

U.S. DEPARTMENT OF AGRICULTURE



Supplemental Nutrition Assistance Program (SNAP) Employment and Training Rapid Cycle Evaluation: Massachusetts

Final Report

Nondiscrimination Statement

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

Supplemental Nutrition Assistance Program (SNAP) Employment and Training Rapid Cycle Evaluation: Massachusetts

Final report

November 2024

Sam Vance, Rachel Brooks, Pamela Holcomb, Leah Shiferaw, Gretchen Rowe, James Mabli, Daniel Friend

Submitted to:

Food and Nutrition Service
U.S. Department of Agriculture
1320 Braddock Pl.
Alexandria, VA 22314
Project Officer: Anna Vaudin
Contract Number: 47QRAA18D00BQ

Submitted by:

Mathematica 955 Massachusetts Avenue, Suite 801 Cambridge, MA 02139 Phone: 617.301.8997 Project Director: James Mabli

Project Director: James Mabl Reference Number: 51130

Suggested citation

Vance, Sam, Rachel Brooks, Pamela Holcomb, Leah Shiferaw, Gretchen Rowe, James Mabli, Daniel Friend (2024). Supplemental Nutrition Assistance Program Employment and Training Rapid Cycle Evaluation: Massachusetts; Final Report, Prepared by Mathematica, Contract No. 47QRAA18D00BQ. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Project Officer: Anna Vaudin.

Disclaimer

This research was supported by the U.S. Department of Agriculture, Food and Nutrition Service. The findings and conclusions in this publication are those of the author(s) and should not be construed as to represent any official USDA or U.S. Government determination or policy.



Acknowledgements

This report was prepared for the U.S. Department of Agriculture, Food and Nutrition Service (FNS) by Mathematica. It would not have been possible without the contributions of many individuals and organizations whose guidance, information, and efforts were critical to the Supplemental Nutrition Assistance Program Employment and Training Rapid Cycle Evaluation (SNAP E&T RCE) and the successful completion of this report.

The authors wish to thank our FNS project officer, Anna Vaudin, for her thoughtful guidance and oversight over the course of the study. We are also grateful for the time, assistance, and review provided by Anita Singh, Marcie Foster, Kathryn Law, and other staff at the FNS Office of Policy Support (OPS) and Office of Employment and Training (OET).

We were fortunate to have a large and collaborative team of Mathematica staff. We are grateful for the efforts of the report reviewers and editors, data collection and analysis teams, and the hard work and additional support from research assistants and administrative assistants. A special thanks to Mathematica's Kim McDonald and Eileen Bandel for administration of the SNAP participant survey; Pamela Holcomb and Peter Schochet for their guidance and input on the design, analysis, and reporting for the study; Jenn Kali and Barbara Carlson for constructing survey weights; Jeremy Page, Kerry Schellenberger, Adam Korte, Jeff Harrington, and Sam Bonelli for programming and data analysis; Sophia Navarro and Abby Roche for analytic support; Asa Wild for developing graphics; and Jackie Drummond for production support.

Finally, this study and the set of final reports would not have been possible without the staff in Massachusetts who volunteered their time and effort to work collaboratively with us in designing and implementing the interventions and who supported the research over the last three years. We would like to thank Miriam Kaufmann, Erin Quinn, Christina Williams, and Denielle Johnston for their leadership and cooperation, as well as the many other staff and SNAP participants who shared their views and experiences with the SNAP E&T RCE interventions and the SNAP E&T program.

Contents

Nor	ndiscı	rimination Statement	ii			
Ack	nowl	edgements	iv			
Exe	cutive	e Summary	1			
l.	Intr	oduction	2			
II.	Ma	ssachusetts SNAP E&T Program	3			
III.	Overview of Intervention					
	A.	Intervention development	4			
	В.	Intervention overview	5			
	C.	Evaluation design	7			
	D.	Characteristics of individuals in the analysis	7			
IV.	Find	dings	8			
	A.	Impact evaluation	8			
	В.	Implementation evaluation	9			
V.	Lessons Learned					
	A.	What worked and can be built upon?	12			
	В.	Changes needed for replicating the intervention and expanding its scale	13			
	C.	Resources needed to continue the changes made through the intervention	14			
App	endi	x A. SNAP E&T RCE Intervention Messages	A-1			
App	endi	x B. Work-Readiness Full Assessment	B-1			
Apr	endi	x C. Supplemental Tables				

Exhibits

III.1.	Learn, Innovate, and Improve (LI ²) model	.4
III.2.	Intervention flow diagram	.6
IV.1.	Percentage of individuals who enrolled in WPP, by research group	.8
Table	es	
C.1.	Impacts of behaviorally informed text messages on text responses and WPP enrollmentC-	- 1
C.2.	Impacts of assessment and career center treatment on the percentage of individuals enrolled in WPP	-1

Executive Summary

The Supplemental Nutrition Assistance Program (SNAP) provides food benefits to eligible individuals with low incomes. For some, it also provides employment and training (E&T) services to improve participants' economic self-sufficiency. This report describes the Food and Nutrition Services' use of rapid cycle evaluation to test new, low-cost, small-scale interventions in SNAP E&T operations in Massachusetts.

Massachusetts operates a statewide voluntary SNAP E&T program that serves all adult SNAP participants. The State's Department of Transitional Assistance (DTA) administers E&T and partners with over 90 E&T providers across the State, including its largest provider, the MassHire Department of Career Services.



Intervention

Massachusetts sought to improve the referral process and increase enrollment in its SNAP E&T program. The State developed an intervention that consisted of (1) sending SNAP participants text messages with behaviorally informed nudges to encourage enrollment in E&T, (2) sharing a link to an online screener to assess work readiness, (3) conducting a full work readiness assessment over the telephone, and (4) referring SNAP participants to a MassHire career center for E&T services. Mathematica conducted an evaluation that included a randomized control trial to estimate impact of the intervention on SNAP E&T referrals and enrollment, and an assessment of how the intervention was implemented, the challenges encountered and solutions to address them, and participants' experiences.



Outcomes

Individuals who received text messages enrolled in E&T at a rate three times greater than individuals who did not receive them. Text messages designed to increase awareness of the program were more effective at increasing enrollment than were text messages designed to remind participants of their eligibility for E&T. Among individuals who responded to the text message, those who received a full assessment were more likely to enroll in SNAP E&T services through a MassHire career center than those who did not. Similarly, those who took part in the new referral process to a career center were more likely to enroll than those who did not.



Factors that facilitated or hindered implementation

Preparation for the intervention, including staff training and a road test, improved staff buy-in and equipped staff for implementation. Some technologies were deployed successfully, such as a system for tracking participant progress that effectively monitored their engagement throughout the intervention. However, limitations of the text message platform, a lack of capacity among DTA staff, and barriers in the referral process presented challenges.



Lessons learned

Several lessons learned from the intervention will be helpful when considering scaling or replicating the efforts in Massachusetts. DTA found text messaging outreach to be effective at raising awareness of SNAP E&T. Targeting a narrower group of SNAP participants that would be more likely to benefit from SNAP E&T services could also help maximize utility of the intervention and better manage staff capacity. Minimizing barriers and addressing bottlenecks at each step of assessment and referral would allow SNAP participants to move through the process more easily.

I. Introduction

The Supplemental Nutrition Assistance Program (SNAP) is the cornerstone of the nation's nutrition safety net and provides food benefits to eligible individuals with low incomes who are experiencing economic hardship. In addition to providing food assistance, SNAP provides work supports through employment and training (E&T) programs that help SNAP participants gain skills, training, or work experience to increase their ability to obtain regular employment. State agencies are required to operate an E&T program and have considerable flexibility to determine the services they offer and populations they serve. SNAP participants use these programs to meet work requirements, if applicable, and retain their benefits.

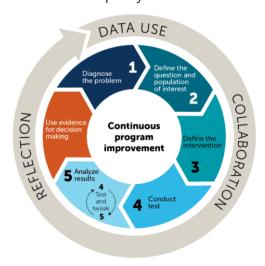
One of the U.S. Department of Agriculture's Food and Nutrition Service's (FNS) strategic goals and

Study objectives

- Describe how RCEs can be used to improve SNAP E&T operations, service delivery, and program outcomes
- Design and implement RCEs to obtain impact estimates of small-scale changes on SNAP E&T outcomes for each intervention
- Conduct an implementation evaluation of the small-scale changes and RCEs in each intervention
- Assess the scalability of the small-scale changes to SNAP E&T operations and service delivery to other local, State, or national policies and programs
- Determine and document the costs associated with implementing and maintaining these smallscale changes

priorities is to ensure the quality of the services and activities offered through SNAP E&T programs by investing resources and providing technical assistance to help States build capacity, create more robust services, and increase engagement in their programs. Over the last 10 years, FNS has invested considerable resources and provided technical assistance to States; however, a typical State has limited time and resources to make substantial changes to its business process, service delivery approach, or service options given their existing responsibilities of Federal compliance operations, running the program, monitoring providers, and growing the program.

Exhibit I.1. Rapid cycle evaluation



FNS contracted with Mathematica to provide States the opportunity to test low-cost, small-scale interventions in SNAP E&T operations or service delivery using rapid cycle evaluation (RCE). RCE is a powerful method for improving programs' efficiency and effectiveness. It follows a series of steps to identify challenges and define and test potential solutions (Exhibit I.1).

FNS selected Massachusetts, four other States, and the District of Columbia to operate interventions, with the aim of improving SNAP E&T programs and identifying how to strengthen the technical assistance it provides to States. From 2021 to 2024, Mathematica collaborated with the intervention sites to identify the major challenges their SNAP E&T programs faced, which

generally involved recruitment and outreach or SNAP participant engagement and receipt of services, and to create and test solutions to them.

RCE addressed five main objectives (see Study objectives box). This report describes the RCE process, intervention design and implementation, and findings from the small-scale changes Massachusetts made to its SNAP E&T program.¹

II. Massachusetts SNAP E&T Program

The Massachusetts Department of Transitional Assistance (DTA) operates a statewide E&T program referred to as SNAP Path to Work that serves all SNAP participants (16 years and older) who volunteer to participate in SNAP E&T. This includes work registrants and able-bodied adults without dependents (ABAWDs).² Work registrants primarily enroll in E&T services through reverse referrals, where providers determine if an individual is already receiving SNAP, and if so, ask DTA to confirm SNAP receipt and

approve the referral. A small number of interested SNAP participants are directly referred to providers by DTA staff.

SNAP Path to Work offers E&T services through partnerships with 90 community-based providers across the State and serves an average of 2,000 SNAP participants each year. The largest SNAP E&T provider is the MassHire Department of Career Services, a Workforce Innovation Opportunity Act network of 29 career centers (commonly known as

Massachusetts SNAP E&T program

- Area served: Statewide
- Target population: SNAP participants
- Number served by E&T: 2,000 SNAP participants per year on average
- Referral type: Reverse referrals
- Providers: 90 community-based providers, including 29 MassHire career centers

American Job Centers) across the State. Through a partnership between DTA, MassHire, and the Executive Office of Labor and Workforce Development, MassHire offers the Work Participant Program (WPP), an employment program for Transitional Aid to Families with Dependent Children (TAFDC) and SNAP participants. The WPP includes employment and training services such as resume and cover letter classes, job search support, and job training. SNAP participants are also offered case management and participant reimbursements, such as transportation and child care vouchers.

DTA has offices in 57 locations across Massachusetts. Each office has at least one assigned full engagement worker (FEW). FEWs primarily have a caseload of TAFDC participants that are subject to TAFDC work requirements, but they also work with SNAP Path to Work participants to connect them to education and career pathways. FEWs also help case managers track individuals' progress and address any barriers to participation in work and education programs.

¹ Reports for the other sites in the project are available at https://www.fns.usda.gov/research-analysis.

² Work registrants are SNAP participants who have not met any Federal exemptions from SNAP work requirements and are therefore required to register for work and meet general work requirements. ABAWDs are work registrants who are ages 18 to 52, able to work, and do not have any dependents. (The Fiscal Responsibility Act of 2023 temporarily increased the age limit from 49 to 52 in October 2023 and to 54 again on October 1, 2024; these changes end on October 1, 2030). ABAWDs must meet both the general work requirement and an additional work requirement to receive SNAP benefits for more than three months in three years.

III. Overview of Intervention

A. Intervention development

In May 2021, Mathematica began working with staff at DTA and MassHire to identify the challenges they face in their programs and to develop potential solutions to test. The Learn, Innovate, and Improve (LI2) framework was used to guide DTA and MassHire through this process (Exhibit III.1). This was a collaborative, co-creative partnership between Mathematica, DTA, and MassHire provider staff.

Exhibit III.1. Learn, Innovate, and Improve (LI²) model



The Learn phase took place

between May and August 2021 and consisted of several brainstorming sessions and interactive human-centered design (HCD) activities to help assess DTA's needs, the problems they wanted to solve, and the underlying causes. This involved a series of brainstorming sessions and interactive activities that relied on human-centered design principles. The activities included rose-bud-thorn (having individuals name aspects of the program that were positive, areas for growth, and challenges), affinity clustering (sorting named aspects into categories), and journey mapping (understanding the participant journey from eligibility to enrollment). Through this process, DTA determined that their main challenge was related to the lack of referrals to and participation in MassHire's WPP.

The Innovate phase took place from August 2021 to May 2022. Mathematica worked with DTA to identify and develop potential solutions to the primary challenge identified in the Learn phase. DTA leadership, with input from MassHire staff, generated a list of possible solutions and evaluated them based on their estimated impact and the effort required to implement them. DTA then selected a new direct referral process as the solution to test. Mathematica and DTA co-designed the intervention and evaluation. The evaluation included a randomized controlled trial (RCT) and an implementation study that assessed the intervention's design, operations, staff and participants' experiences, and replicability.

Mathematica and DTA developed text messaging outreach to inform SNAP participants about SNAP E&T and used a commercial texting platform to send the texts and allow communication with SNAP participants. The texting platform allowed participants to receive and respond to texts. DTA created new technologies to support the intervention, including a customized intervention portal within their Partner Activity Tracking Hub (PATH) system to assign and track individuals in the intervention. They also created new staff procedures to implement the steps in the intervention. Throughout the Innovate phase, DTA engaged MassHire leadership and frontline staff at key points to gather input, share feedback on the design, and clarify their roles and responsibilities.

DTA selected six local offices (located in Brockton, Fall River, Framingham, Lawrence, Salem, and Springfield), and their corresponding MassHire partner offices across Massachusetts to participate in the intervention. These offices were chosen to promote geographic diversity and diversity in the populations served.

In the Improve phase, the proposed intervention was tested to identify any necessary changes. From July to September 2023, DTA conducted a series of road tests to assess the functionality of the technical and operational elements of the intervention. Based on observations during the road test and feedback gathered from staff and individuals in the intervention, DTA adjusted technical systems (including the screener website and the PATH tracking system) and referral procedures so referrals would function more effectively and smoothly. DTA launched the intervention in October 2023 and concluded it in March 2024.

B. Intervention overview

Through the Learn phase activities, DTA and Mathematica discussed a range of challenges and identified four main factors impacting referrals to and participation in the Work Participation Program (WPP).

- Awareness among SNAP participants about SNAP E&T offerings
- Direct referral process for SNAP participants
- DTA FEW staff time and capacity
- Data sharing procedures between DTA and MassHire career centers

DTA sought to test a direct referral process for the WPP program. As outlined in the box, the intervention explored the effectiveness of using behavioral nudge concepts in text messaging, an online screener tool, an assessment with a FEW, and a warm handoff referral to MassHire to increase participation in WPP. To support

Behavioral nudge concepts

- Endowment effect: Reminding SNAP participants that they are eligible to receive free services through SNAP E&T
- Mere exposure strategy: Reminding individuals what services are available through SNAP E&T

Intervention groups and steps

- Outreach treatment and control groups:
 Individuals assigned to treatment group 1 or
 treatment group 2 received behavioral
 nudge text messages inviting them to learn
 about available E&T services. Treatment
 group 1 received text message A, an
 endowment effect message, and treatment
 group 2 received text message B, a mereexposure effect message (Appendix A).
 Control group members did not receive a
- Work-readiness assessment treatment and control groups: Among individuals who responded affirmatively to the texts, completed the online screener, and were found to be potentially work-ready based on the results, those randomized into treatment group 3 had a FEW contact them for a full work-readiness assessment (Appendix B). Those randomized into the assessment control group received a link to the SNAP Path to Work website
- Career center warm handoff treatment and control groups: Among individuals deemed work-ready in the assessment, those assigned into treatment group 4 who completed a permission to share information form received a warm handoff referral to a MassHire career center for WPP services via email. Those in the referral control group received a link to the SNAP Path to Work website ▲

the intervention, DTA created new tools, technology, and staff procedures. The target population for the intervention was defined as SNAP participants over the age of 18 who were not receiving TAFDC or Social Security Insurance benefits and who agreed to receive communication from DTA through text messages.

The intervention included four main steps, three of which consisted of DTA randomly assigning individuals from the six local offices into treatment and control groups (displayed in the box above, Exhibit III.2, and the Technical Supplement).

The individuals included in the intervention were divided into seven groups of about 6,000 to 7,000 individuals each. Texts were sent to each group at different times to reduce burden on FEWs and MassHire career center staff in the assessment and referral process. Text messages were available in the six most commonly spoken languages among Massachusetts SNAP participants and were sent to participants according to the language coded in their case within DTA's participant tracking system.

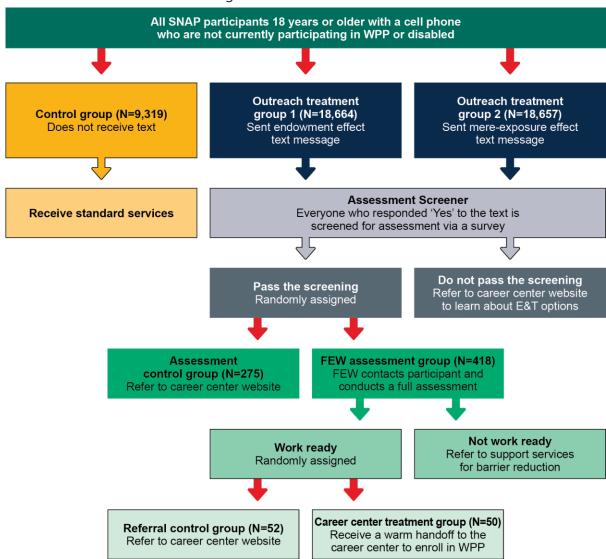


Exhibit III.2. Intervention flow diagram

Note: Red arrows indicate points of random assignment.

FEW= Full Engagement Worker.

C. Evaluation design

Mathematica conducted an RCT to estimate the impact of the intervention on SNAP E&T enrollment, including steps taken prior to enrollment such as participants responding to outreach messages, assessments, and referrals. The experimental design answers a series of research questions:

- Which types of outreach messages yield the highest percentage of individuals who express interest in learning more about SNAP E&T services?
- Which types of outreach messages lead to higher rates of enrollment in SNAP E&T?
- Does completing a full assessment lead to higher rates of enrollment among individuals who express interest in learning more about E&T services and pass a pre-screener survey for the assessment?
- Does a warm handoff referral to career center staff among work-ready SNAP participants lead to higher rates of SNAP E&T enrollment?
- Are there differential impacts for subgroups, such as those based on age, gender, or language spoken?

The evaluation also included an implementation study that assessed the intervention's design and administration, the challenges encountered and solutions to address them, and SNAP participants' experience with the intervention.

- Mathematica collected and analyzed several types of data to support the evaluation analyses:
- **1. SNAP administrative data** describe the demographic and economic characteristics of individuals in the intervention at the time of or just prior to random assignment.
- 2. SNAP E&T outcome data and intervention tracking data measure outcomes at different stages of the intervention, including the completion of screeners, assessments, and handoffs to a career center and, ultimately, WPP enrollment.
- **3. SNAP E&T participant survey data** describe SNAP participant experiences with the intervention and SNAP E&T services. Mathematica collected survey data for a stratified random sample of individuals enrolled in the intervention.
- **4. Implementation data** describe staff and SNAP participant experiences, lessons learned, and factors that facilitated or hindered successful implementation. Mathematica collected implementation data through staff interviews and participant focus groups and in-depth interviews (IDIs).

Additional detail on the data collected and evaluation methodology is available in the Technical Supplement to the SNAP E&T RCE final reports.

D. Characteristics of individuals in the analysis

Exhibit III.3 shows the key characteristics of the 46,640 treatment and control group members included in the analysis between October 2023 and March 2024. The individuals in the analysis were primarily female (69 percent) and were 45 years old on average—57 percent were between 25 and 49 years old. The majority of individuals' primary language was English, with 16 percent reporting Spanish as their primary language. The average household size was 1.9, and about 40 percent of individuals in the intervention

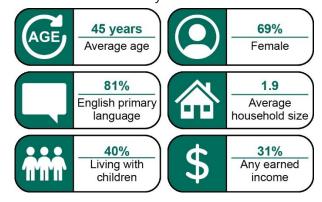
lived in a household with children. Thirty-one percent of individuals lived in households that had earned income and 45 percent lived in households that had unearned income such as unemployment benefits and cash assistance such as TAFDC (Technical Supplement Table A.1).

IV. Findings

A. Impact evaluation

Text messages increased the percentage of individuals who enrolled in WPP. Individuals who received text messages enrolled in WPP at a rate three times greater than those who did

Exhibit III.3. Baseline characteristics of individuals in the analysis



Source: SNAP administrative data.

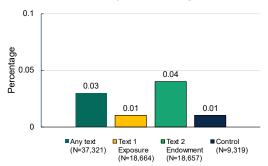
Note: See Technical Supplement for additional characteristics.

not receive them (0.03 versus 0.01 percent; Exhibit IV.1). This impact is promising, despite not being statistically significant due to an exceptionally low enrollment rate in the control group.³ Endowment text messages designed to remind participants they are eligible to receive free services in the program

(treatment group 2) were more effective in increasing enrollment relative to the control group that did not receive text messages (0.04 versus 0.01 percent) than mere-exposure text messages designed to increase awareness of the program (treatment group 1) relative to the control group (0.01 percent for both groups).

Text message content also affected how likely individuals were to reply to it. Individuals who received the endowment effect text message were more likely to respond to the text than were those who received the mere-exposure effect text (13 versus 12 percent, Appendix Table C.1).

Exhibit IV.1. Percentage of individuals who enrolled in WPP, by research group



Source: SNAP administrative data and SNAP E&T outcome data.

Note: Impacts not statistically significant from zero at the 0.10 level

Impacts on WPP enrollment were larger for individuals whose primary language was a language other than English compared to those who primarily spoke English. They also were larger for those with incomes greater than or equal to 50 percent of the

Mathematica® Inc.

Federal poverty level, compared to those with lower income (Technical Supplement Table C.1b).

³ The intervention design assumed an enrollment rate in the control group of around 30 percent without having access to enrollment data. Because the actual enrollment rate was less than 1 percent, the intervention design was substantially underpowered or limited in its ability to detect statistically significant effects.

Among individuals who responded to the text and passed the screener, those who received a full assessment were more likely to enroll in WPP than those who did not. One percent of individuals who received an assessment enrolled in WPP compared to no individuals who did not receive one (Appendix Table C.2).

Finally, among those who were assessed and determined to be work ready, individuals in the career center treatment group had a higher rate of enrollment in WPP than those in the career center control group (5 versus 0 percent; Appendix Table C.2). This impact shows promise, despite not being statistically significant.

B. Implementation evaluation

The implementation evaluation assessed the intervention's design and administration, the challenges encountered and solutions to address them, and participants' experience.

1. Factors that facilitated or hindered successful implementation

DTA developed and deployed the online screener with few issues, allowing individuals to provide information about their interest in E&T services. Additionally, DTA successfully expanded and improved the PATH system used for tracking participant progress to facilitate complete data management and monitoring of individuals' engagement throughout the intervention.

Preparation for the intervention, including staff training and testing, improved staff buy-in. DTA and MassHire staff described the trainings as comprehensive and indicated they prepared them well for implementation. One staff member said, "when we had the second training then I started catching it, getting it." In addition, weekly drop-in office hours offered by DTA State staff allowed local DTA and MassHire career center staff to obtain answers to questions and resolve issues quickly during the intervention period. Generating staff buy-in during training and intervention preparation activities was also useful; when staff understood and believed in the importance of the intervention, they were better able to prioritize intervention activities and correctly follow intervention processes.

DTA created data transfer and tracking systems that were designed to ensure the success of the intervention, but these systems needed to undergo improvements throughout the intervention. Based on findings from the road test, DTA made improvements to the systems that facilitated data transfer and improved participant tracking capabilities. Technical improvements included updates to the online screener, including standardizing input fields for SNAP participant data and improving efficient and accurate data transfers with DTA's PATH system.

In response to staff feedback, DTA also revised its PATH system functionality to include more comprehensive data fields and drop-down categories for detailed tracking of individuals' engagement and progress. However, developing the PATH system expansion for the intervention was more time- and resource-intensive than expected. This delayed the original timeline by approximately two months, leading it to coincide with the reinstatement of time limits for ABAWDs and limiting the capacity of the FEWs to implement their steps in the intervention. In addition, although some FEWs found PATH helpful because it was a different system from the regular DTA tracking system, many found it cumbersome and were frustrated that they had to use both PATH and their regular tracking system when working with

individuals in the intervention. As a further complication, supervisors did not have access to PATH, which limited their ability to support staff throughout this process.

The commercial text messaging platform used to send messages to SNAP participants experienced recurring technical issues. This included sending wrong auto-reply messages to individuals who replied to DTA's initial text requesting expressions of interest to learn more about WPP. Some individuals who indicated that they were not interested received the autoreply intended for those who expressed interest. In these instances, additional manual- or auto-replies were quickly sent with an apology and the correct response. The platform also could not send text messages from a DTA phone number, leading some recipients to believe it was a scam because it came from a different number than other texts from DTA.

For those who successfully passed the online screener step of the intervention, lack of capacity and

competing priorities limited the ability of FEW staff to conduct the outreach and assessments with them as specified in the intervention design. FEWs typically work with TAFDC program participants subject to specific work requirements; TAFDC participants must meet these work requirements in order to avoid being sanctioned and to continue receiving their full TAFDC benefits. These individuals make up most of the FEWs' caseload, with SNAP E&T participants accounting for only a small

"In my personal opinion, I can't really appreciate [the study] 100 percent, because I know that my primary duties with the clients that are work program required that are facing sanctions are my priority."

- DTA staff member

fraction. FEWs felt obligated to prioritize TAFDC participants over the those in SNAP E&T because the consequences of TAFDC participants failing to comply with work requirements could lead to a reduction of TAFDC cash benefits, whereas, with the exception of ABAWDs, SNAP participants would not face penalties for not participating in E&T. This led to some FEWs not implementing steps of the intervention as planned. In addition, multiple participating DTA offices were understaffed or had new staff who were still learning the tasks involved with their role. Many FEWs already had large caseloads before the intervention. After work program requirements were reinstated, their increased caseloads made it hard for some to handle the extra demands of the intervention.

For those who completed a full assessment with a FEW, there were additional barriers that prevented some from reaching the referral step of the intervention. Because DTA and MassHire lacked a strong preexisting collaboration, the agencies did not have seamless processes for conducting referrals. The permission to share information (PSI) form required for DTA to refer individuals to MassHire created a significant barrier. DTA staff expressed confusion over which formats of a signed PSI were acceptable. They reported that some SNAP participants had limited access to or understanding of how to fill out and submit the form online, which made it challenging for them to complete and return the form. This limited their ability to make it to the referral stage. As one DTA staff explained, "the PSI, I think, could have been a hurdle for some people just because that was another step." Finally, some individuals reported not receiving outreach from MassHire after a referral was successfully made.

2. SNAP participant experience

SNAP participants who shared their experiences through IDIs, focus groups, and a survey offered a range of views and thoughts about the intervention. Common themes included the following:

Individuals had difficulty remembering whether they received the outreach text messages or thought they were spam. Only 26 percent of those surveyed who received text messages but did not respond remembered receiving them. Almost 40 percent who remembered receiving the messages but did not respond to the text thought the messages were spam. Around the time of the intervention, DTA staff explained there had been Electronic Benefit Transfer card skimming and other SNAP fraud that led to DTA notifying SNAP participants to use caution when interacting with texts, mobile applications, or other media advertising a relationship to SNAP. An IDI member explained, "if you text me, I'm going to think it's a scam."

Language barriers limited some individuals' ability to understand the text messages. In focus groups and IDIs, some individuals explained they responded affirmatively to the text request despite not fully understanding the content due to language barriers. Although text messages were sent in the language coded for each individual in DTA's tracking system, staff explained that non-English speaking individuals

"Language was a barrier for a lot of them and then we could get a translator and they were able to reach out to certain people with the translators...and it was like they didn't understand what they were doing, they had no idea, they thought this was for more benefits."

- DTA staff member

often preferred to have their case coded as English so they could receive materials in English and have an English-speaking friend, family, or community member provide translation assistance. Therefore, some non-English speaking individuals may have received the text messages in English and responded affirmatively without fully understanding the messaging.

Some individuals who showed interest in SNAP E&T felt that the next step was not clear. Some individuals did not remember receiving the second

text message with the online screener link, while others completed the screener but did not know what to do next. Forty percent of those surveyed who passed the screener and were supposed to be contacted by DTA for a full assessment believed the call was spam, 33 percent reported not receiving a phone call, 18 percent reported being too busy to answer the call, and 17 percent said they tried to call back but were not able to reach the program. Some focus group and IDI members who passed the full assessment and were supposed to receive a referral to MassHire stated that they never received outreach from MassHire.

Individuals in the intervention generally preferred text messages, though some recommended adding another form of communication to provide information about SNAP E&T. Survey results show that text messaging is the preferred method of contact, with 42 percent preferring texts, 27 percent preferring email, 17 percent preferring mail, and 13 percent

"I think it's short, it's sweet, it's to the point, it's not over stimulating with too much information, it seems legit...I think [texting] is a great, simple way to communicate."

- In-depth interview participant

preferring a phone call. Among those who did not think the text messages were spam, most felt that the messages were clear, easy to understand, and seemed reliable because the messages stated they were from DTA, a familiar agency for SNAP participants. Some focus group and IDI members expressed that a mix of outreach methods, such as a text, email, and notification in the DTA Connect mobile application, would help increase awareness about the program.

Of those who made it through the full assessment with DTA, were assessed to be work ready, and were assigned to the treatment group in the final stage, only 15 percent were referred to a MassHire career center and few enrolled in WPP. Some individuals in the intervention and staff shared

perceptions of MassHire that could help explain some of the drop-off at this stage of the referral process. Among those who received a referral, only 65 percent of those surveyed reported that it was easy to contact the MassHire career center. Some reportedly never heard from the career center after the referral, even when they tried to reach out themselves. There was also a lack of awareness of MassHire that could have contributed to low

"Then he directed me with the number to MassHire, again. They never called. I called three times. I never got an answer. So that's going to frustrate anybody."

- In-depth interview participant

enrollment; 40 percent of those who had not recently received services had not heard of MassHire. Others surveyed, as well as some focus group and IDI members, had used MassHire services in the past and were not interested in another referral because the services did not meet their needs.

V. Lessons Learned

The goal of the evaluation was to assess the feasibility, effectiveness, and sustainability of a direct referral process to WPP. It included a text message outreach strategy with behavioral nudges, an online screener, a work readiness assessment, and a warm handoff to a career center. DTA designed this strategy to address the central challenges it and MassHire faced recruiting and enrolling SNAP participants into WPP. Although the number of WPP enrollments were low, rates tripled as a result of the intervention. Text messaging outreach showed promise in raising awareness of SNAP E&T. Lessons learned from the evaluation include strengths that can be built upon, changes that would be required to scale or replicate the intervention, and resources needed to continue implementation and scale up the direct referral process.

A. What worked and can be built upon?

Overall, texting was an effective and resource-efficient way to help increase awareness of SNAP E&T. DTA staff and focus group and IDI members shared a generally positive view of text messaging as an effective way to share information with SNAP participants. Many individuals in the intervention expressed they had not heard about SNAP E&T until receiving a text. FEWs and E&T staff shared that in some cases SNAP participants called DTA because they received the text and were seeking more information. Even when these individuals did not enroll in SNAP E&T, they learned about available resources and received referrals to relevant services. DTA leadership agreed that the increase in awareness from the text messages was a success.

Among those who responded affirmatively to the text and moved to the online screener step, using the pre-assessment online screener helped filter out individuals who were not interested or not work-ready. This approach enabled SNAP participants to provide preliminary information at their convenience, which in some cases helped facilitate a more focused and efficient interaction with FEWs.

The changes that DTA made to their systems for the intervention also allowed them to successfully monitor individuals as they moved through the steps of the intervention. The PATH system played a crucial role in efficiently tracking and managing the engagement of individuals throughout the intervention process. Once SNAP participants completed the online screener, DTA entered their information into the PATH system; assigned them to the appropriate DTA office; and placed them in a queue to be contacted by a FEW for assessment. Despite some challenges with PATH, the system ultimately facilitated accurate tracking of each SNAP participant's progress from initial text outreach through referral, allowing staff to appropriately engage with individuals throughout the intervention. These enhancements to the PATH systems' functionality could be further expanded by integrating it into DTA's regular tracking system and by allowing supervisors to access it.

B. Changes needed for replicating the intervention and expanding its scale

Several lessons learned from the intervention will be helpful when considering similar efforts in the future. To replicate or scale up the intervention, it will be useful to complement text messages with other outreach methods. Contacting individuals in the intervention was difficult, even if they responded to text messages and expressed interest. If the intervention is scaled up or replicated, additional communication methods—such as emails, phone calls, and the DTA Connect mobile application—should be included. This would help to address challenges related to phone numbers being outdated or out of service, and individuals not recognizing the phone number as trustworthy. In addition, SNAP participants often did not understand the text message content, highlighting the importance of ensuring messages are written in individuals' preferred languages.

Additionally, targeting SNAP participants more likely to benefit from SNAP E&T services may reduce drop-off throughout the steps of the intervention and could help manage staff capacity. The broad population that DTA targeted for this intervention included people not likely to be interested in SNAP E&T services, such as people with a disability or over age 60. Many individuals in the focus groups, IDIs, and survey expressed they had a disability and were not interested in seeking employment or training. Over half of text treatment group survey respondents who did not respond to the text said they did not respond because of a health issue or disability. Targeting text messages to groups likely interested in SNAP E&T, such as ABAWDs or SNAP participants under age 60, would likely increase the share responding to the text, completing the online screener, completing the full assessment, and ultimately getting referred for services. Targeting to this smaller, more relevant group could also make it more feasible for staff to have adequate capacity to support the intervention.

To further reduce drop-off throughout the intervention, barriers at each step— following the text message link to the online screener, waiting for outreach from DTA for the full assessment, and completing the PSI— should be reduced or eliminated. Specifically, the PSI form that individuals were required to complete and sign in order to be referred to MassHire created a significant roadblock. It would alleviate the burden on SNAP participants and simplify referrals to MassHire (or other E&T

providers) if DTA could accept telephonic signatures for the PSI form or include a consent agreement in the initial SNAP eligibility interview. DTA could also consider sending texts from an official DTA number to strengthen trust in clicking the link to the online screener and reduce suspicions of fraud. Finally, providing increased technical assistance to MassHire and expanding the intervention to additional SNAP E&T providers could increase participation. Several individuals indicated they never heard from MassHire after the referral. Therefore, if this intervention were scaled up or replicated, MassHire would likely require additional technical assistance to ensure they were following referral procedures correctly.

C. Resources needed to continue the changes made through the intervention

Additional resources and staff capacity would be necessary for providers and the State to continue the intervention. DTA suggested that they would need additional full-time staff members if they were to continue pursuing the direct referral process on an ongoing basis, particularly if it were expanded to include all SNAP E&T providers. New or additional responsibilities for staff if the intervention were continued would include contacting SNAP participants who passed the online screener to conduct a full assessment and facilitating referrals to E&T providers. If the number of individuals referred to MassHire increased, MassHire staff expressed that depending on the demand, they would also need at least some additional part-time staff to handle the influx of referred SNAP participants.

The texting platform would cost about \$40,000 to \$45,000 per year for ongoing use. DTA would need to support any costs for maintenance or changes if they chose to continue using the platform.

Appendix A.

SNAP E&T RCE Intervention Messages

Text message A: Endowment effect Text message B: Mere-exposure effect DTA, here! Did you know DTA here! Since you you are eligible to enroll in free signed up for SNAP benefits, you employment and training services have access to free help with to help you advance your career employment and training! Text YES to receive information about as part of your SNAP benefits? It's how to enroll. Your spot is waiting true! Respond YES to learn more. for you! Great! As a next step, we would Great! As a next step, we would like to learn a little more about like to learn a little more about vou. Use this link you. Use this link snappathtowork.org/aa00 to get snappathtowork.org/aa00 to get started and so we know it's you, started and so we know it's you, enter your personal code: enter your personal code: 00000048-TX00 00000048-TX00

Appendix B. Work-Readiness Full Assessment

Department of Transitional Assistance	dta
710010101100	

ME

ATE

Stepping Stones to Success

Take some time to reflect on the following topic areas related to your life and career success. This tool is for your use and to guide conversation when talking with DTA. Where would you say you currently are in each of these areas? Which area jumps out as the most important for setting a goal today?

				NEED HELP	READY TO EXPLORE	MAKING PROGRESS	CONFIDENT & GOOD TO GO	
	Well-being and Support		My family and I need more support.	0	0	0	0	My family and I are doing well, and I have the social support I need.
PERSONAL AND FAMILY SUPPORT	Safety		I don't feel emotionally or physically safe in my current situation.	\circ	\circ	\circ	\circ	I feel emotionally and physically safe in my current situation
	Basic Needs		My family doesn't have stability with housing, transportation, or child care.	\circ	\circ	\circ	\circ	My family has stable housing, transportation, and steady child care.
	Medical/ Disability		Someone in my family or I have a challenge(s) in learning, physical, mental, sensory and/or cognitive disability	\bigcirc	\circ	\circ	\circ	My family and I don't have any medical conditions or disabilities that impact my ability to access education or work
	Financial		I need help with banking, debt and my credit score.	0	\circ	\circ	\circ	I have the tools I need to manage my banking, debt and credit score.
EDUCATION AND TRAINING	English for Speakers of Other Languages	•	I need to work on my English language skills to get the job I want.	0	\circ	\circ	0	I have the English language skills I need for the job I want.
	Education and Skills		I need more education or training to get the job I want.	0	\circ	0	\circ	I have the education or training to get the job I want.
	Technology		I do not have access to a computer or internet, and I don't know how to use them.	\circ	\circ	\circ	0	I have access to a computer and internet, and I know how to use them.
JOB AND CAREER	Experience		I need more work experience and references to get the job I want.	\circ	\circ	\circ	\circ	I have the work experience and references to get the job I want.
	Career Goal		I do not know what I want to do for work.	\circ	\circ	\circ	\circ	I have a career goal and a plan to get there.
	Getting a Job		I need help finding and applying for jobs.	\circ	\circ	\bigcirc	\circ	I know how to find and apply for the job I want.
	Career Path		I need help planning to take the next step in my career.	0	\circ	0	\circ	I feel ready to take the next step in my career.

- 2 What goal(s) do you want to set from this conversation? When should we follow-up on your goal next?
- 3 Is there anything else that's important for us to know to best support you and your family?



Appendix C.

Supplemental Tables

Table C.1. Impacts of behaviorally informed text messages on text responses and WPP enrollment

	Text treatment group 1 (Exposure)	Text treatment group 2 (Endowment)	Difference		
Outcome: Responded to text message (percent)					
Received text treatment 1 versus text treatment 2 ^a	11.98	12.73	-0.75**		
Number of observations	18,664	18,657			
	Treatment group	Control Group	Difference		
Outcome: Enrolled in WPP (percent)					
Treatment group: received any text	0.03	0.01	0.02		
Treatment group: received text treatment 1	0.01	0.01	0.00		
Treatment group: received text treatment 2	0.04	0.01	0.03		
Number of observations ^b	37,321	9,319			

Source: SNAP administrative and SNAP E&T outcome data.

Note: Text treatment group 1 received a mere-exposure effect text message designed to increase awareness of the program. Text treatment group 2 received an endowment effect text message designed to remind participants they are eligible to receive free services in the program.

WPP=Work Participant Program

Table C.2. Impacts of assessment and career center treatment on the percentage of individuals enrolled in WPP

	Treatment group	Control group	Difference
Comparison: FEW assessment treatment versus assessment control (percent enrolled)	1.04	0.00	1.04*
Number of observations	418	275	
Comparison: Career center treatment versus referral control (percent enrolled)	5.26	0.00	5.26
Number of observations	50	52	

Source: SNAP administrative and SNAP E&T outcome data.

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

^a Comparison within treatment group members only.

^b Number of observations corresponds to the pooled treatment group receiving any text. 18,664 received text treatment 1 and 18,657 received text treatment 2.

^{***/**/*} Difference between treatment and control group significantly different from zero at the 0.01/0.05/0.10 level, two-tailed test. FEW=Full Engagement Worker

Mathematica Inc. Our employee-owners work nationwide and around the world. Find us at mathematica.org and edi-global.com. Mathematica, Progress Together, and the "spotlight M" logo are registered trademarks of Mathematica Inc.