

Mobility Justice – How On-Demand Transportation Creates Opportunities for Communities



#### **Today's speakers**



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#### **Agenda**

# Part 1: An Introduction to Mobility Justice

Distributive vs. Mobility Justice

Barriers to Access

Understanding the Public Transit Mode Shift

Addressing Barriers with On-Demand Technology



#### **Agenda**

## Part 2: The Example of BCGo Background

Demographics and Social Equity Challenges

Planning & Launch

Ridership Highlights

User Feedback

The Road Ahead



### PART 1

# INTRODUCTION TO MOBILITY JUSTICE

#### **Distributive Justice vs. Mobility Justice**

#### **DISTRIBUTIVE JUSTICE**

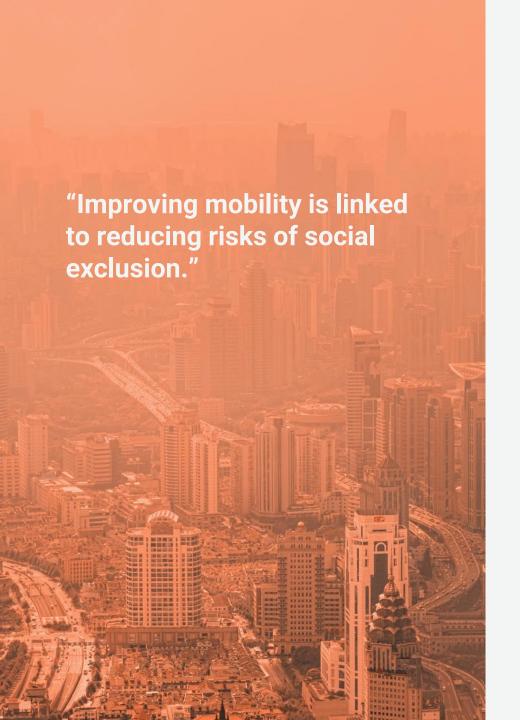
Ensures that physical accessibility to services is possible for all members of the community.

#### **MOBILITY JUSTICE**

Considers the accessibility of the entire journey-beyond the vehicle-for a broader range of bodies and capabilities.

**Vehicle requirements** 

Driver attitudes/training
Passenger conflict
Getting to/from the bus
Limited bus frequency
Additional planning/cognitive and
emotional labor
Diversity



### Mobility is a fundamental right for people in modern society.

Providing options for disadvantaged people is key to providing opportunities for everyone in our society.





#### **Barriers to 'whole journey' access**

#### **VISIBLE BARRIERS**

Long distances

Steep hills

Neglected pathways

Few curb cuts (ramps)

Poorly designed bus shelters

Lack of sidewalks, bike lanes and

crosswalks

Lack of lighting



#### **Barriers to 'whole journey' access**

### **INVISIBLE BARRIERS**

Suburban sprawl

Extensive planning

**Emotional labor** 

Value of time

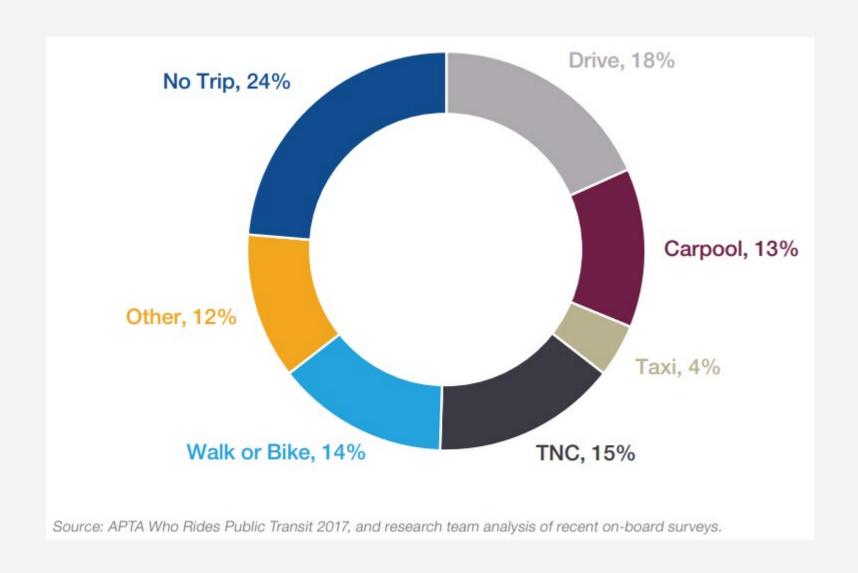
Funding decisions

Zoning codes

Policy



#### Understanding the idea of public transportation mode shift



#### How can on-demand technology address barriers?



Door-to-door or door-tohub service model

On-demand and advanced booking options

Customer sociodemographic analysis/consultation



Personal preferences held in profile

Additional boarding and alighting time automatically allocated for mobility assistance

App accessibility testing



100% wheelchair accessible fleet

Configurable for other mobility needs (e.g., oxygen tanks, service animals; etc.)

Smaller, more agile vehicles



### PART 2

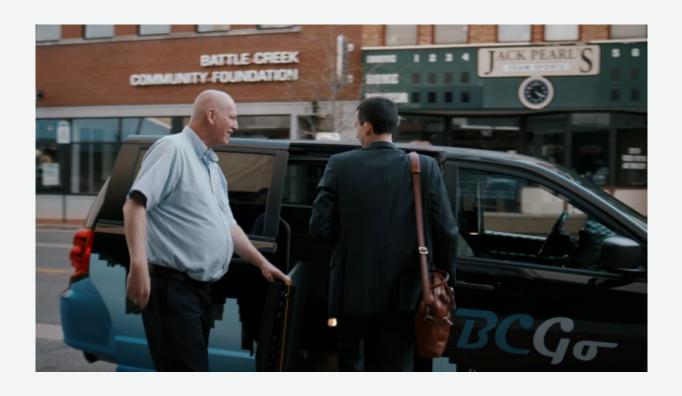
The Example of BCGo



BCGo is a door-to-door microtransit service that operates throughout Calhoun County, including Battle Creek, Marshall, Albion, and Springfield.

BCGo, formally known as the Calhoun County Coordinated Mobility pilot, launched on March 8, 2021 funded by a Michigan Department of Transportation Service Initiatives Grant.

BCGo was created to demonstrate the feasibility of countywide on-demand public transportation. By providing transportation to areas previously un(der)served, BCGo has been successful in expanding access to education, employment, healthcare and social activities for the residents of Calhoun County.





718 SQ MILE SERVICE ZONE



**DOOR-TO-DOOR SERVICE** 



2 VEHICLES



WHEELCHAIR ACCESSIBLE VEHICLES



12 MONTH MICROTRANSIT FEASIBILITY PILOT

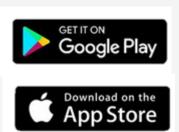


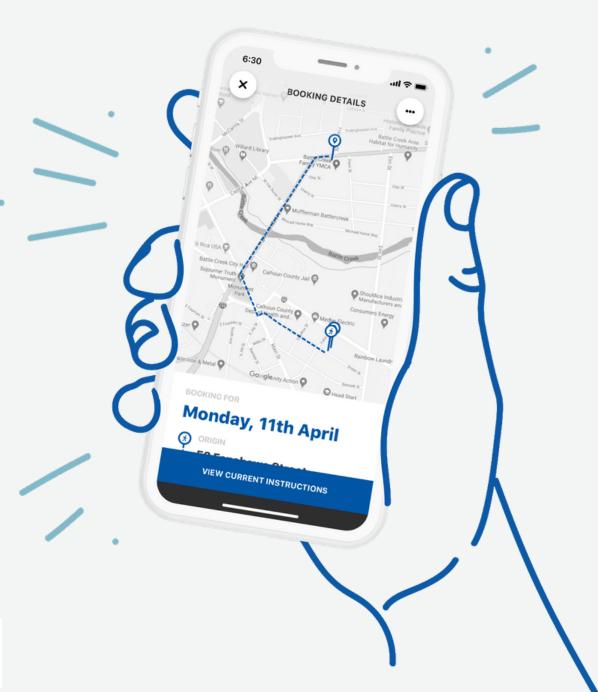
COORDINATED MOBILITY PROJECT

#### **BCGo Calhoun County app**

- BCGo currently operates Monday through Friday
   6:00am to 5:00pm and Saturday 9:00am to 5:00pm
- Fares range from \$3.00 to \$15.00 and are based on distance traveled. \$3.00 additional passenger fee.
- BCGo is a "shared ride" service, the technology will match multiple passengers who are heading in the same direction.
- BCGo app provides up to date trip information including vehicle location, estimated arrival time, and trip notifications to indicate when your vehicle is on the way/arrived.
- Trips can be scheduled up to two weeks in advance.

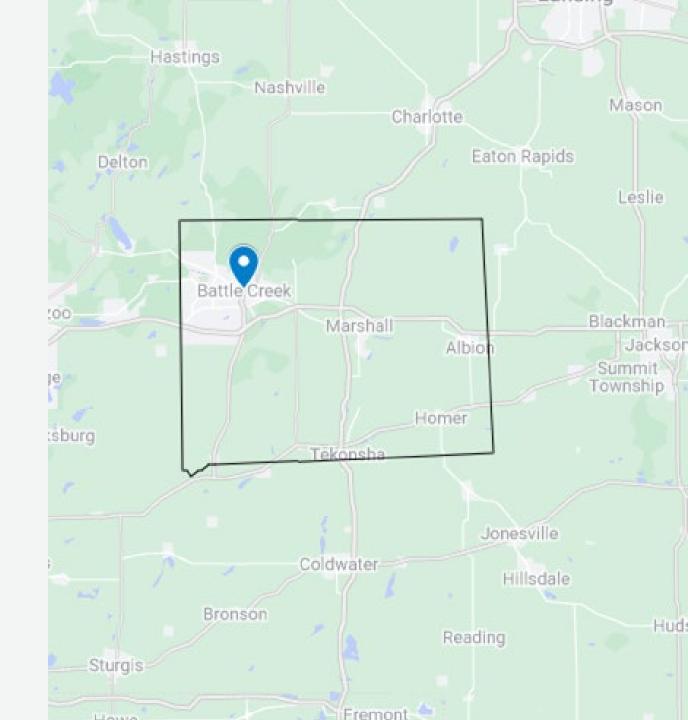






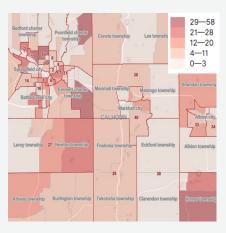
### **BCGo Operating Environment**

- Population: ~133,000 residents
- Service area: 718 square miles (County-wide)
- Geography:
  - 4 cities with ~72Kresidents
  - Remainder mostly rural

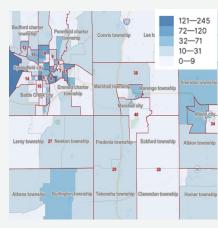


#### BCGo demographics and social equity challenges

- 69% of the population is under 150% of the poverty line
- 6% more <u>senior citizens</u> than the national average
- 2% more people with <u>disabilities</u> than the national average
- Significant number of households with <u>no access</u>
   <u>to a personal vehicle</u>



Owner occupied households with no vehicles available (2020)



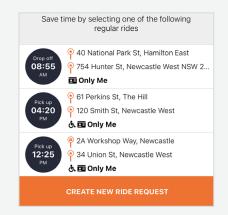
Income below poverty level + disability (2020)

#### **BCGo Timeline**

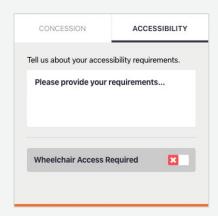
TRANSIT STUDY PILOT EXTENSION EXPANSION

2020 2021-22 2022-23 2023+

#### Tailoring a solution for rural and disadvantaged residents



#### **ADVANCED BOOKING**



**VEHICLE ACCESSIBILITY** 



MULTIPLE WAYS TO BOOK



**SMART ROUTING** 

#### **BCGo ridership highlights**

14,500+

Trips completed since launch

750+

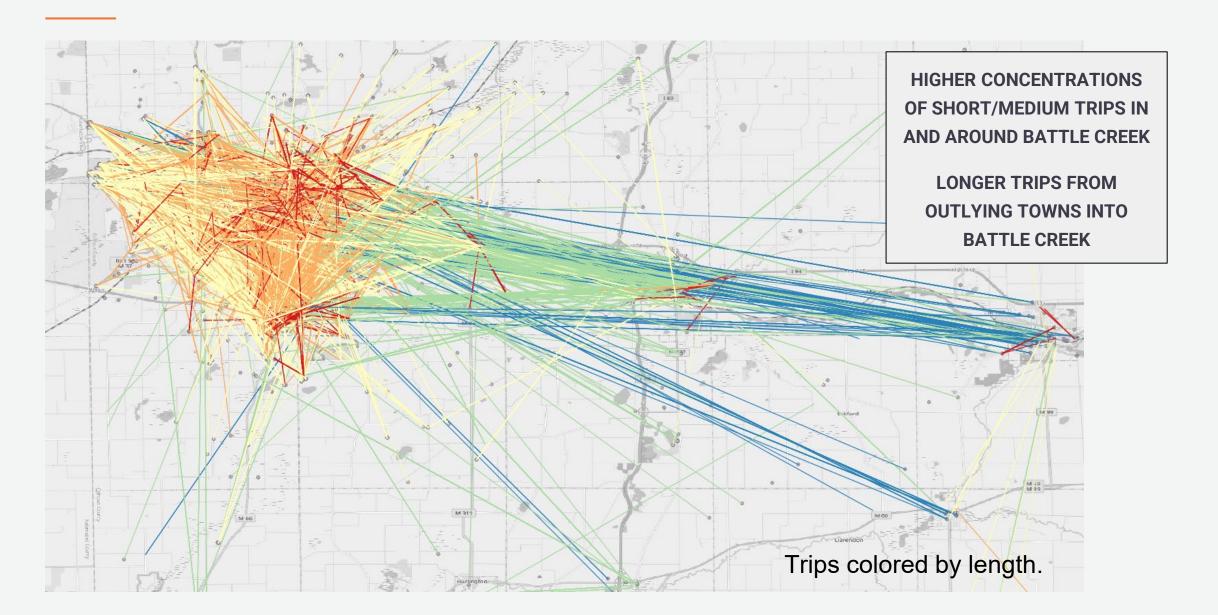
Trips completed by riders with mobility assistance needs

~90%

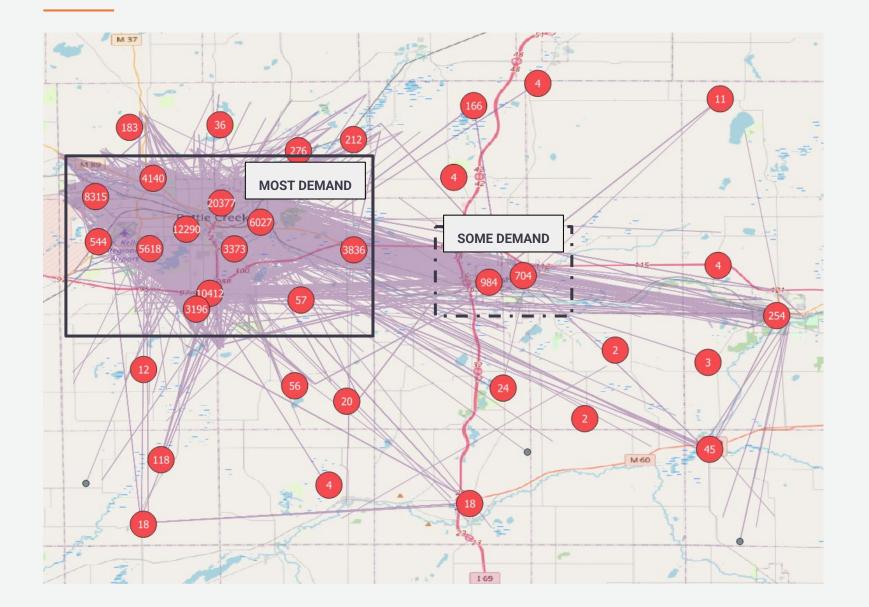
On-time or early pickups and drop-offs



#### **Trip Requests - color coded by length**



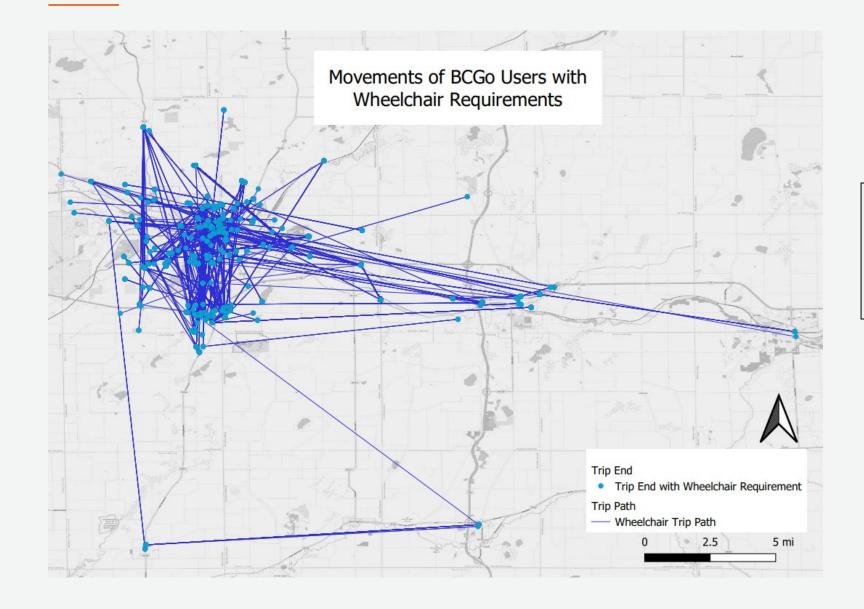
#### **Trip Requests - key request destinations**



MAP OF KEY
ORIGIN/DESTINATIONS

NUMBER IN RED CIRCLE
DEPICTS NUMBER OF
REQUESTS TO/FROM THAT
LOCATION

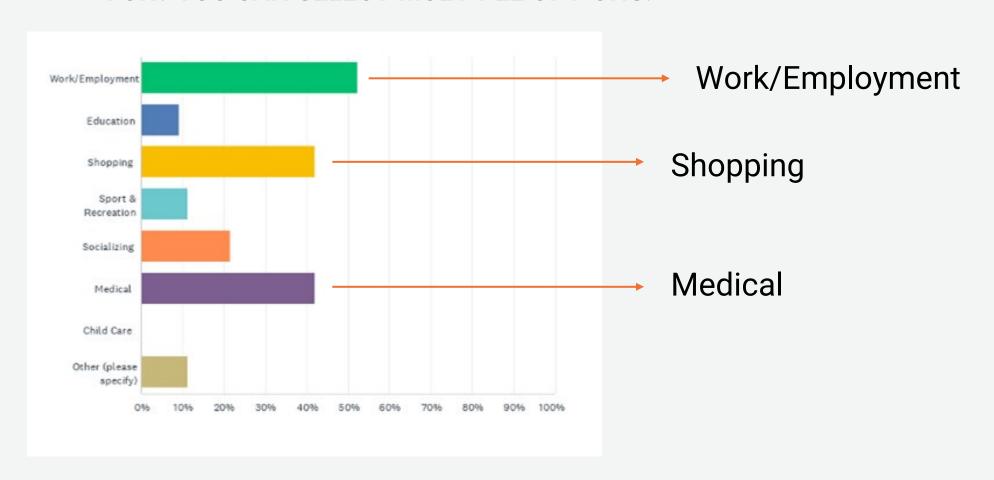
#### Map of trips for users with wheelchair requirements



MANY TRIPS WITHIN BATTLE CREEK,
BUT BCGO IS ALSO PROVIDING
CRITICAL ACCESS FOR RESIDENTS
IN RURAL AREAS

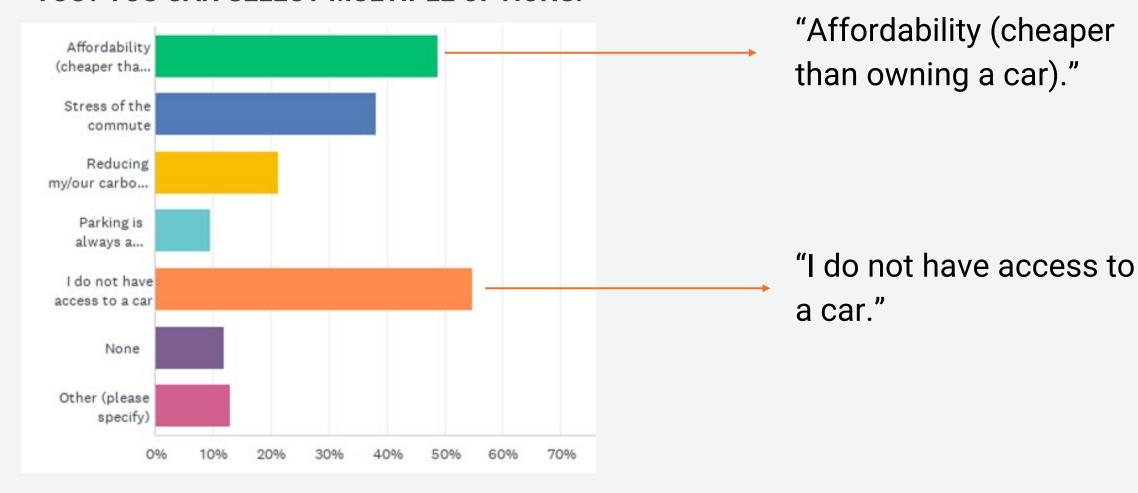
#### **User survey results: kinds of trips**

IN GENERAL, WHAT KINDS OF TRIPS DO YOU USE BCGO FOR? YOU CAN SELECT MULTIPLE OPTIONS.



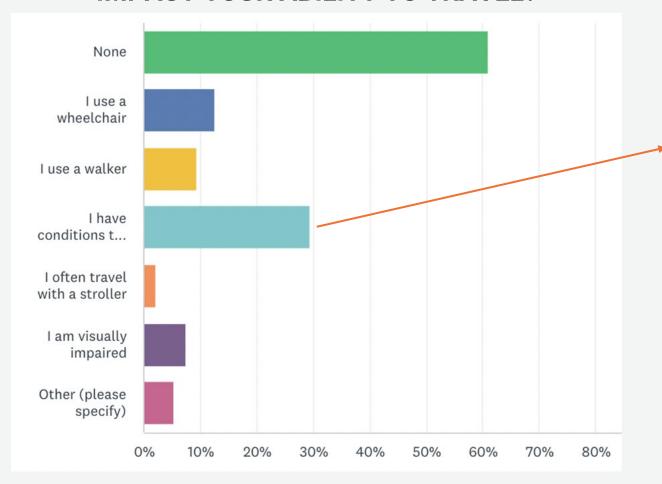
#### User survey results: problems solved

WHAT PROBLEM(S) DOES BCGO SOLVE FOR YOU? YOU CAN SELECT MULTIPLE OPTIONS.



#### **User survey results: mobility challenges**

### DO YOU HAVE MOBILITY CHALLENGES THAT IMPACT YOUR ABILITY TO TRAVEL?

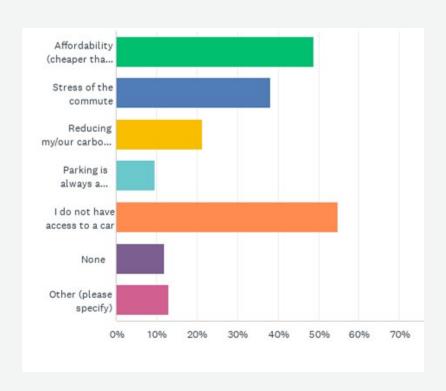


"I have conditions which make it difficult to walk more than 200 feet."

#### **Positive Community Impact**

#### **Top three problems BCGo is addressing for residents:**

- (1) No access to a car
- (2) Affordability (cheaper than owning a car)
- (3) Stress of the commute



"I now have an option to get out since being in a wheelchair"

"I can get myself to places without asking people for rides"

"It's inexpensive and I don't have to take several buses and public transportation is extremely time consuming"

"Easier to get to my appointment, and walking up to the bus stop." "I get to travel to school and my sports activities. I can travel directly to my location without having to wait and transfer to another bus to get to my location."

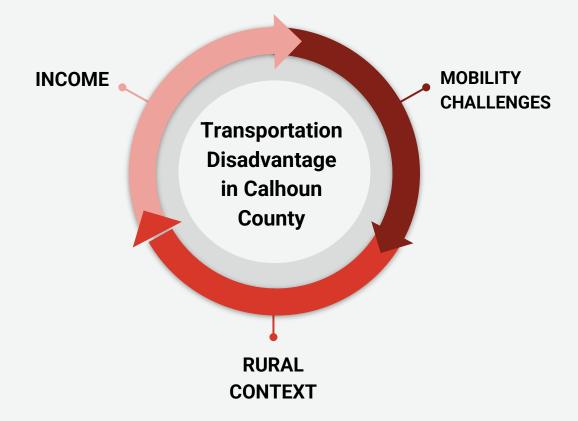
> "Allows me to reach more destinations reliably"

"I can get to places that the buses couldn't get me to."

"It has made things less stressful for me to get around and I am truly thankful for this service"

### Addressing Transportation Disadvantage in Calhoun County

- There are economic, operational and social barriers which result in underserved communities in Calhoun County:
  - Difficult geographies (rural, low density)
  - Income disadvantage
  - Mobility challenges
- BCGo is addressing many of these barriers and helping connect local residents to employment opportunities as well as local medical and retail resources > additional resources would maximize the impact even further





# QUESTIONS

### **Thank You!**

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**FOR MORE INFORMATION:** 

https://www.bcgomi.com/

http://www.battlecreekmi.gov/





Putting transit where the people are.

