

Regional Technology and Operations Activities

Transportation Coordinating Committee

February 19, 2021

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- Regional Transportation Systems Management and Operations (TSMO) Subcommittee
- Regional TSMO Strategic Plan Initiatives
- Current activities underway in the region
- ITS4US Grant
- CTAA Grant

Regional TSMO Subcommittee

- First meeting February 17, 2021
- Over 40 Attendees
- Discussion
 - Current activities in the region
 - What focus will be

Regional TSMO Strategic Plan Initiatives

1. Strengthen TSMO Planning and Institutions
2. Enhance Data Sharing and Management
3. Encourage TSMO Innovation
4. Deploy Connected and Automated Vehicle Technologies
5. Advance Regional Coordination and Network Communications
6. Strengthen Work Zone and Event Management
7. Enhance Transit Operations
8. Advance Mobility As A Service

Current Activities: Grants

- [IMI](#) – ATL - ATL RIDES
- [CTAA](#) – ARC - Integrate demand responsive transit (DRT) systems through a transactional data exchange
- [ITS4US](#) – ARC - Safe Trips in a Connected Transportation Network
- [ATCMTD](#) – GDOT - Emergency Vehicle Preemption Using Connected Vehicle Technology
- [Work Zone Data Exchange \(WDZx\)](#) – GDOT - new data capture and exchange capabilities to produce WZDx feeds

Current Activities: Projects

- Automated Fare Collection – MARTA
- Xpress Bus Connected Vehicle Pilot – ATL
- Major Mobility Investment Program (MMIP) – GDOT
- Regional Connected Vehicle Program (CV1K) – GDOT/ARC
- Local
 - City of Sandy Springs – Georgia Smart TSP pilot
 - Gwinnett County – Smart Corridor Peachtree Industrial Boulevard
 - Paulding County – New TMC

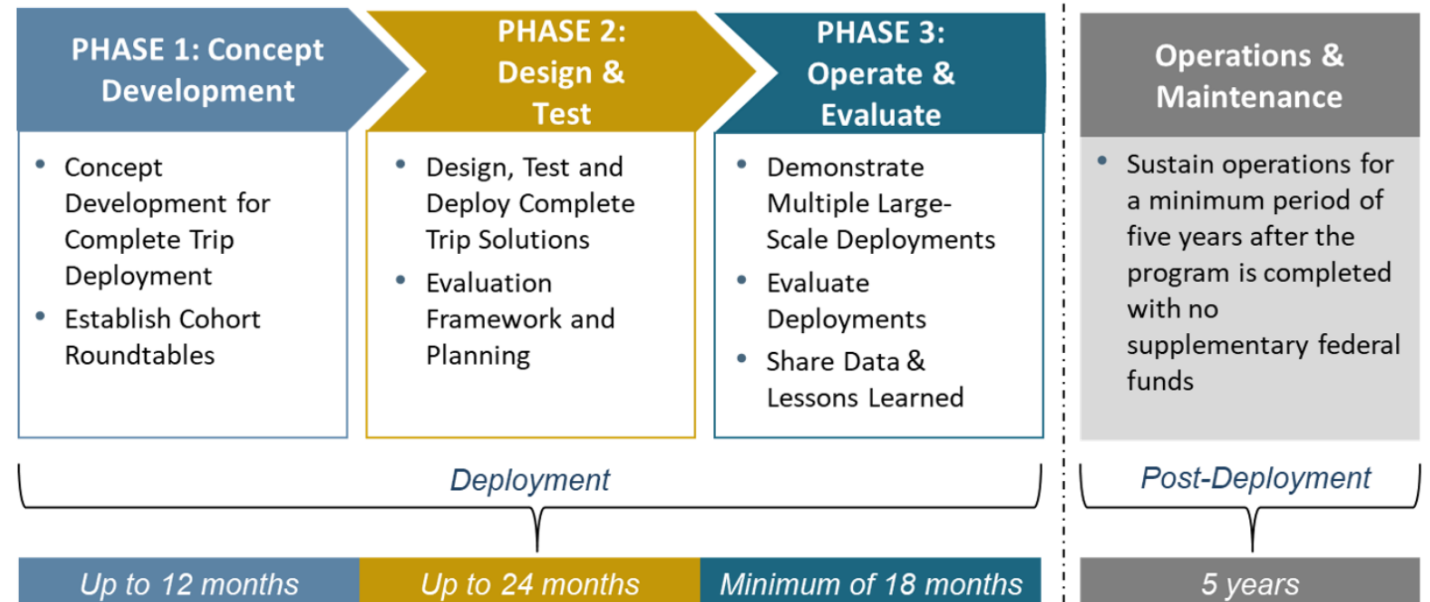
Current Activities: Programs

- Joint Data Purchasing – GDOT/ARC
- Regional Safety Strategy – ARC
- TIP Solicitations/Project Evaluation – ARC
- Regional TSMO Strategic Plan – ARC
- Regional Transit Fare Policy – ATL

Complete Trip – ITS4US Phases

Goal: solve mobility challenges of all travelers to go from origin to destination without gaps

- Phase 1: Concept Development
- Phase 2: Design and Testing
- Phase 3: Operations and Evaluation



Source: USDOT

<https://its.dot.gov/its4us/>

Complete Trip – ITS4US Phases

- **Project Award: \$9,388,404**
- Phase 1: Concept Development
 - Budget – \$1.3M
- Phase 2: Design and Testing
 - Budget – \$6.7M
- Phase 3: Operations and Evaluation
 - Budget – \$3.4M
- Post-Deployment Operations Maintenance
 - Not funded through this program

KEY PROJECT TEAM MEMBERS



Kofi Wakhisi, ARC
Project Manager



Maria Roell, ARC
Concept Development



Polly Okunieff, GO Systems
System Development



Daniel Piotrowski, Gwinnett County
Local Development

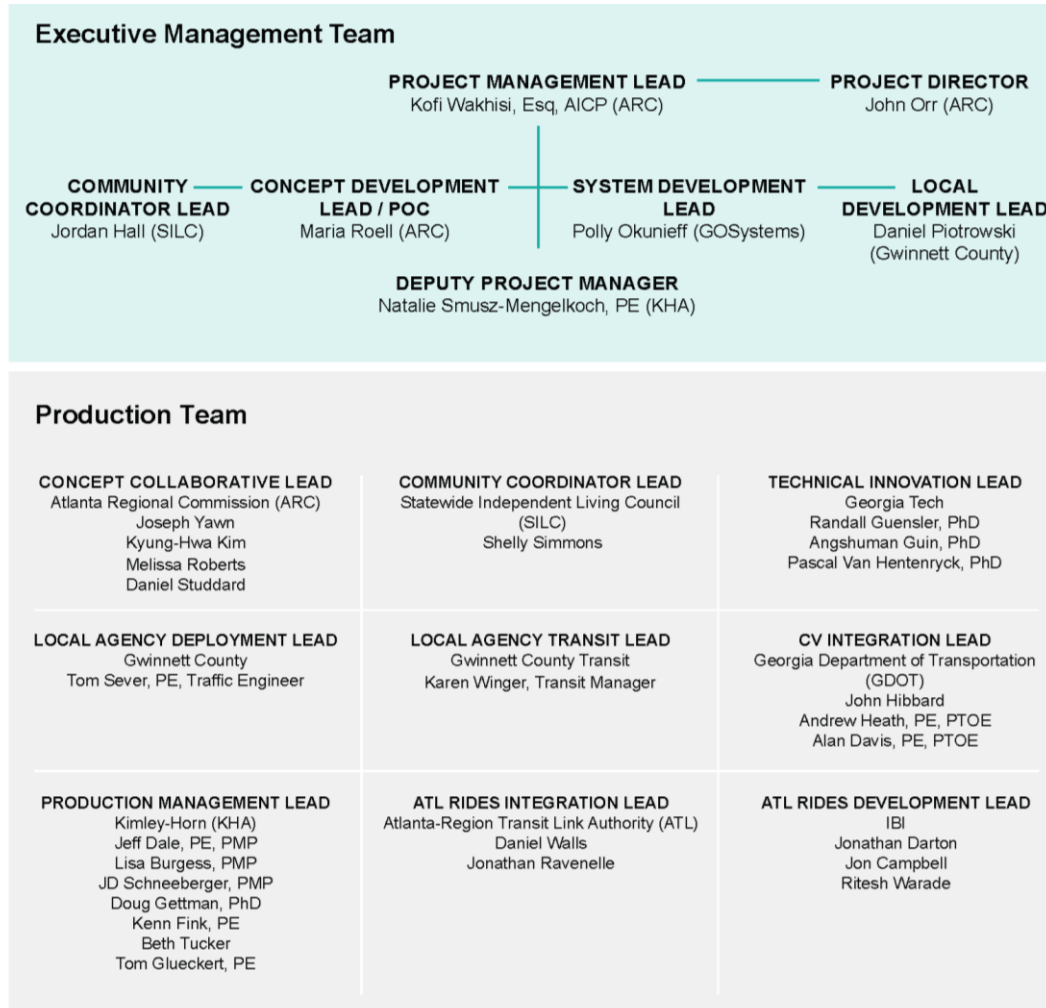


Jordan Hall, SILCGA
Community Coordinator



Natalie Smusz-Mengelkoch, Kimley-Horn
Deputy Project Manager

PROJECT ORGANIZATION AND PARTNERSHIPS



Team Members:

ARC

Gwinnett County

Kimley-Horn

GO Systems

SILCGA

GDOT

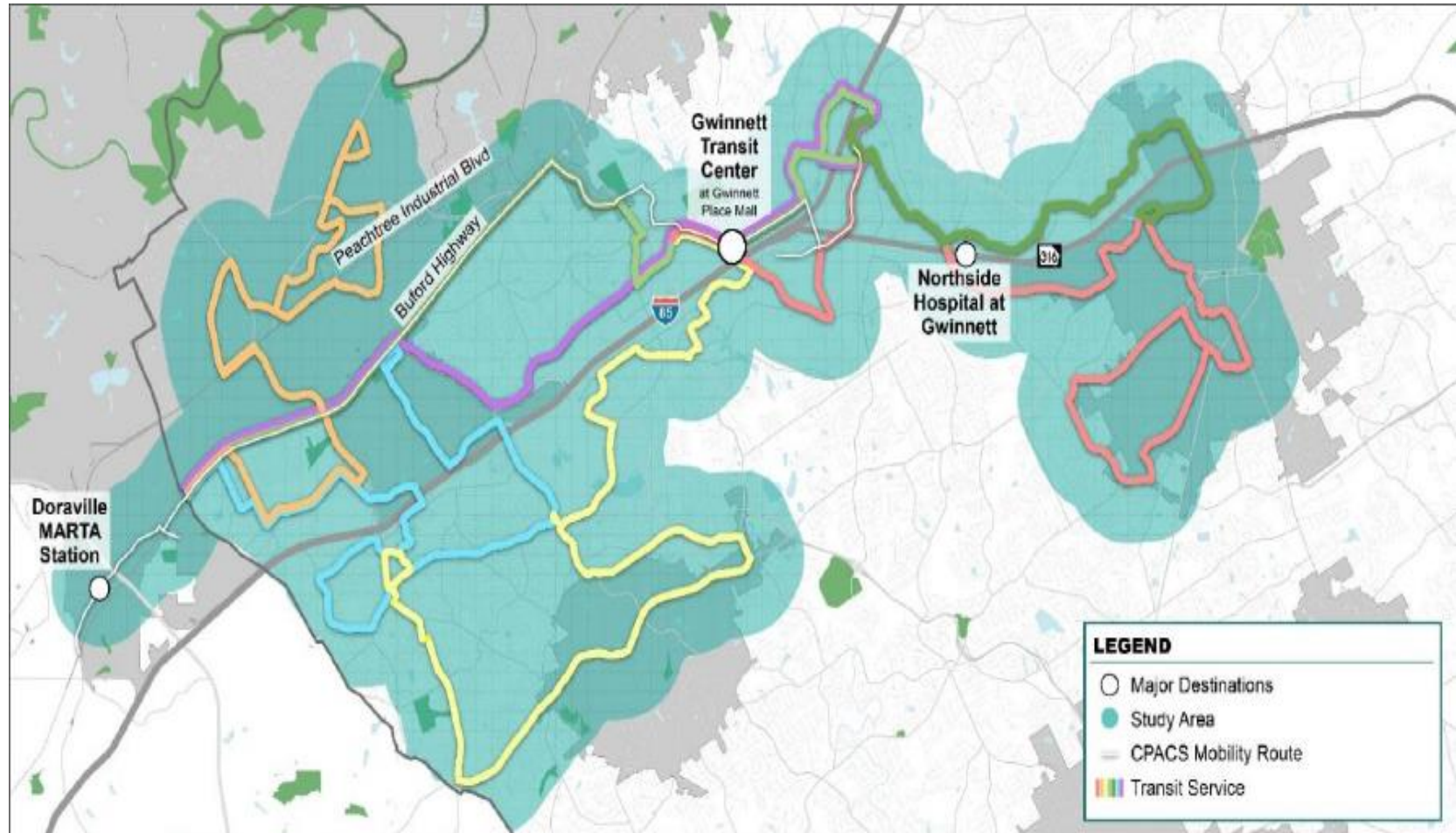
The ATL

IBI

GA Tech

PROJECT CONSIDERATIONS

- Richly diverse area
- 280,000 residents
- Major transit hubs
- Suburban land use with wide and high-speed roadways
- Inconsistent pedestrian infrastructure



UNDERSERVED POPULATIONS & STAKEHOLDERS

- **UNDERSERVED POPULATIONS**

- People with physical or cognitive disabilities
- Older adults
- Limited English Proficiency (LEP) residents
- Low income
- Zero-vehicle households

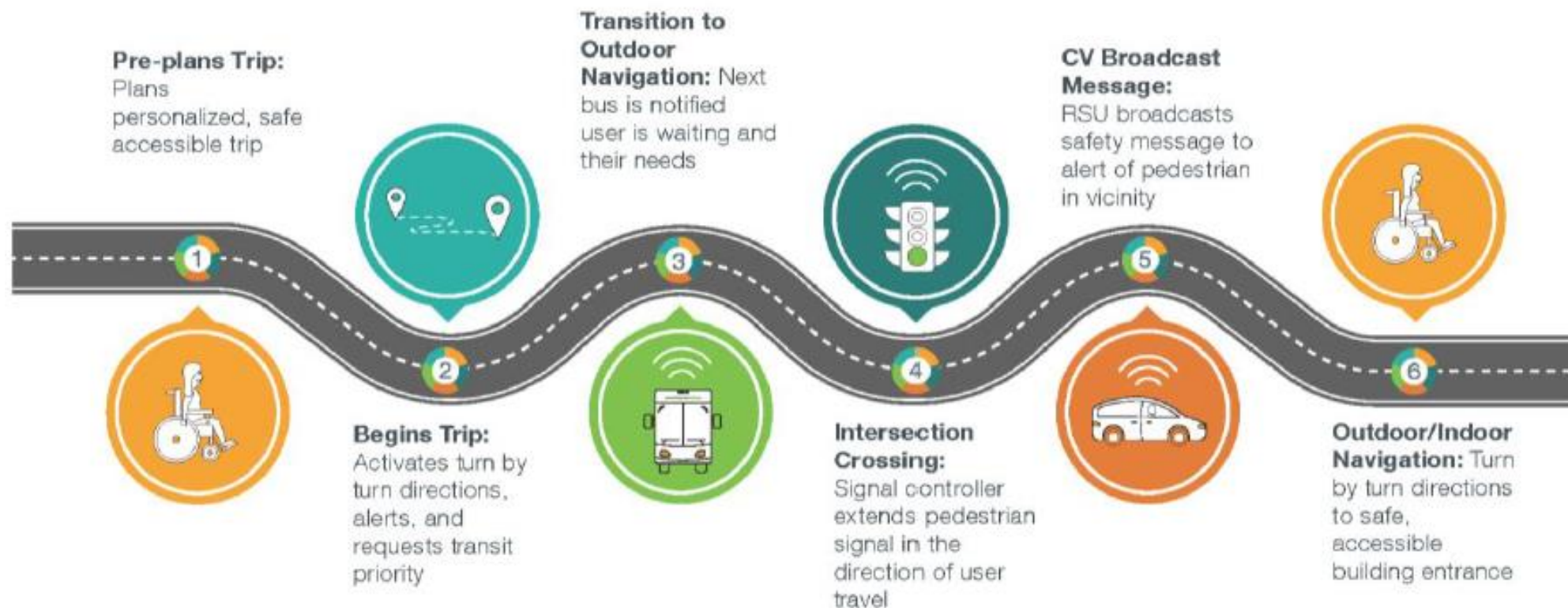
- **PRELIMINARY STAKEHOLDER ENGAGEMENT**

- Statewide Independent Living Council
- 12 Stakeholder Groups – CPACS, disABILITY Link, ARC Aging & Independence Services, National Center for Mobility Management, MARTA , Cobb, Henry and Douglas Counties fixed route bus systems, GRTA, Logisticare, Southeastrans, Department of Health and Human Services

PROJECT CHALLENGES

- Challenge 1 (C1) – Users' knowledge of inadequate pedestrian infrastructure can lead to lengthy detours or inaccessibility.
- Challenge 2 (C2) – Lack of transit reliability and added exposure while waiting.
- Challenge 3 (C3) – Difficult to recognize and avoid potential conflicts. Lack of visibility to drivers.

PROPOSED SOLUTIONS (ST-CTN CONCEPT)



INTEGRATED DEPLOYMENT



Regional Rider Information and Data Evaluation System



Path routing tool for differently abled users



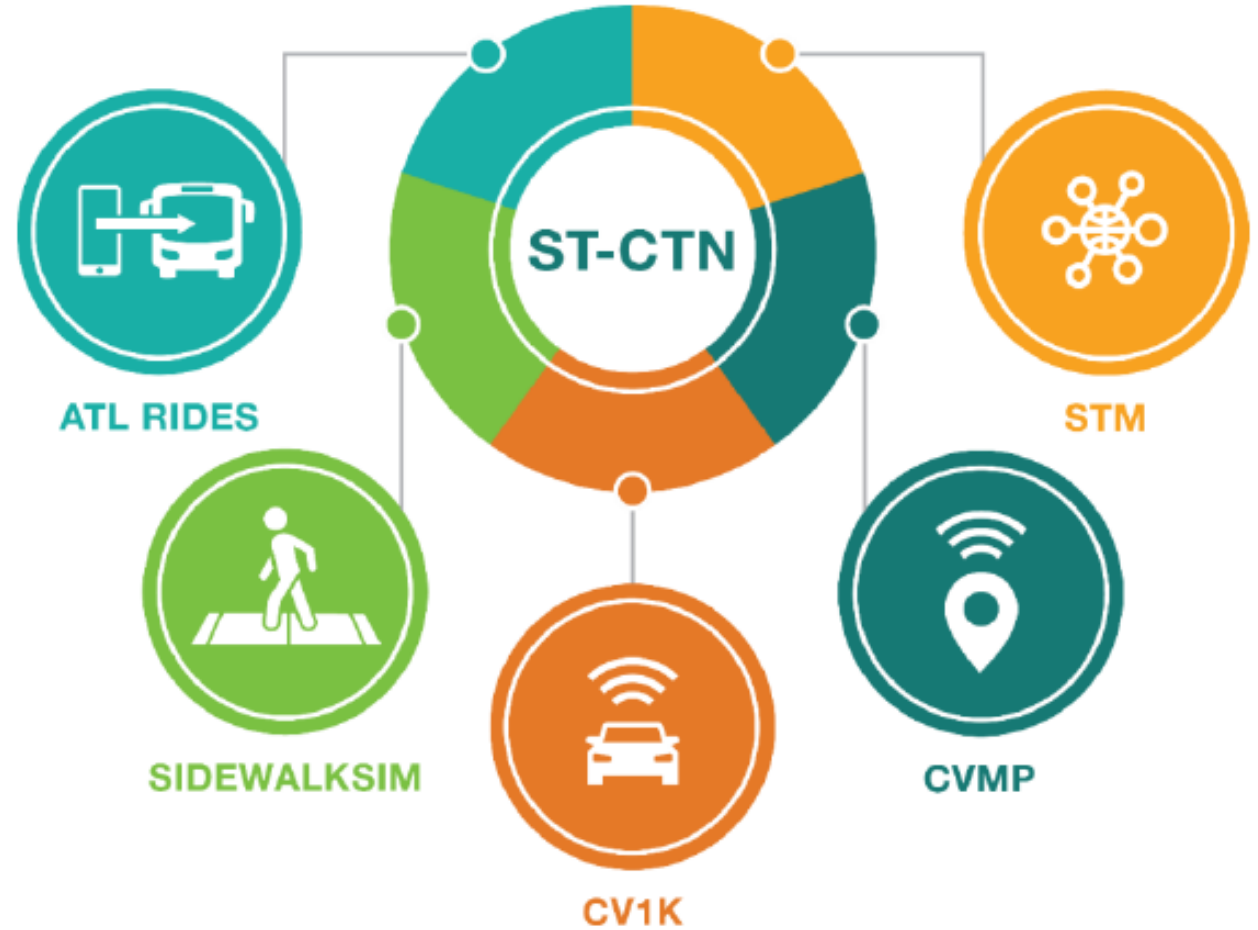
CV deployments throughout the region



Gwinnett CV roadmap



Platform for predicting travel conditions



Integrated Deployment

- Build off ATL RIDES
 - pedestrian traveler information based on user preferences
- Utilize Connected Vehicle infrastructure
 - connect pedestrians at crossings
 - transit signal priority
 - basic safety messages
- Innovate for efficiency with Georgia Tech
 - new methods for data collection
 - machine learning

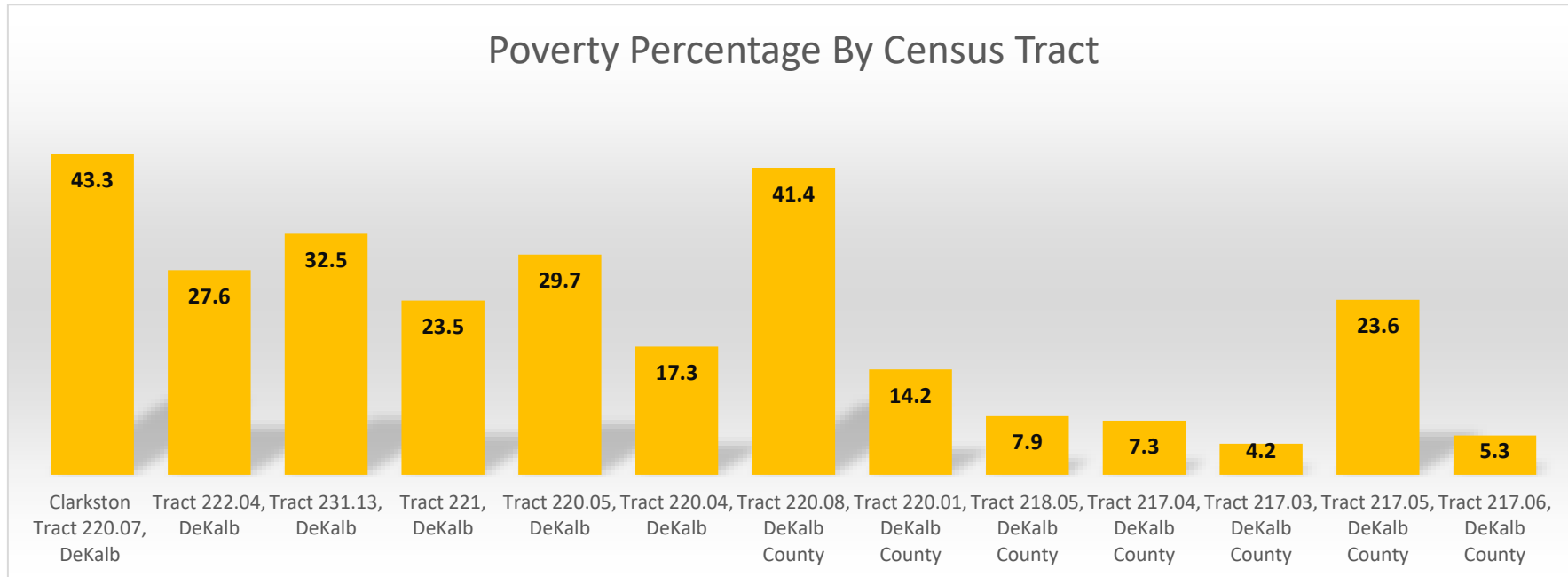
CTAA – Transit Planning 4 All

- Description: Implement an inclusive Mobility on Demand (MOD) solution for Center for Pan-Asian Community Services (CPACS) and Gwinnett County Transit
- Targeted Community: Limited English proficient riders with disabilities, older adults, and caregivers that partner with public transit agencies, planning agencies, and human service organizations
- Outcomes: On-board equipment and software; data standard development (similar to GTFS, but for demand response transit) to facilitate real-time trip exchange between operators, regardless of operator's dispatch software
- Funding: \$300,000
 - Phase 1: planning, design, and outreach
 - Phase 2: implementation



Geographic Area: City of Clarkston

- High percentage of service area population live in poverty
- Median income: \$38,283
- 5% of the population is over the age of 65
- Disability rate of 8.4%



TP4All Project Participants

Atlanta Regional Commission:

Project lead focusing on convening, procurement, and regional replicability

Gwinnett County Transit:

Neighboring suburban transit operator that will participate in the transactional data exchange.

Shared Use Mobility Center:

Will be the lead consultant and will deliver project management, advise on participant engagement, and advise on technical guidance and implementation.

Georgia Statewide Independent Living Council:

Will provide disability advocates to ensure that the MOD software is designed for those with disabilities.

Center for Pan Asian Community Services:

A disability and aging social services organization and specialized transportation provider in the project area. CPACS will be the primary focus for participant engagement, Mobility on Demand (MOD) and Demand Response Transit (DRT) implementation.

Questions?

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