

# Behavioral Science in Local Government

Improving Programs,  
Policies & Outreach

**JUNE - AUGUST, 2021**

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# Overview

## About the Fellow

Rachel Schafer is a current Master of Public Policy student at the Gerald R. Ford School of Public Policy, where she's taken a particular interest in social policy and public policy analysis methods. Prior to coming to the University of Michigan, Rachel received her Bachelor of Arts in Social Relations & Policy from Michigan State University. Within her placement at the Montgomery County Office of Innovation, Rachel explored how behavioral science can be utilized as a subtle yet powerful catalyst for positive change to create a more "just, liberating, and human government."



## About the Project

This project explored how behavioral science can be applied in the context of local government. Building on existing efforts to apply behavioral science in Montgomery County, part of this research demonstrated how impact evaluation can be conducted using existing county tools. Working collaboratively with stakeholders across departments, a randomized control trial was conducted to measure differences in resident engagement between two outreach messages. Key takeaways include a discussion of the efficacy of existing county outreach tools, and further opportunities for applying behavioral science and testing the impact of messaging.

## Acknowledgements

This project would not have been possible without the generous support and guidance from the following champions of local government:

*Michael Baskin* – supervisor and innovator extraordinaire who knows how to get things done

*Susanne Brunhart-Wiggins* – systems specialist and advocate for trying new things

*Nicole Rodriguez & Pam Dunn* – program coordinators and super supporters

*The 2021 Council Fellows Cohort* – an incredible, knowledgeable group of people who I had the pleasure of learning and laughing alongside this summer

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# Executive Summary

This project started with a charge from Marlene Michaelson, Executive Director of the County Council, who asked the Summer Fellows to “find the white space” and explore what innovative new pathways hold promise for the county to pursue.

My placement within the Office of Innovation was the perfect catalyst for this work. The Office of Innovation harnesses the use of human-centered design and behavioral science in cross-departmental partnerships to improve processes and strive for a more “just, liberating, and human government.” Being that the office has only just recently been established, it was rife with opportunity to explore new means of applying its practices.

The onset of COVID-19, the emergence of efficacious vaccines, and ongoing efforts to learn from the impacts of the pandemic set the stage for applying behavioral science practices. Published research on effective messaging around vaccinations was used to help inform the drafting and subsequent testing of behaviorally informed messaging around COVID-19 vaccine information against standard county government messaging. The goal of this test was to 1) see what could be accomplished using only existing technology and staff, 2) develop evidence of whether behavioral science can be a useful tool to improve engagement with residents, and 3) identify avenues for future testing opportunities.

While it was not discernable which elements of messaging were the most effective from the design of our test, we were able to determine that a randomized control trial (RCT) can be conducted using the current county outreach tool, GovDelivery. This initial test lays the groundwork for further testing to learn what communications strategies are most effective in increasing resident engagement and action. Further recommendations are drawn from this collective analysis, including potential legislation to strengthen efforts to apply behavioral science and conduct impact evaluations.

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# Key Objectives

This research centered around the following questions:

- 1 How can Montgomery County be a leader in the use of behavioral science in local government?
- 2 How can we test the use of behaviorally informed messaging in COVID-19 vaccine informational outreach efforts?

To help answer these questions, this report will explore:

- What is behavioral science and how is it being used in local government?
- What are other cities doing successfully in this field and how might Montgomery County be able to emulate those efforts?
- How feasible is it for the county to conduct impact evaluation around outreach efforts using rapid randomized control trials?
- What key takeaways can be drawn from this messaging test?

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# Introduction: Background & Context

## What is behavioral science?

We all like to believe that we act in ways that are rational and in our best interests. In fact, many policies are based on economic models that reinforce the concept of the rational consumer. In actuality, however, humans are not merely consumers who always make the best, most economical decisions. They are multi-dimensional beings subject to a host of cognitive biases and external influences. From this reality comes the field of behavioral science.

**Behavioral science is the study of how people act, respond, and make decisions.** It acknowledges that people are irrational, and predictably so. Rather than always weighing our options carefully, we are influenced by the number of choices available to us, default settings, the way our environment is shaped, and the framing of messages we're presented with, among other things. Our cognitive biases – systematic flaws in our ability to make judgements and decisions<sup>ii</sup> – prevent us from being fully rational. Advances in the field of behavioral science have allowed us to better understand our cognitive biases and how to respond to them.

## Why should behavioral science be used in government?

Government is responsible for supporting citizen action towards socially optimal outcomes and establishes choice structures and incentives towards these outcomes with every policy decision made. Given these goals and responsibilities, it is important for policymakers to not only consider what policies are needed, but also how those policies will be taken up by those impacted by them. **The success of government programs and policies depends on how residents and employees make decisions and take action.** Using behavioral science insights, we can apply an understanding of how these key stakeholders actually make decisions and improve outcomes. Behavioral insights can be applied to “identify and design successful, contextually-appropriate interventions to address key problems of uptake, usage, compliance, and retention” for both internal and external government affairs.<sup>iii</sup>

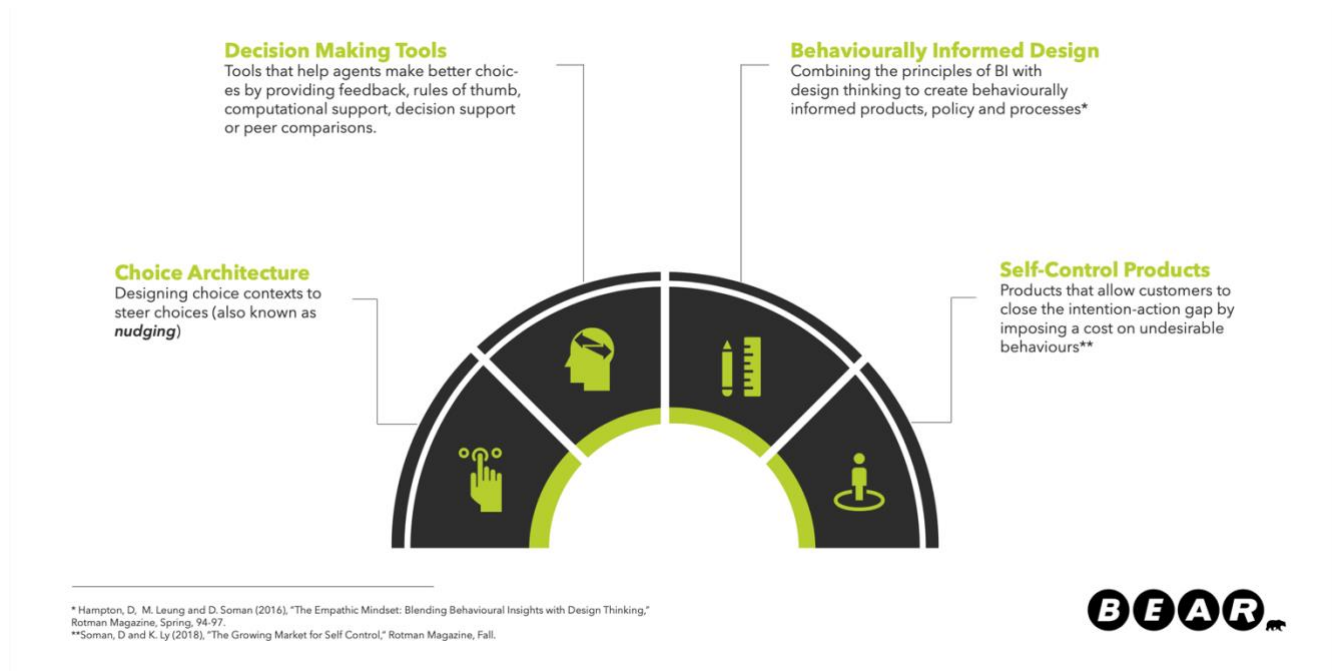


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## How is behavioral science applied?

There are a multitude of applications for behavioral science, encompassed by four main themes: choice architecture, decision making tools, behaviorally informed design, and self-control products.<sup>v</sup>



Underlying each of these applications are essential tools and common methods for successful implementation. These include:

- 1) **Impact evaluation** – understanding the effectiveness of an intervention by measuring outcomes. Randomized control trials (RCTs) are an especially helpful tool to understand the impact of an intervention using statistical analysis.
- 2) **Nudges** – designing choice structures to alter people's behavior in predictable ways.<sup>vi</sup>
- 3) **Prototyping** – testing interventions at a small scale, making changes based on learnings, then scaling up.<sup>vii</sup>



# Local Applications

Local governments can apply behavioral science insights to achieve policy goals. The following examples demonstrate how behavioral science is being successfully and innovatively applied locally to a variety of policy sectors:

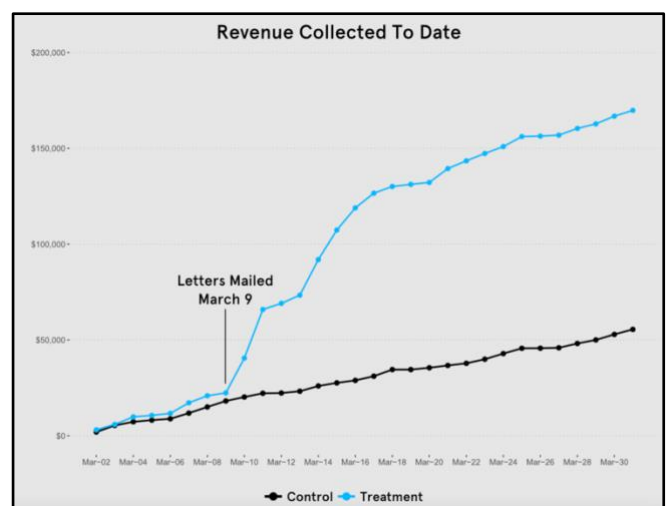
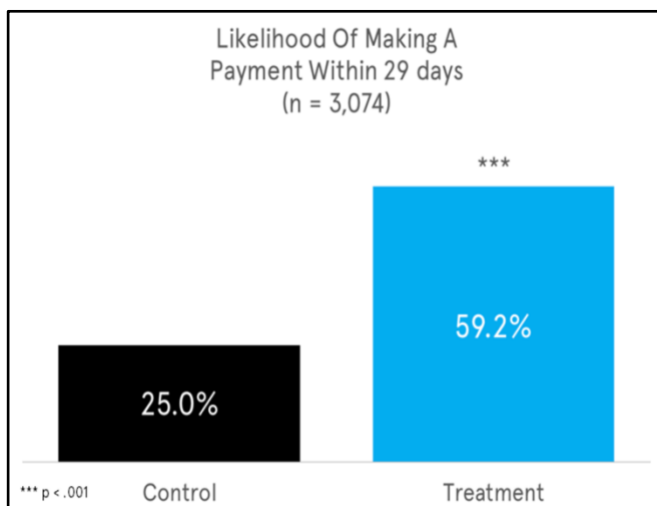
## Bill Delinquency / Revenue Generation – Lexington, KY<sup>viii</sup>

**Problem:** Residents and businesses were failing to pay sewer bills on time. A shift in collection responsibility from utility companies to city government meant sewer bills were no longer combined with water bills, which reduced ease of payment and collection. These unpaid bills left residents at risk of having their water shut off.

**Behavioral Insights Employed:** A courtesy letter was sent to residents with unpaid sewer bills. A large “Pay Now” stamp was included in the letter to clearly communicate the required action. Additionally, “deliberate choice” language in regard to residents’ lack of payment was used to convey that the city viewed bill delinquency seriously. Most importantly, a handwritten note addressing the resident saying, “[first name], you really need to read this” was included to personalize the mail and incentivize residents to open the letter.

**Methods:** Randomized control trial, behaviorally informed design

**Result:** The courtesy letter increased the likelihood of payment by about 34 percentage points, with an estimated increased net revenue of \$112,000 in the trial period alone, after accounting for the printing and mailing costs.



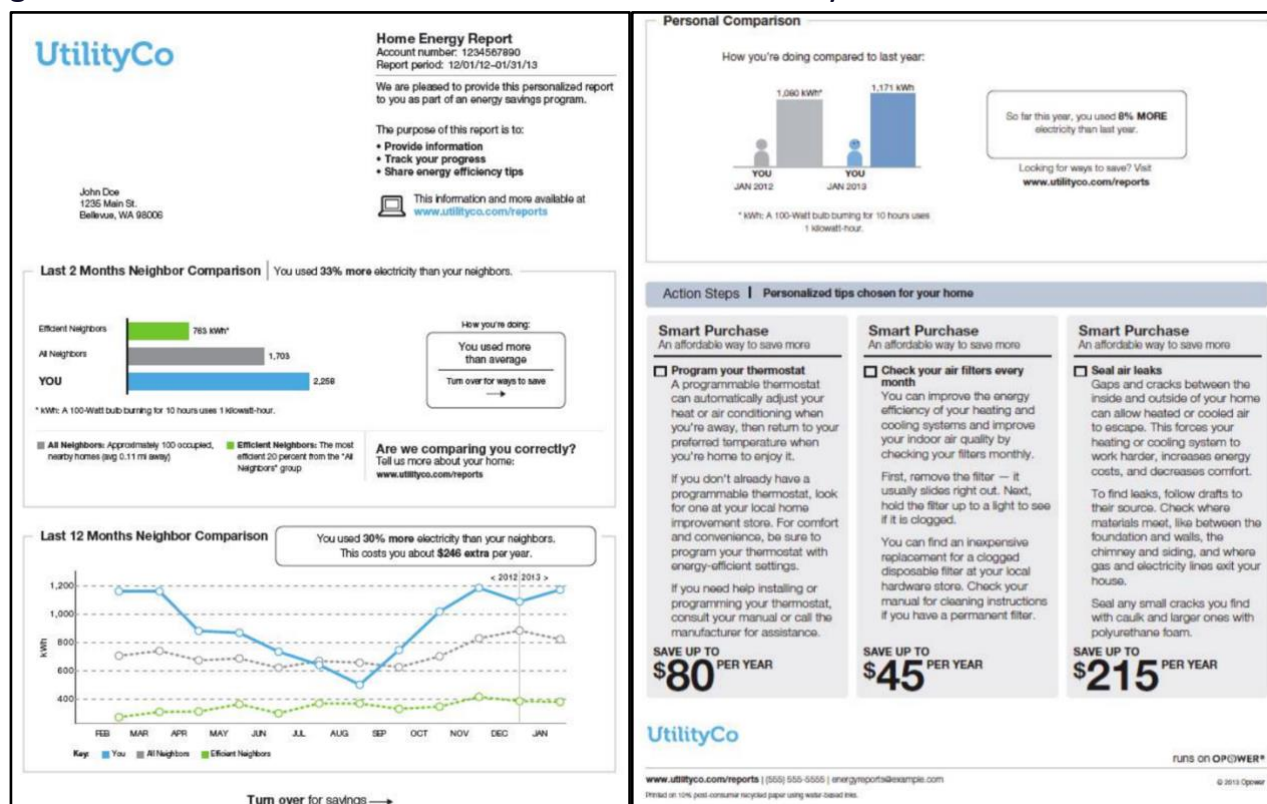
## Energy Reduction – Midwest and West Coast, U.S.<sup>ix</sup>

**Problem:** To promote environmental sustainability, it's critical that we make strides to reduce our energy use. While many households would agree with this goal, we often don't see a subsequent reduction in energy use.

**Behavioral Insights Employed:** Personalized home energy reports employing the influence of social norms were sent to single-family households (an example of which can be seen below). These reports indicated how each household's energy use compared to their neighbors of similar house size and heating type. The reports also helped make it easy for residents to change their energy consumption habits by including steps on how to conserve energy.

**Methods:** Randomized control trial, decision making tools

**Result:** The intervention led to an average reduction in energy consumption of 2 percent or 0.62kWh per day. This reduction was also shown to be sustained over time even after households stopped receiving reports. Those who used the most energy prior to the intervention were also found to reduce their energy consumption by a greater amount than those who consumed less initially.



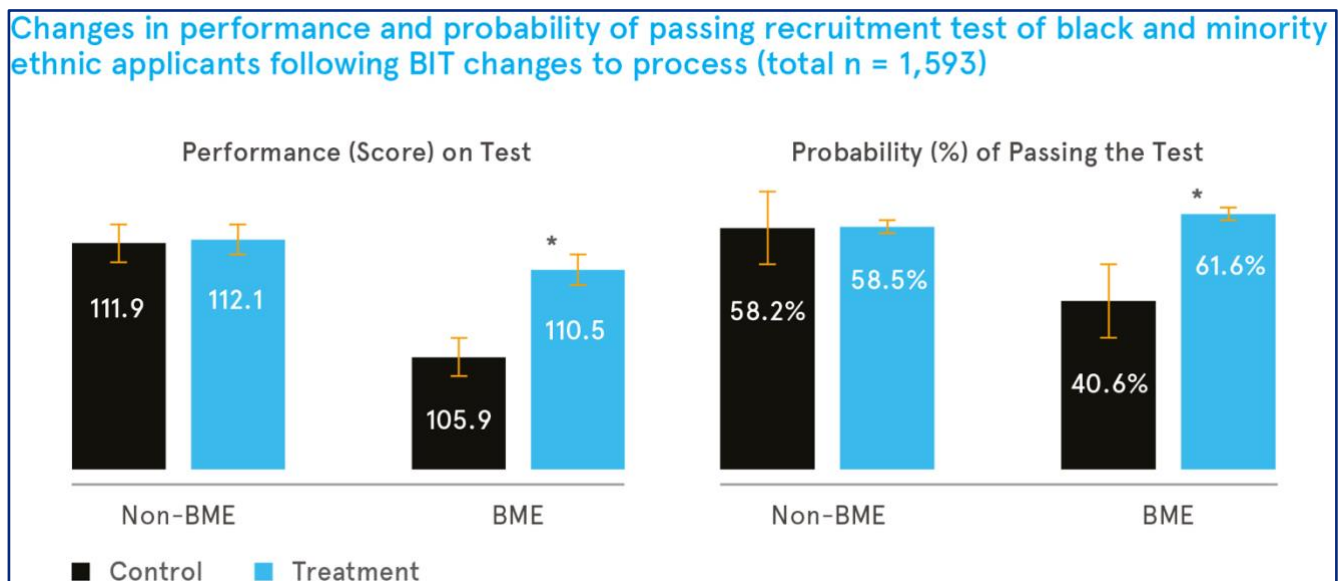
## Diversity in Hiring – Avon and Somerset Territories, UK

**Problem:** Evidence demonstrated that Black and Minority Ethnic (BME) candidates for the police force were consistently achieving less favorable results during the Situational Judgment Test portion of the recruitment process. With fewer BME candidates successfully completing this test, the diversity and robustness of the police force was threatened.

**Behavioral Insights Employed:** Additional sentences were added to the email inviting candidates to take the test. These sentences prompted applicants to reflect on what they could positively contribute to the police force and how that might impact their community. By intervening before the test, candidates were being primed towards positive personal reflection.

**Methods:** Randomized control trial, behaviorally informed design

**Result:** BME candidates who received these reflective prompts significantly improved both their score and their probability of passing the test relative to those who did not. On average, candidates who read the additional sentences scored 5 points higher and increased their probability of passing on to the next stage of the recruitment process by 20 percentage points.



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## Key Takeaways



Behavioral science insights can be applied to a variety of policy sectors to improve outcomes.



Impact evaluation, especially using randomized control trials, is a key component of applying behavioral insights. By first starting small and learning what works, changes can be made throughout the implementation process that allow behavioral interventions to have a large impact when scaled up.



Behavioral insights can often be applied at little to no cost by making small changes to existing processes.



Behavioral science insights can serve as a tool to understand and help address policy problems where observed outcomes don't match expected interests. Behavioral science can provide an understanding of the motivations behind behaviors, and governments can harness that knowledge to achieve optimal outcomes both for individual residents and communities.

# Applications to Montgomery County

Montgomery County can join in on these efforts to be a leader in finding and exploring behavioral science applications in the public sector to improve government processes and policy outcomes.

## Existing Efforts

Montgomery County Government has already begun exploring ways to apply behavioral insights. One example is a partnership between Montgomery County Recreation and the Office of Innovation, which worked to make it easier for residents to apply for RecAssist dollars by making it harder to make common mistakes while filling out the form. By working with those involved in processing forms and using human centered design, small changes were made in the format of collected information (see the before and after of the form redesign process below). Redesigning the form in this way improved the ease of the application process for both residents and government employees, which helps to ensure more residents are able to access available resources through this program.

### BEFORE

**Montgomery County Recreation**  
**RECASSIST APPLICATION**  
January 1, 2019 to December 31, 2019

**PLEASE PRINT**

Applicant's Name: \_\_\_\_\_ Birthdate: \_\_\_\_\_ Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_  
Spouse's Name: \_\_\_\_\_ Spouse's Birthdate: \_\_\_\_\_ Street Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_  
Email Address: \_\_\_\_\_ Is the address above a new address? ☐ Yes ☐ No

Montgomery County residents who provide proof they are current recipients of assistance from the programs listed below are eligible. The amount awarded is based on the type of assistance the family or individual is receiving.

**PLEASE SUBMIT COPIES OF THE DOCUMENTS LISTED BELOW. DO NOT SEND ORIGINALS - WE CAN NOT RETURN ANY OF YOUR RECORDS.**

- Approval letter from MD Department of Human Resources/MCG Department of Social Services for Temporary Cash Assistance (TCA) or Supplemental Nutrition Assistance (SNAP). This letter indicates your period of eligibility and lists the names of the household members receiving benefits. SNAP documentation must show the amount of monthly assistance received.
- Approval letter from Maryland Health Connection showing who is receiving Medicaid from the state of Maryland. This letter must be dated within the last year.
- Current Care For Kids Identification Card(s).
- Supplemental Security Income (SSI). This document must be dated within a year of your application. (We do not accept Social Security Income or SSDI).
- Maryland Energy Assistance (MEAP/EUSP). This document is the grant status letter.
- Approval letter for enrollment in the Rental Assistance Program.
- Proof you and/or your dependents reside in a shelter. This must be a letter from the shelter dated within a month of your application and, if applicable, list your dependents living with you.
- WIC recipients. A copy of your participant identification folder.

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ Birthdate: \_\_\_\_\_ Male/Female: \_\_\_\_\_

Applicant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**STAFF ONLY**

# RecAssist Assistance: \_\_\_\_\_ Type: T F M K S E H R W Amt. of RecAssist \$: \_\_\_\_\_  
Documentation Verified by: \_\_\_\_\_ Date: \_\_\_\_\_ Mgmt. Services: \_\_\_\_\_ Posted Date: \_\_\_\_\_

### AFTER

**Montgomery County Recreation**  
**RECASSIST APPLICATION**  
January 1, 2020 to December 31, 2020

**PLEASE PRINT**

Applicant's Name: \_\_\_\_\_ Birth date: \_\_\_\_\_  
First: \_\_\_\_\_ Last: \_\_\_\_\_ MM DD YYYY  
Phone Number: \_\_\_\_\_ Cell Number: \_\_\_\_\_ Email Address: \_\_\_\_\_  
Street Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Postal / Zip Code: \_\_\_\_\_  
Is this a new address? ☐ Yes ☐ No

**What benefits are you and/or your family members currently receiving?**  
Select all that apply.

☐ CARE FOR KIDS ☐ SUPPLEMENTAL NUTRITION ASSISTANCE  
☐ HOUSING ASSISTANCE FROM A SHELTER ☐ SUPPLEMENTAL SOCIAL SECURITY INCOME  
☐ MARYLAND MEDICAID ☐ TEMPORARY CASH ASSISTANCE  
☐ MARYLAND ENERGY ASSISTANCE ☐ WIC  
☐ MONTGOMERY COUNTY INHS - RENTAL ASSISTANCE PROGRAM

Your approval documentation must be dated within the past 12 months. Please submit copies of documents for the programs you have selected above. Do not send originals. We can not return any original files.

Only these family members listed below will be eligible to use the RecAssist funds:

Additional Family Members: \*

First: \_\_\_\_\_ Last: \_\_\_\_\_ Birth date: \* \_\_\_\_\_ Sex: \* \_\_\_\_\_  
MM DD YYYY M F  
First: \_\_\_\_\_ Last: \_\_\_\_\_ Birth date: \* \_\_\_\_\_ Sex: \* \_\_\_\_\_  
MM DD YYYY M F  
First: \_\_\_\_\_ Last: \_\_\_\_\_ Birth date: \* \_\_\_\_\_ Sex: \* \_\_\_\_\_  
MM DD YYYY M F  
First: \_\_\_\_\_ Last: \_\_\_\_\_ Birth date: \* \_\_\_\_\_ Sex: \* \_\_\_\_\_  
MM DD YYYY M F  
First: \_\_\_\_\_ Last: \_\_\_\_\_ Birth date: \* \_\_\_\_\_ Sex: \* \_\_\_\_\_  
MM DD YYYY M F

I hereby authorize Montgomery County Recreation to verify my eligibility for the benefits identified above by reviewing the document attached or I hereby authorize the Maryland Department of Human Services Family Investment Administration/Department of Social Services to release benefit grant records to Montgomery County Recreation.

I understand that this verification is required to determine the amount of RecAssist funding that may be awarded to me or my family members for participation in Montgomery County Recreation qualifying activities and programs. I understand that this consent is given only for this purpose.

Applicant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**STAFF ONLY**

Type of Assistance: \_\_\_\_\_  
Total Award: \_\_\_\_\_  
Verified/Applied by: \_\_\_\_\_  
Date: \_\_\_\_\_

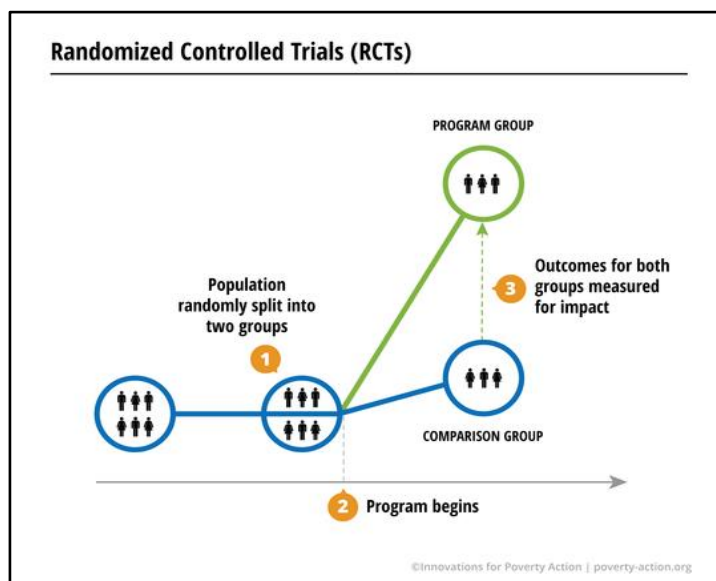
**FIND MORE INFORMATION AT WWW.MDCOREC.COM/RECASSIST**



## Emerging Efforts

The focus of this research aimed to demonstrate how behavioral science might be applied in new contexts in Montgomery County. One untapped area of potential is using behavioral science and conducting randomized control trials to test which communication elements in government outreach efforts work best when requesting action from residents. Informational outreach around COVID-19 vaccines was identified as a suitable option to pursue due to its 1) feasibility for low-cost evaluation, 2) current relevance and ongoing monitoring, and 3) ability to lend itself to existing published research around behaviorally informed messaging.

Working collaboratively with Susanne Brunhart-Wiggins – Senior Information Technology Specialist and a GovDelivery administrator, Mary Anderson – Public Information Officer for the Department of Health & Human Services, and Michael Baskin – Chief Innovation Officer, a randomized control trial was designed to compare differences in engagement between a standard email message and a behaviorally informed email. This effort also tested whether including the language “Read this in Spanish” at the top of the email with a link directly to the translated message found in the second half of the email would generate more engagement from Spanish-speaking residents.



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## Project and Evaluation Design

### Process

Four emails were crafted to test differences in engagement:

- 1) Traditionally written content with a “Read this in Spanish” link at the top
- 2) Traditionally written content without a link to the Spanish translation
- 3) Behaviorally informed content with a “Read this in Spanish” link at the top
- 4) Behaviorally informed content without a link to the Spanish translation

These emails were sent on Friday, July 16, 2021 at approximately 3PM to four different groups, each with approximately 34,000 subscribers. Each email contained the message in English, followed by the same message translated in Spanish. To measure engagement with each type of message, all links were uniquely tagged and specified to identify which language they were in. Additionally, in the behaviorally informed messages, links found within the checklist were tagged uniquely.

As the last vaccine update email, it was important to maintain some consistency in the structure of the message to not lead residents to question the information they were receiving. Additionally, given the critically important nature of public health information around the pandemic, the information provided was consistent across both messages. The primary differences were in how the information was presented, explained below.

### Platform

GovDelivery is the communications and outreach platform currently used by the county. It has programmed ability to randomize a specified proportion of recipients to receive a designated message, and automatically generates reports after each sent message. These reports indicate the number of recipients, number of messages which failed to send, open rates, and click through rates for each link. Not all subscribers received a message due to predictable errors such as invalid email addresses and technical issues with email service providers, which are typical for all messages sent by the county using this platform.

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## Participants

The listserv of participants contained approximately 137,490 individuals signed up to receive a newsletter providing updates around Montgomery County's COVID-19 response and vaccine updates. Subscribers received both an email and a text message which read "COVID-19 Vaccine Update for 7/16/2021. See details: // Actualización sobre la vacuna COVID-19 para el 16/7/2021. Ver detalles: [[SHORT\_URL]]."

The URL linked to the email message for their assigned version.

## Behaviorally Informed Email, Explained

The following are researched best practices and insights drawn from the field that informed the making of the behaviorally informed email:

- Call to action: "Don't miss these easy steps to help your community through the pandemic!"
  - Aiming to grab the audience's attention
  - Using appeals to loss aversion ("don't miss...")
  - Using appeals to social/communal ties ("help your community...")
- Checklist
  - Making information easy to process by placing any action items together at the top of the email
  - Marking the first item as already completed helps readers feel an immediate sense of accomplishment, or a "head start," and encourages readers to continue on
- Intentional language
  - Using appeals to loss aversion ("don't miss your chance to win")
  - Making actions and information Easy, Attractive, Social, and Timely<sup>x</sup>
    - Ex. "It's easy to secure your chance."
    - Ex. "Don't let our lead slip away – can you find three more people to get vaccinated?"
    - Ex. "Together we can stop a surge of the Delta variant."

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## Standard Email (English)



### COVID-19 Vaccine Update Información Actualizada sobre la Vacuna COVID-19

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#### COVID-19 Update 7/16/2021

[Lea este mensaje en español](#)

#### **Delta Variant Circulating in Community; Current Vaccines Provide Protection**

Despite the high rate of vaccination in Montgomery County, there are still many adults and adolescents who have not been vaccinated. In addition, children under the age of 12 are too young to be vaccinated. This can create a risk for a new rise in infections, particularly with the new variants, including the Delta variant. This variant currently accounts for more than one in every five COVID-19 cases in the United States.

Vaccination remains the best defense to prevent a surge of the Delta variant. Learn more about the [Delta variant](#). Find out where to get vaccinated by visiting [www.GoVaxMoco.com](http://www.GoVaxMoco.com).

#### **State Launches VaxU Scholarships for 12- to 17-Year-Olds Who Get COVID-19 Vaccinations**

Maryland recently launched the VaxU scholarship program, a \$1 million incentive program to encourage 12- to 17-year-olds to get vaccinated against COVID-19. To qualify, students must live and be vaccinated in Maryland. The first two scholarship winners were Montgomery County residents.

Two winners will be drawn at random each week for eight weeks until Labor Day, and winners will receive a \$50,000 scholarship for full tuition and fees at any public, in-state institution of higher learning. To end the program, four winners will be selected on Labor Day. For more information, visit the [VaxU Scholarship Promotion website](#).

#### **COVID-19 Vaccine by the Numbers**

As of Friday, July 16, 716,098 Montgomery County residents (68.1%) have received their first dose of the COVID-19 vaccine, and 653,128 residents (62.2%) are fully vaccinated. (These numbers do not include Montgomery County residents who have been vaccinated outside of Maryland.) In counties with more than 300,000 residents, Montgomery County has the highest percentage of people fully vaccinated and this is something to be proud of.

#### **Continue to Stay Updated About COVID-19 and Vaccinations**

This is the final issue of the weekly Vaccine Update. [Subscribe now to the County Executive's weekly newsletter](#) to stay up to date and find the latest at [www.montgomerycountymd.gov/COVID19](http://www.montgomerycountymd.gov/COVID19).

#### **Remember:**

- For an online record of your COVID-19 vaccination, [view your account at Maryland MyIR](#). MyIR is Maryland's online immunization record system.
  - People who have had COVID-19 still need to be vaccinated.
  - Testing remains important for those unvaccinated, those traveling and anyone who may have symptoms.
  - The COVID-19 Call Center is open Monday through Friday from 9 a.m. to 5 p.m. Call 240-777-2982 with your COVID-19 questions.
-

## Behaviorally Informed Email (English)



### COVID-19 Vaccine Update Información Actualizada sobre la Vacuna COVID-19

#### Vaccine Update – July 16, 2021

[Lea este mensaje en español](#)

**Don't miss these easy steps to help your community through the pandemic!**

1. Read this email ✓
2. Not vaccinated yet? Now is your time! Schedule an appointment at [www.GoVaxMoco.com](http://www.GoVaxMoco.com)
3. Give a student in your life the chance to win \$50,000. Learn more about the [VaxU Scholarship](#) and sign up your scholar for a vaccination today
4. Stay in the know! [Subscribe](#) today to stay up to date on the latest in our efforts to beat COVID-19

#### Delta variant circulating in our community; Getting vaccinated provides protection

The Delta variant is now circulating in our community – and that creates new risks. While most residents have already stepped up to get vaccinated, those who have yet to be vaccinated and children under 12 too young to be vaccinated are at risk for new infections from the Delta variant. This variant currently accounts for more than one in every five COVID-19 cases in the United States. Learn more about the [Delta variant](#) and know our best defense remains the same – now is the time to get everyone eligible for a vaccine, vaccinated. Together, we can stop a surge of the Delta variant.

#### Attention students: Win a \$50,000 scholarship just for getting vaccinated!

Don't miss your chance to win! Maryland VaxU is giving away \$1 million to 12-17-year-olds who get vaccinated against COVID-19. It's easy to secure your chance. If you are a student aged 12-17 who lives in Maryland and you get vaccinated in Maryland, you'll be entered to win a \$50,000 scholarship for full tuition and fees at any public, in-state institution of higher learning. We're selecting winners every Monday from now until September 6. The sooner you get vaccinated, the more chances you have to win. Montgomery County residents already won the first two scholarships!

#### We're leading in vaccinations! Help your loved ones stay safe and MoCo stay on top!

Montgomery County has the highest percentage of people fully vaccinated in counties with more than 300,000 residents. We can be proud! 716,098 Montgomery County residents (68.1%) received their first dose of the COVID-19 vaccine, and 653,128 residents (62.2%) are fully vaccinated. (These numbers do not include Montgomery County residents who have been vaccinated outside of Maryland.) We're on track to return to the people and places we love. Don't let our lead slip away – can you find three more people to get vaccinated? [Sign them up here.](#)

#### Continue to stay updated about COVID-19 and vaccinations

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- The COVID-19 Call Center is open Monday - Friday from 9 am - 5 pm. Call 240-777-2982 with your COVID-19 questions.

Call to action appealing to social influences and loss aversion

Checklist included to clearly identify and simplify action items for readers, with the first item marked as completed to provide a "head start"

Language directly calls out to readers and appeals to various motivations



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## Results

Version	# of Unique Opens	# of Unique Clicks	Open Rate	Click Rate
1 – Traditional w/ link to Spanish text	8554	572	42%	3%
2 – Traditional w/o Spanish link	8607	571	43%	3%
3 – Behaviorally Informed w/ link to Spanish text	8759	508	43%	2%
4 – Behaviorally Informed w/o link to Spanish text	8737	515	43%	3%

Unique opens were not analyzed since the subject line of the two messages were consistent. Unique clicks, or the number of recipients who clicked a link included in the message,<sup>xi</sup> was analyzed to measure differences in engagement.

A two-sample test of proportions conducted in STATA between versions 1 and 3 and between versions 2 and 4 both yielded statistically significant results at the 5% level. The p-value reported for the test between versions 1 and 3 is 0.016, and between version 2 and 4 is 0.044. Since the p-value is less than 0.05 in both cases, we reject the null hypotheses that there is no difference between the click rates. There is evidence to suggest that the click rates from the two messages are different.

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## Analysis

### Successes

This test demonstrated the efficacy of existing county government outreach tools. Using no additional budget or technology, this randomized control trial was conducted successfully in a short timeframe, indicating both the feasibility and value of implementing impact evaluation as an effective tool to inform outreach efforts.

Anecdotally, feedback from a longtime resident of Montgomery County who regularly reads county communications indicated a clear, positive response to the behaviorally informed email. The resident expressed that she noticed the call to action and checklist immediately, and, as a former employee in the public health sector, stated her appreciation of this distilled presentation of critical community health information.

### Areas for Growth

The link to the Spanish text was unfortunately not tagged properly, so no results were reported on whether that link generated more engagement among Spanish-speaking residents. Additionally, definitive lessons about what messaging elements specifically are most impactful in generating engagement from residents cannot be drawn from this report due to the multitude of differences between the two messages. The small but statistically significant results in favor of the standard message are not consistent with what we would expect to see based on behavioral science research. There are several reasons why this might be the case. Potential confounding factors may include: 1) this was the final vaccine update message and contained very little new information. Residents may have information overload or pandemic fatigue, which might affect the rates at which emails were opened and engaged with; 2) Not all informational links may have been applicable to all residents. For example, not all residents may have or know a student eligible for the vaccine scholarship, thus they would not be likely to click on that informational link; 3) Other behaviorally informed practices, such as including a more engaging subject line or postscript, were not included. Further testing is needed to determine the comparative effectiveness of a link to the text in Spanish at the top of the email and the use of behaviorally informed messaging.

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## Research Limitations

The following are limitations inherent in the scope and design of this test. Future tests should aim to redress these limitations when possible:

- 1) It is not possible to determine which elements specifically within each message generated more engagement.

**For the future:** more tests should be run testing single, small changes at a time to determine the relative effectiveness of each element.

- 2) Because these messages were sent to those who had willingly signed up for the newsletter subscription, we cannot definitively draw conclusions about the general population from these results. Those who signed up for the newsletter may systematically differ from the general population, since they can be considered to have “opted into treatment.”

**For the future:** tests should be run on email listservs deemed to be representative of the broader population the test is seeking to gain insights about. The sample group should be as diverse and representative as possible.

- 3) There are no means to track where those signed up for the newsletter reside, so it is not possible to definitively state that our sample was made up of solely Montgomery County residents, although this can be reasonably assumed.

**For the future:** additional means of engaging with residents, such as surveys and mailed flyers, should be explored so information can definitively be linked to Montgomery County residents, however, individual data privacy should be maintained.

- 4) These vaccine update messages were sent after the vaccine has been available for some time, and thus may not have engaged residents as much as initial updates may have.

**For the future:** tests should be run proactively, whenever feasible, to learn from and iterate responsively throughout ongoing outreach efforts.

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## Key Takeaways



Testing through randomized control trials can serve as an effective tool in conducting impact evaluation and identifying what works. Understanding what helps generate engagement can help spur action among residents towards county-wide goals.



This test was conducted at no additional cost to the county given that it used the existing outreach tool, GovDelivery. It does, however, require additional personnel capacity to conduct the test robustly and perform the appropriate statistical analysis using the information generated by the reports.



Impact evaluation can, and should, be first conducted within a relatively small, controlled setting, then scaled up using learnings and making appropriate changes to maximize impact.



Making small changes to the language and format of email communications can have an impact on resident engagement.


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# Recommendations


Montgomery County has already demonstrated a commitment to opening the door to the use of behavioral science insights by establishing the Office of Innovation and undergoing partnership projects. To build on this foundation and heighten these efforts, I suggest that council pursue the following recommendations:

## 1 Pass legislation to increase the use of behavioral science insights

In September 2015, then President Obama passed an Executive Order entitled “Using Behavioral Science Insights to Better Serve the American People.”<sup>xii</sup> The goal of this order was to ensure all programs and policies utilized an understanding of behavioral insights to improve their efficiency and effectiveness. Now in 2021, we have even more research available indicating the benefits of the use of behavioral science in government operations, and an even greater imperative to use these available tools and insights. Montgomery County Council should pass similar legislation encouraging executive departments and other government agencies to broadly:



Identify and develop strategies for applying behavioral science



Evaluate the impact of applied behavioral science towards county policy goals



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## 2 Increase capacity to apply behavioral science by establishing a dedicated behavioral design team

The Council should consider funding the creation of a behavioral design team to spearhead these efforts. There are currently no designated staff charged with applying behavioral science expertise and conducting impact evaluation to inform policy and programmatic changes. I recommend following the structure necessary to establish a behavioral design team as outlined by ideas42, a leading nonprofit “using applied behavioral science to improve governance and public services” that has partnered with the White House and several major U.S. cities to create behavioral design teams.<sup>xiii</sup> According to these guidelines, a Behavioral Design Team in Montgomery County should:

- Be embedded in government and work collaboratively across agencies and departments
- Have sustained support and funding
- Be housed in an agency that demonstrates access, authority, and agility
- Have a staff with expertise in behavioral science, research and evaluation, and public policy

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# Conclusion

Government is already “in the business of behavioral change.”<sup>xiv</sup> With every policy passed, program introduced, and communication released, residents are subject to new information upon which they will make decisions and choose a course of action. To ensure these decisions and actions align with policy goals, it’s imperative for governments to utilize behavioral science insights. Research has demonstrated the efficacy of behavioral science insights to improve government operations and policy outcomes. The onset of COVID-19 has demonstrated the importance of using behavioral science tools and practices to motivate citizen behavior towards imperative goals. While we hope the need will not always be as pressing as this past year has demonstrated, what’s certain is that behavioral science insights are a useful and applicable tool to improve the effectiveness and efficiency of government. Given additional investment, Montgomery County can be a leader in behavioral science applications and discover new ways to achieve prioritized policy goals.

*“Adopting the insights of behavioral science will help bring out government into the 21<sup>st</sup> century in a wide range of ways—from delivering services more efficiently and effectively; to accelerating the transition to a clean energy economy; to helping workers find better jobs, gain access to educational opportunity, and lead longer, healthier lives.”*

— President Barack Obama, September 2015<sup>xv</sup>

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