Research Motivation and Objectives

The emergence of shared autonomous vehicles (SAVs) is expected to alter transportation costs and patterns, thus affecting accessibility and mobility.

Assess the socio-economic implications related to SAVs, such as access to opportunities and flexible and affordable mobility.

Empirical Setting

- **400 Completed responses (November 2017 (Chicago, IL), and May 2018 (Indianapolis, IN))**
- **Hard quotas on gender and age groups**
- **Respondents over 18 years old**
- **IRB Protocol # 1701018708 (IL) and 1801020160 (IN)**

ONGOING WORK

- Spatial Market Segmentation Analysis
- Comparison among study areas
- Final Report and Recommendations

SUPPORT

CONTACT

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CENTER FOR CONNECTED AND AUTOMATED TRANSPORTATION

Public Acceptance and Socio-Economic Analysis of Shared Autonomous Vehicles: Implications for Policy and Planning

DR. KONSTANTINA GKRITZA - PURDUE UNIVESITY

Accessibility and Mobility for All Summit, USDOT - October 29th, 2019

Survey Design

Section 1: Questions regarding people's awareness towards advances on AVs.

Section 2: Questions about people's travel characteristics.

Section 3: Factors affecting people's behavioral intention to ride in AVs.

Section 4: Mode choice experiment.

Section 5: Socio-demographic questions.

Market Segmentation Analysis

CHICAGO

	Innovators	Early Adopters	Early Majority	Late Majority	Laggards
	21.00%	20.00%	29.25%	14.75%	15.00%
Gender					
Commute Trips					
Age	< 34 years old	25-34 years old	35-44 years old	45-54 years old	>55 years old
Income	$$$	$$$$	$	$$$$$	$$
Vehicle Ownership					
Household Size					No

INDIANAPOLIS

|	Innovators	Early Adopters	Early Majority	Late Majority	Laggards
	13.75%	24.50%	26.25%	21.00%	14.50%
Gender					
Commute Trips					
Age	<34 years old	<44 years old	35-54 years old	>45 years old	>55 years old
Income	$$$$$	$$$$	$	$$$	$$
Vehicle Ownership					
Household Size					

Multi-spatial Perspective Approach

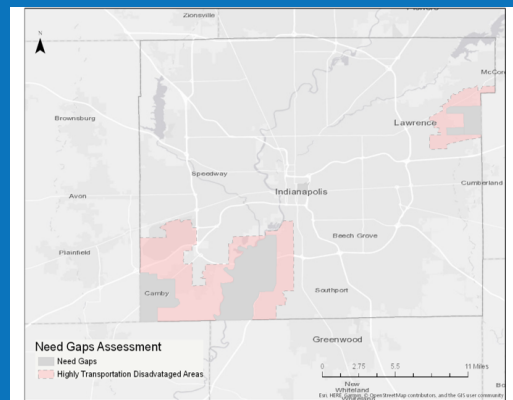**Accessibility:** What opportunities are close to the area?

Mobility: What are the demographics of the area?

Outcome: How much does a person in a certain area drive daily?

CHICAGO TRANSPORTATION DISADVANTAGED AREAS

Need Gaps Assessment
Need Gaps
Higly Transportation Disadvantaged Area
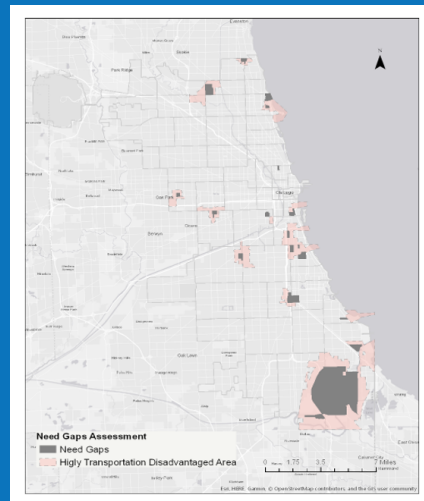
INDIANAPOLIS TRANSPORTATION DISADVANTAGED AREAS

Need Gaps Assessment
Need Gaps
Highly Transportation Disadvataged Areas

Key Takeaways

Chicago seems to be more innovative than Indianapolis about the adoption of AVs.

Innovators are young people who commute via transit and walking.

Late adopters are mainly female, older than 45 who often commute by car.

Non-transportation disadvantaged areas have higher access to transit stops and interstates, among other factors.

Disadvantaged areas in Chicago are scattered throughout Cook county.

Disadvantaged areas in Indianapolis are located in the south and east part of Marion County.