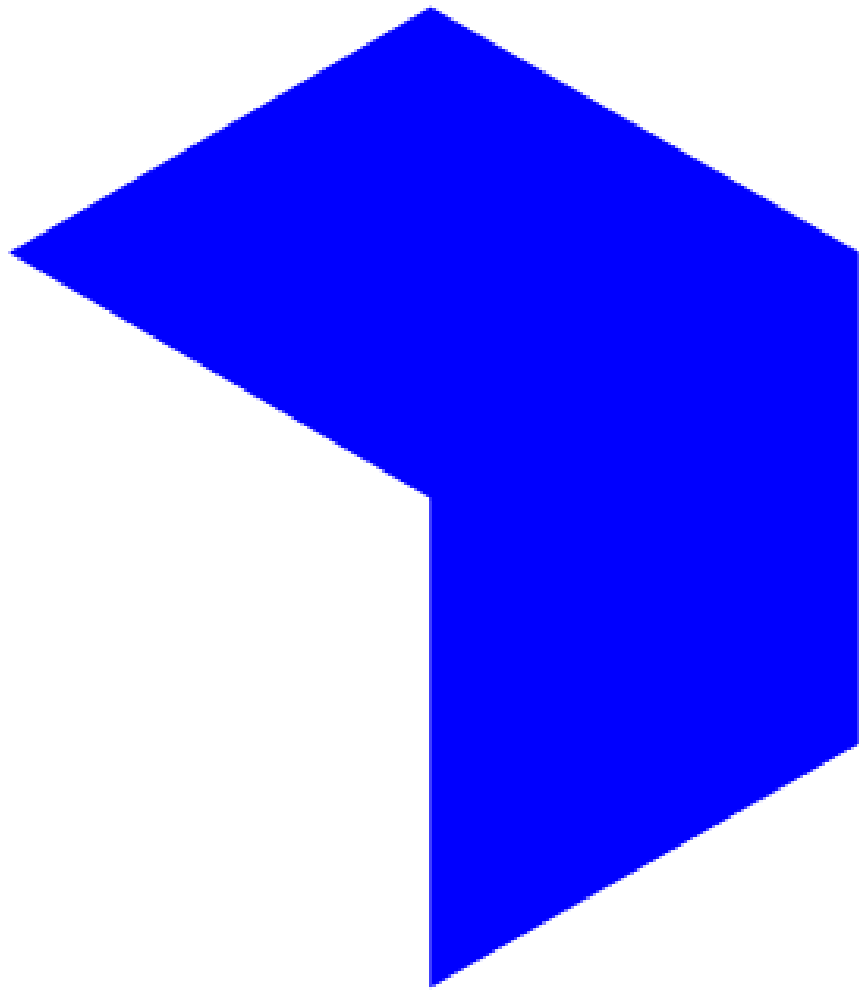


# Evaluation Plan

Example

2025



# Impact Evaluation: Fresh Bucks

City of Centreville | Evaluation Plan | 08/2023

Evaluation Project Manager: Leslie Daniel

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## Contents

<b>Contents</b> .....	<b>1</b>
<b>Evaluation Project Summary</b> .....	<b>2</b>
<b>Program Overview and Theory of Change</b> .....	<b>3</b>
<b>Evaluation Overview</b> .....	<b>5</b>
<b>Research Questions</b> .....	<b>6</b>
<b>Research Activities</b> .....	<b>6</b>
<b>Research Method Planning</b> .....	<b>7</b>
Randomized Controlled Trial (RCT).....	7
Summary.....	7
Population & Sample.....	7
Comparison Groups.....	7
Randomization.....	7
Outcome Measure(s).....	8
Linking Assignment to Outcome.....	8
Internal Validity.....	9
Blinding.....	9
Spillovers.....	9
Attrition.....	9
Power.....	9
Data Sources.....	10
Analysis.....	11
Mitigating Risks.....	11
Implementation.....	12
<b>Timeline</b> .....	<b>13</b>

# Evaluation Project Summary

## **What is the program we want to evaluate and what does it aim to achieve?**

Fresh Bucks is a program that provides food access to low-income residents of Centreville.

## **What do we hope to learn from this assessment?**

Despite applying and being enrolled in the program, some customers are not actively using their benefits. The Office of Sustainability and Environment, which administers the program, is interested in learning whether email communications to new program members will be an effective way of increasing benefits utilization among new enrollees. This evaluation will test the impact of an email reminder on Fresh Bucks participation and benefit utilization rates.

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This evaluation will be meaningful, novel, and actionable for Centreville. Below, we outline why this evaluation is important and how results will be used.

### **Meaningful**

Fresh Bucks provides food access to low-income residents of Centreville. There are customers who are enrolled in the program but not active, and we would like as many as possible to be active. There is a recently enrolled cohort, and the 6-8 weeks post-enrollment determines whether someone becomes an active user or drops off the program.

### **Novel**

The program team has not previously sent or tested any enrollee communications. This evaluation will provide new information on whether email is an effective communication channel with program participants.

### **Actionable**

Results will directly inform new enrollee onboarding and managing customer participation in general.

# Program Overview and Theory of Change

Fresh Bucks is a program that provides food access to low-income residents of Centreville. Eligible and enrolled customers receive \$40 each month to spend at participating farmers markets, independent grocers, and supermarkets using the Fresh Bucks Card. Participants in the program receive a benefits card which they must activate before using.

We developed a theory of change (below) for this program showing key program inputs and activities, as well as the short and long term desired outcomes of the program. This theory of change shows how we believe the program achieves impact.

Inputs	Activities	Outputs	Outcomes	Impact
<p><b>Funding:</b> Financial resources to fund benefit cards and program operations.</p> <p><b>Staffing:</b> Administrative personnel to manage card distribution, customer service, and vendor relations.</p> <p><b>Partnerships with Local Retailers:</b> Agreements with retailers who offer healthy food and accept the benefit card.</p> <p><b>Technology:</b> Systems to track card usage, enrollment, and communication (e.g., email)</p> <p><b>Target Population:</b> Low-income residents eligible for the cards.</p> <p><b>Marketing/Outreach:</b> External communication strategies to drive awareness of the program and encourage participation.</p>	<p><b>Benefit Card Distribution:</b> Identify eligible low-income residents and distribute cards to them.</p> <p><b>Partnership Coordination:</b> Work with local retailers to ensure benefit cards are accepted and promote healthy food options.</p> <p><b>Program Awareness Activities:</b> General outreach to the broader community to raise awareness of the program through media and community organizations.</p>	<p><b>Number of Cards Distributed:</b> The total number of benefit cards provided to eligible residents.</p> <p><b>Activation Rates:</b> Number of individuals aware of the program through email and other outreach channels.</p> <p><b>Utilization of Benefit Cards:</b> More enrollees use the benefit cards regularly to purchase healthy food from participating retailers.</p> <p><b>Retailer Participation:</b> The number of retailers accepting the cards and offering healthy food options.</p>	<p><b>Improved Access to Healthy Food:</b> Low-income residents experience better access to affordable, healthy food options through local retailers.</p> <p><b>Improved Nutritional Intake:</b> Participants improve their diets by purchasing more nutritious food.</p>	<p><b>Reduced Food Insecurity:</b> Long-term reduction in food insecurity among low-income residents due to sustained access to affordable, healthy food options.</p> <p><b>Health Improvements in the Community:</b> As a result of better nutrition, there may be reductions in diet-related health issues such as obesity, diabetes, and heart disease.</p>
		<p><b>Assumptions:</b> Participants</p> <ul style="list-style-type: none"> <li>● Receive their cards</li> <li>● Know how to activate and use their benefit cards</li> <li>● Remember to use their benefits</li> <li>● Can find local retailers</li> </ul>		

## Evaluation Overview

This evaluation focuses on one key component of this theory of change: How reminder email communications to enrollees influence their use of the benefit.

Our evaluation will examine the assumptions underlying the program outputs. Specifically,

- Do participants know how to activate and use their benefits cards?
- Do participants remember to use their benefits?
- Can participants find local retailers who accept their benefit?

From looking at existing program data, we know that many participants who enroll in the program do not end up using the benefit. With previous cohorts of participants, the program team relied on community-based organizations to onboard participants to the benefits program.

The team would like to test whether a reminder email communication to new enrollees will positively impact the number of enrollees who use the benefit.

We will conduct an impact evaluation to answer our research question, by randomly assigning half of the enrolled participants to receive the reminder email communication and half to receive the standard onboarding.

This evaluation will not explore participant experience in the program or collect information on why program participants may or may not be activating their cards or using their benefits. Its primary goal is to test whether a reminder email can increase program use rates among enrollees.

## Research Questions

Research Question	Is it an impact or process question?
Does a reminder email to new participants that have not yet used the Fresh Bucks program increase the proportion that use the program within 9 days of receiving the email compared to those who do not receive a reminder email?	Impact

## Research Activities

Research Method	Description of data source
Randomized controlled trial (RCT)	Participant benefit usage data; Email lists from govDelivery

### **If results are negative...**

We will discuss results with community-based organization partners and look for any external issues (e.g. mail issues) that may have influenced results.

### **If results are null...**

We will revise the email language and re-test.

### **If results are positive...**

We will incorporate this email communication process into onboarding.

# Research Method Planning

## Randomized Controlled Trial (RCT)

### Summary

We will conduct an A/B test to evaluate the impact of email reminders on Fresh Bucks participation. The results from this evaluation will inform enrollee onboarding.

### Population & Sample

- Population: Participants in the Fresh Bucks program who have not used the benefit
- Sample characteristics: Participants in the Fresh Bucks program who meet all 3 criteria
  - Part of the cohort that applied to the program at the end of 2021
  - Have not used the benefit
  - Have unique emails
- Sample size: 179
- How is your sample different from your population? Outline who may be excluded and how it might affect results.
  - Our population includes participants who don't have email addresses. Because our RCT is specifically testing an email reminder, its results cannot be used to improve their engagement with the program.

### Comparison Groups

- Control: Participants from the sample who will not receive a nudge email
- Treatment: Participants from the sample who will receive a nudge email

### Randomization

- We will randomize individual participants using unique email addresses.
- How will you randomize? If relevant, outline details on clustering or stratification.
  - We will pull a list of active members (n=750) in this cohort into an Excel spreadsheet, including email addresses and participant IDs.
  - We will categorize each participant into the four customer journey strata:
    - 1. Non-activators
    - 2. Never users
    - 3. First-time users

- 4. Repeat users
- Pulling out only the non-activators and never users into one "never used" group, we will have our sample size of n=179.
- The 179 participants will be randomly assigned to either the Control or the Treatment group. The groups will be equal in size.

### **Outcome Measure(s)**

- Primary outcome measure: Program use (shopping trip to use the vouchers)
  - When are you collecting it?
    - August 22 (the day the email goes out) to August 31, 2023
  - Why is this a good measure?
    - It is a direct measure of the use of the Fresh Bucks benefits, which is the behavior we are interested in changing through the intervention.
    - We have a lot of baseline data on this measure since it's a key way that we monitor the program.
  - Are there limitations to what this measure can tell you?
    - 9 days may not be enough time to determine the effectiveness of the email reminders.
- Secondary outcome measure: Benefit utilization level (\$ amount spent)
  - Time period:
    - *Same as the primary outcome measure*
  - Why is this a good measure?
    - This measure tells us if participants are maximizing their benefits, which is one way of measuring engagement with the program.
  - Are there limitations to what this measure can tell you?
    - Spending is very influenced by the day of the month, much of it on the last day.
    - Because of this and the fact that the observation period is only 9 days, we cannot generalize the findings to the rest of the month or year.

### **Linking Assignment to Outcome**

Once you have outcome data, how will you determine each participant's treatment group?

- Outcome data includes the unique identifier for each individual, which we can link to our table where we assigned the treatment groups and the strata groups.

## Internal Validity

### Blinding

- Will participants know their treatment group?
  - No
- Will program staff know the treatment assignment of participants?
  - Yes

### Spillovers

- Could outcomes be affected by 'cross contamination' of treatment groups, such as participants being exposed to other treatment conditions?
  - These participants are very networked and share information with each other through formal and informal communication. We have limited ability to mitigate this.

### Attrition

- Could participants leave your sample before data collection ends (attrition)? If so, how and why might this happen?
  - Program attrition and evaluation attrition will be connected - 1% of the program (7-10 participants).
    - Addresses are stale: Returned mail and never received the benefit in the first place. In our analysis, we will look at returned mail rates.
    - Email addresses are stale: Participants in the treatment group with stale addresses will not receive the email reminder. In our analysis, we will look at email bounce back rates.

### Power

To calculate power, define:

- Anticipated sample size, accounting for attrition: 160
- Type of outcome measure (binary / continuous): Binary
- Baseline measure of the primary outcome or expected outcome you plan to achieve: 9%
- If you will conduct cluster randomization, the number and size of the clusters: N/A

Effect you're powered to detect: 17 percentage point change

- Does the calculation feel reasonable?
  - Possibly.
  - The closest comparison is a different protocol that has been sent to customers with at least 3 months of consecutive non-use notifying them that they will be deactivated, which yields ~50% activity.
    - This is not directly comparable, since deactivation notification is a sequence of communications, including an email and mailed letter, and we haven't done an RCT to determine what is true impact of deactivation comms.

## Data Sources

### Dataset # 1: Transaction-level data for program use

- What is the data source?
  - Our benefit vendor uploads a report on the 1st of every month to a secure FTP.
- How & when was the data collected?
  - The data is collected at the point of sale by the benefit vendor (card company)
- Does it include an indicator of the treatment group?
  - Yes, card and account number can be tied back to the randomization
- What variables are included in the data? Does it include any covariates you plan to use?
  - Variables included: The participant who made the purchase/was involved in the transaction, date, location, \$ amount
  - This does not include the covariates we plan to use.
- Do you have reason to believe this data might not be accurate or reliable?
  - No
- Describe any data security measures you have in place.
  - All data is stored in our secure, access-controlled data repositories.

### Dataset # 2: Customer information

- What is the data source?
  - Fresh Bucks' CRM
- How & when was the data collected?
  - Participants provided their personal information when they applied for the program
- Does it include an indicator of the treatment group?

- Yes - this will be linked to Dataset # 1 using a account number
- What variables are included in the data? Does it include any covariates you plan to use?
  - Variables included: Participant name, email address, account number
  - This includes the covariates we plan to use (activation status at the time of emails going out)
- Do you have reason to believe this data might not be accurate or reliable?
  - No
- Describe any data security measures you have in place.
  - All data is stored in our secure, access-controlled data repositories.

### **Analysis**

- Primary outcome analysis
  - What will you be comparing?
    - We want to determine if there is a difference in Freshbucks program use between those that receive an email nudge (comparison group 1) and those that do not receive an email nudge (comparison group 2).
  - What statistical test will you use to test the comparison?
    - Logistic regression
  - What covariates, if any, will you include?
    - Covariate of non-activators and never users
- Secondary outcome analysis
  - Descriptive statistics of benefit utilization level (\$ amount spent).

### **Mitigating Risks**

- How are you collecting consent?
  - Participants opted in to the program and provided consent for participant and consent to be contacted by the program.
- How are you protecting participants' data?
  - All data is stored in our secure, access-controlled data repositories.
- What physical, psychological, economic, or social risks might participants face?
  - The control group may not activate or use benefits without the reminder. If effective, we plan to send a reminder to the control group ASAP.

## Implementation

- What specific steps need to happen before you launch your evaluation?
  - Drafting email content
  - Requesting email translations
  - Creating final message content for distribution
  - Pulling email list from CRM
  - Coordinating email delivery logistics
- What specific steps need to happen to implement and monitor the trial?
  - Monitor undelivered messages and any questions from participants
- What specific steps need to happen to end the trial?
  - No formal action required
- How will you determine if participants actually received the assigned treatment?
  - We will monitor bounce-back notifications in Outlook.
- How will you ensure that the only difference between comparison groups is the thing you are evaluating?
  - There is little interaction between program staff and most program participants, so we do not anticipate this influencing results.

# Timeline

The evaluation will run from July 7, 2023 to November 3, 2023.

Activity	Owner	Deadline	Status
<b>Planning Phase</b>	<b>Leslie (Project manager)</b>	<b>07-07-2023</b>	Complete
Develop/refine theory of change with Centreville team	Leslie	06-16-2023	Complete
Complete evaluation plan	Leslie	06-30-2023	Complete
Review evaluation plan with Centreville team and other key stakeholders	Leslie	07-07-2023	Complete
<b>RCT</b>	<b>Leslie</b>	<b>09-15-2023</b>	
Complete trial design	Leslie	07-14-2023	In progress
Conduct randomization	Tom (Project team member)	07-24-2024	
Check randomization	April (Project team member)	07-28-2023	
Test launch trial	Tom	07-31-2023	
Review test data	April	08-11-2023	
Launch trial	Tom	08-22-2023	
Close trial	Tom	08-31-2023	
Clean and analyze data	April	09-15-2023	
<b>Workstream: Final report and presentations</b>	<b>Leslie</b>	<b>11-03-2023</b>	
Outline final report	Leslie	09-22-2023	
Draft content for final report, including recommendations	April and Tom	10-06-2023	

Activity	Owner	Deadline	Status
Meet with Centreville team to review initial findings and receive feedback	Leslie	10-13-2023	
Finalize report	Leslie	10-20-2023	
Prepare and present findings and recommendations to city leadership	Leslie	11-03-2023	