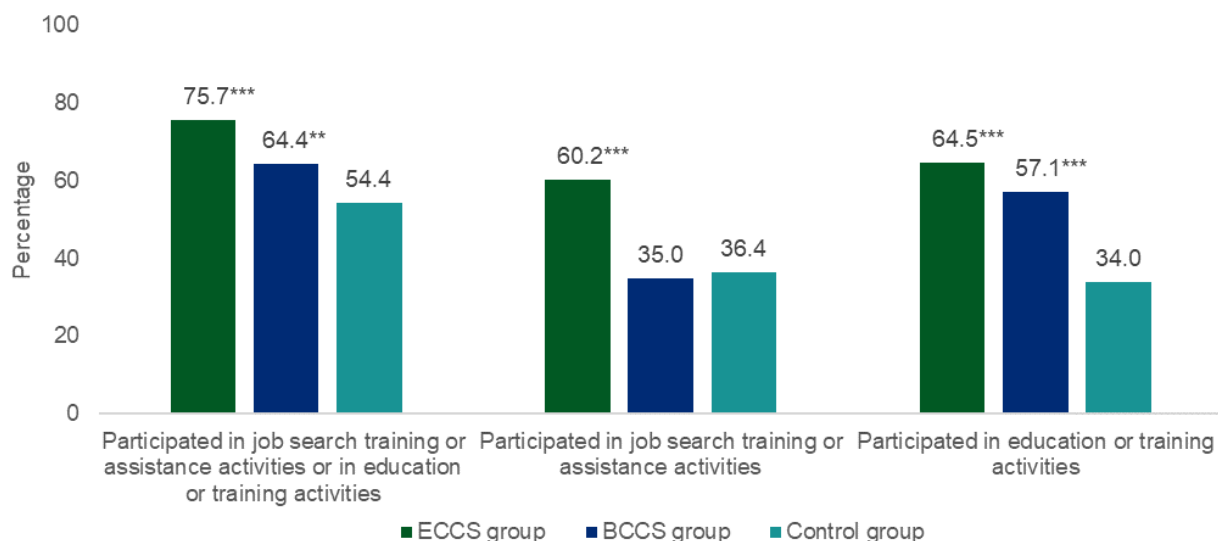
A. Differences between research groups in participation in activities

Individuals in the EDGE group participated in activities at higher rates than individuals in the control group. Seventy-six percent of the ECCS group and 64 percent of the BCCS group participated in a job search training or assistance activity or education or training activity compared to 54 percent of the control group (Exhibit VI.1). Relative to individuals in the control group, individuals in the ECCS group were more likely to participate in education or training activities (31 percentage point difference) and job search training or assistance activities (24 percentage point difference). Individuals in the BCCS group were also more likely to participate in education or training activities than those in the control group (24 percentage point difference), but there was no statistical difference in the percentage who participated in job search training or assistance activities.

Relative to the control group, the ECCS and BCCS groups were more likely to participate in education and training activities during the three years following random assignment. ECCS group members were also more likely than those in the control group to participate in job search training activities.

²⁵ The survey collected information on education or training activities or programs. For simplicity, we refer to them as “activities” in this chapter.

Exhibit VI.1. Participation in any EDGE, existing SNAP E&T, or community-offered services



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates cover the 36 months following random assignment. Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

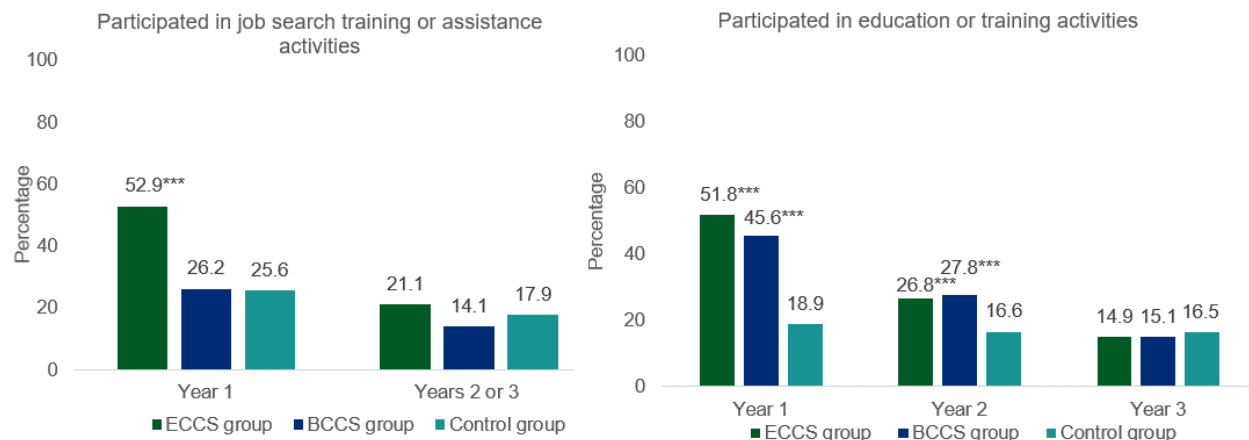
Differences in service receipt between the EDGE group and the control group were largest in the first year after random assignment and decreased in size over time (Exhibit VI.2). For example, in Year 1, there was a 33 percentage point difference between the ECCS group and the control group in the percentage of individuals who participated in education or training activities. This difference had diminished to 10 percentage points by Year 2 and -2 percentage points in Year 3, which was not statistically significant (Appendix Table E.2). The pattern was similar for the BCCS group compared to the control group.

While ECCS and BCCS group members had higher participation than the control group in education and training activities over 3 years, this difference was driven by higher participation in the first half of the pilot only.

Notably, although the ECCS and BCCS groups were more likely than the control group to participate in education and training activities before the pilot ended, there were no statistical differences between groups after the pilot ended. The differences between the control group and the ECCS and BCCS groups in rates of participation for individuals randomly assigned earlier in the pilot period were generally similar to those randomly assigned later (Appendix Table E.10). An exception was that the BCCS group had higher participation in education or training activities than the control group in the earlier enrollment period (30 percentage point difference), but there was no significant difference in the later enrollment period.

VI. Differences in service receipt for the EDGE and control groups

Exhibit VI.2. Participation in EDGE, existing E&T, or community-offered services, by year after random assignment



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

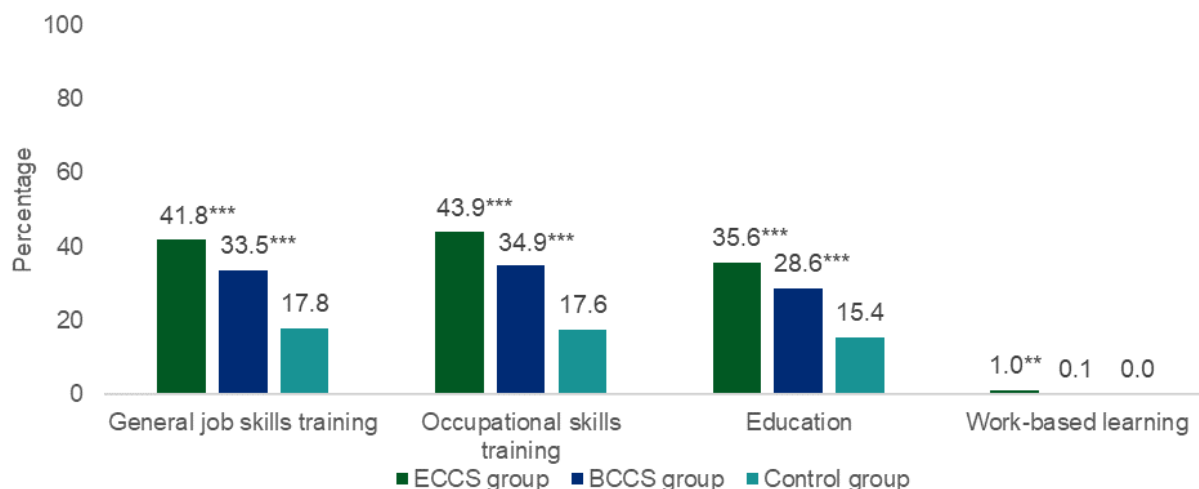
Note: Estimates cover the 36 months following random assignment. Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members. The 12- and 36-month surveys collected the start and end dates for participation in education or training programs, but not for participation in job search training or assistance activities. As a result, annual estimates of participation in job search training and assistance activities cannot be estimated separately for Years 2 and 3 after random assignment.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

ECCS and BCCS group members were more likely than control group members to start specific components of education or training activities (Exhibit VI.3). The largest differences were for occupational skills training (27 and 18 percentage point differences for ECCS and BCCS, relative to the control group, respectively), general job skills training (24 and 16 percentage point differences), and education (20 and 13 percentage point differences). There was a small difference in the rate of participation in work-based learning for the ECCS group compared to the control group (1 percentage point difference), but not for the BCCS group compared to the control group.

The ECCS and BCCS groups had higher rates of participation than the control group in most types of activities, including general job skills training, occupational skills training, and education.

Exhibit VI.3 Participation in specific EDGE, existing SNAP E&T, or community-offered services



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates cover the 36 months following random assignment. Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group is significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

B. Differences between research groups in activity completion

In addition to being more likely than the control group to start education and training activities, the ECCS group was also more likely to complete them (Exhibit VI.4). Overall, ECCS group members were 26 percentage points more likely than control group members to complete any type of education or training activity. BCCS group members were 12 percentage points more likely than control group members to complete any type of education or training activity.

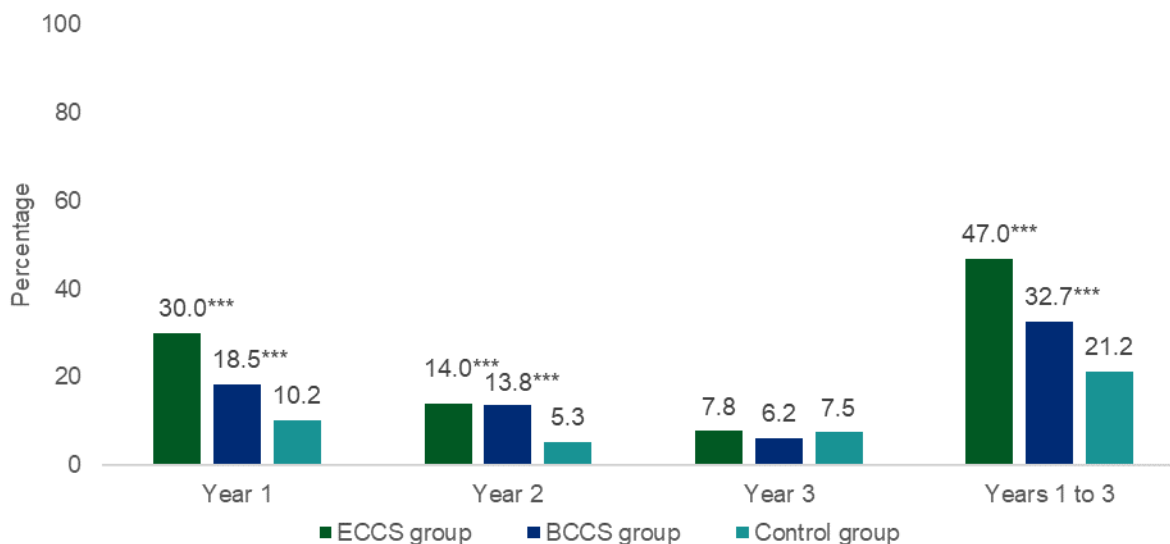
ECCS and BCCS groups had higher rates of completion in Years 1 and 2, but not in Year 3. Differences between the two groups were largest in the first year after random assignment (20 and 9 percentage point differences for ECCS and BCCS, relative to the control group, respectively), grew smaller in the second year (9 and 9 percentage point differences for ECCS and BCCS, relative to the control group, respectively), and became non-significant by the third year (Exhibit VI.4). Completion rates were also larger earlier in the enrollment period than later (Appendix Table E.10). Some individuals—5 percent of ECCS and control group members and 7 percent of BCCS group members—reported that they were still participating in an activity at the time of the 36-month follow-up survey. ECCS group members who were engaged in an activity at the time of the 36-month survey were most commonly still in occupational skills training (3 percent), while BCCS group members were participating in activities with general job skills training, occupational skills training, and education (4 percent for each activity). Control group members were most commonly in education at the time of the 36-month survey (3 percent) (Appendix Table E.3).

Individuals in the ECCS group also were more likely than those in the control group to complete each type of activity, such as general job skills training (15 percentage point difference), occupational skills training (21 percentage point difference), and education (17 percentage point difference; Appendix Table E.3). The BCCS group was more likely than the control group to complete occupational skills training (9 percentage point difference) and education (6 percentage point difference); there was no difference in completion for general job skills training. There was a small difference between the ECCS and control

VI. Differences in service receipt for the EDGE and control groups

groups in rates of completion for work-based learning activities, partly reflecting the small percentages of individuals who started these activities, and no difference for the BCCS group.

Exhibit VI.4. Percentage of EDGE group members who completed education or training activities, by year after random assignment



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates cover the 36 months following random assignment. Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

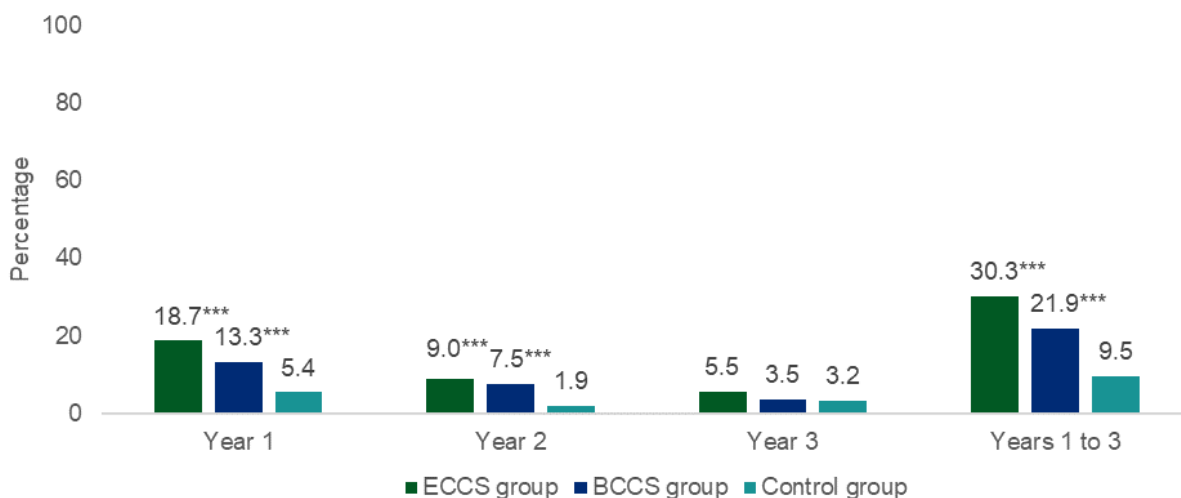
***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Individuals in the ECCS and BCCS group spent, on average, about 2 to 3 months longer in activities than individuals in the control group (6 months for the ECCS and BCCS groups versus 3 months for the control group, with rounding; Appendix Table E.3). ECCS and BCCS group members also spent more hours per week in activities than control group members (13 and 9 versus 4 hours, respectively). In the first year following random assignment, the ECCS and BCCS groups spent more time in activities than the control group, but this difference diminished by Year 2 for the ECCS group and by Year 3 for the BCCS group. By Year 3, all groups spent about one month in activities. In each of the three years following random assignment, the ECCS and BCCS groups spent 5 to 10 more hours per week in activities than the control group (Appendix Table E.4).

ECCS and BCCS group members were more likely than control group members to complete activities (during the first two years) and earn an occupational certificate or license.

Individuals in the ECCS and BCCS groups were also more likely than the control group to receive an occupational certificate or license (21 and 13 percentage point differences, respectively; Exhibit VI.5). There were significant differences in the percentage of individuals who received one in Years 1 and 2 following random assignment, but not Year 3.

Exhibit VI.5. Percentage of EDGE group members who received an occupational certificate or license, overall and by year



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates cover the 36 months following random assignment. Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

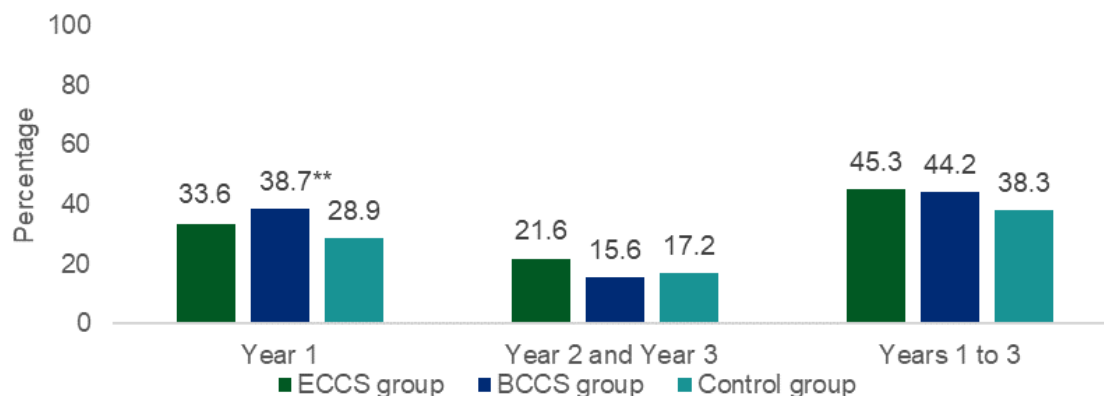
The differences between the ECCS and control group and BCCS and control group in rates of completion or receipt of an occupational certificate or license were higher for individuals randomly assigned earlier versus later in the enrollment period (Appendix Table E.10). Consistent with the time spent in activities by year, among individuals randomly assigned earlier in the period, the ECCS and BCCS groups spent more months in activities compared to the control group, but there was no difference among individuals randomly assigned later in the enrollment period.

C. Differences between research groups in receipt of case management and support services

There were no statistical differences between ECCS and BCCS group members and control group members in receipt of case management services, including career counseling and one-on-one assistance from employment professionals or case managers (Exhibit VI.6). For ECCS group members, this was also true for each of the three years after random assignment (Appendix Table E.7). Only BCCS group members in Year 1 received case management at a significantly higher rate than control group members (10 percentage point difference). The difference in receipt of case management services also was larger for the BCCS group, relative to the control group, for individuals who were randomly assigned earlier in the enrollment period, but not later in the enrollment period (Appendix Table E.10).

ECCS and BCCS group members were generally more likely than control group members to receive support services, but there were no differences for overall receipt of case management.

Exhibit VI.6. Receipt of case management through EDGE, existing SNAP E&T, or community-offered programs, overall and by year



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates cover the 36 months following random assignment. Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members. The 12-month survey requested information about receipt of case management and support services between the date of random assignment and the date of the 12-month interview. The 36-month survey requested information about receipt of case management and support services between the date of the 12-month interview and the date of the 36-month interview. As a result, it is not possible to provide quarterly estimates in any year or to estimate receipt of assistance separately in Years 2 and 3.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

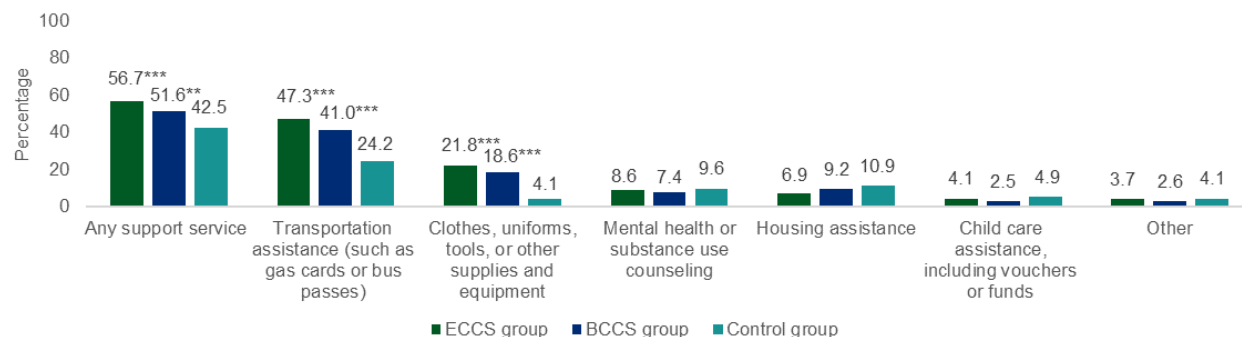
ECCS and BCCS group members had more contacts with an employment professional or case manager relative to control group members (5 contacts each for ECCS and BCCS versus 3 for the control group; Appendix Table E.6). While all three groups mostly communicated with case managers in person, there were some differences across groups. In the Year 1, the BCCS group was less likely to communicate mostly in person compared to the control group (57 versus 75 percent) and more likely to communicate mostly over the phone (27 versus 16 percent; Appendix Table E.7), whereas in Years 2 and 3 the BCCS group was less likely to report communicating equally in person and by phone (7 versus 25 percent).

ECCS and BCCS group members were more likely than control group members to receive support services. Around 57 percent of individuals in the ECCS group and 52 percent in the BCCS group received any support service compared to 43 percent in the control group (Exhibit VI.7). The largest differences between the ECCS or BCCS groups and the control group were observed for transportation assistance (47 and 41 versus 24 percent, respectively), and clothes, uniforms, tools, or other supplies and equipment (22 and 19 versus 4 percent, respectively). There were no statistically significant differences between the ECCS or BCCS groups and the control group in receipt of mental health or substance use counseling, housing assistance, child care assistance, or other support services.

Individuals in the ECCS and BCCS groups were more likely than those in the control group to receive support services Year 1, but there were fewer differences in Years 2 and 3 (Appendix Table E.7). The differences between the ECCS and BCCS groups were similar for individuals randomly assigned in the earlier and later enrollment periods.

VI. Differences in service receipt for the EDGE and control groups

Exhibit VI.7. Receipt of support services through EDGE, existing SNAP E&T, or community-offered programs, overall and by type



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates cover the 36 months following random assignment. Estimates are based on data from 399 ECCS group members, 415 BCCS group members, and 368 control group members. "Other" included assistance with payment of utilities such as electricity, phone, heat, or gas; food assistance; and assistance with medical care.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

D. Differences in sanction rates between research groups

As discussed earlier, Mississippi's SNAP E&T program was mandatory, therefore those enrolled in the ECCS, BCCS, and control groups could be sanctioned for noncompliance. That is, their SNAP benefits could be suspended for a set period of time if they did not participate in assigned services. EDGE could affect the incidence of sanctioning in several ways. The smaller caseloads of EDGE case managers, compared with the caseloads of case managers in the existing SNAP program, might have allowed them to monitor EDGE group members' participation more closely than was possible for case managers' monitoring of the control group. Thus, if individuals enrolled in the pilot did not perform activities that met the State's work requirements, sanctions might be more likely for the EDGE group than for the control group. Alternatively, more contact and support from a case manager could encourage those in EDGE to stay engaged in services and decrease their likelihood of being sanctioned for noncompliance. In addition, EDGE group members were offered more services than control group members, which EDGE group members may have found more beneficial and resulted in more compliance. On the other hand, because some activities were required for EDGE, such as the EDGE class (for the ECCS group), those who were not interested in the class and had no other choices may have not completed the service, and were sanctioned as a result.

Data from the SNAP benefits administrative files indicate that about 22 to 24 percent of ECCS, BCCS and control group members were sanctioned at some point during the 36-month follow-up period, and there were no statistically significant differences between groups overall. The only differences in sanction rates between research groups occurred during the first year. BCCS group members were less likely than control group members to be sanctioned in Year 1 (16 versus 20 percent; Appendix Table E.17). ECCS group members were less likely than control group members to be sanctioned in Quarter 1 only (11 versus 14 percent).

VII. Impacts on employment, earnings, receipt of public assistance, and well-being outcomes

In this chapter, we examine whether the generally higher rates of engagement and service receipt among individuals in EDGE, as described in Chapter VI, translated into impacts on employment, earnings, receipt of public assistance, and key measures of well-being, including food security, health, well-being, and housing. We also examine whether impacts differed according to whether individuals started or completed EDGE activities. In Appendix F, we present information about how impacts on employment, earnings, receipt of public assistance, and food security varied across subgroups.

As described in Chapter II, we focus on impacts in the two-year period consisting of Years 2 and 3 after random assignment. We aim to balance any concerns about how the COVID-19 pandemic may have affected outcomes in Year 3 with measuring impacts on outcomes beyond Year 1 following random assignment after many individuals had time to participate in EDGE activities.

A. Impacts of EDGE on labor market outcomes

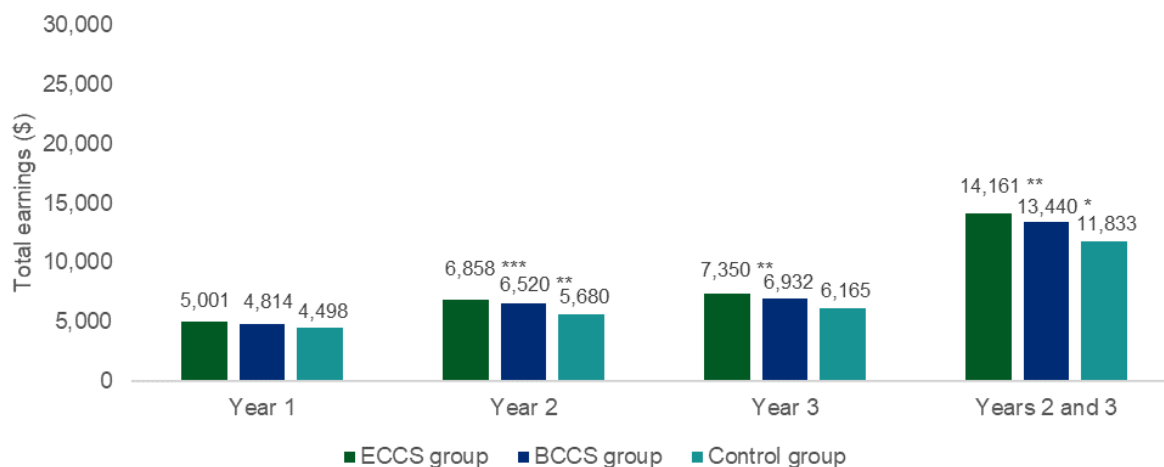
This section presents impacts on key labor market outcomes. Outcomes from both UI wage records and survey data were measured by year and quarter after random assignment. Some outcomes based on the survey data were measured at the time of the survey, approximately 36 months after random assignment.²⁶

1. Impacts on employment, earnings, and hours worked

Earnings. Based on UI data, EDGE led to an increase in average earnings over the two-year period (Years 2 and 3; p -values = 0.072 for the BCCS group; Exhibit VII.1). Each research group experienced increases in average earnings over time, but the EDGE group earned more than the control group in Year 2 (for the ECCS and BCCS groups) and Year 3 (for the ECCS group only). Similarly, based on survey data, each research group experienced increases in average earnings over time, but differences between the EDGE and control groups were not statistically significant over the two-year period or in individual years (Exhibit VII.2).

²⁶ For survey-based outcomes, we defined the quarter after random assignment as the first three months after the month of random assignment. The months included in this quarter sometimes differed from the calendar quarter, which we used to define the first quarter after random assignment for outcomes based on UI wage records.

Exhibit VII.1. Total earnings based on UI wage records, by year

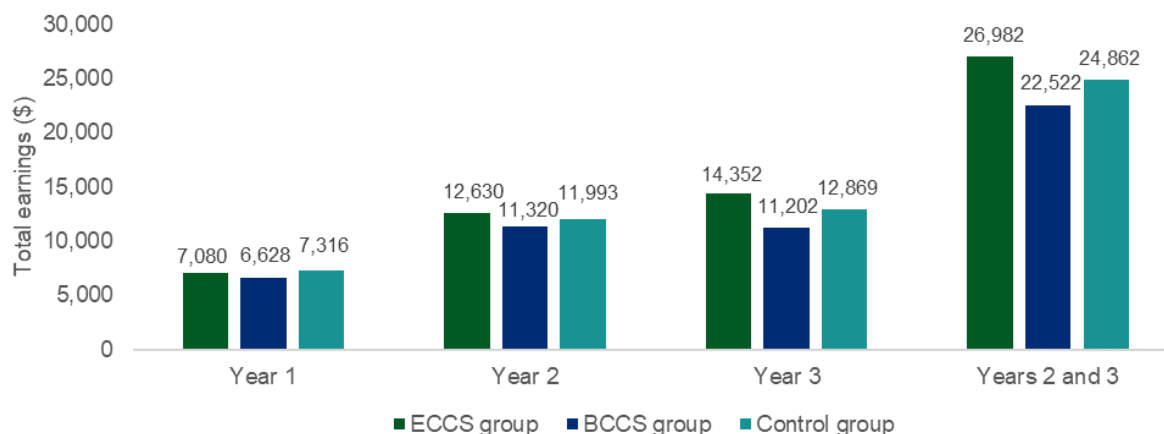


Source: SNAP employment and training evaluation UI wage records, weighted data.

Note: Estimates are based on data from 737 ECCS group members, 736 BCCS group members, and 735 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Exhibit VII.2. Total earnings based on survey data, by year



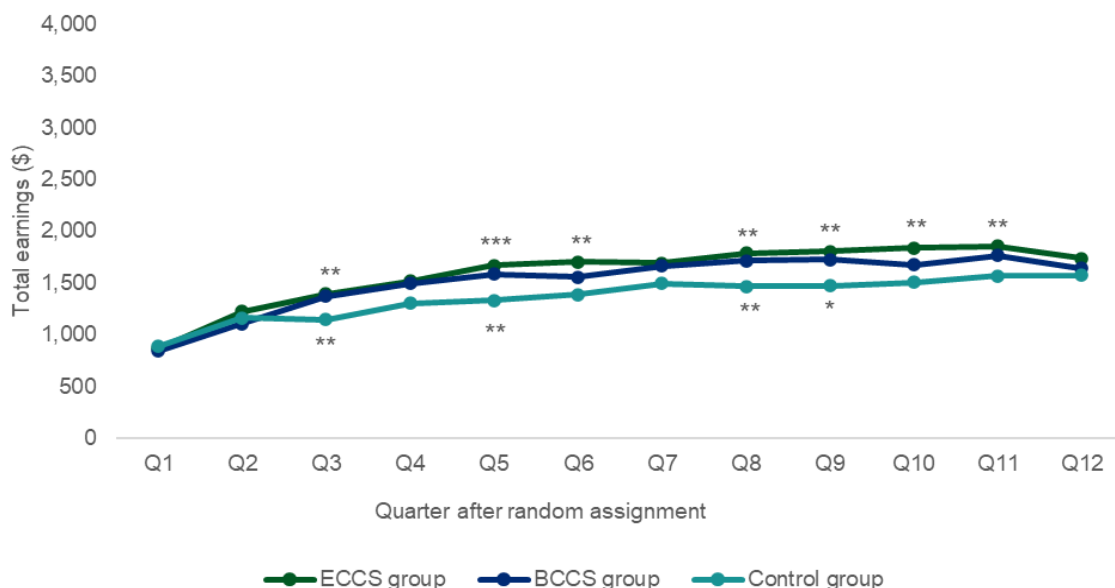
Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Based on UI data, the EDGE group earned significantly more than the control group in select quarters throughout the three-year period (Exhibit VII.3); findings were not corroborated by survey data (Exhibit VII.4). Based on survey data, earnings increased for each research group in Quarters 1 to 8 before starting to decrease in Quarter 9. By Quarter 12, BCCS group members earned significantly less than control group members (p -value = 0.059). Differences in earlier quarters and differences between the ECCS and control groups were not statistically significant. These findings were similar for individuals who were randomly assigned earlier versus later in the enrollment period (Appendix Table F.19).

Exhibit VII.3. Total earnings based on UI wage records, by quarter

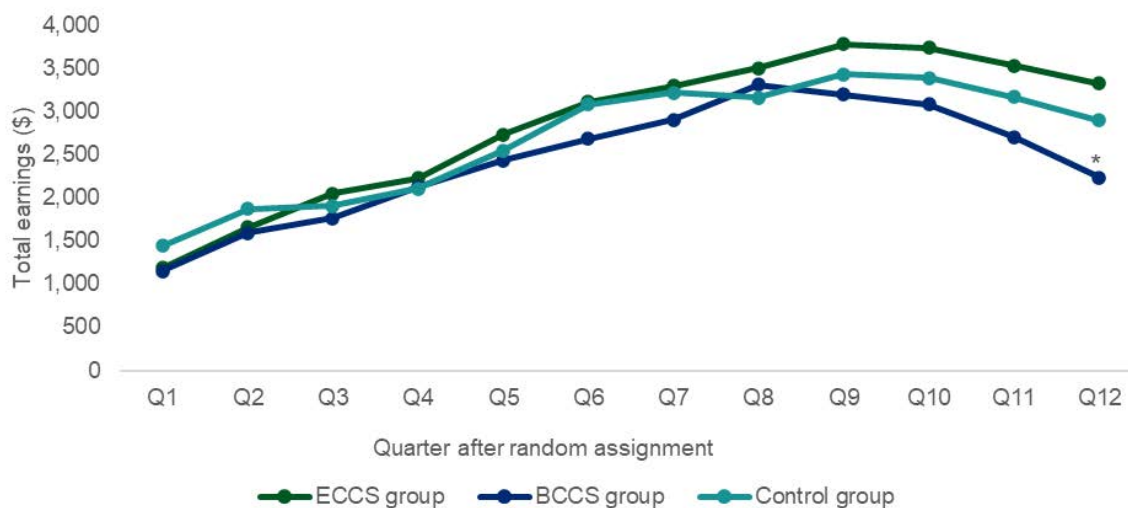


Source: SNAP employment and training evaluation UI wage records, weighted data.

Note: Estimates are based on data from 737 ECCS group members, 736 BCCS group members, and 735 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Exhibit VII.4. Total earnings based on survey data, by quarter



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

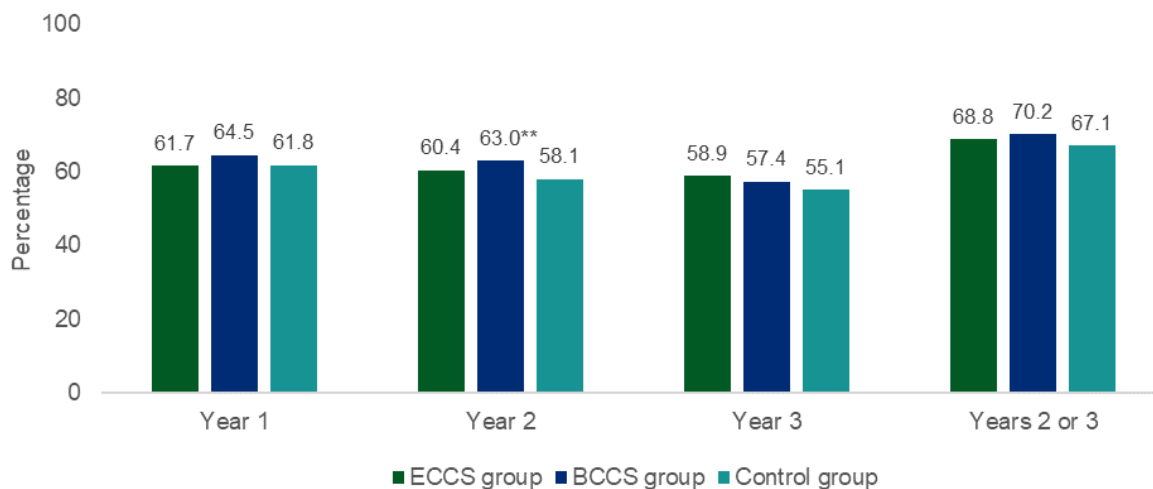
***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Employment. Based on UI data, the EDGE group and control group were employed at similar rates in the two-year period (Years 2 and 3) (69 for the ECCS group and 70 for the BCCS group versus 67 percent for

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the control group; Exhibit VII.5). For the BCCS group only, EDGE led to a 5 percentage point increase in employment in Year 2 after random assignment, but the magnitude of the difference was smaller and not statistically significant in Year 3. The ECCS group was employed at rates similar to the control group each year and over the two-year period. Some quarterly impacts were observed in Quarters 3 through 8, but grew smaller and lost statistical significance after that (Appendix Table F.2).

Exhibit VII.5. Employment rates based on UI wage records, by year



Source: SNAP employment and training evaluation UI wage records, weighted data.

Note: Estimates are based on data from 737 ECCS group members, 736 BCCS group members, and 735 control group members.

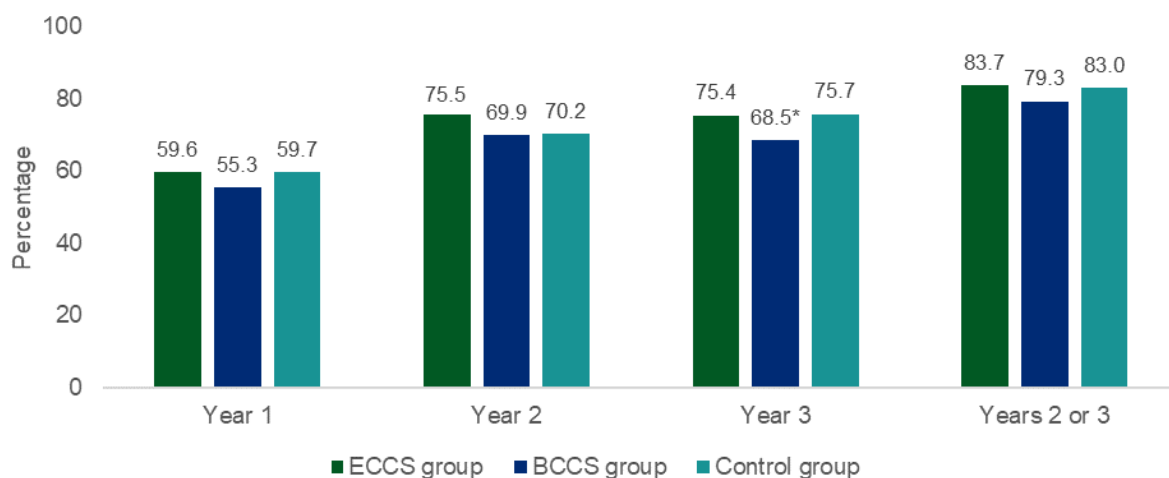
***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Based on survey data, EDGE did not lead to an increase in employment for either the ECCS or BCCS groups across the two-year period from Year 2 to 3 (84 and 79 versus 83 percent; Exhibit VII.6). For the BCCS group only, EDGE led to a negative impact on employment in Year 3 (69 versus 76 percent; p -value = 0.088). Impacts in Years 1 and 2 and in individual quarters were generally not statistically significant (Appendix Table F.4). There were no impacts on employment for groups of individuals defined according to whether they were randomly assigned earlier or later in the enrollment period (Appendix Table F.19).

Based on UI and survey data, the EDGE group and control group were employed at similar rates in the two-year period following random assignment, from Year 2 to 3.

Based on the UI data, the quarterly employment rate for each research group generally did not increase or decrease over time. Based on survey data, quarterly employment rates generally increased across the first ten quarters, then began to decrease over time.

Exhibit VII.6. Employment rates based on survey data, by year



Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Employment rates provide information about the percentage of individuals who were employed during a given time period but do not describe the extent or duration of employment. To assess these employment characteristics, we examined the average number of quarters (UI data) and months (survey data) individuals were employed each year. Findings were generally similar to those for rates of employment. Based on UI data, the EDGE group worked more quarters per year and overall than the control group, but the difference was only statistically significant for the BCCS group in Year 2 after random assignment (1.9 versus 1.7 quarters; Appendix Table F.2). Based on survey data, ECCS group members and control group members were employed for a similar number of months, while BCCS group members were employed for fewer months compared to control group members (16 versus 18 months over the three-year period; Appendix Table F.4).

Hours worked. Among all individuals randomly assigned, those in the EDGE group worked roughly the same number of hours per week as individuals in the control group (Appendix Table F.5). ECCS and BCCS group members worked an average of 12 hours per week in Year 1 and increased to 22 hours per week in Year 3 for ECCS group members and 18 hours per week for BCCS group members. Similarly, control group members worked an average of 14 hours per week in Year 1 and increased to 21 hours per week in Year 3. There were few differences in the number of hours worked in individual quarters; notably, BCCS group members worked fewer hours than control group members in Quarters 11 and 12.

2. Impacts on characteristics of current jobs

Exhibit VII.7 presents characteristics of jobs individuals held at the time of the 36-month survey.²⁷ This information was available only for individuals employed at the time of the 36-month survey (54 percent of the ECCS group, 43 percent of the BCCS group, and 52 percent of the control group). For this reason, the measures in Exhibit VII.7 are non-experimental and the results do not represent the causal effects of EDGE on job characteristics.

Among individuals employed at the time of the 36-month survey, EDGE group members and control group members held jobs with generally similar characteristics although some differences did exist. About two-thirds of individuals in each research group were employed full time but the BCCS group was more likely to work less than 20 hours per week compared to the control group (18 versus 9 percent; Exhibit VII.7). About 95 percent of employed individuals in each research group earned less than \$1,000 per week but ECCS group members were more likely to earn between \$500 to \$999 a week while control group members were more likely to earn between \$1 and \$499 a week. Most employed individuals in each research group received an employer-offered benefit but employed BCCS group members were less likely than employed control group members to receive dental insurance (42 versus 66 percent), health insurance (49 versus 69 percent), and pension or retirement benefits (48 versus 63 percent). Employed ECCS group members generally received benefits similar to those of employed control group members. Most employed individuals in both research groups were regular status employees working full time or part time. Common occupations were related to production, transportation and material moving, sales, food preparation and serving, and office and administrative support. With the exception of the ECCS group being more likely than the control group to be employed in production or health care support jobs and less likely to be employed in personal care and service jobs, occupations were similar across research groups.

Exhibit VII.7. Characteristics of current jobs among individuals employed at the time of the 36-month survey

Characteristic (%)	ECCS group	BCCS group	Control group	ECCS / Control group difference	BCCS / Control group difference
Employed at the time of the 36-month survey	53.6	42.8	51.8	1.8	-9.1**
Hours worked per week					
Less than 20	10.7	18.4	8.9	1.8	9.2*
21 to 34	22.1	19.8	23.7	-1.6	-4.4
35 or more (employed full time)	67.2	61.8	67.5	-0.2	-3.8
Average	38.7	34.5	37.9	0.8	-3.5**
Weekly earnings					
\$1 to \$499	57.8	71.6	73.2	-15.5**	-1.6
\$500 to \$999	38.0	24.2	23.5	14.5**	0.3
\$1,000 to \$1,499	2.1	4.5	1.6	0.5	2.8

²⁷ The survey captured information about the jobs at which individuals were working at the time the survey was conducted (their “current job”). If individuals were working two or more jobs, they were asked to report on the one at which they worked the most hours.

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Exhibit VII.7. Characteristics of current jobs among individuals employed at the time of the 36-month survey *(continued)*

Characteristic (%)	ECCS group	BCCS group	Control group	ECCS / Control group difference	BCCS / Control group difference
\$1,500 to \$1,999	1.3	0.0	0.9	0.4	-0.8
\$2,000 and above	0.8	0.2	0.7	0.1	-0.5
Benefits available at job					
Any benefit	76.7	66.7	76.9	-0.2	-9.4
Health insurance or HMO/PPO plan	67.9	49.0	68.8	-0.9	-19.9***
Dental insurance	60.6	42.3	65.6	-5.0	-23.9***
Paid vacation	56.9	54.6	60.4	-3.5	-5.2
Paid holidays	57.1	53.7	58.8	-1.7	-4.2
Paid sick leave	42.3	45.7	46.9	-4.6	-0.1
Any paid time off	67.8	63.4	67.2	0.6	-2.5
Pension or retirement benefits	56.2	47.9	63.1	-6.8	-15.2**
Tuition assistance or reimbursement	34.5	21.1	23.4	11.1*	-1.8
Type of employment					
Regular full or part time	80.5	82.2	83.7	-3.2	-1.0
Temporary or on call	8.3	4.7	3.2	5.1	1.9
Self-employed or independent contractor or consultant	6.8	6.1	6.4	0.5	-0.2
Day laborer	4.4	6.9	6.8	-2.4	-0.7
Occupation					
Production	11.8	7.2	5.1	6.7**	2.1
Transportation and material moving	12.1	7.5	13.2	-1.1	-5.9
Sales	6.2	10.8	7.4	-1.1	3.2
Food preparation and serving	5.9	10.2	10.4	-4.5	0.1
Office and administrative support	8.2	4.5	4.6	3.6	0.3
Building and grounds cleaning and maintenance	3.7	7.0	7.0	-3.3	-0.4
Construction and extraction	8.0	2.7	3.9	4.2	-1.3
Personal care and service	1.6	6.1	7.5	-5.9**	-1.2
Health care support	10.0	1.2	3.4	6.7**	-1.9
Management	0.7	6.9	3.9	-3.2	2.7
Sample size	148	166	148		

Source: SNAP employment and training evaluation 36-month survey, weighted data.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

HMO = health maintenance organization; PPO = preferred provider organization.

3. Impacts on changes in earnings and employment over time

The findings presented above describe employment, earnings, and hours worked in each quarter and year since random assignment. Although these findings allow us to assess changes in the average value of the

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outcomes over time across all EDGE or control group members, they obscure changes over time for each individual. In this section, we examine changes over time or the “dynamics” in employment, earnings, hours worked, and job characteristics.

As presented in Exhibit VII.5, based on UI data, employment rates were generally similar for the EDGE and control groups, with the exception that the BCCS group was more likely to be employed in Year 2, relative to the control group. In line with this finding, when looking at employment patterns over time, BCCS group members were less likely to be seldomly or never employed in Quarters 1 through 12 compared to control group members (34 versus 38 percent; Appendix Table F.20). Other changes in employment over time were generally similar between research groups.

As presented in Exhibit VII.6, based on survey data, employment rates were generally similar for the EDGE and control groups, with the exception that the BCCS group was less likely to be employed in Year 3, relative to the control group. BCCS group members were less likely than control group members to be consistently employed in Quarters 1 through 12 compared to control group members (26 versus 34 percent; Appendix Table F.22). Other changes in employment over time were generally similar between research groups; EDGE and control group members experienced job losses at similar rates and had similar rates of job retention. In addition, similar percentages of individuals in each research group who were not employed at the time of the 12-month survey were employed at the time of the 36-month survey. Despite these similarities, ECCS group members were more likely than control group members to experience two or more unemployment spells (55 versus 47 percent).

At the time of both the 12- and 36-month surveys most employed individuals in each research group were unemployed or worked a single job (Appendix Table F.23). About 43 percent of the ECCS group and 36 percent of the BCCS group held one job at the time of the 12-month survey, compared to 40 percent of the control group. At the time of the 36-month survey, about 47 percent of the ECCS group and 39 percent of the BCCS group held one job, compared to 46 percent of the control group.

Exhibit VII.7 shows that EDGE generally had few impacts on job characteristics around the time of the 36-month survey. There were also relatively few changes in the distributions of these characteristics from the 12-month to the 36-month survey (Appendix Table F.24). At the time of the 12-month interview, the earnings distribution of the ECCS group was similar to that of the control group, but at the time of the 36-month interview, the ECCS group was more likely than the control group to earn \$1,000 to \$1,499 per week and less likely to earn between \$500 to \$999 per week. The BCCS group was also less likely to receive some benefits at their job, such as health insurance, dental insurance, and pension or retirement benefits at the time of the 36-month survey, but these differences were not present at the time of the 12-month interview.

The most common occupations at the time of the 12-month survey generally were similar to the most common ones at the time of the 36-month survey. The five most common occupations at each point in time were production; transportation and material moving; sales; food preparation and serving; and office and administrative support.

4. Conclusions

Based on UI data, EDGE led to an increase in average earnings over the two-year period; findings were not corroborated by survey data.²⁸ Based on survey data, the control group generally earned more than the BCCS group and less than the ECCS group, although differences between the EDGE and control groups were not statistically significant over the two-year period or in individual years. Over the two-year period, EDGE had no impact on employment rates based on either UI or survey data, although differences did exist between the BCCS group and control group in Year 2 after random assignment. There were no effects on hours worked per week in any year.

B. Impacts of EDGE on receipt of public assistance

This section presents findings on the impact of EDGE on the receipt of public assistance, as measured by SNAP administrative records and survey data. Most of the outcomes measuring receipt of SNAP, TANF, and Medicaid are based on the administrative data and were measured for each year and quarter after random assignment. Receipt of other forms of public assistance are based on survey data and capture receipt during Year 1 and during Years 2 and 3 combined after random assignment.

1. Impacts on SNAP participation

In Years 2 and 3 following random assignment, EDGE increased the likelihood that BCCS group members participated in SNAP but had no effect on ECCS group members. About 62 percent of ECCS group members, 64 percent of BCCS group members, and 60 percent of control group members participated in SNAP during this period (Exhibit VII.8). For each research group, SNAP participation rates decreased from approximately 99 percent in Quarter 1 to 30 to 35 percent in Quarter 12 (Appendix Table F.8). For the first six quarters following random assignment, EDGE group members were more likely to participate in SNAP compared to control group members, while in later quarters the EDGE and control groups participated at similar rates. In Year 3, ECCS group members were less likely than control group members to participate in SNAP (43 versus 47 percent). SNAP participation was for individuals who were randomly assigned earlier and later in the enrollment period (Appendix Table F.19).

EDGE increased SNAP participation during the two-year period following random assignment, but decreased participation in Year 3 for ECCS group members.

The impacts of EDGE on the average SNAP benefits received, both in absolute terms and as a percentage of the maximum benefit amount, were generally similar to those on SNAP participation rates. Average SNAP benefit amounts for the ECCS and BCCS groups were \$179 and \$273 greater than those for the control group in Year 1, but the differences grew smaller and became statistically insignificant by Year 3 (Exhibit VII.9). Average SNAP benefit amounts were \$25 to \$82 higher for the EDGE group than the

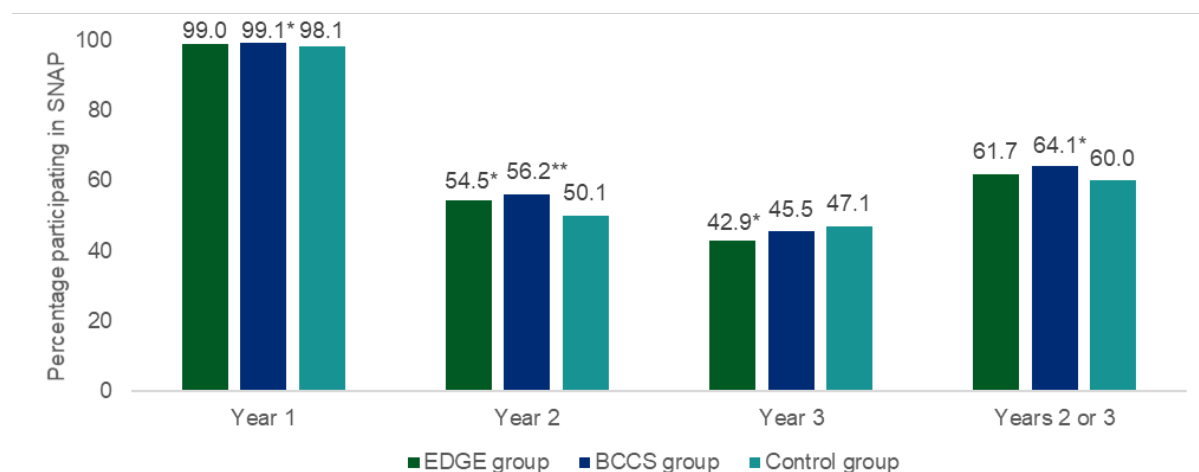
²⁸ The analyses for employment and earnings presented above measured outcomes over a three-year period and were based on individuals randomly assigned through September 2017 based on UI data and December 2017 based on survey data. The findings based on UI data for individuals randomly assigned through September 2017 were similar to those based on UI data for all individuals who were randomly assigned.

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control group in the first six quarters but smaller and not statistically significant in Quarters 7 to 12 (Appendix Table F.9).

Looking at SNAP benefit amounts received as a percentage of the maximum possible benefit (based on SNAP unit size) provides a better comparison across SNAP units of different sizes than the nominal benefit amounts. The findings for benefits received as a percentage of the maximum possible benefit were the same as for nominal benefits. ECCS and BCCS group members received, on average, about 8 and 11 percent more of the maximum possible benefit compared to the control group in Year 1 (48 and 52 versus 41 percent) but differences between EDGE and control group members were smaller and not statistically significant in Year 3 (Exhibit VII.9). For all research groups, some of the decrease in the percentage of the maximum possible benefit received over time can be attributed to individuals exiting SNAP. For example, among the ECCS and BCCS groups, the percentage of the maximum benefit amount received decreased by about 26 and 29 percentage points, respectively, between Years 1 and 3. During this same period, the percentage of ECCS and BCCS group members participating in SNAP decreased by about 56 and 54 percentage points (Appendix Table F.8).

Exhibit VII.8. SNAP participation rates based on SNAP administrative data, overall and by year



Source: SNAP employment and training evaluation SNAP administrative data, weighted data.

Note: Estimates are based on data from 737 ECCS group members, 736 BCCS group members, and 735 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Exhibit VII.9. Impacts on average monthly SNAP benefit amount based on SNAP administrative data, overall and by year

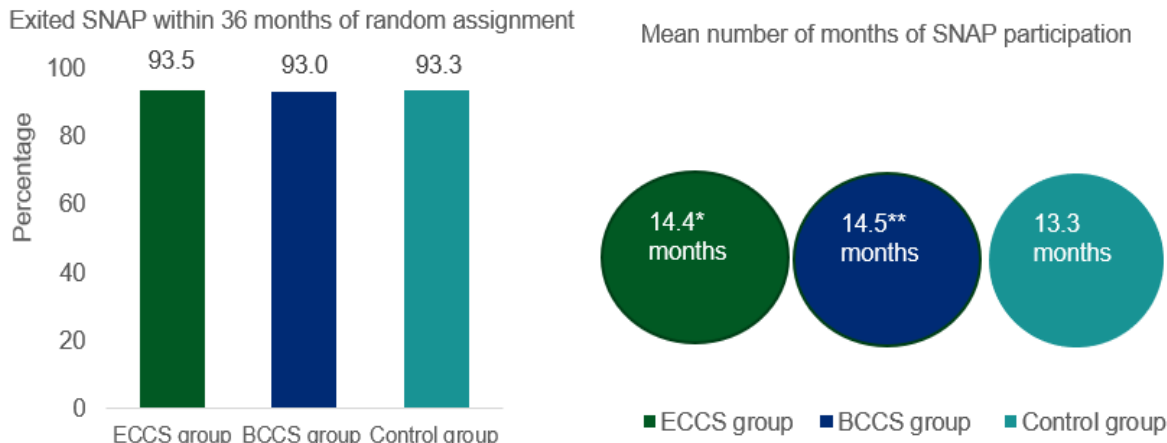
Average SNAP benefits	ECCS group	BCCS group	Control group	ECCS/ Control group difference	BCCS/ Control group difference
Average SNAP benefits received (\$)					
Year 1	1,324	1,418	1,145	179***	273***
Year 2	865	820	743	122**	77
Year 3	760	703	780	-19	-76
Years 2 and 3	1,625	1,524	1,522	103	1
Average monthly SNAP benefits received as a percentage of maximum benefit amount ^a					
Year 1	48.4	51.9	40.8	7.6***	11.0***
Year 2	27.7	27.5	24.6	3.1*	2.9*
Year 3	22.3	22.5	24.1	-1.9	-1.6
Years 2 and 3	25.2	25.2	24.4	0.8	0.7
Sample size	737	736	735		

Source: SNAP employment and training evaluation SNAP administrative data, weighted data.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

On average, the EDGE and control groups participated in SNAP for a similar number of months in the two-year period (Years 2 and 3; Exhibit VII.10). Each group participated in SNAP for approximately 8 months during this period, and over 13 or 14 months during the 36-month period (Appendix Table F.25). The average length of participation differed slightly in Year 1 but was similar across research groups by Year 3. EDGE group members had similar likelihoods of exiting SNAP across the three years relative to control group members—93 to 94 percent of each group exited SNAP at some point during the three years after random assignment. Individuals who exited SNAP include those who left and did not re-enter SNAP in the period, as well as those who left and re-entered before the end of the period. Thus, even though approximately 7 percent of the EDGE group participated in SNAP for the full three years, SNAP participation in Quarter 12 was higher (21 percent), reflecting that individuals left and re-entered SNAP during the three-year period. The percentage of individuals who exited and then re-entered SNAP was similar for the EDGE and control groups (53 for the ECCS and BCCS groups versus 55 percent for the control group), with between 23 and 24 percent of each group re-entering within 4 months of exit (Appendix Table F.25). These patterns of exiting and re-entering SNAP resulted in the research groups having a similar number of SNAP spells (a single spell consists of remaining on SNAP for the full three-year period or exiting and not re-entering). About 51 percent of the ECCS and BCCS groups had a single SNAP spell compared to 49 percent of the control group.

Exhibit VII.10. SNAP exit rates and mean number of months of SNAP participation based on SNAP administrative data



Source: SNAP employment and training evaluation SNAP administrative data, weighted data.

Note: Estimates are based on data from 737 ECCS group members, 736 BCCS group members, and 735 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

2. Impacts on TANF and other forms of public assistance

Impacts on TANF participation were estimated using SNAP administrative data. Few individuals in any research group participated in TANF in each year (Appendix Table F.10). There were no statistically significant differences between research groups in each year and, with one exception, no significant differences in each quarter. The same was generally true for TANF benefit amounts which were \$14 greater for the ECCS group in Year 3 but similar in other years and for the BCCS group. Across all three years, EDGE led to an increase in TANF participation by 1 percentage point for the BCCS group (Appendix Table F.10).

Using the survey data, we also estimated impacts of EDGE on receipt of other forms of public assistance, including receipt of general assistance; UI; Supplemental Security Income (SSI); Section 8, Housing Choice Vouchers, or Public Housing Assistance; Medicaid; and the Supplemental Nutrition Program for Women, Infants, and Children (WIC).²⁹ There were generally no impacts on the receipt of other forms of public assistance in Year 1, in Years 2 and 3, or during the three-year period (Appendix Table F.11). Individuals in the ECCS group were about 5 percentage points less likely than those in the control group to receive Section 8, Housing Choice Vouchers, or Public Housing Assistance during the three-year period. The most commonly received benefit among EDGE group members and the control group was Medicaid (about 30 to 35 percent in Years 1 to 3).

²⁹ Because the 36-month survey requested information about receipt of public assistance benefits between the 12- and 36-month survey interviews, it was not possible to separately estimate receipt of public assistance in Years 2 and 3.

3. Conclusions

EDGE led to decreased SNAP participation by Year 3 following random assignment for the ECCS group; the impact of EDGE on SNAP participation was not statistically significant for the BCCS group. In Quarters 1 through 6, ECCS and BCCS group members were more likely to participate in SNAP, compared to the control group, while in Quarters 7 through 12, participation rates were similar across research groups. Similarly, in Quarters 1 through 6, EDGE led to an increase in SNAP benefit amounts for the ECCS and BCCS groups—both nominally and as a percentage of the maximum benefit amount—but not in Quarters 7 through 12. There were few impacts on TANF participation and on the receipt of other public assistance over the three-year period.

C. Impacts of EDGE on food security, health, well-being, and housing status

This section presents findings on EDGE's impacts on food security, health, well-being, and housing status, as reported in the survey data. Most of these outcomes reflected individuals' circumstances at the time of the 36-month follow-up survey. An exception was food security status, which was reported based on the 30 days before the survey.³⁰

The EDGE and control groups had similar rates of food insecurity. About 55 percent of ECCS group members and 49 percent of BCCS group members were food insecure compared to 55 percent of control group members (Exhibit VII.11). For very low food security—a severe form of food insecurity—there was an 10 percentage point decrease for the BCCS group relative to the control group (31 versus 41 percent). The difference in very low food security rates between ECCS and control group members were also negative but smaller (4 percentage points) and not statistically significant. There were no impacts on food insecurity for individuals who were randomly assigned earlier versus later in the pilot (Appendix Table F.19).

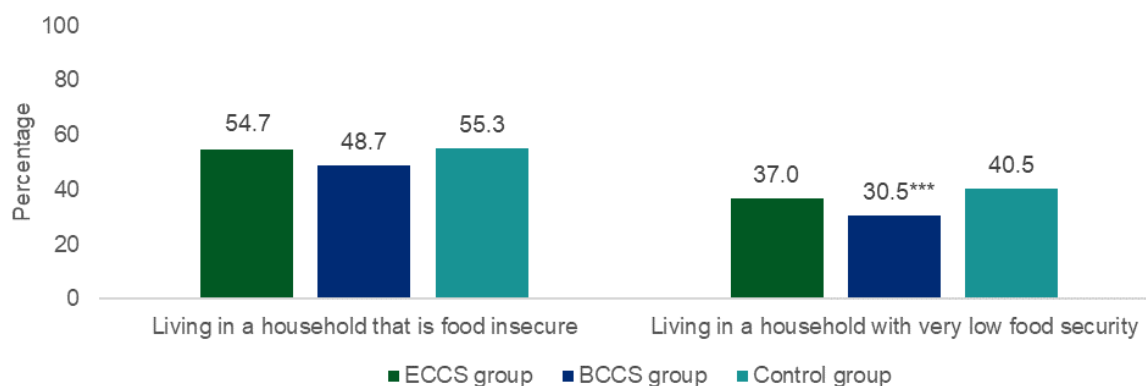
Differences in food security status at the time of the 36-month survey reflect differences between research groups in changes in food security status over time. Among individuals who were food insecure at the time of the 12-month survey, those in the ECCS group were just as likely as those in the control group to be food insecure at the time of the 36-month interview, while those in the BCCS group were less likely to be food insecure at that time (Appendix Table F.27). However, among those who were food secure at the time of the 12-month survey, those in the ECCS and BCCS groups were more likely than those in the control group to become food insecure. While there were few distinguishable differences between the ECCS and control groups in the percentage of individuals who had very low food security at both the 12-month and 36-month interviews, differences did exist between the BCCS and control groups. Among individuals who did not have very low food security at the time of the 12-month interview, BCCS group

³⁰ Food security is having access at all times to enough food for an active, healthy life. Individuals who experience food access limitations due to lack of money or other resources are said to be food insecure. Those who cannot afford enough to eat may experience a particularly severe form of food insecurity where at times one or more household member experiences reduced food intake and disrupted eating patterns referred to as very low food security. The outcomes of food insecurity and very low food security are based on responses to 10 questions about difficulty meeting basic food needs due to lack of money to be spent on food. Individuals who affirmed at least 3 out of 10 questions were classified as food insecure; those who affirmed at least 6 were classified as having very low food security.

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members were less likely to have very low food security at the time of the 36-month interview, compared to control group members (15 versus 24 percent).

Exhibit VII.11. Impacts on food security, based on 36-month survey data



Source: SNAP employment and training evaluation 36-month survey, weighted data.

Note: Estimates are based on data from 268 ECCS group members, 281 BCCS group members, and 256 control group members.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

There were no statistically significant differences between the EDGE group and the control group for other outcome measures related to health, well-being, and housing status (Appendix Table F.12). Around thirty percent of each research group screened positively for depression. Each research group had similar levels of health (between 31 and 33 percent reported having very good or excellent health at the time of the survey), and self-esteem and self-efficacy scores. The largest proportion of each research group owned or rented a home or apartment (46 percent of the ECCS group and 52 percent of the BCCS group versus 55 percent of the control group), and similar percentages of each group were homeless (2 and 4 versus 4 percent).

D. Impacts of EDGE on employment, earnings, and SNAP participation among individuals who started or completed an employment or training related activity

The findings presented in Sections A, B, and C do not differentiate between individuals enrolled in the pilot who participated in activities and those who did not. In the evaluation literature, this approach often is called an “intention-to-treat” (ITT) analysis. Impact estimates based on an ITT analysis provide information about expected effects for all SNAP participants to whom pilot activities were offered. However, because some individuals did not engage in the pilot or start an activity, ITT findings mask how well individuals who did participate may have fared. In this section, we present results of analyses that differentiate individuals in the EDGE group who did and did not engage in EDGE and participated in activities. This analysis, often referred to as a “treatment-on-the-treated” analysis, provides insights about

how greater engagement in pilot activities may have translated into different participation experiences and, ultimately, into different impacts.³¹

We assessed engagement in activities in three ways:

1. Comparing individuals who started an activity to those who did not
2. Comparing individuals who started and completed a job search or job search training activity to those who started but did not complete an activity
3. Comparing individuals who started and completed an education or training activity to those who started but did not complete one.³²

Earnings and employment. Based on both UI and survey data, there were positive impacts on earnings in the two-year period (Years 2 and 3) for ECCS group members who started an activity, but no significant impact for individuals who did not start one (Exhibit VII.12; Appendix Tables F.13 and F.15). For example, based on survey data, EDGE increased earnings by \$4,323 for the ECCS group relative to the control group among individuals who started an activity; the corresponding differences in earnings among those who did not start an activity was \$157, which was not statistically significant. Although the differences between the estimates for individuals who started and did not start an activity were not statistically significant, the pattern of findings suggests that take-up an activity may have played a role in connecting individuals to meaningful higher wages. Similar findings were not present for the BCCS group relative to the control group. In addition, there were no differences in impacts on employment for the ECCS group members according to whether they started an activity and there were no statistical differences in employment impacts for the BCCS group.

³¹ Because individuals in EDGE chose whether to start an activity and/or complete one based on factors we could not necessarily observe, the findings presented in this section are nonexperimental. The results do not represent the causal effects of EDGE on outcomes.

³² There are many ways to quantify the extent to which those enrolled in the pilot engaged in activities—for example, the number of workshops in which someone participated, the number of hours an individual spent in an occupational skills training program, or the number of basic education courses an individual completed over time. Our approach for measuring engagement in pilot activities balanced the objectives of contrasting groups with well-defined, policy-relevant differences in participation across pilots with limiting the number of groups so that each analysis group had a sufficient number of individuals to yield informative estimates.

VII. Impacts on employment, earnings, receipt of public assistance, and well-being outcomes

Exhibit VII.12. Impacts on total earnings and annual employment rates in Years 2 and 3, based on UI wage records and survey data, by whether individuals started an employment or training-related activity

Outcome	Started an activity					Did not start an activity				
	ECCS group	BCCS group	Control group	ECCS / Control group difference	BCCS / Control group difference	ECCS group	BCCS group	Control group	ECCS / Control group difference	BCCS / Control group difference
Total earnings (\$)										
Based on UI data	15,367	14,775	13,002	2,365**	1,776	11,971	11,369	9,720	2,251	1,575
Based on survey data	28,337	22,986	24,014	4,323*	-854	26,188	23,404	26,031	157	-2,200
Employment rate (%)										
Based on UI data	73.0	75.3	68.5	4.6	6.8**	61.2	63.4	64.3	-3.2	-1.3
Based on survey data	85.6	77.2	85.5	0.1	-7.9*	80.4	83.8	78.5	1.9	5.8

Source: SNAP employment and training evaluation UI wage records, weighted data.

Note: Estimates based on survey data are from 193 ECCS group members, 191 BCCS group members, and 176 control group members who started an activity; and 75 ECCS group members, 90 BCCS group members, and 80 control group members who did not start one. Estimates based on UI data are from 489 ECCS group members, 416 BCCS group members, and 471 control group members who started an activity; and 248 ECCS group members, 320 BCCS group members, and 264 control group members who did not start one.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

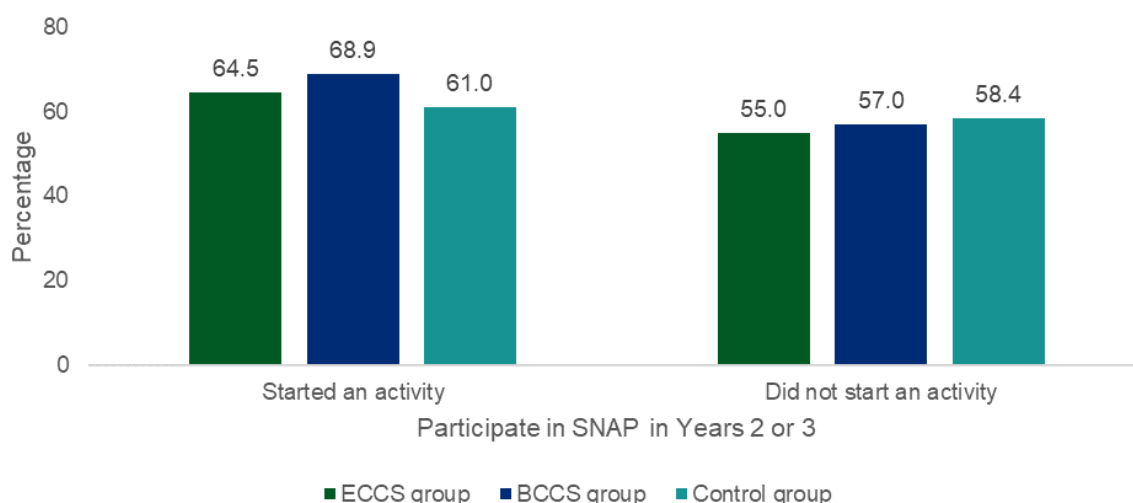
^^^/^^/^ Significantly different from individuals who did not start an activity at the 0.01/0.05/0.10 level, two-tailed test

VII. Impacts on employment, earnings, receipt of public assistance, and well-being outcomes

Based on UI-data, there was an impact on earnings in the two-year period for individuals in the ECCS group who completed an education or training activity, but no impact for those who started but did not complete one (Appendix Table F.14); the difference across completion groups was not statistically significant. There was no corresponding impact for individuals in the BCCS group based on UI data and no impacts for individuals in the ECCS and BCCS groups in any completion group based on the survey data (Appendix Tables F.14 and F.15).

SNAP participation. There was a positive impact on SNAP participation in the two-year period (Years 2 and 3) for the BCCS group members who started an activity (in other words, the SNAP participation rate for the BCCS group was higher than the rate for the control group). In contrast, there was no impact among those who did not start one (the SNAP participation rate for the BCCS group was similar to the rate for the control group; Exhibit VII.13 and Appendix Table F.17). For example, SNAP participation was 8 percentage points higher for the BCCS group than the control group among individuals who started an activity (69 versus 61 percent). There were generally no impacts on SNAP participation rates or average SNAP benefits received according to whether individuals completed an education or training activity (Appendix Table F.18).

Exhibit VII.13. SNAP participation rates based on SNAP administrative data, by whether an individual started an activity



Source: SNAP employment and training evaluation SNAP administrative data, weighted data.

Note: Estimates are based on data from 489 ECCS group members, 416 BCCS group members, and 471 control group members who started an activity; and 248 ECCS group members, 320 BCCS group members, and 264 control group members who did not start an activity.

***/**/* Difference between ECCS group and control group or BCCS and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

^^^/^^/^ Significantly different from individuals who did not start an activity at the 0.01/0.05/0.10 level, two-tailed test.

VIII. Analysis of the costs and benefits of EDGE group and control group services

In this chapter, we build on the findings from the impact analysis by comparing the benefits that individuals received in dollar terms through changes in earnings and public assistance with the costs of the services provided. This cost-benefit analysis describes the extent to which the benefits exceeded the costs of providing services to EDGE group members (including the ECCS and BCCS groups) when compared with the benefits and costs of providing services to the control group (referred to as the *net benefit*). The net benefit provides context for how well ECCS and BCCS group outcomes (benefits) offset the costs of administering the services. We calculate the net benefits from the perspectives of the individuals enrolled in EDGE and of government and taxpayers. The benefit to society is the sum of the net benefits from the other two perspectives.

We first describe the costs of EDGE, including those for planning, recruiting, and delivering services. We then present the estimated costs of all services provided to ECCS and BCCS group members through EDGE, existing SNAP E&T, and the community, and the costs of all services provided to control group members through existing SNAP E&T and the community. We estimate the costs of all services because any benefits individuals experienced through increases in employment and earnings are the result of all of the services they received during the follow-up period, not just those offered through EDGE. We then present the findings from the cost-benefit analysis and estimate the net benefit of services provided to the ECCS and BCCS groups, compared with services provided to the control group. We conducted sensitivity analyses to test the robustness of our findings to changes in key assumptions and present those findings together with the cost-benefit analysis. All costs and the dollar values of benefits presented in this chapter have been adjusted to 2016 dollars, as this was the year that EDGE started providing services and individuals started accruing benefits.

A. Description of the costs of EDGE

This section provides detail on the total costs EDGE services, the costs of EDGE services by type, and the average cost of EDGE services per individual.

1. Total costs of EDGE

FNS awarded MDHS a grant of \$22,246,000 to develop and provide EDGE services. MDHS and its partners and providers reported spending \$11,361,122 on planning, recruiting, and delivering EDGE services (Exhibit VIII.1).³³ These costs included \$1,089,769 for planning (10 percent of total costs) and \$1,602,220 for recruitment (14 percent). EDGE service costs—for ongoing administration and delivering direct services—were \$8,669,133, which was

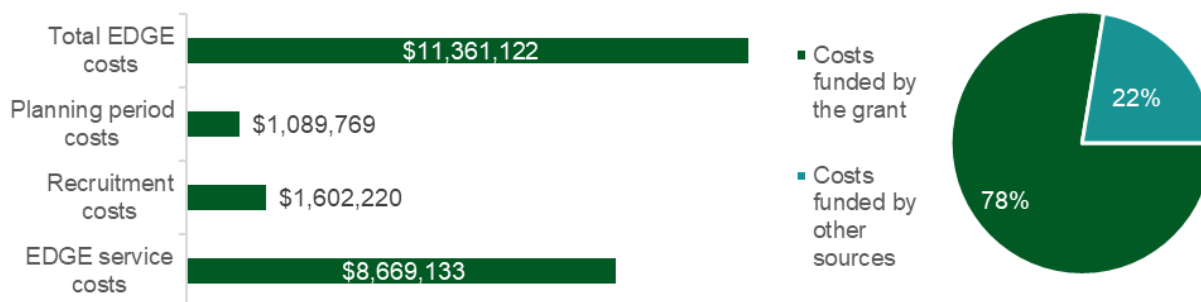
EDGE cost a total of \$11,361,122, with service costs accounting for 76 percent of total expenditures.

³³ The costs for planning and recruiting affected both EDGE and control group members, whereas the costs for operating EDGE services affected the EDGE group only.

VIII. Analysis of the costs and benefits of EDGE group and control group services

76 percent of total costs.³⁴ Ongoing administration, which included time for staff meetings, supervision, and other activities, cost \$5,433,090 (48 percent of total costs, not shown). Direct service costs represented the remaining \$3,236,044 (29 percent, not shown). The FNS grant funded 78 percent of total costs, or \$8,818,604; 22 percent, or \$2,542,519 were leveraged from other sources.

Exhibit VIII.1. Summary of EDGE costs



Source: SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2018; and SNAP employment and training evaluation survey of direct service provider time use, 2016–2018.

Note: The planning period was considered to encompass the time between when MDHS and their partners began designing EDGE (after grant award) and EDGE started enrolling individuals (April 2015 to April 2016). Quarterly workbooks reported the costs of the planning period, and of recruitment and EDGE services following the start of EDGE. We estimated the breakdown of recruitment, EDGE direct service, and ongoing administration costs using data from a time-use survey of direct service provider staff. All costs are presented in 2016 dollars.

Appendix Table G.2 summarizes costs through February 2019 by cost category, including (1) staff costs (including volunteer time), (2) partner and provider direct service costs, (3) supply and equipment costs, and (4) overhead and operating costs. MDHS and EDGE partners and providers reported spending \$6,910,567 on staff costs and \$1,879,873 on direct services from partners and providers. About 21 percent of all costs covered overhead and operating costs (\$2,427,647). The remaining costs (\$143,035) covered supply and equipment costs. The FNS grant covered the majority of all costs (78 percent). Funding from other sources was used primarily for other overhead operating costs, accounting for 85 percent of the total overhead operating costs (\$2,054,993).

2. Costs of EDGE services, by type of service

Service costs accounted for the majority of EDGE expenditures. We estimated the costs of specific types of services offered through EDGE, including those of ongoing administration and direct services. The two largest service expenditures for EDGE services were for work-based learning, which accounted for \$2,422,760 or 21 percent of total EDGE costs, and case management, which accounted for \$2,002,975 or 18 percent of total EDGE costs (Exhibit VIII.2). Support services, job readiness or life skills workshops,

³⁴ Service costs included costs of both ongoing administration and delivering direct services and activities. Ongoing administration costs included time for staff meetings, supervision, and other activities. Direct service costs included time staff spent providing services and activities to individuals, including time for tasks such as writing case notes or recording administrative data, and direct costs for resources such as textbooks or support services. Both ongoing administration and direct service costs included the costs of staff, supplies and equipment, overhead, facilities, and indirect costs.

VIII. Analysis of the costs and benefits of EDGE group and control group services

and occupational skills training were the next largest service expenditures, accounting for 13, 9, and 8 percent of total EDGE costs, respectively.

Exhibit VIII.2. Costs of EDGE services, by service type

Costs	Total service costs	Percentage of total
Total cost	\$11,361,122	100.0
Planning period costs	\$1,089,769	9.6
Recruitment costs	\$1,602,220	14.1
EDGE service costs ^a	\$8,669,133	76.3
Assessments	\$743,911	6.5
Case management ^b	\$2,002,975	17.6
Job readiness or life skills workshop	\$1,049,526	9.2
Education	\$42,906	0.4
Occupational skills training	\$929,707	8.2
Support services	\$1,477,054	13.0
Work-based learning	\$2,422,760	21.3
Other direct service contracts ^c	\$295	0.0

Source: SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2018; and SNAP employment and training evaluation survey of direct service provider time use, 2016–2018.

Note: The estimated costs of case management, job readiness or life skills workshop, and assessments include costs for staff, supplies and equipment, and overhead and operating costs, which were allocated using the average percentage of time spent on these activities in the time-use survey. We assumed the reported costs of support services, other direct service contracts, work-based learning, occupational skills training, and education already include costs for staff, supplies and equipment, or overhead and operating costs. Other direct service contracts included a contract to support collection of case management and participation data. We assumed these costs were either built into those payments or the associated staff time and costs fell under case management. All costs are presented in 2016 dollars.

^a Total EDGE service costs include the costs of direct services and ongoing administration.

^b Case management included one-on-one meetings with ECCS and BCCS group members and time spent on case notes or referrals.

^c Other direct service contracts for the ECCS and BCCS groups included a contract to support collection of case management and participation data. This is the actual cost reported for other direct service contract costs (which covered ECCS and BCCS group services only).

3. Costs of EDGE services, per individual for the ECCS and BCCS groups

ECCS and BCCS group members received different combinations of services through EDGE based on their needs and interests, and the types of services offered. As a result, the costs of serving each ECCS and BCCS group member varied based on the number and types of services in which they participated. Exhibit VIII.3 describes the cost of ECCS and BCCS services per individual. We separately present costs of operating EDGE from the costs of resources that were provided directly to ECCS and BCCS group members—subsidized earnings provided to individuals for activities such as work-based learning; and

VIII. Analysis of the costs and benefits of EDGE group and control group services

support services provided to offset the costs of participation in EDGE, such as transportation or training supplies.³⁵

The total estimated costs of ECCS services per individual ranged from \$123 to \$16,048, but were \$4,912 per ECCS group member, on average. The total estimated costs of BCCS services per individual ranged from \$123 to \$16,410, but were \$3,909 per BCCS group member, on average. The majority of the costs were associated with operating EDGE (\$4,140 and \$3,241 per individual, respectively). ECCS group members received an average of \$491 in subsidized earnings and \$281 in support services while in EDGE; BCCS group members received an average of \$403 and \$265, respectively.

ECCS services cost an average of \$4,912 per individual, and BCCS services cost an average of \$3,909 per individual.

Exhibit VIII.3. Costs of ECCS and BCCS services per ECCS and BCCS group member

Per individual costs of services	Mean (ECCS group)	Mean (BCCS group)
Total service costs	\$4,912	\$3,909
Operating costs ^a	\$4,140	\$3,241
Subsidized earnings while in EDGE	\$491	\$403
Support services while in EDGE	\$281	\$265
Sample size	1,015	1,006

Source: SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2018; and SNAP employment and training evaluation administrative service use data.

Note: The cost of services per ECCS and BCCS group member are the means of the individual-level estimates of the costs of services for each ECCS and BCCS group member based on the services they received and the per individual costs by service type. The estimated mean costs per ECCS and BCCS group member include all individuals who enrolled in EDGE, including those who disengaged soon after enrollment and those who participated in multiple services over a longer period of time. All costs are presented in 2016 dollars.

^a EDGE operating costs are the estimated cost of direct services including the ongoing administration cost. We included the costs of any supplies and equipment incurred during the planning period in this estimate because those materials directly benefitted ECCS and BCCS group members once service delivery began. No other planning period or recruitment costs are included.

Cost per ECCS group member, (ECCS services only): standard error \$116; range \$123–\$16,048; confidence interval \$3,912–\$4,367.

Cost per BCCS group member, (BCCS services only): standard error \$94; range \$123–\$16,410; confidence interval \$3,056–\$3,426

B. Difference in costs of all services received by the ECCS, BCCS, and control group members

Whereas Section A describes the costs to MDHS and their partners and providers for developing EDGE and providing services to ECCS and BCCS group members, this section describes the costs of *all* services the ECCS and BCCS group members received through EDGE, existing SNAP E&T, and the community during the EDGE service period. In the cost-benefit analysis, we use the difference in the average costs of all services ECCS, BCCS, and control group members received per individual through EDGE, existing

³⁵ Operating costs include all service costs other than those provided directly to individuals through subsidized earnings or support services. These costs represent the time and resources required to deliver services.

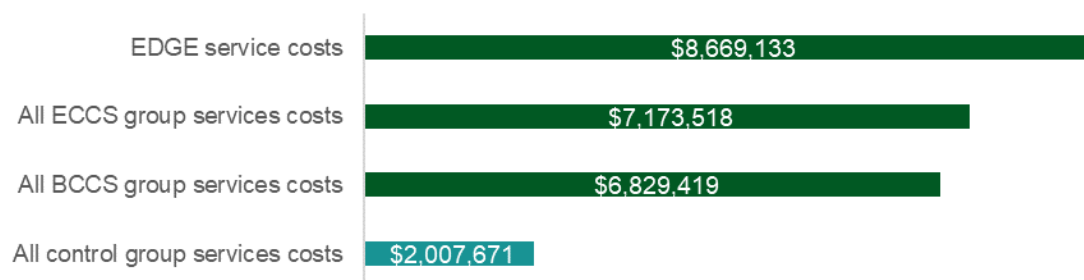
VIII. Analysis of the costs and benefits of EDGE group and control group services

SNAP E&T, or the community and compare these costs to benefits. We use these differences in costs because impacts of EDGE on individuals' outcomes such as earnings were influenced by all services the sample members received during the 36-month follow-up period, not just those received by the ECCS and BCCS group through EDGE. In this section, we present estimates of the total costs of all services ECCS, BCCS, and control group members received and examine service cost differentials overall, by service type, and per individual.

1. Total costs of all ECCS, BCCS, and control group services

Based on data from the 12- and 36-month follow-up surveys, the estimated total cost of all ECCS group services was \$7,173,518, and the estimated total cost of all BCCS group services was \$6,829,419 including costs for both direct services and ongoing administration (Exhibit VIII.4). These costs sum to over \$14,000,000, which is about 62 percent higher than the cost of EDGE services alone (\$8,669,133). This suggests that ECCS and BCCS group members might have received services from existing SNAP E&T and community-offered sources while they were enrolled in EDGE.³⁶

Exhibit VIII.4. Total cost of EDGE and all ECCS, BCCS, and control group services



Source: SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2018; SNAP employment and training evaluation survey of direct service provider time use, 2016–2018; WIA Gold Standard Evaluation cost estimates 2012; FNS-583 data 2018; and SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: The estimates were calculated as the product of the costs per ECCS and BCCS group member for each type of direct service and the number of ECCS and BCCS group members who received each type of direct service in the SNAP employment and training evaluation 12- and 36-month survey data. ES and NS control group cost estimates were calculated as the product of the WIA costs per individual for each type of direct service and the number of ES and NS control group members who received each type of direct service in the SNAP employment and training evaluation 12- and 36-month survey data. All costs are presented in 2016 dollars.

The cost-benefit analysis assesses whether the enhanced EDGE services were effective enough to offset the difference in costs between the services received by the ECCS, BCCS, and control groups. The services received by the control group measures what services would have been available to the ECCS

³⁶ The difference between the costs of the EDGE services in Section A and the costs presented for ECCS and BCCS group members in this section could reflect services that ECCS and BCCS group members received outside of EDGE, but also could reflect the difference between administrative records of service use and each individual's recollection of services they received during the follow-up period. We examined the sensitivity of our findings to the use of these different data sources and found variation in reported participation in services by type, but the overall costs of services for the ECCS and BCCS group are similar and do not change the results of the cost-benefit analysis.

and BCCS group members if EDGE were not in place. The control group had access to limited existing SNAP E&T services and services available within the community. The estimated cost of all control group services was \$2,007,671, including costs for direct services and ongoing administration (Exhibit VIII.4). The costs of all services received by the control group was a little more than a quarter of the cost of ECCS and BCCS group services.

2. Costs of all EDGE and control group services, by type of service

The difference between ECCS, BCCS and control group costs of all services could reflect multiple factors, including how many services individuals received, how long the average individual spent in a given type of service or in services overall, or how much staff time or other resources those services required. Exhibit VIII.5 presents estimated costs of key ECCS, BCCS, and control group services, by type of service.

All ECCS group services. Work-based learning and case management were the largest expenditures among all of the services that ECCS group members received through EDGE, existing SNAP E&T, and the community. In the ECCS group, work-based learning accounted for \$2,559,325 or 36 percent of total service costs, and case management accounted for \$1,725,962 or 24 percent of total service costs. Job readiness or life skills workshops and support services accounted for smaller shares of total service costs (18 and 10 percent).

All BCCS group services. Costs for all services BCCS group members received were similar to those the ECCS group received for almost all service types. The largest difference in costs by service type was for job readiness or life skills workshops, which for ECCS group members was \$1,292,648, or 18 percent of total service costs, and for BCCS group members was \$870,687, or less than 13 percent of total service costs. Job readiness or life skills workshop costs include those for the EDGE class, which was offered only to the ECCS group.

All control group services. Education and case management were the largest expenditures among all of the services that control group members received through existing SNAP E&T and the community. Education accounted for \$1,097,071 or 55 percent of total service costs, and case management accounted for \$546,442 or 27 percent of total service costs. Work-based learning and occupational skills training represented smaller shares total service costs—13 and 3 percent, respectively.

Among most service types, costs for the ECCS and BCCS groups were higher compared to costs for the control group. The exception was education (around \$50,000 for the ECCS and BCCS groups compared to \$1,097,071 for the control group).

Exhibit VIII.5. Costs by service type for the ECCS, BCCS, and control groups

	All ECCS group services		All BCCS group services		All control group services	
	Total service costs	Percentage of total	Total service costs	Percentage of total	Total service costs	Percentage of total
Total service costs ^a	\$7,173,518	100.0	\$6,829,419	100.0	\$2,007,671	100.0
Assessments	\$661,988	9.2	\$542,514	7.9	\$4,121	0.2
Case management ^b	\$1,725,962	24.1	\$1,849,206	27.1	\$546,442	27.2
Job readiness or life skills workshop	\$1,292,648	18.0	\$870,687	12.7	\$6,562	0.3
Education	\$51,776	0.7	\$49,888	0.7	\$1,097,071	54.6
Occupational skills training	\$167,181	2.3	\$208,644	3.1	\$67,275	3.4
Support services	\$714,342	10.0	\$743,186	10.9	\$17,279	0.9
Work-based learning	\$2,559,325	35.7	\$2,564,998	37.6	\$268,920	13.4
Other direct service contracts ^c	\$295	0.0	\$295	0.0	--	--

Source: SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2018; SNAP employment and training evaluation survey of direct service provider time use, 2016–2018; WIA Gold Standard Evaluation cost estimates 2012; FNS-583 data 2018; and SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: Cost estimates by service type were calculated as the product of the costs per individual for each type of direct service and the number of EDGE or ES and NS control group members who received each type of service according to survey data on participation. Hyphens indicate that there was no cost for the service type. All costs are presented in 2016 dollars.

^a Total service costs include the costs of direct services and ongoing administration.

^b Case management includes one-on-one meetings with EDGE or ES and NS control group members and time spent on case notes or referrals.

^c Other direct service contracts for the ECCS and BCCS group included a contract to support collection of case management and participation data. This is the actual cost reported for other direct service contract costs (which covered ECCS and BCCS group services only).

3. Costs of all ECCS, BCCS, and control group services per individual

ECCS, BCCS, and control group members each received different combinations of services, and the costs of serving each individual varied based on the number and types of services in which they participated. In addition to providing context on the costs required to provide these types of services to individuals, the per individual costs of all ECCS, BCCS, and control group services are the basis for the cost differentials used in the cost-benefit analysis.

All services ECCS and BCCS group members received through EDGE, existing SNAP E&T, and the community cost an average of \$4,565 and \$3,673 per individual, respectively.

Using data from the survey, Exhibit VIII.6 describes the cost of all services ECCS, BCCS, and control group members received during the EDGE service period, per individual. We present operating costs

VIII. Analysis of the costs and benefits of EDGE group and control group services

separately from the costs of the resources provided directly to ECCS, BCCS and control group members—subsidized earnings provided to individuals for activities such as work-based learning, and support services provided to offset the costs of participation in services, such as transportation or training supplies.

The cost of all services received by ECCS group members (from EDGE, existing SNAP E&T, and the community) ranged from \$123 to \$31,246 but was about \$4,565 per individual, on average. The cost of all services BCCS group members received ranged from \$123 to \$35,114 and were an average of \$3,673 per individual. The largest component of this cost for both groups was operating costs, which were \$3,784 and \$3,001, respectively. Subsidized earnings and support services accounted for smaller shares of the overall cost, accounting for \$610 and \$170 of ECCS group costs, respectively, and \$521 and \$151 of BCCS group costs, respectively.

Exhibit VIII.6. Costs of all services per ECCS, BCCS, and control group members

	All ECCS group services	All BCCS group services	All control group services
Total service costs	\$4,565	\$3,673	\$1,909
Operating costs ^a	\$3,784	\$3,001	\$1,627
Subsidized earnings while in services	\$610	\$521	\$264
Support services while in services	\$170	\$151	\$17
Sample size	1,017	1,007	1,017

Source: SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2018; SNAP employment and training evaluation administrative service use data; WIA Gold Standard Evaluation cost estimates 2012; and SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Note: The cost of services per EDGE, ES control, and NS control group member are the means of the individual-level estimates of the costs of services for each EDGE, ES control, and NS control group member based on the services they received and the per individual costs by service type. All costs are presented in 2016 dollars. Cost per ECCS group member (ECCS services, existing SNAP E&T services, or community-offered services): standard error \$262; range \$123–\$31,246; confidence interval \$3,332–\$4,364. Cost per BCCS group member (BCCS services, existing SNAP E&T services, or community-offered services): standard error \$236; range \$123–\$35,114; confidence interval \$2,540–\$3,471. Cost per control group member: standard error \$307; range \$0–\$25,335; confidence interval \$1,023–\$2,232.

^a Operating costs are the estimated cost of direct services including the ongoing administration cost.

The cost of all services control group members received through existing E&T services and the community ranged from \$0 to \$25,335 but were \$1,909 per control group member on average. Operating costs accounted for the largest share of this cost (\$1,627), and subsidized earnings and support services represented smaller shares (\$264 and \$17, respectively). The cost of all services per control group member was around half of the cost of all services per ECCS or BCCS group member, on average.

All services control group members received through existing SNAP E&T and the community cost \$1,909 per individual, on average.

C. Cost-benefit analysis of ECCS and BCCS group services

The purpose of the cost-benefit analysis is to estimate the benefits in dollar terms relative to the dollar costs of providing services. This section presents the findings of the cost-benefit analysis. We present

results using the two sources of data on benefits used in the impact analysis: (1) UI wage records and (2) 36-month survey data.³⁷ The cost-benefit analysis uses a framework to present a comprehensive listing of ECCS and BCCS group benefits and costs relative to the control group from multiple perspectives, including those of (1) individuals enrolled in ECCS and BCCS, (2) government and taxpayers, and (3) society as a whole, which represents the sum of the other two perspectives. The primary cost-benefit finding from each perspective was the net benefit (the difference between total benefits and total costs). A positive net benefit means the benefits outweighed the costs, whereas a negative net benefit means the costs outweighed the benefits. In addition, we estimated the ratio of benefits to costs, which describes the return to society on each dollar invested. The benefit cost ratio is the quotient of the total benefit and the absolute value of the total costs. We also describe how our results differed according to changes in key assumptions for each of the cost-benefit accounting frameworks presented below.

1. Costs and benefits of all services for ECCS and BCCS group members, based on UI wage records

The net benefit of services for the ECCS group compared to the control group were positive for society during the 36-month follow-up period (Exhibit VIII.7). The benefit-cost ratio, or return on investment to society, was 1.11. EDGE services benefitted ECCS group members through higher cumulative earnings, fringe benefits, and support service payments while they were in services, which resulted in a net benefit to individuals. The benefit of higher earnings among ECCS group members offset the cost of those services to the government and taxpayers during the 36-month follow-up period, on average.

*The net benefits of all services ECCS group members received were **positive** for society and for ECCS group members but **negative** for government and taxpayers during the 36-month follow-up period, compared to control group members (UI wage records).*

Society. On average, all ECCS group services led to a net benefit to society of \$274 per individual. Despite the higher cost of providing ECCS group services compared to control group services (by \$2,503), the higher cumulative earnings and fringe benefits (\$2,323 and \$486, respectively) accrued by ECCS group members during the 36-month follow-up period offset the cost of those services.

ECCS group members. On average, ECCS group members received a net benefit of \$3,858, compared with the control group. Differences in cumulative earnings accounted for most of the benefits to ECCS group members, who earned \$2,323 more than control group members. The difference in earnings was statistically significant. We assumed any subsidized earnings received while participating in work-based learning activities were included in the \$2,323 difference in earnings. The ECCS group also benefitted from higher fringe benefits compared to the control group (by \$486). ECCS group members received \$611 more in tax refunds than the control group, on average. In addition, ECCS group members received greater amounts of support services (by \$153) as well as SNAP and TANF benefits (by \$266 and \$19, respectively), compared to the control group.

³⁷ We included impacts on cumulative earnings and SNAP and TANF benefit receipt in the cost-benefit analysis even if they were not statistically significant. These estimates are the best information we have on the qualitative differences in outcomes between the two groups. We noted statistically significant impacts where they were present in the exhibits.

VIII. Analysis of the costs and benefits of EDGE group and control group services

Exhibit VIII.7 Benefits and costs associated with ECCS services, existing SNAP E&T services, or community-offered services, for the ECCS group compared to the control group, UI wage records

	Perspective		
	ECCS group members	Government and taxpayers	Society
Benefits (\$)			
Employment and earnings			
Earnings (UI wage records)	2,323**	0	2,323
Fringe benefits	486	0	486
Tax payments	611	-611	0
Use of public benefits			
SNAP benefits	266**	-266	0
TANF benefits	19*	-19	0
Reduced administration costs	0	-33	-33
Total benefits	3,704	-928	2,776
Costs (\$)			
Net operating costs ^a	0	-2,157	-2,157
Net subsidized earnings while in services ^b	0	-346	-346
Net support services while in services ^b	153	-153	0
Total costs	153	-2,656	-2,503
Net benefit (\$)	3,858	-3,584	274
Benefit-cost ratio			1.11

Source: SNAP employment and training evaluation UI wage records, weighted data; SNAP administrative data; SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2019; SNAP employment and training evaluation administrative service use data; WIA Gold Standard Evaluation cost estimates, 2012; and SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Notes: Earnings, SNAP benefits, and TANF benefits are the impact estimates presented in Chapter VII. The net benefit is the difference between total benefits and total costs. A negative net benefit is a net cost. The benefit-cost ratio is the quotient of the total benefits and the absolute value of the total costs. A benefit-cost ratio greater than one represents greater benefits than costs; a number less than one suggests fewer benefits than costs. All benefits and costs are presented in 2016 dollars. The standard error of the cost per ECCS group member is \$116 and of the cost per control group member is \$307.

^a This estimate is the difference between EDGE and control group costs per individual. This value excluded planning period costs but included the costs of supplies and equipment incurred during the planning period that supported ongoing services once they started.

^b Subsidized earnings and support services directly benefit individuals while they are enrolled in services. We assumed the subsidized earnings benefitting individuals were reflected in the earnings impacts presented as the first row in the benefits section of the exhibit. All earnings presented in the first row in the benefits section of the exhibit are included in the fringe and tax estimates, though we do not know the extent to which subsidized earnings would have translated into these benefits in practice. These subsidized earnings are offset by the costs to government and taxpayers, which is represented in the second row of the costs section of the exhibit. We presented the support services as a benefit (positive transfer) to individuals under the third row of the cost section of the exhibit and these support services are offset by the costs to government and taxpayers in the same row. Both subsidized earnings and support services are assumed to have a net neutral (zero) benefit to society because the benefits are offset by the costs.

***/**/* Difference in earnings between the ECCS group and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

Government and taxpayers. Providing ECCS group services cost government and taxpayers \$3,584 more per individual, on average, than providing control group services. This difference was due mostly to the

VIII. Analysis of the costs and benefits of EDGE group and control group services

costs of providing services (including ECCS, existing SNAP E&T, and community services), which cost more than control group services by an average of \$2,656, including \$2,157 in operating costs, \$346 in subsidized earnings, and \$153 in support services. ECCS group members received higher amounts of SNAP and TANF benefits, relative to control group members, which was a cost to government and taxpayers in benefit allotments (of \$266 and \$19, respectively) and administration costs (\$33).

Findings based on UI wage records which compared the benefits and costs of BCCS relative to the control group were similar to those relative to the ECCS group. Society experienced a net benefit of \$300 per individual from providing services to the BCCS group compared to the control group (Exhibit VIII.8). The benefit-cost ratio was 1.18. Net benefits were positive for BCCS group members (\$3,126) but negative for government and taxpayers (by \$2,826) during the 36-month follow-up period. Similar to the findings for the ECCS group, higher earnings, fringe benefits, and SNAP benefits among BCCS group members (by \$1,623, \$339, and \$267) led to positive net benefits to individuals which offset the cost of services to government and taxpayers.

*The net benefits of all services BCCS group members received were **positive** for society and for BCCS group members but **negative** for government and taxpayers during the 36-month follow-up period, compared to control group members (UI wage records).*

We conducted sensitivity analyses to test the robustness of our findings based on UI wage records to changes in key assumptions, including (1) the values of benefits associated with increases in earnings, such as fringe benefits and taxes; (2) the values of costs and benefits when accounting for factors such as inflation and present value; (3) the assumption that subsidized earnings were reported to State UI agencies and are reflected in earnings impacts; and (4) the services ECCS and BCCS group members received were primarily through EDGE and not from existing SNAP E&T and the community. These results were robust to changes in all of our key assumptions about benefits and costs from all perspectives (Appendix Tables G.10–G.12). The benefits to ECCS and BCCS group members always outweighed the costs to the government and taxpayers compared with control group members, so there was a positive net benefit to society regardless of changes in assumptions, ranging from \$37 to \$620 per ECCS group member and \$177 to \$556 per BCCS group member, compared to the control group. ECCS and BCCS group services led to a positive net benefit for individuals based on changes to all assumptions related to fringe benefits, taxes, and discount rates, compared to the control group. Estimated net benefits per individual ranged from \$3,742 to \$4,204 per ECCS group member, and \$3,045 to \$3,382 per BCCS group member. ECCS and BCCS group services resulted in a negative net benefit to government and taxpayers compared to the control group regardless of changes to key assumptions, ranging from \$3,426 to \$3,931 per ECCS group member and \$2,680 to \$3,062 per BCCS group member.

VIII. Analysis of the costs and benefits of EDGE group and control group services

Exhibit VIII.8 Benefits and costs associated with BCCS services, existing SNAP E&T services, or community-offered services, for the BCCS group compared to the control group, UI wage records

	Perspective		
	BCCS group members	Government and taxpayers	Society
Benefits (\$)			
Employment and earnings			
Earnings (survey data)	1,623*	0	1,623
Fringe benefits	339	0	339
Tax payments	763	-763	0
Use of public benefits			
SNAP benefits	267**	-267	0
TANF benefits	0	0	0
Reduced administration costs	0	-32	-32
Total benefits	2,992	-1,062	1,930
Costs (\$)			
Net operating costs ^a	0	-1,374	-1,374
Net subsidized earnings while in services ^b	0	-256	-256
Net support services while in services ^b	134	-134	0
Total costs	134	-1,764	-1,630
Net benefit (\$)	3,126	-2,826	300
Benefit-cost ratio			1.18

Source: SNAP employment and training evaluation UI wage records, weighted data; SNAP administrative data; SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015-2019; SNAP employment and training evaluation administrative service use data; WIA Gold Standard Evaluation cost estimates, 2012; and SNAP employment and training evaluation 12- and 36-month surveys, weighted data.

Notes: Earnings, SNAP benefits, and TANF benefits are the impact estimates presented in Chapter VII. The net benefit is the difference between total benefits and the absolute value of the total costs. A negative net benefit is a net cost. The benefit-cost ratio is the quotient of the total benefits and the absolute value of the total costs. A benefit-cost ratio greater than one represents greater benefits than costs; a number less than one suggests fewer benefits than costs. All benefits and costs are presented in 2016 dollars. The standard error of the cost per BCCS group member is \$94 and of the cost per control group member is \$307.

^a This estimate is the difference between EDGE and control group costs per individual. This value excluded planning period costs but included the costs of supplies and equipment incurred during the planning period that supported ongoing services once they started.

^b Subsidized earnings and support services directly benefit individuals while they are enrolled in services. We assumed the subsidized earnings benefitting individuals were reflected in the earnings impacts presented as the first row in the benefits section of the exhibit. All earnings presented in the first row in the benefits section of the exhibit are included in the fringe and tax estimates, though we do not know the extent to which subsidized earnings would have translated into these benefits in practice. These subsidized earnings are offset by the costs to government and taxpayers, which is represented in the second row of the costs section of the exhibit. We presented the support services as a benefit (positive transfer) to individuals under the third row of the cost section of the exhibit and these support services are offset by the costs to government and taxpayers in the same row. Both subsidized earnings and support services are assumed to have a net neutral (zero) benefit to society because the benefits are offset by the costs.

***/**/* Difference in earnings between the BCCS group and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

2. Costs and benefits of all services for ECCS and BCCS group members, according to 36-month survey data

According to 36-month survey data, the net benefits of all ECCS group services were positive for ECCS group members but negative for government and taxpayers and for society during the follow-up period (Exhibit VIII.9). The benefit-cost ratio was 0.75. The increases in cumulative earnings for the ECCS group, relative to the control group, were lower according to survey data, compared with UI wage records. When accounting for these differences in earnings, the net benefits of ECCS group services to society were negative.

Society. ECCS group services had a negative net benefit to society of \$624 compared to control group services per individual. This estimated negative net benefit according to survey data was different than the positive net benefit according to UI wage records data primarily because earnings estimates were higher according to UI

wage record data (\$2,323 according to UI wage records and \$581 according to survey data). The difference in earnings according to survey data was a benefit to ECCS group members but did not offset the costs of services to society during the 36-month follow-up period.

*The net benefits of all services ECCS group members received were **positive** for ECCS group members but were **negative** for government and taxpayers and for society during the 36-month follow-up period, compared to the control group (survey data).*

ECCS group members. According to survey data, ECCS group members received a net benefit of \$1,941, relative to the control group. The ECCS group had higher cumulative earnings and fringe benefits compared to the control group (by \$581 and \$330, respectively). We assumed any subsidized earnings received while participating in work-based learning activities were included in the difference in earnings. ECCS group members paid \$409 more in taxes than control group members, on average. Other benefits and costs to individuals were the same as those in the findings based on UI wage records, with support services providing a benefit ECCS group members (\$153 more than control group members); ECCS group members received greater amounts of SNAP and TANF benefits, compared to the control group.

Government and taxpayers. Government and taxpayers experienced a cost of \$2,564 per individual for providing all ECCS group services, based on survey data. Government and taxpayers benefitted from \$409 in higher tax payments per ECCS group member compared with control group members. As presented in the UI wage record findings, providing services cost government and taxpayers an average of \$2,656 more per ECCS group member, compared to control group members, and these costs were not offset by benefits to government and taxpayers during the 36-month follow-up period.

Exhibit VIII.9. Benefits and costs associated with ECCS services, existing SNAP E&T services, or community-offered services, for the ECCS group compared to the control group, 36-month survey data

	Perspective		
	ECCS group members	Government and taxpayers	Society
Benefits (\$)			
Employment and earnings			
Earnings (survey data)	1,581	0	1,581
Fringe benefits	330	0	330
Tax payments	-409	409	0
Use of public benefits			
SNAP benefits	266**	-266	0
TANF benefits	19*	-19	0
Reduced administration costs	0	-33	-33
Total benefits	1,787	92	1,879
Costs (\$)			
Net operating costs ^a	0	-2,157	-2,157
Net subsidized earnings while in services ^b	0	-346	-346
Net support services while in services ^b	153	-153	0
Total costs	153	-2,656	-2,503
Net benefit (\$)	1,941	-2,564	-624
Benefit-cost ratio			0.75

Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data; SNAP administrative data; SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015–2019; SNAP employment and training evaluation administrative service use data; and WIA Gold Standard Evaluation cost estimates, 2012.

Notes: Earnings, SNAP benefits, and TANF benefits are the impact estimates presented in Chapter VII. The net benefit is the difference between total benefits and total costs. A negative net benefit is a net cost. The benefit-cost ratio is the quotient of the total benefits and the absolute value of total costs. A benefit-cost ratio greater than one represents greater benefits than costs, and a number less than one suggests fewer benefits than costs. All benefits and costs are presented in 2016 dollars. The standard error of the cost per ECCS group member is \$116 and of the cost per control group member is \$307.

^a This estimate is the difference between EDGE and ES control group costs per individual. This value excluded planning period costs but included the costs of supplies and equipment incurred during the planning period that supported ongoing services once they started.

^b Subsidized earnings and support services directly benefit individuals while they are enrolled in services. We assumed the subsidized earnings benefitting individuals were reflected in the earnings impacts presented as the first row in the benefits section of the exhibit. All earnings presented in the first row in the benefits section of the exhibit are included in the fringe and tax estimates, though we do not know the extent to which subsidized earnings would have translated into these benefits in practice. These subsidized earnings are offset by the costs to government and taxpayers, which is represented in the second row of the costs section of the exhibit. We presented the support services as a benefit (positive transfer) to individuals under the third row of the cost section of the exhibit and these support services are offset by the costs to government and taxpayers in the same row. Both subsidized earnings and support services are assumed to have a net neutral (zero) benefit to society because the benefits are offset by the costs.

***/**/* Difference between ECCS group and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

VIII. Analysis of the costs and benefits of EDGE group and control group services

According to survey data, there was a negative net benefit to society (by \$4,474) for providing services to the BCCS group compared to the control group (Exhibit VIII.10). Unlike the findings based on UI wage records, BCCS group members experienced negative net benefit of \$1,810 during the 36-month follow-up period (compared with positive net benefit of \$3,126 based on UI wage records). This difference resulted from a difference in cumulative earnings, based on survey data (BCCS group members earned \$2,326 less than the control group according to survey data, while they earned \$1,623 more based on UI wage records). The benefit-cost ratio was -1.74. The costs of the services to society (\$1,630) were compounded by the decrease in earnings and fringe benefits (\$2,326 and \$486, respectively) during the 36-month follow-up period, on average.

*The net benefits of all services BCCS group members received were **negative** from all perspectives during the 36-month follow-up period, compared to the control group (survey data).*

We conducted a similar set of sensitivity analyses to test our key assumptions based on survey data, including (1) the values of benefits associated with increases in earnings, such as fringe benefits and taxes; (2) the values of costs and benefits when accounting for factors like inflation and present value; and (3) the services ECCS and BCCS group members received were primarily through EDGE and not from existing SNAP E&T and the community. These results were robust to changes in all of our key assumptions about benefits and costs from all perspectives (Appendix Tables G.10–G.12). ECCS group services led to a negative net benefit to society, ranging from \$545 to \$860. ECCS group services led to a positive net benefit to individuals and a negative net benefit to government and taxpayers regardless of changes in assumptions. BCCS group services led to a negative net benefit for society compared to the control group, ranging from \$4,281 to \$4,662. BCCS group members experienced a negative net benefit from BCCS group services compared with the control group for all assumptions related to fringe, taxes, and discount rates, ranging from \$1,696 to \$1,926; and government and taxpayers faced a negative net benefit for BCCS group services, ranging from \$2,519 to \$2,901.

Exhibit VIII.10 Benefits and costs associated with BCCS services, existing SNAP E&T services, or community-offered services, for the BCCS group compared to the control group, 36-month survey data

	Perspective		
	BCCS group members	Government and taxpayers	Society
Benefits (\$)			
Employment and earnings			
Earnings (survey data)	-2,326	0	-2,326
Fringe benefits	-486	0	-486
Tax payments	601	-601	0
Use of public benefits			
SNAP benefits	267**	-267	0
TANF benefits	0	0	0
Reduced administration costs	0	-32	-32
Total benefits	-1,944	-900	-2,844
Costs (\$)			
Net operating costs ^a	0	-1,374	-1,374
Net subsidized earnings while in services ^b	0	-256	-256
Net support services while in services ^b	134	-134	0
Total costs	134	-1,764	-1,630
Net benefit (\$)	-1,810	-2,664	-4,474
Benefit-cost ratio			-1.74

Source: SNAP employment and training evaluation 12- and 36-month surveys, weighted data; SNAP administrative data; SNAP employment and training evaluation actual reported costs by EDGE grantee, partners, and providers, 2015-2018; SNAP employment and training evaluation administrative service use data; and WIA Gold Standard Evaluation cost estimates, 2012.

Notes: Earnings, SNAP benefits, and TANF benefits are the impact estimates presented in Chapter VII. The net benefit is the difference between total benefits and total costs. The benefit-cost ratio is the quotient of the total benefits and total costs. A negative net benefit is a net cost. A benefit-cost ratio greater than one represents greater benefits than costs, and a number less than one suggests fewer benefits than costs. All benefits and costs are presented in 2016 dollars. ^a This estimate is the difference between EDGE and ES control group costs per individual. This value excluded planning period costs but included the costs of supplies and equipment incurred during the planning period that supported ongoing services once they started. The standard error of the cost per BCCS group member is \$94 and of the cost per control group member is \$307.

^b Subsidized earnings and support services directly benefit individuals while they are enrolled in services. We assumed the subsidized earnings benefitting individuals were reflected in the earnings impacts presented as the first row in the benefits section of the exhibit. All earnings presented in the first row in the benefits section of the exhibit are included in the fringe and tax estimates, though we do not know the extent to which subsidized earnings would have translated into these benefits in practice. These subsidized earnings are offset by the costs to government and taxpayers, which is represented in the second row of the costs section of the exhibit. We presented the support services as a benefit (positive transfer) to individuals under the third row of the cost section of the exhibit and these support services are offset by the costs to government and taxpayers in the same row. Both subsidized earnings and support services are assumed to have a net neutral (zero) benefit to society because the benefits are offset by the costs.

***/**/* Difference between BCCS group and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test.

IX. Conclusion

The goal of the 10 SNAP E&T pilots was to test innovative strategies to increase SNAP participants' employment and earnings and reduce their need for public assistance benefits. Through its comprehensive data collection and rigorous experimental design, this evaluation assessed whether EDGE—the innovative SNAP E&T program Mississippi designed and implemented targeting ABAWDs—was effective in achieving these goals.

Several interrelated analyses have been the basis of this final report. Findings from the implementation analysis describe the planning and implementation of the pilot, its services and operations, and the components that may be sustainable or replicable. Findings from the participation and impact analyses describe receipt of services, participation in activities, and impacts on individuals' outcomes for up to three years after enrollment. Finally, the cost-benefit analysis describes the costs of services and compares the benefits of receiving services to the costs of providing them. In this chapter, we summarize and discuss key findings from all of these analyses.

A. Summary of findings

MDHS was able to coordinate with five community colleges to create a network of career navigation, employment, education, and occupational skills training activities for its SNAP participants. Although staff struggled to enroll and retain individuals, EDGE group members reported having positive experiences with their career navigators and the support the navigators provided in helping them find job opportunities. Despite the EDGE staff having challenges getting individuals to engage in services, those in EDGE were more likely than control group members to start an activity, complete an activity, and receive support services. Their increased engagement led to an increase in earnings over time based on UI data. EDGE group members earned significantly more than control group members; thus the overall benefits of the pilot outweighed the cost of implementing it. We report these findings in detail below. Section C provides more context for the findings.

1. EDGE implementation

MDHS was able to develop new relationships with several community colleges to offer EDGE. It allowed MDHS to offer robust SNAP E&T services to ABAWDs and test two different approaches. All EDGE group members were offered three pathways based on an individual's career plan—academic (basic education, post-secondary education, or occupational skills training), work (subsidized or unsubsidized employment or internships), and life skills (additional work or behavioral skills)—as well as support services and case management. The ECCS group was also required to take an upfront four-week career readiness course, and were offered more intensive case management and some additional support services than the BCCS group. The EDGE model was generally implemented as intended, except for the case management services; in most of the colleges, the BCCS group received more intensive career navigation than planned, because many of them needed the additional assistance. Also, EDGE staff found that the transportation assistance offered to the EDGE group—gas cards and funding for car repairs—was not sufficient to meet their needs. Over time, the community colleges worked to secure more transportation options, including hiring transportation companies to pick individuals up at their homes and expanding college-affiliated bus lines. EDGE encountered additional challenges, including with attracting ABAWDs to participate. MDHS and the community colleges implemented various marketing strategies to address this, such as recording videos explaining EDGE and highlighting success stories, and having college staff

participate in SNAP E&T orientations at local offices. The colleges also faced a challenge with the availability of education and trainings courses for the EDGE group members, which could result in long waits to enter a class. Finally, the community colleges were tasked with developing subsidized job opportunities for EDGE group members, but employers were hesitant to participate and it was difficult to find opportunities in the fields in which EDGE group members were being trained. However, the community colleges were successful in developing more opportunities over the service period and some encouraged EDGE group members to help identify employers as well.

2. Service receipt among EDGE group members

About two-thirds of ECCS group members received services, meaning they started an assessment, ICP, or an employment or training-related activity offered by EDGE, whereas almost all BCCS group members did so. Most of those in the ECCS group who engaged in EDGE also started an employment or training-related activity (67 percent) such as an EDGE class, occupational skills training, basic education, or work-based learning, while a smaller percentage of BCCS group started one (58 percent). Among those who started activities, 74 percent of ECCS group members and 53 percent of BCCS group members completed at least one activity, with completion rates by type of activity typically ranging between 60 and 70 percent. Among individuals who started an activity, completion rates for the ECCS group were highest for the EDGE class (76 percent); for the BCCS group, they were highest for work-based learning (63 percent). About 3 percent of the EDGE group obtained a degree (GED or postsecondary), but many more received a certification or credential for completing occupational skills training (14 percent of ECCS group members and 16 percent of BCCS group members).

EDGE was designed to provide more intensive case management to ECCS group members than to BCCS group members; however, a higher proportion of the BCCS group had contact with a career navigator than in the ECCS group, and the BCCS group had more contacts, on average. Most EDGE group members (90 percent of ECCS group members and 85 percent of BCCS group members) received some type of support service, with the majority receiving transportation assistance and few receiving other support services such as training supports or work-related items. On average, ECCS and BCCS group members who received support services received \$533 and \$291 in total support service payments, respectively.

Individuals spent an average of six months in EDGE. Most exited EDGE within their first year, however, and about half of exits happened within the first three months of enrollment. Exits often resulted from noncompliance with work requirements and subsequent sanction.

3. Differences between EDGE and control groups in service receipt

The ability of EDGE to impact employment, earnings, and individuals' receipt of public assistance benefits depended in part on whether there were differences between the EDGE and control groups' receipt of services and participation in and completion of employment or training-related activities. Relative to the control group, the ECCS and BCCS groups were more likely to participate in job search training activities and in education and training activities during the three years following random assignment. According to the survey data, rates of participation in these activities were 24 and 31 percentage points higher, respectively, among the ECCS group relative to the control group. Individuals in the BCCS group were also more likely to participate in education or training activities than those in the control group (24 percentage point difference) but had similar rates of participation in job search training or assistance activities. These differences existed despite the finding that about half of control group

members participated in job search training activities or in education and training activities. The significant difference between the EDGE and control groups in rates of participation of education and training activities was observed in Years 1 and 2 but not in Year 3. The ECCS and BCCS groups also had higher rates of participation than the control group in most types of activities, including general job skills training, occupational skills training, and education.

EDGE group members also were more likely than control group members to complete an activity. Overall, ECCS and BCCS group members were 26 and 12 percentage points more likely than control group members to complete any type of education or training activity, respectively. Differences between the two groups in rates of completion were larger in the first year after random assignment than in the second and third years. Relative to the control group, both EDGE groups spent, on average, about three months longer in activities; the ECCS group spent nine hours and the BCCS group spent five hours more per week in activities. The ECCS and BCCS groups were also more likely than the control group to receive an occupational certificate or license (21 and 13 percentage point differences).

The ECCS and BCCS groups were more likely than the control group to receive support services (14 and 9 percentage point differences) but were just as likely to receive case management. The largest difference in receipt of support services between the EDGE and control groups was observed for transportation assistance (23 percentage point difference for the ECCS group and 17 percentage point difference for the BCCS group).

4. Impacts of EDGE on individuals' outcomes

Findings from analyses of the two primary outcomes in the second and third year after random assignment show that EDGE led to an increase in earnings based on UI wage data, but not survey data, and affected rates of SNAP participation for the BCCS group but not the ECCS group. Earnings in this period increased by \$2,328 for the ECCS group and \$1,608 for the BCCS group relative to the control group. Each research group experienced increases in average earnings over time, but the EDGE group earned more than the control group in Year 2 (for the ECCS and BCCS groups) and Year 3 (for the ECCS group only). Similarly, based on survey data, average earnings increased in each of the groups, but the differences between the ECCS and control groups and the BCCS and control groups were not statistically significant. Based on both data sources, there were no impacts on employment in the two-year period. There were no impacts on earnings or employment in the two-year period (Years 2 and 3) across subgroups defined by age, barriers to employment, employment history, presence of children in the household, and household income.

In the two-year period (Years 2 and 3) following random assignment, EDGE increased the likelihood that BCCS group members participated in SNAP by 4 percentage points but had no effect on ECCS group members. SNAP participation rates decreased each quarter after random assignment by slightly more for the ECCS group than the control group, resulting in lower rates in Year 3 for the ECCS group. This pattern of findings is consistent with the fact that EDGE increased earnings for the ECCS group in Years 2 and 3. There generally were no differences in impacts on SNAP participation across subgroups.

Changes to EDGE policies or procedures after the pilot began did not affect the likelihood of EDGE group members starting or completing activities. Analyses that compared impacts among individuals who were randomly assigned earlier versus later in the enrollment period generally showed no differences among EDGE group members who enrolled before or after changes were made to the number of available subsidized job opportunities or the amount and types of support services available.

5. EDGE costs and cost-benefit analyses

MDHS and its partners and providers reported spending \$11,361,122 from April 2015 to December 2018 on the planning and implementation of EDGE (\$1,089,769 during the planning period, \$1,602,220 for recruitment, and \$8,669,133 for EDGE services). The FNS grant funded 78 percent of these costs; partners and providers leveraged other funding sources for the remaining 22 percent. The cost-benefit analysis compares the benefits individuals received through earnings and public assistance with the average costs of all services EDGE and control group members received per individual, for the ECCS and BCCS groups separately compared to the control group. The costs of all services ECCS and BCCS group members received through EDGE, existing SNAP E&T services, or the community were about 62 percent higher than the costs of EDGE (\$7,173,518, or \$4,565 per ECCS group member; and \$6,829,419, or \$3,673 per BCCS group member, on average). The costs of all services control group members received through existing SNAP E&T and the community (\$2,007,671, or \$1,909 per individual, on average) were about half of the costs of all services EDGE group members received.

ECCS and BCCS group benefits and costs relative to the control group are presented from multiple perspectives, including those of (1) individuals enrolled in the ECCS and BCCS groups, (2) government and taxpayers, and (3) society as a whole, which represents the sum of the other two perspectives. The net benefits of all services ECCS and BCCS group members received were positive for society during the 36-month follow-up period based on UI wage records. The net benefit to society was \$274 per ECCS group member and \$300 per BCCS group member, on average. The findings based on UI wage records were not affected by changes in assumptions about benefits and costs from all perspectives. However, when using survey data to calculate the benefits, the net benefit of all services ECCS and BCCS group members received were negative for society (by \$624 and \$4,474, respectively).

B. Placing findings in the context of the workforce evaluation literature

The EDGE study findings are consistent with the previous literature that has often found small labor market effects of employment and training programs for low-income populations offering similar services as EDGE. Comprehensive literature reviews are provided in Barnow and Smith (2015), Card et al. (2018), Vollmer et al. (2017), and Goger et al. (2020). This literature covers a range of employment and training activities and support services offered by both ongoing programs as well as grant programs similar to EDGE, using impact designs with rigorous control (or comparison) groups.

The literature suggests that programs serving low-income populations can typically engage individuals and increase their receipt of services relative to those received by the study control groups in their local areas. These differences can be large, especially for the receipt of occupational skills training and subsidized employment, translating into positive effects on the percentages of individuals who participate in training activities and the attainment of associated certificates and credentials. However, few of the studies have found that the programs lead to long-term increases in earnings or independence from public assistance (at least over the time period covered by the studies, which is typically less than four years).

There are notable exceptions, however, that align with the results found in EDGE, supporting that the types of activities offered by EDGE (such as job readiness training and occupation skills training) are effective in improving labor market outcomes. McConnell et al. (2021) found using nationally representative samples from a randomized control trial that had access to WIOA intensive services—one-on-one staff assistance such as assessments, coaching, career counseling, and service referrals—increased earnings by about 15 percent over a three-year follow-up period and yielded benefits that exceeded costs

from the perspective of society. This evaluation, however, found no earnings effects of WIOA-funded occupation skills training. Further, several reviews of the existing literature on the role of supportive services in employment and training programs suggest that low-income populations receiving supportive services, in combination with technical training and other ancillary services, such as case management, can have more positive employment and earnings outcomes compared to groups that do not receive such wraparound services (Davis et al. 2013; Gueron and Hamilton 2002; Maguire et al. 2010; U.S. Department of Labor, U.S. Department of Commerce, U.S. Department of Education, U.S. Department of Health and Human Services 2014). Another notable exception is the random assignment evaluation of STEP Forward (Walter et al. 2017) which found that the impacts of subsidized employment offered to the treatment group continued into the fourth year, well after the subsidies had ended. Similarly, Reed et al. (2012) found statistically significant positive impacts of registered apprenticeships, even nine years after program entry.

The literature also suggests that interventions that *combine* several strategies to help low-income individuals find and keep jobs appear more effective than any *single* strategy (Vollmer et al. 2017). Further, “meta-analyses”—that use regressions to combine and analyze impacts from different studies—find that total program effects are more than the sum of the effects of each of the program’s strategies. Thus, implementation and other factors that affect how well multiple components of a program are operationalized and delivered are crucial determinants of a program’s success. Relatedly, the literature has consistently found considerable diversity in program impacts across individuals (females and the long-term unemployed tend to experience larger benefits) and across labor market conditions (programs are less likely to show positive effects during periods of economic growth), but the patterns are not always consistent across studies.

Overall, the observed increases in the rates of take-up and completion of EDGE activities and receipt of services, and the earning impacts for EDGE fit within the broader related literature. Although comparing the findings in this evaluation to those in the literature is informative, it is important to consider that differences in target populations, local economies, and varied experiences in implementing activities and services available in a pilot or program make it challenging to form direct comparisons to other studies. The next section provides context for the evaluation findings from this perspective.

C. Discussion

EDGE increased earnings relative to the control group for both the ECCS and BCCS groups based on UI wage data. Because the ECCS and BCCS groups had rates of employment that were similar to the rates for the control group, the relative increase in earnings suggests that ECCS and BCCS group members obtained higher-paying jobs relative to the control group. This is a notable accomplishment given the prevalence and extent of barriers EDGE group members faced—only 5 percent were employed at the time of random assignment, and nearly 30 percent did not have a high school diploma.

The economic conditions in Mississippi may help explain why EDGE group members earned significantly higher earnings than control group members. While designing EDGE, MDHS and community college staff believed that jobs were available in the community, but those that pay higher wages required training and credentials. Unlike control group members, EDGE group members had access to education and occupational skills training activities through the community colleges, and some of these offered licenses and credentials upon completion, which would prepare EDGE group members for higher paying jobs. The availability of these opportunities led to increases in the percentage of individuals who participated in employment or training-related activities for both the ECCS and BCCS

groups. (For the ECCS group in particular, EDGE nearly doubled the percentage of individuals who participated in these activities relative to the control group.) Individuals in the EDGE group also participated for twice as many months as the control group and for two to three times as many hours per week.

The process for offering services also could have contributed to these findings. All EDGE services and activities were primarily offered at one location—the community college—which may have led to less drop off. Although there often was drop off between enrollment and individuals first going to the community college (the SNAP agency conducted pilot enrollment and referred individuals to the community college), once there, the community college provided case management, support services, occupational skills training, adult education, and work-based learning opportunities on site. Treatment group members did not have to work with multiple providers or receive referrals to other locations to obtain the full package of services. This “one-stop” type of provider may have contributed to treatment group members staying in services and participating in activities at higher rates than the control groups who likely would have had to work with multiple providers to obtain similar services.

EDGE also led to increases in the percentage of individuals who ultimately completed these activities and in the percentage of individuals who received occupational certificates or licenses. For the ECCS group, EDGE more than doubled the rate of completion of activities relative to the control group. The percentage of EDGE group members who received occupational certificates or licenses was also higher than the percentage of the control group—more than three times as large for the ECCS group and more than twice as large for the BCCS group. Moreover, EDGE’s effect on the rate of participation in and completion of activities extended through Year 2 after random assignment. Even though many individuals participated in EDGE activities mostly in Year 1, the ECCS and BCCS groups continued to have higher participation and completion rates through Year 2. This suggests that participation in EDGE activities soon after random assignment may have supported continued or new participation in EDGE or community-offered activities farther from random assignment.

EDGE also led to higher rates of receipt of support services. EDGE group members received additional transportation support to help them attend the community college courses, and in some instances, financial support to repair their personal vehicles that they could then use to commute work. The increases in the percentage of individuals who received support services, relative to the control group, were not as large as the increases in rates of participation in and completion of activities. However, the higher rates of receipt of support services among EDGE group members, particularly transportation assistance, may have allowed individuals to overcome barriers associated not only with starting employment or training-related activities but also sustaining participation over time and ultimately completing the activity. Some staff reported that without transportation, SNAP participants often sought out readily available and easily accessible low-wage jobs to meet their immediate needs.

An important factor to consider when assessing the magnitude of these impacts is that while EDGE group members were more likely than control group members to participate in activities, the overall impacts on outcomes such as earnings could have been diluted by those who did not participate in activities. (Close to one-third of ECCS group members and close to half of BCCS group members did not participate in a substantive activity.) To assess this possibility, we conducted an exploratory analysis to compare impacts for individuals who did and did not start an employment or training-related activity but found no discernable differences in impacts. We also compared impacts among individuals who completed activities with those for individuals who started but did not complete them. Although impacts on earnings and employment were larger among those who completed activities than those who did not, the

differences across groups were not statistically significant. However, the pattern of findings suggests that the completion of EDGE employment or training-related activities may have played a role in connecting some individuals to meaningful employment and in the magnitude of the impact on earnings. Learning more about the reasons why some individuals do not start and complete these activities, including any barriers, would help administrators and providers identify which case management and support services could promote greater participation in employment or training-related activities. This information would enhance understanding of challenges faced by EDGE group members who participated in these activities, allowing program staff to adapt their content or delivery to achieve a greater impact.

Although EDGE generally led to increased earnings, it did not result in reduced participation in SNAP. It is possible that the increase in earnings partly reduced SNAP benefit amounts as a percentage of the maximum benefit (the difference between research groups in benefits as a percentage of the maximum benefit was positive in early quarters and grew negative and statistically insignificant by later quarters), but the increase in earnings was not large enough to make individuals ineligible to receive SNAP. It is also possible that the increase in earnings did reduce the likelihood of participating in SNAP, but this reduction was offset by some EDGE group members being more likely to continue to participate in SNAP because of the EDGE-provided education and training activities. Some individuals may have also continued to participate in SNAP because the EDGE-provided services addressing barriers to employment would be discontinued if they did not. Examining the SNAP participation patterns for EDGE group members who became employed in the two-year period (Years 2 and 3) would enhance understanding of the relationship between SNAP participation and earnings for the individuals enrolled in the pilot.

When considering the overall findings from the EDGE pilot, there are a few additional factors that may have contributed to the results, including the following:

- **Earnings impacts might depend on the type of activities in which individuals participated.** Individuals in the EDGE group were offered a wide range of services and activities. There were earnings impacts for all EDGE group members, but impacts may differ for specific activities, such as occupational skills training or work-based learning. Assessing the effectiveness of services and activities separately and in combination would help to identify promising practices for improving outcomes. Because many EDGE group members participated in multiple activities, isolating the effect of a single type of activity can be challenging. It would be helpful to classify individuals who received different sets of services into mutually exclusive and distinct groups. For each group, describing participation in activities and estimating impacts on outcomes would help to identify specific services and activities, or combinations of them, that increase earnings and improve outcomes most effectively.
- **The COVID-19 pandemic may have hindered our ability to capture the full extent of impacts in Year 3.** Outcomes measured in Year 3 for participants who were randomly assigned in the pilot between April 2017 and December 2017 could have been affected by the COVID-19 pandemic, which began to dramatically affect life in the United States in March 2020. We found evidence of impacts on earnings in the two-year period (Years 2 and 3) for the ECCS and BCCS groups. Both groups had impacts in Year 2, but only the ECCS group had an impact in Year 3. Given that earnings were higher for both groups relative to the control group in the period before the pandemic, it is possible that the pandemic impacted the ECCS and BCCS groups more than the control group. This may have diminished the size of the impact for the ECCS group in Year 3 and resulted in a statistically insignificant impact for the BCCS group in Year 3. However, it is also possible that EDGE increased earnings for the BCCS group only a short period after individuals stopped

participating in activities or completed them, and the impact on earnings for the ECCS group would have diminished in Year 3, regardless of the pandemic. Learning more about the effects of the pandemic on outcomes for each research group would deepen our understanding about how long to expect earnings increases following participation in EDGE activities. The pandemic likely affected individuals' outcomes differently based on their occupation if they were employed or the occupation they were training to enter. It would be useful to assess whether impacts on earnings and employment in Year 3 differed based on these factors.

- **The positive impact on earnings for the ECCS and BCCS groups contributed to the net benefit to society for each group also being positive, according to UI wage records.** When interpreting the magnitudes of the net benefits to society of \$210 for the ECCS group and \$296 for the BCCS group, it is important to consider that EDGE services were new and experimental. The purpose of the SNAP E&T pilot was to test new approaches to services. EDGE targeted individuals with barriers to engaging in services and obtaining employment, and MDHS led the development of new partnerships with community colleges to provide services and activities. Even though we excluded the costs of planning and recruitment in considering the cost differential between EDGE and control group services, the costs of EDGE group services were likely higher for the three years of the pilot than they would have been if administered over a longer period of time. In addition, it is possible that some individuals realized benefits which do not appear in the cost-benefit analysis results—for example, increases in earnings that individuals earned after the observation period of 36-months, or unmeasured benefits such as changes in food security, health, or well-being.

Overall, a key lesson from the EDGE pilot for SNAP E&T program administrators is that in areas where higher paying jobs are available, but workers need training and credentials to qualify, offering SNAP participants education and occupational skills training aligned with employers' needs could help increase individuals' earnings. The model MDHS used—partnering with community colleges that were already providing education and training and had connections to employers in the community to move individuals into employment post-training—could be replicated by other SNAP administrators. Importantly, MDHS and the community colleges offered transportation support to EDGE group members that allowed them to access services at the community college and travel to their jobs. This proved to be crucial for EDGE's success and would likely be an essential support service to provide to SNAP participants in other rural communities. Notably, offering reimbursement for gas was not sufficient, as many EDGE group members either did not own their own car or owned an unreliable one. Understanding the specific transportation needs of the target population in advance of launching a program like EDGE is important for identifying options that meet the needs of those who participate.

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