
BEHAVIORAL TDM

April, 2020

Duke





**15% of America's annual
emissions come from car
transportation**



**MAKING PEOPLE
HAPPIER, HEALTHIER, AND
WEALTHIER
WITH BEHAVIORAL SCIENCE
AT HOME AND ABROAD**

thought-provoking world scientific Field science
Cutting-edge Embedded
academic applied
testing
research
Evidence-based Rigorous
Entrepreneurial solutions Accessible applications community spirit Industry
innovative
Behavioral experts real

OUR APPROACH



**BEHAVIORAL
ECONOMICS**



**HUMAN-CENTERED
DESIGN**



**RIGOROUS
EVALUATION**



The Mayors Challenge

THE GOAL



**Decrease Single
Occupancy
Vehicle Use**



**Increase
Sustainable
Transportation
Use**

WE ITERATED OUR SOLUTIONS

DURHAM
CITY OF DURHAM

WELCOME TO THE CITY OF DURHAM, MARIEL! WE'RE GLAD TO HAVE YOU JOIN OUR TEAM

As a new employee, we have developed this tool to help you figure out what works for you!

Maureen Devlin, Durham City Hall
Distance home to work: 1.2 Miles Start Time: ~8am

WALK
Time: 27 minutes (5 min walking, 22 min on bus)
Cost: \$25/yr

BUS
Time: 27 minutes (5 min walking, 22 min on bus)
Cost: \$25/yr

BIKE
Time: 27 minutes (5 min walking, 22 min on bus)
Cost: \$25/yr

Need to get home right away? GoDurham provides an Emergency Ride Home for commuters. Call 505-555-1234 to schedule.

Have additional questions? Contact Maureen Devlin at 919-560-4366, x36462. Maureen.Devlin@durhamnc.gov | Office 1738 in City Hall

WELCOME TO THE CITY OF DURHAM, MARIEL! WE'RE GLAD TO HAVE YOU JOIN OUR TEAM

As a new employee, I have created this tool just for you. Our staff comes to work in many different ways, I'll help you figure out what works for you! Maureen Devlin

Maureen Devlin, Durham City Hall
Distance home to work: 1.2 Miles Start Time: ~8am End Time: ~4pm

Transport	Yearly Cost	Time	Other Benefits
Bus	\$25/yr	27 min	Free WiFi on bus
Walk	Free	23 min	Exercise
Bike	\$100-\$250/yr for maintenance	13 min	Exercise
Drive	\$1000-\$2400/yr for gas & parking	12 min	*Consider a Taxi if needed

WALK
Time: 23 minutes (5 min walking, 18 min on bus)
Cost: Free

BUS
Time: 27 minutes (5 min walking, 22 min on bus)
Cost: \$25/yr

BIKE
Time: 13 minutes
Cost: \$100/yr maintenance (or bike share for \$1/hr)

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THE MAYORS CHALLENGE

D3: DON'T DRIVE DOWNTOWN

Regina, you could be getting more out of your drive to downtown Durham!

25,000 CALORIES BURNED EXERCISING
50 HOURS OF TIME SAVED
\$2,400 IN FINANCIAL SAVINGS

LET US RECAPITULATE

WELCOME TO THE CITY OF DURHAM, MARIEL! WE'RE GLAD TO HAVE YOU JOIN OUR TEAM

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Maureen Devlin, Durham City Hall
Distance home to work: 1.5 Miles Start Time: ~8:30am End Time: ~4pm

Transport	Yearly Cost	Time	Other Benefits
Bus	\$25/yr	18 min	Free WiFi on bus
Walk	Free	31 min	Exercise
Bike	\$100-\$250/yr for maintenance	13 min	Exercise
Drive	\$1000-\$2400/yr for gas & parking	8 min + Parking	*Consider a Taxi if needed

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REGINA, YOU COULD BE GETTING MORE OUT OF YOUR DRIVE TO DOWNTOWN DURHAM!

8 POUNDS BURNED EXERCISING
50 HOURS OF TIME SAVED
\$2,400 IN FINANCIAL SAVINGS

Maureen, Downtown Durham is so 2017.

We have mapped your 2018 transit options! Join others in the Mayors Challenge for weekly prizes

Look at your personalized options in the map below from your home to workplace. This resource will help you make the most out of your commute. [Click here](#) to view your map in Google Maps.

Take the Mayors Challenge and win prizes.

80 min 60 min 44 min 38 min + parking

Not mapped 30 min + parking

Check-out your money and time savings!

If you were to commute by riding the bus to downtown Durham, you could re-capture money, time or shed calories over the year.

8 pounds BURNED EXERCISING

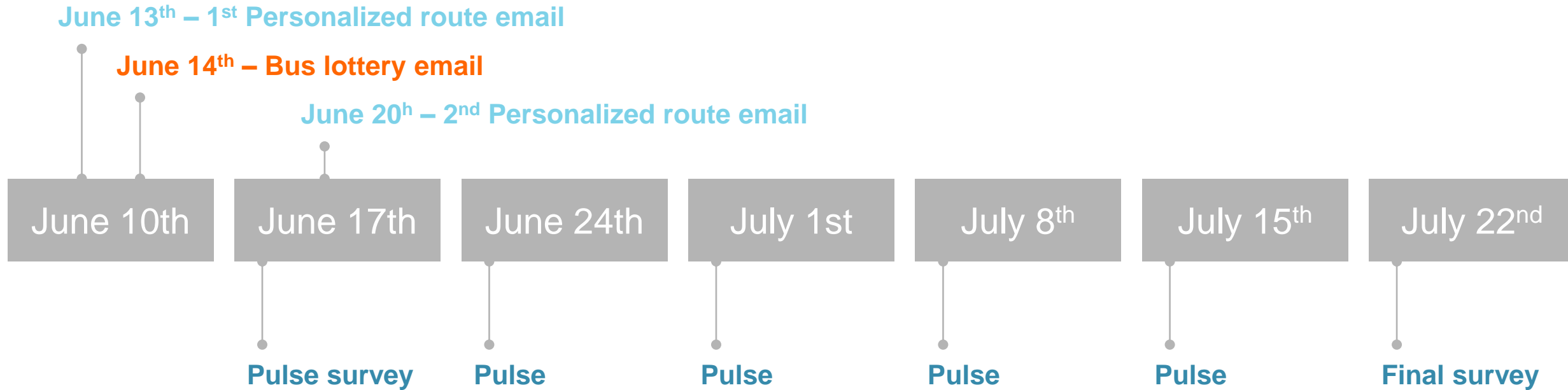
296 hours OF TIME GAINED

\$1,336 IN FINANCIAL SAVINGS

What is the Mayors Challenge and Why Me?

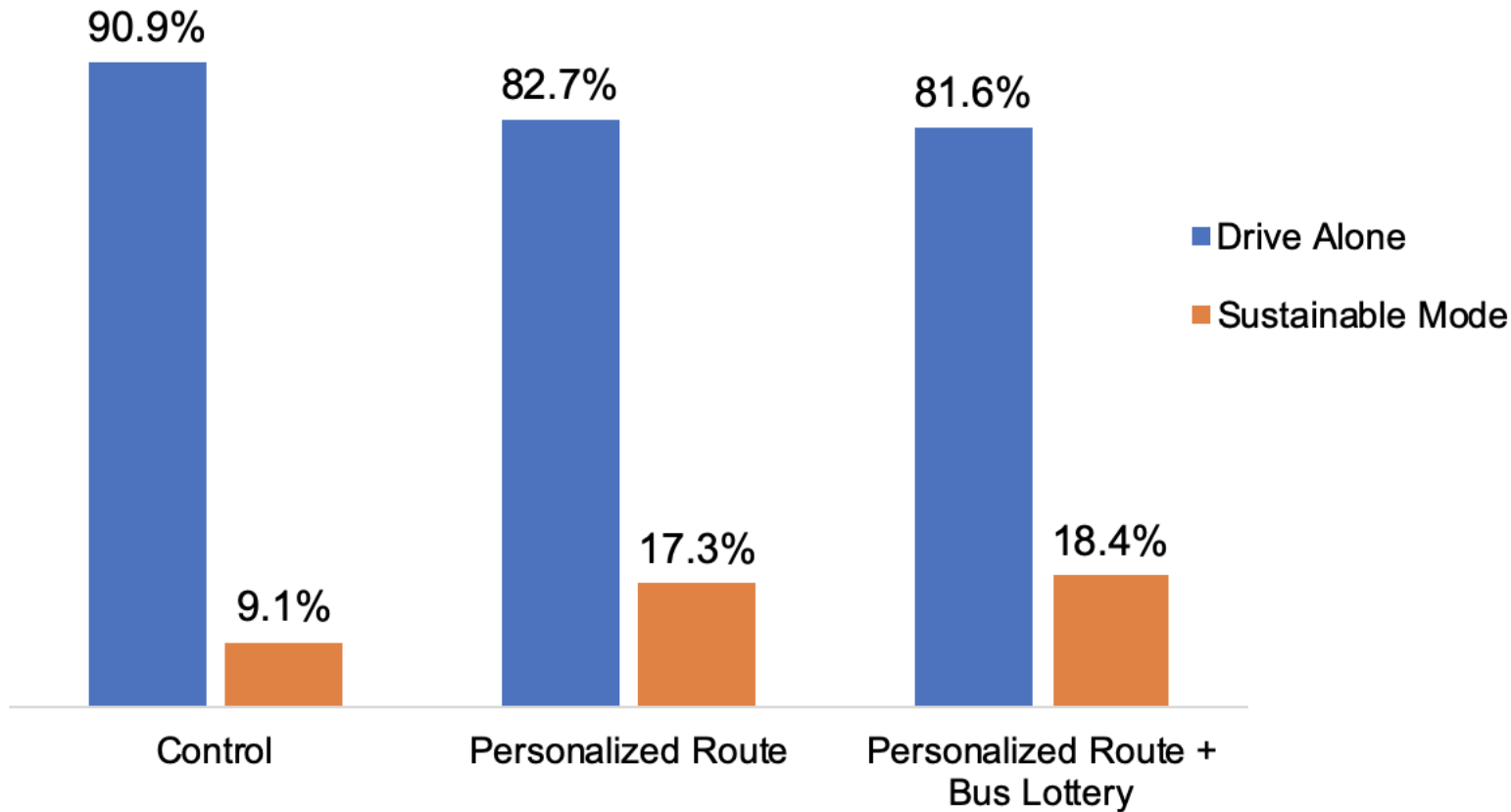
The Mayors Challenge is a 2015 initiative with the City of Durham and downtown Durham employers. This program encourages people working in the City to walk, bike, train, transit or car-pool to work. With an offering weekly prizes that range from \$50 to \$1,000, rewards credits and a number of other rewards for people who take the Mayors Challenge in their own downtown and by downtown modes of transportation.

WE RAN A RANDOMIZED CONTROLLED TRIAL



CITY OF DURHAM EMPLOYEES

Percentage of Commutes by Mode



**WE SEE A
9.3% REDUCTION
IN DRIVE ALONE
TRIPS AND A
9.3% INCREASE
IN SUSTAINABLE
TRIPS**

WE WON:



PILOT 2 - NORTH CAROLINA CENTRA



WE EXPLORED THE CONTEXT



Conducted two
exploratory surveys

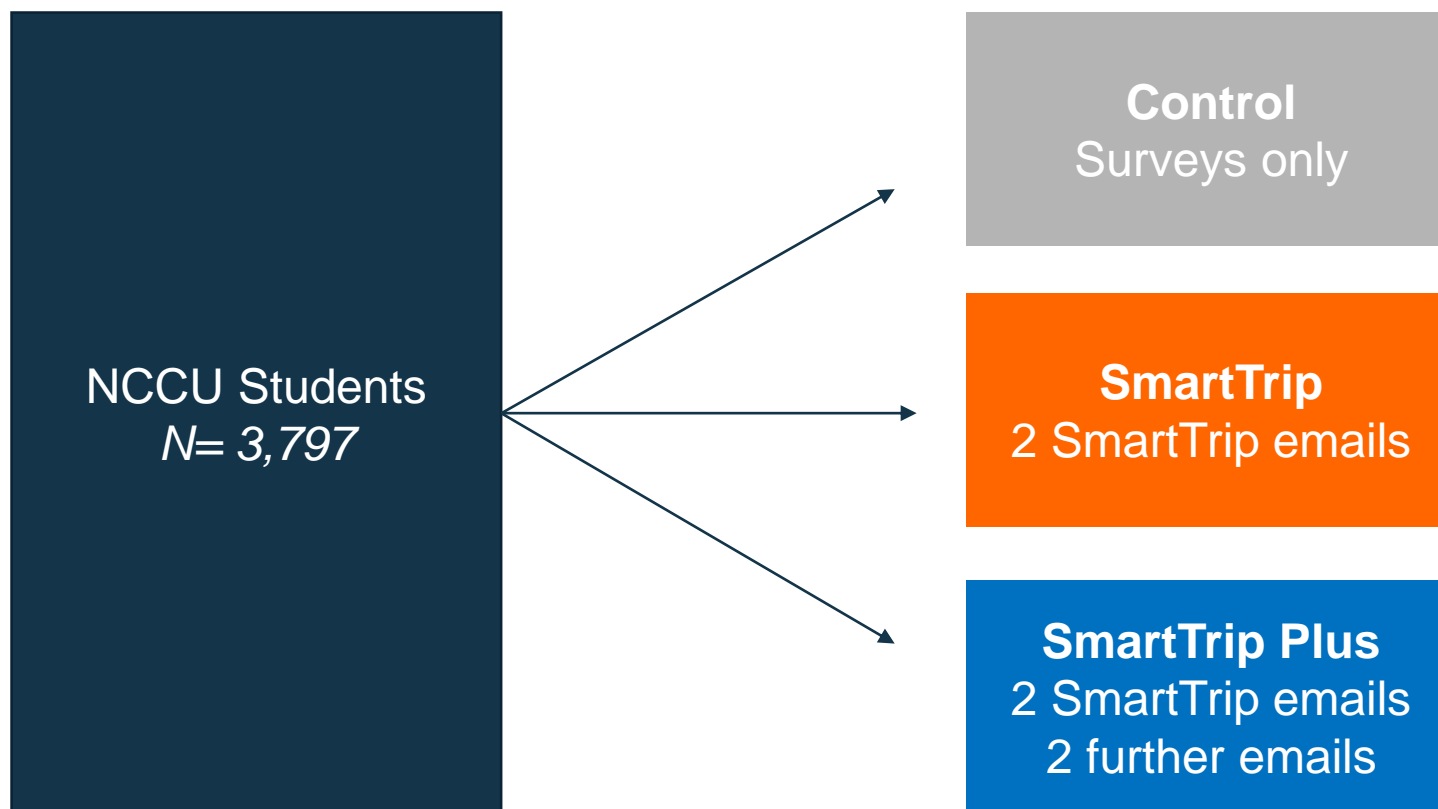


User tested with 18
NCCU students



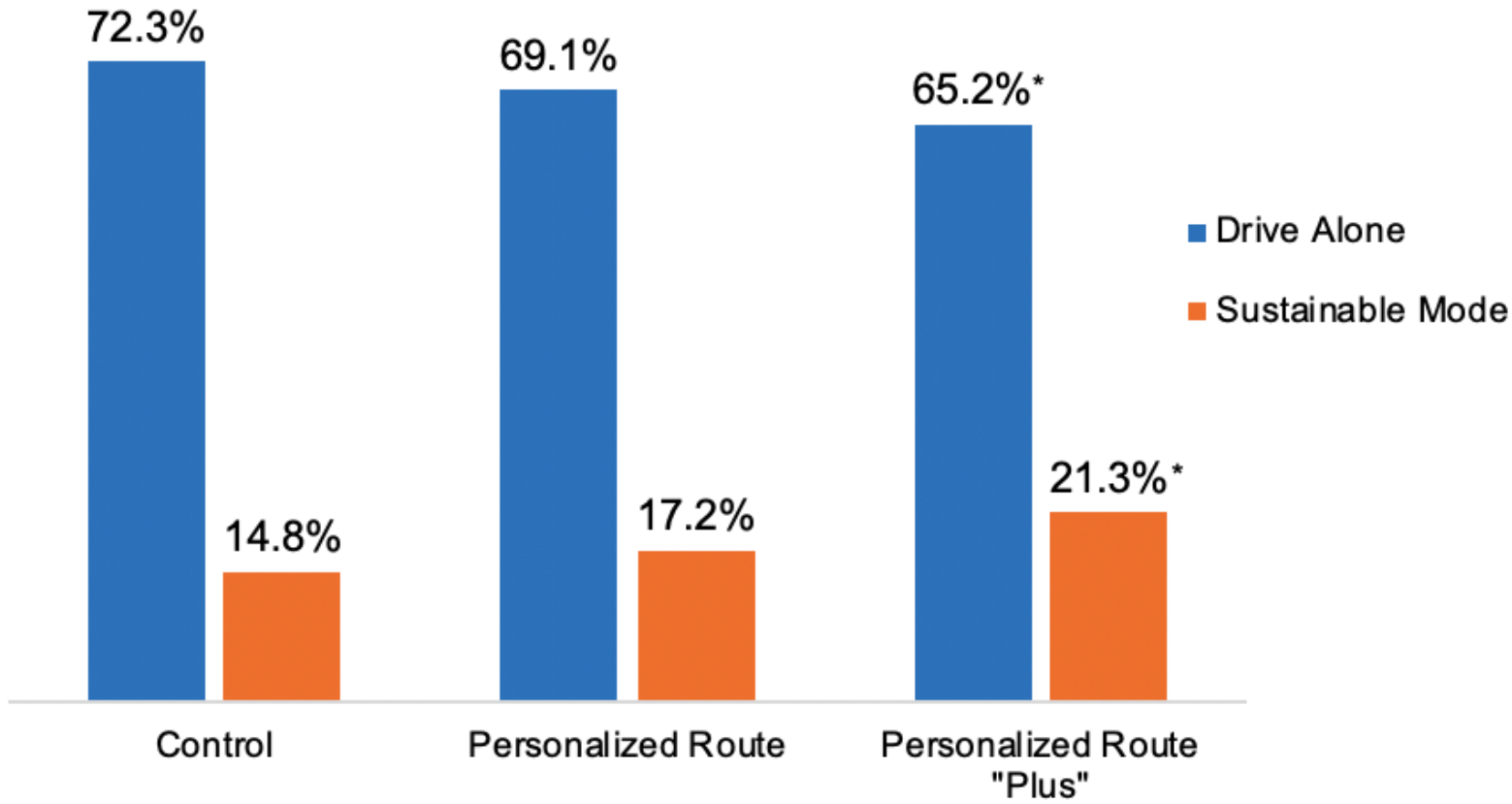
Conducted 17 expert
interviews

EXPERIMENTAL DESIGN



NCCU COMMUTER STUDENTS

Percentage of Commutes by Mode

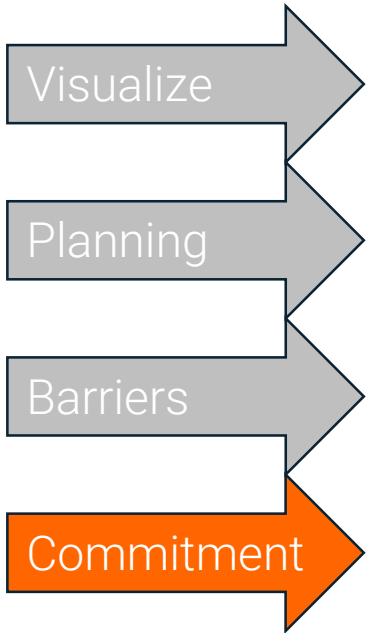


**WE SEE A
7.1% REDUCTION*
IN DRIVE ALONE
TRIPS AND A
6.5% INCREASE*
IN SUSTAINABLE
TRIPS**
Significant at $p < 0.05$

A photograph of a multi-lane highway with heavy traffic. In the center-right lane, a white Target delivery truck is visible. To the right, a yellow overhead sign reads "EXIT ONLY" with a downward arrow and "1/2 MILE". The scene is captured from a driver's perspective, looking down the road. The text "ONE NEW IDEA" is superimposed in large, bold, black capital letters across the middle of the image.

ONE NEW IDEA

COMMUTER COMMITMENT



Research shows that making a commitment to a goal helps people complete it. We now invite you to make an e-commitment to help achieve your goal.

I Joey, commit to earning time off by commuting 8 times per week by using the following sustainable modes: Bike.

I commit to earning time off by commuting sustainably.

I do not commit to earning time off by commuting sustainably.

Duke



**CENTER FOR
ADVANCED
HINDSIGHT**