

# MARC Model Users Group Meeting

December 12, 2024

To provide a forum share and discuss travel model development, application , and research efforts among the MARC transportation planning community



# Agenda

- Welcome & Introductions
- MARC Transportation Modeling Program Updates - Eileen Yang MARC
- **MARC 13-County Trip-Based Model Release** - Sean McAtee Cambridge Systematic
- Open Discussion (MARC model application, insights about the advanced travel model, and the city model developments, etc.)
- Adjourn

# The Updates of MARC Modeling Program

Latest Version:  
TB8-V2019

Latest Version:  
TB13-V2019

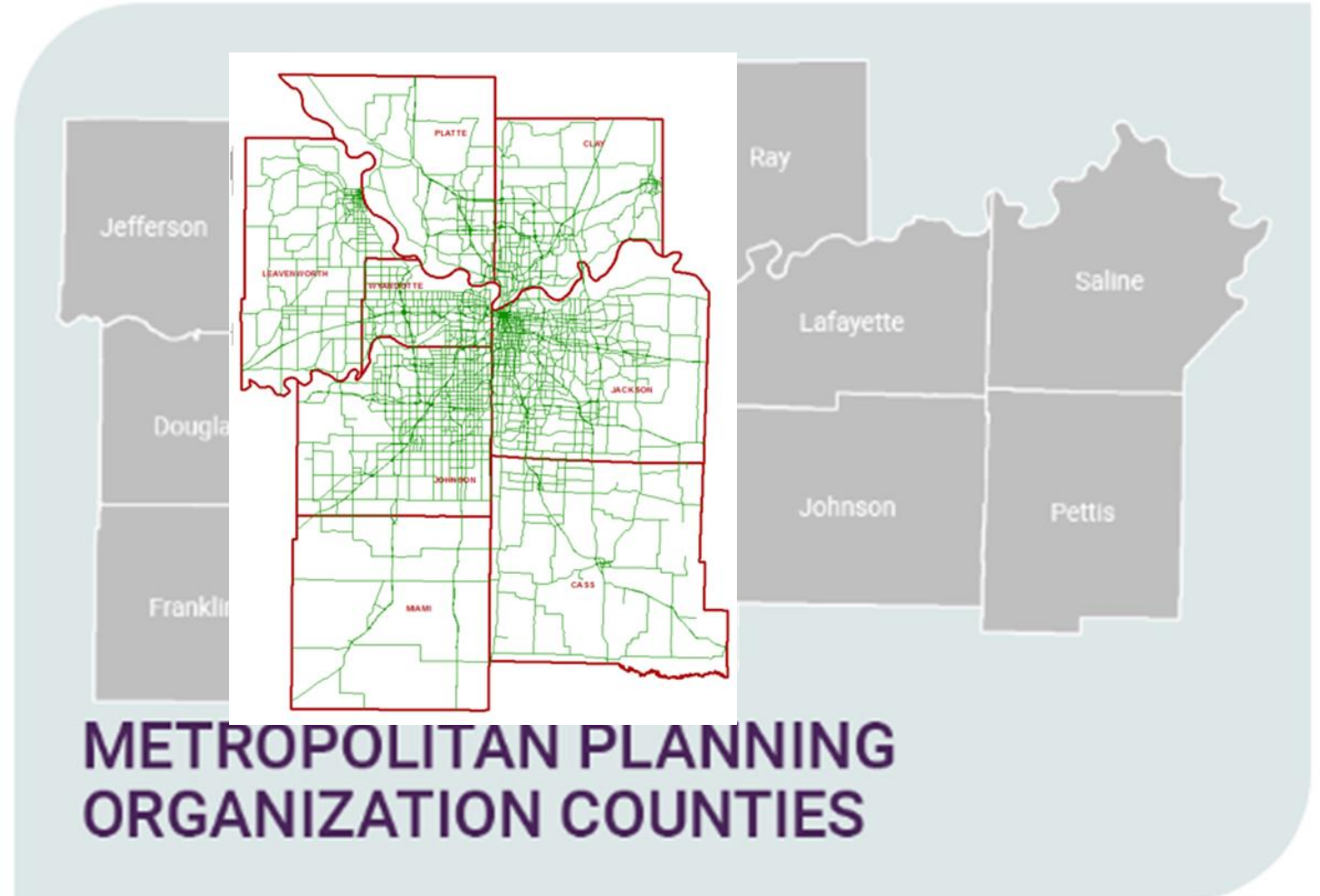
2024 Model  
Applications

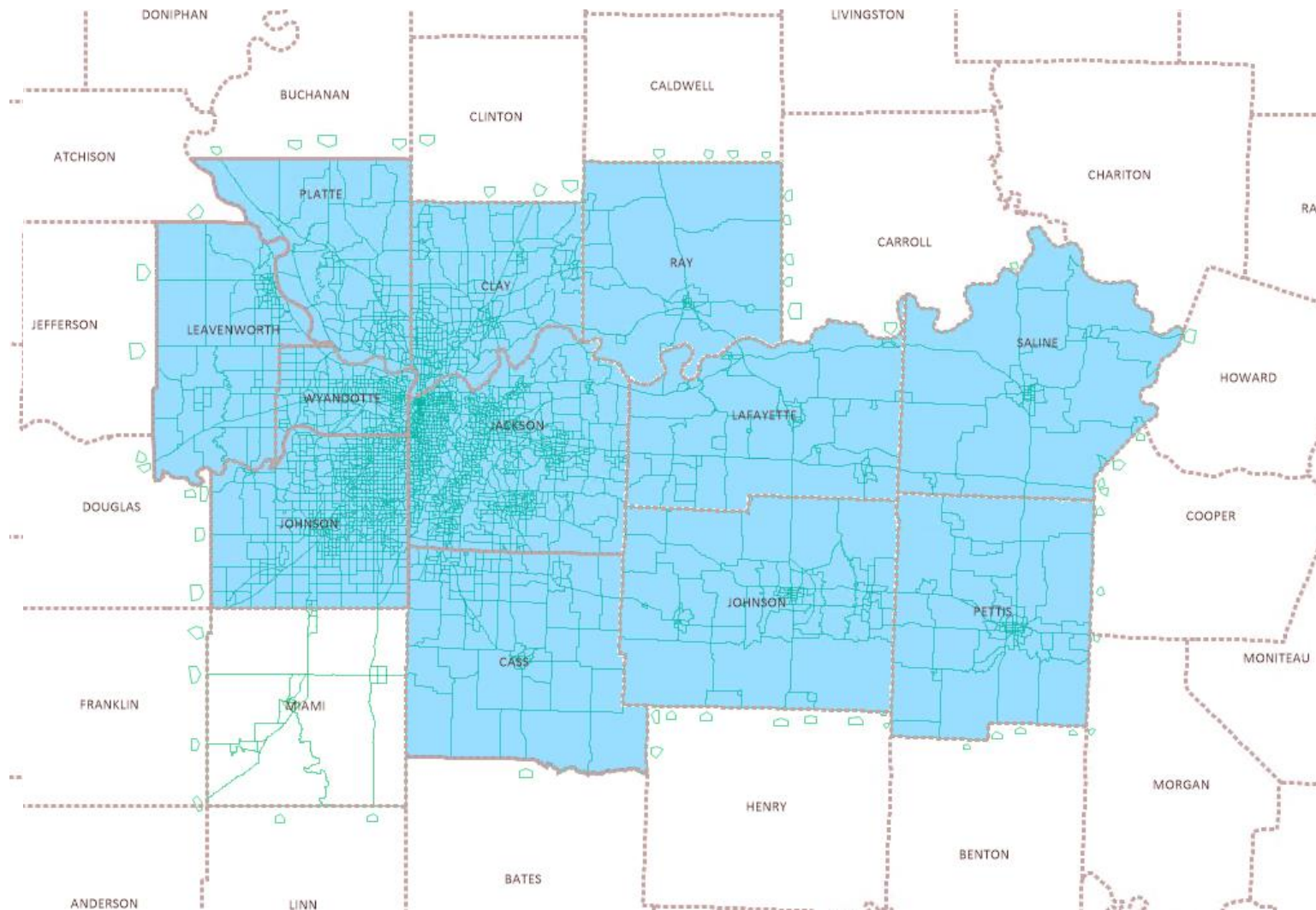
Next  
Generation  
Travel Model-  
MARC ABM

# Overview of MARC Travel Model

Over the past 30 Years

- 8-County Trip-based  
EMME Model





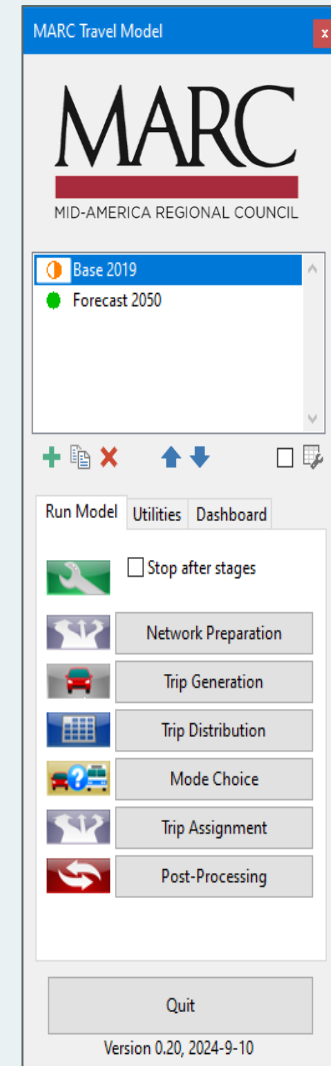
# OVERVIEW OF MARC TRAVEL MODEL

Year 2024

- 13-County Trip-based TransCAD Model

# Travel Model expansion 2024

- Expand the model coverage area from 8 to 13 counties
- New software package **TransCAD**
- Faster run times w/quick access to maps, charts, and tables with model results
- Tables and charts viewable from a web browser
- Validated with various user improvements
- Efficient scenario testing



# MARC Model Application

- Provide Traffic Forecast



- Metropolitan Long Rang Transportation Plan and Other Planning Process, TIP, PEL, EA, Corrido Study, etc.

## HOW CAN CHOICES TO TRANSPORTATION TC

Transportation Scenario	Vehicle Miles Traveled (VMT)	VMT Growth	Vehicle Hours Traveled (VHT)	VHT Growth	VMT per Capita (Daily)	V C (
Base Year 2019	48,018,952	N/A	1,266,639	N/A	23.08	
2050 No Build	57,893,044	20.6%	1,573,591	24.2%	23.65	
2050 Financial Constrained	58,013,236	<b>20.8%</b>	1,560,939	<b>23.2%</b>	<b>23.7</b>	
2050 Enhanced Strategy Implementation	53,072,092	<b>10.5%</b>	1,392,372	<b>9.9%</b>	<b>21.68</b>	





# MARC Model Data Request Program

## ➤ MARC Model Data Request Program

## ➤ Who we service?

KDOT,  
MoDOT,  
Cities,  
Counties,  
Consultants who work for them, and others

## ➤ Data request process

### Mid-America Regional Council Transportation Data Request Form

To request transportation data (i.e. traffic counts, multi-modal travel forecasts, air quality projections, functional classification maps, etc.) from the Mid-America Regional Council (MARC) please fill out the form below and submit it to [transdata@marc.org](mailto:transdata@marc.org). The request must be submitted by the client agency. Upon receiving the completed form, Eileen Yang or designee will reply with an email notice containing the approximate time frame of completion and the contact information of the staff member fulfilling your request. If you have any questions, please contact Eileen Yang at 816-701-8338.

Hi, Eileen. When you submit this form, the owner will see your name and email address.

\* Required

#### CITY/COUNTY/STATE CLIENT CONTACT INFORMATION

Please enter the contact information for the client agency (sponsor). Requests without such documentation will not be allowed.

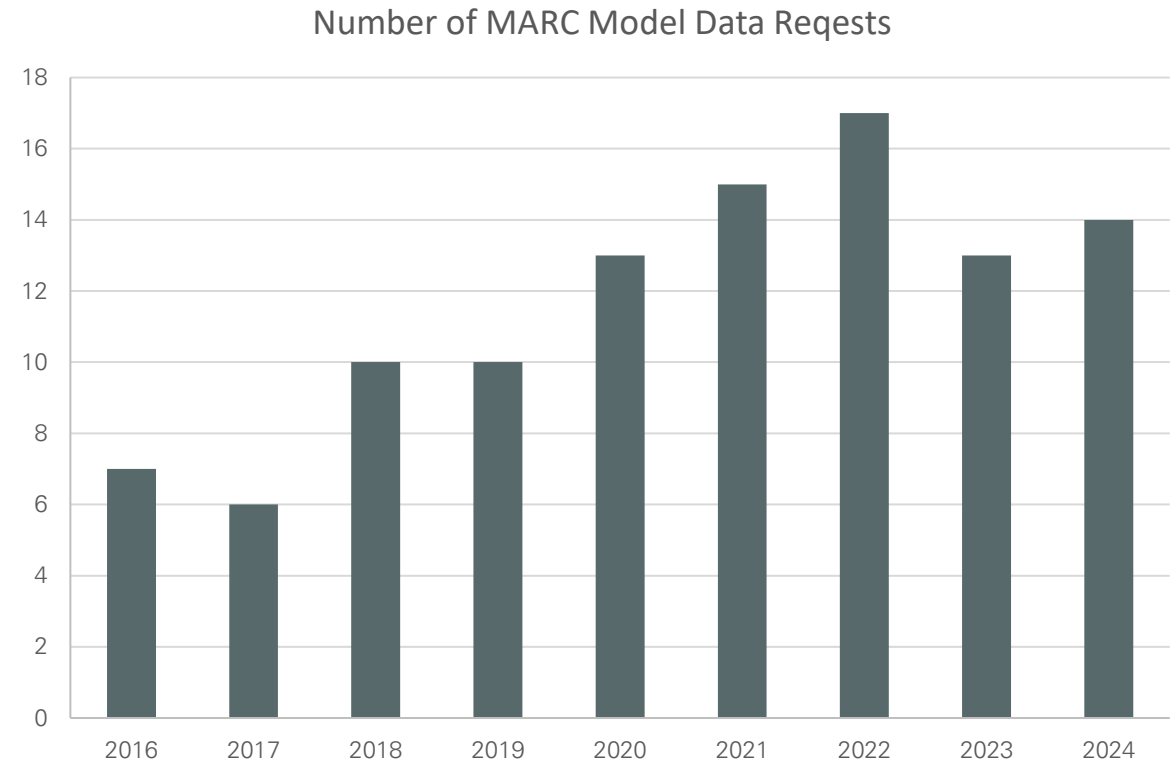
1. Client Contact Name: \*

2. Client Contact Title: \*

3. Client Organization: \*

# MARC Model Data Request Program

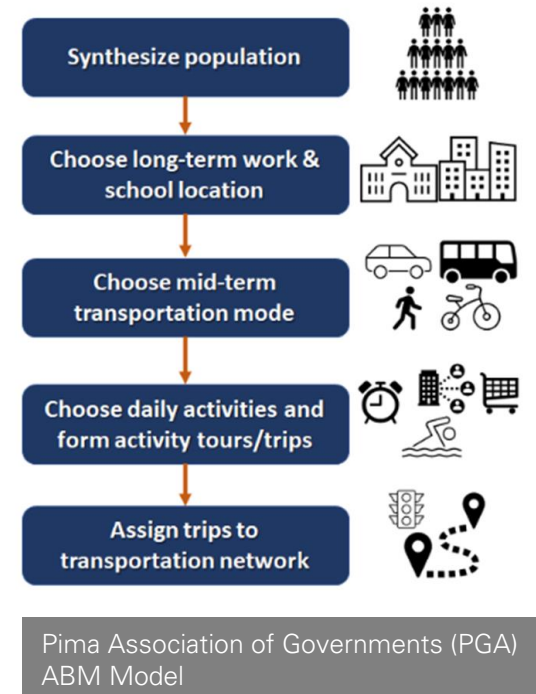
- There are 14 Requests in 2024
- Supported Projects include:
  1. Reginal Freight Study
  2. Center for Clean Air Policy (CCAP)
  3. Central Ave and I 70
  4. K-10 Corridor Study
  5. Liberty Master Planetc.
- Data request process



# Next Generation Travel Forecast Model

## Activity Based Model

- Theoretically based on human behavior
- Better understanding and prediction of traveler behavior
- Based on decision-making choices present in the “real-world”
- Use of disaggregate data
- Inclusion of time-of-day travel choices
- Environmental Justice
- Multimode Travel Analysis



# Next Generation Travel Forecast Model Activity Based Model

- Included in MARC's 2025 UPWP
- Planning Tool for MTP 2060 ( Next Plan Update Due in 2030)



## Development of an Activity-Based Travel Demand Model for MARC Region

January 5th, 2025

Thank  
you

Eileen Yang

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