12/2/2020

Michigan Department of Transportation

Michigan Mobility 2045

A transportation plan for a connected future #MM2045

TAMC Meeting

Update on Michigan's State Long-Range Transportation Plan

Bradley Sharlow, AICP - Project Manager
Phone: (517)-256-1731
Email: sharlowb@michigan.gov

MDOT

- Status of MM2045
- Key Accomplishments
  - Existing Conditions and Inventory - completed
  - Scenario Planning Workshop – completed
  - Round 2 Public Involvement – near completion
- Next Steps
  - Development of Strategies
  - Future Needs Analysis
- Schedule

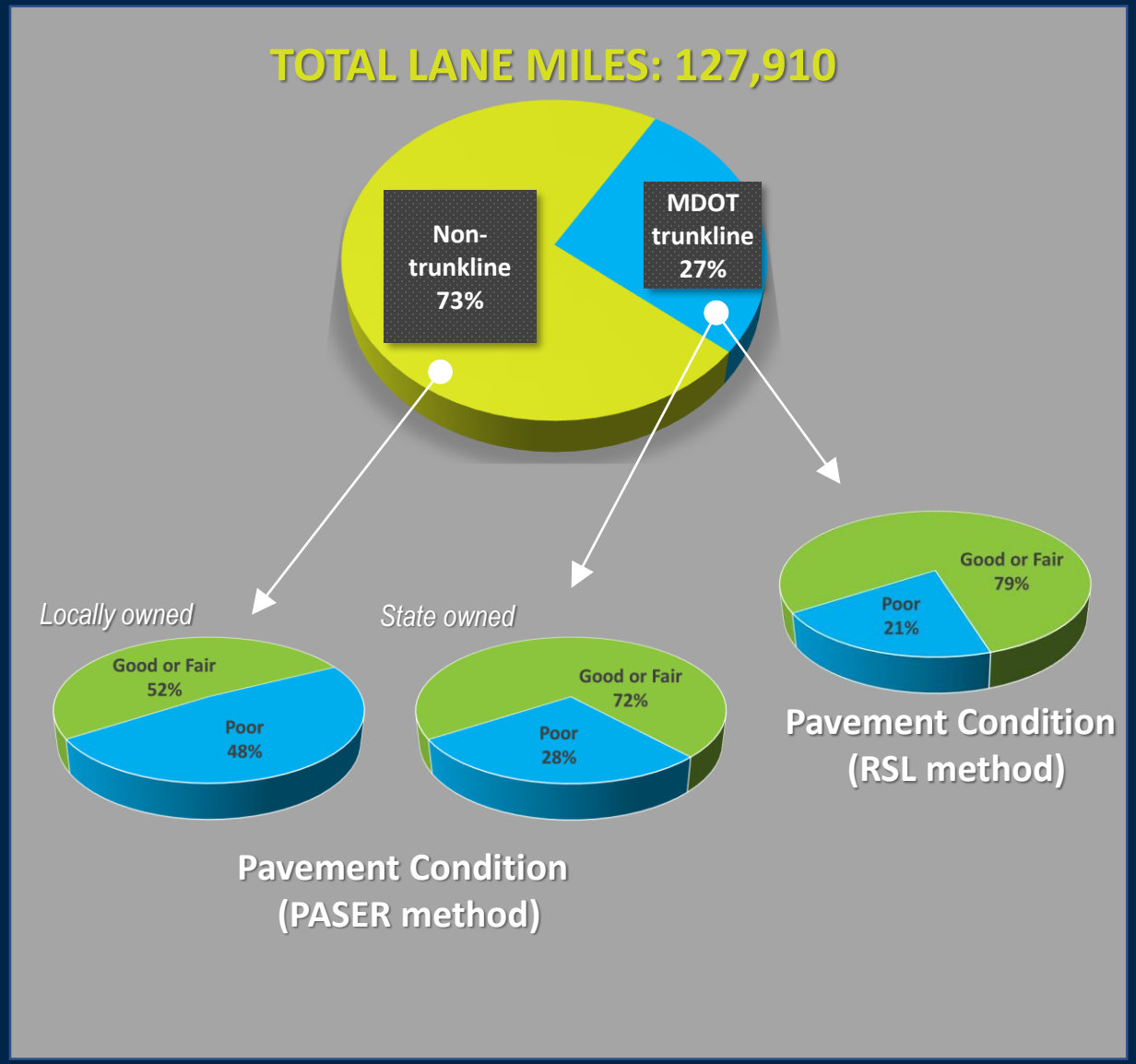
Highways

TRUNKLINE SYSTEM

- 34,960 lane miles
- 79% in good/fair pavement condition
- Trunkline pavement condition in decline since 2008, when 92% was in good/fair condition

NON-TRUNKLINE SYSTEM

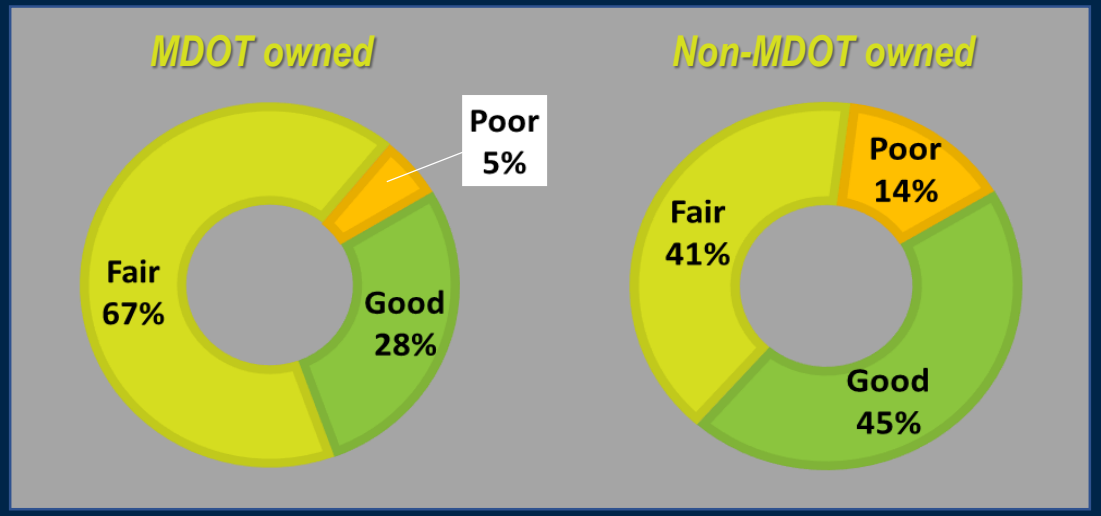
- 92,950 lane miles
- Almost half of locally owned routes in poor condition



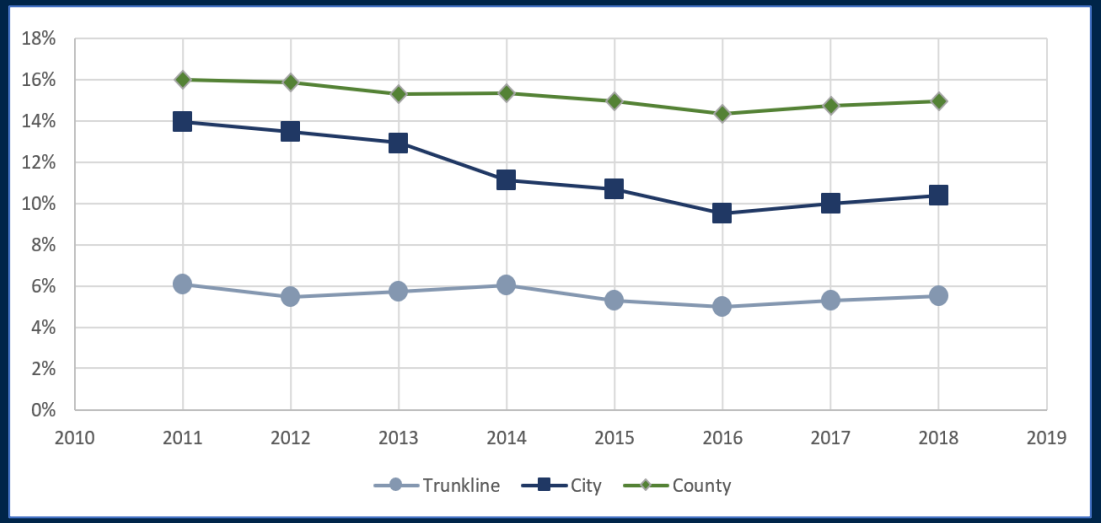
Bridges

[this slide being updated for Core Team comments]

- More than 11,000 bridges statewide; number in poor condition is trending upward
- Bridge condition can't be managed the same way as pavement condition (i.e. you can't drive on a failed bridge)
- Without increased resources, may need to consider closure of additional bridges



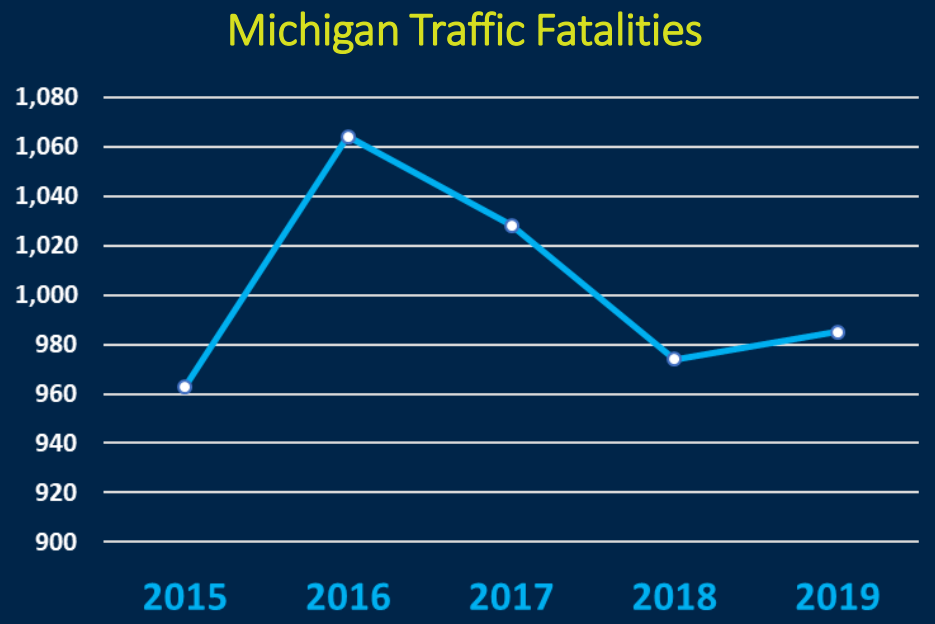
Percentage of Bridges by Rating, 2018



Pct. of Bridges Rated "Poor"
2011 to 2018

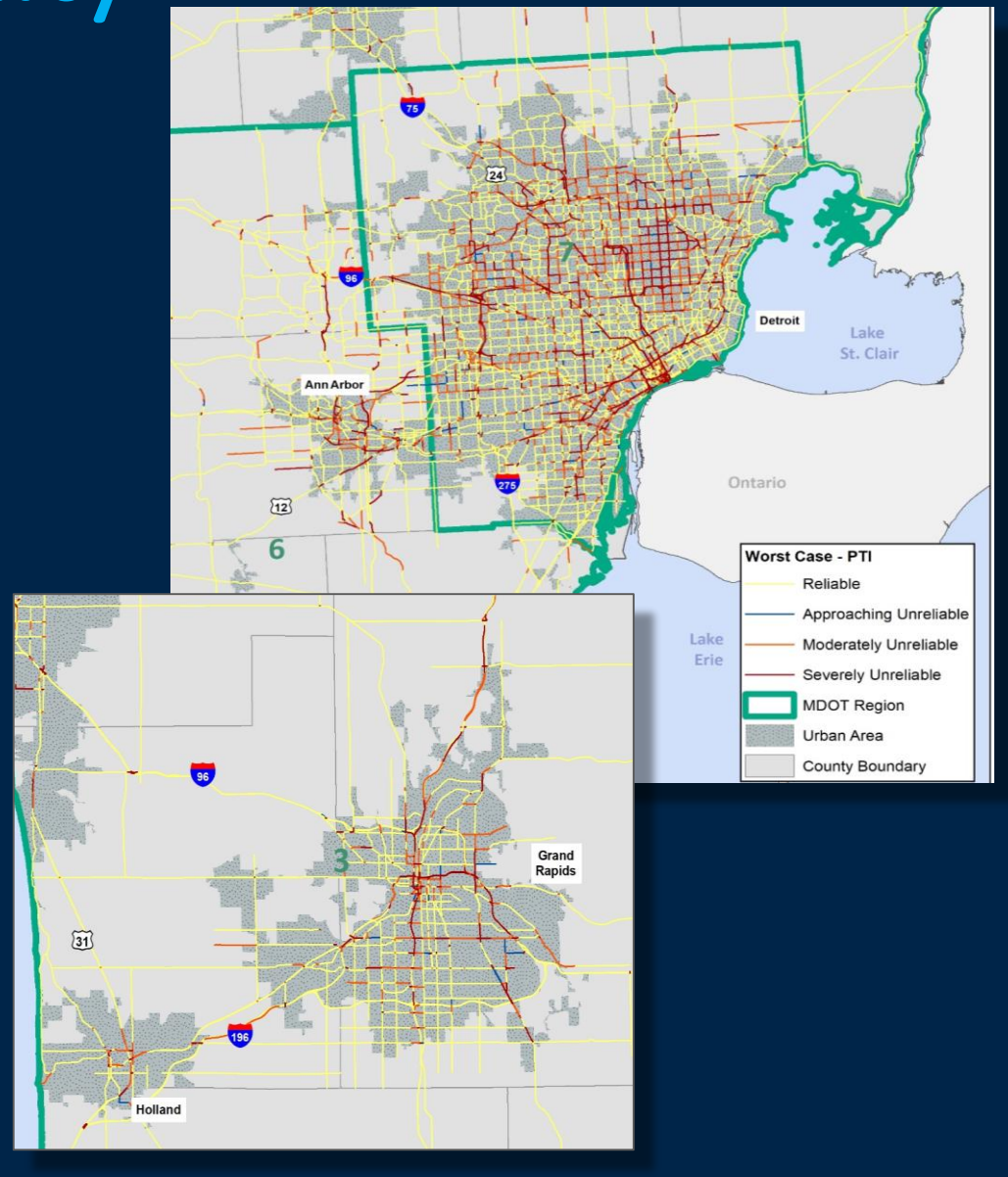
Roadway Safety

- Some decline in fatal and injury crashes between 2016 and 2019, but still a long way from zero deaths
- Top fatality-related safety issues (2009-2018):
  - *Lane departure*
  - *Occupant protection*
  - *Impaired driving*
- Safety funding provided by Federal aid and distributed per Act 51 legislation requirements
- FY2020 funding included:
  - *$21.5 million for trunklines*
  - *$15 million for locally-owned highways*



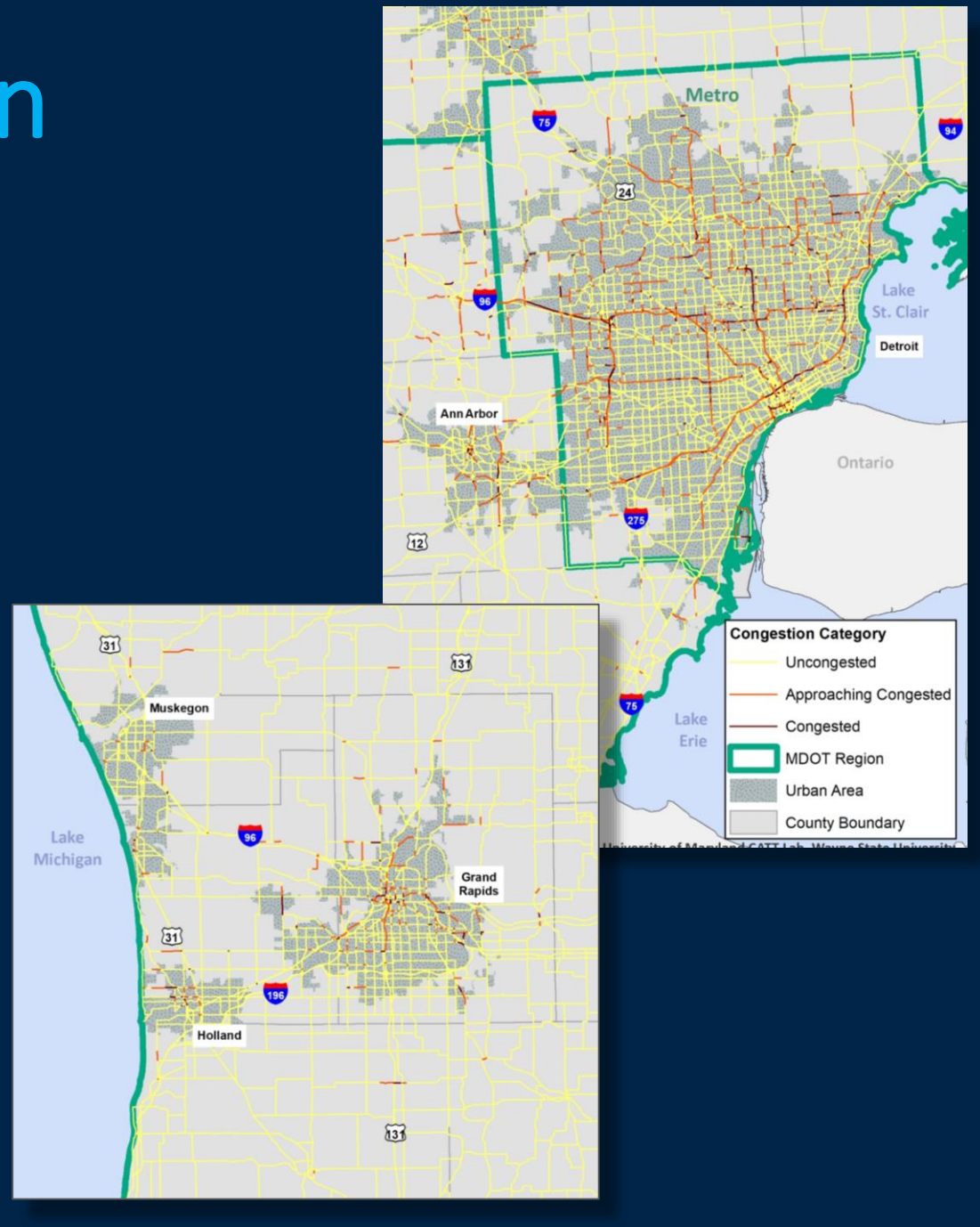
Highway Travel Reliability

- **Level of Travel Time Reliability (LOTTR)**
  - Most of the NHS is reliable during all periods
  - PM peak is the most unreliable period, with 2.6% of directional miles approaching unreliable and 1.1% unreliable.
- **Planning Time Index (PTI)**
  - In AM peak period, 2.9% of directional miles are approaching unreliable and 6.8% are unreliable.
  - PM peak period is the least reliable period, with 3.1% of directional miles approaching unreliable and 8.7% unreliable.
- Most issues are in Metro, Grand, University regions

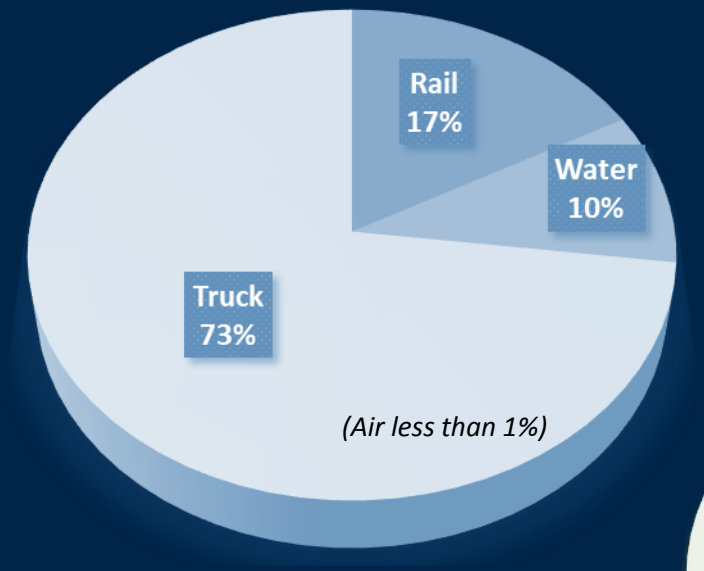


Highway Congestion

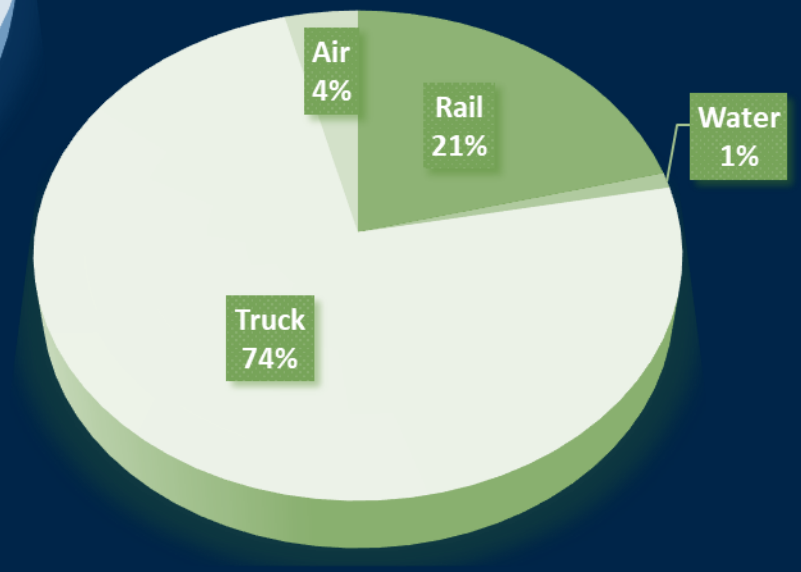
- Data from MDOT's statewide model, reviewed by MPOs for concurrence
- Shows roadway volume/capacity ratio for 2018 base year
- Congestion defined by V/C thresholds:
  - *Uncongested: < 0.7*
  - *Approaching congested: 0.7 to 0.9*
  - *Congested: > 0.9*
- As with travel time reliability, most issues are in Metro, Grand regions



Freight Modal Profiles



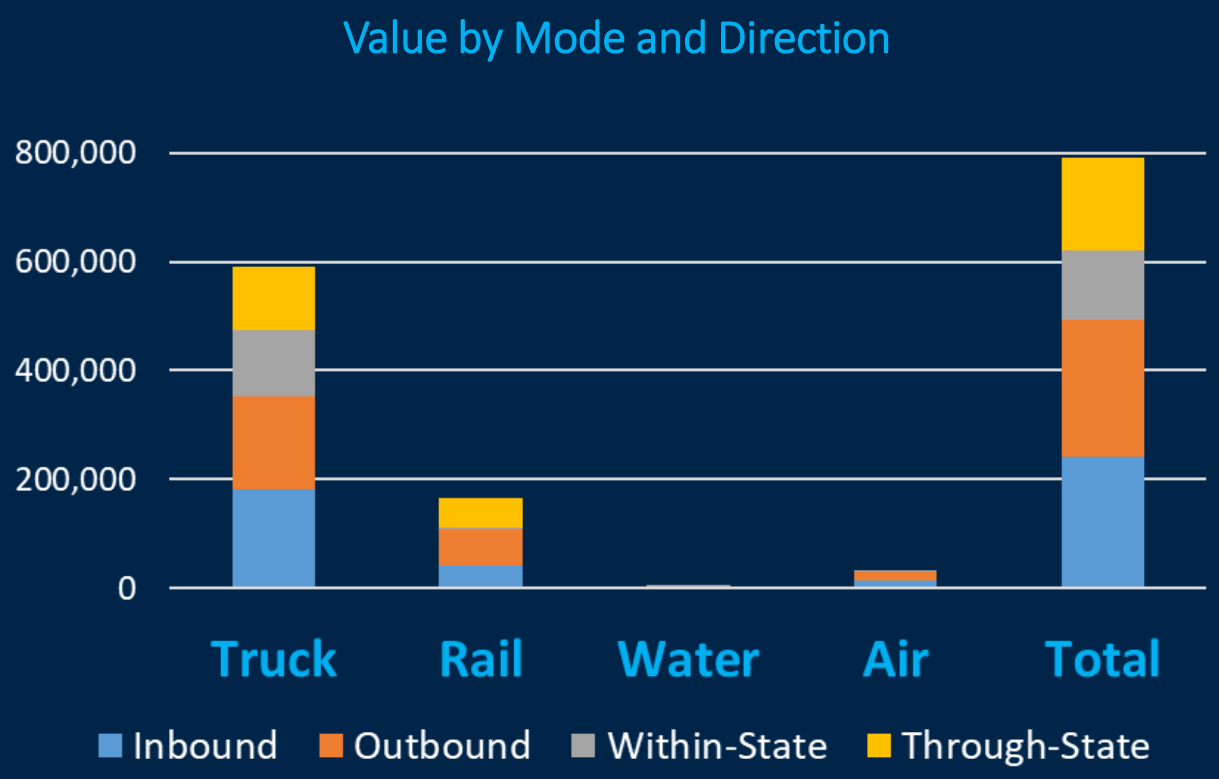
Freight Moved, by Tons



Freight Moved, by Value

- Most freight is moved by truck
- Rail accounts for a significant share
- Water is used to transport heavy, low-value goods
- Air is used for lighter, high-value goods

Freight Modal Profiles



- In 2018, $792 million of goods traveled in, out, through or within Michigan
- The value of goods traveling outbound slightly exceeds inbound.
- The most outbound freight (by value) is produced by:

  Automotive
  Metals and Machinery
  Food and Agriculture
  Chemicals and Plastics

Public Transit

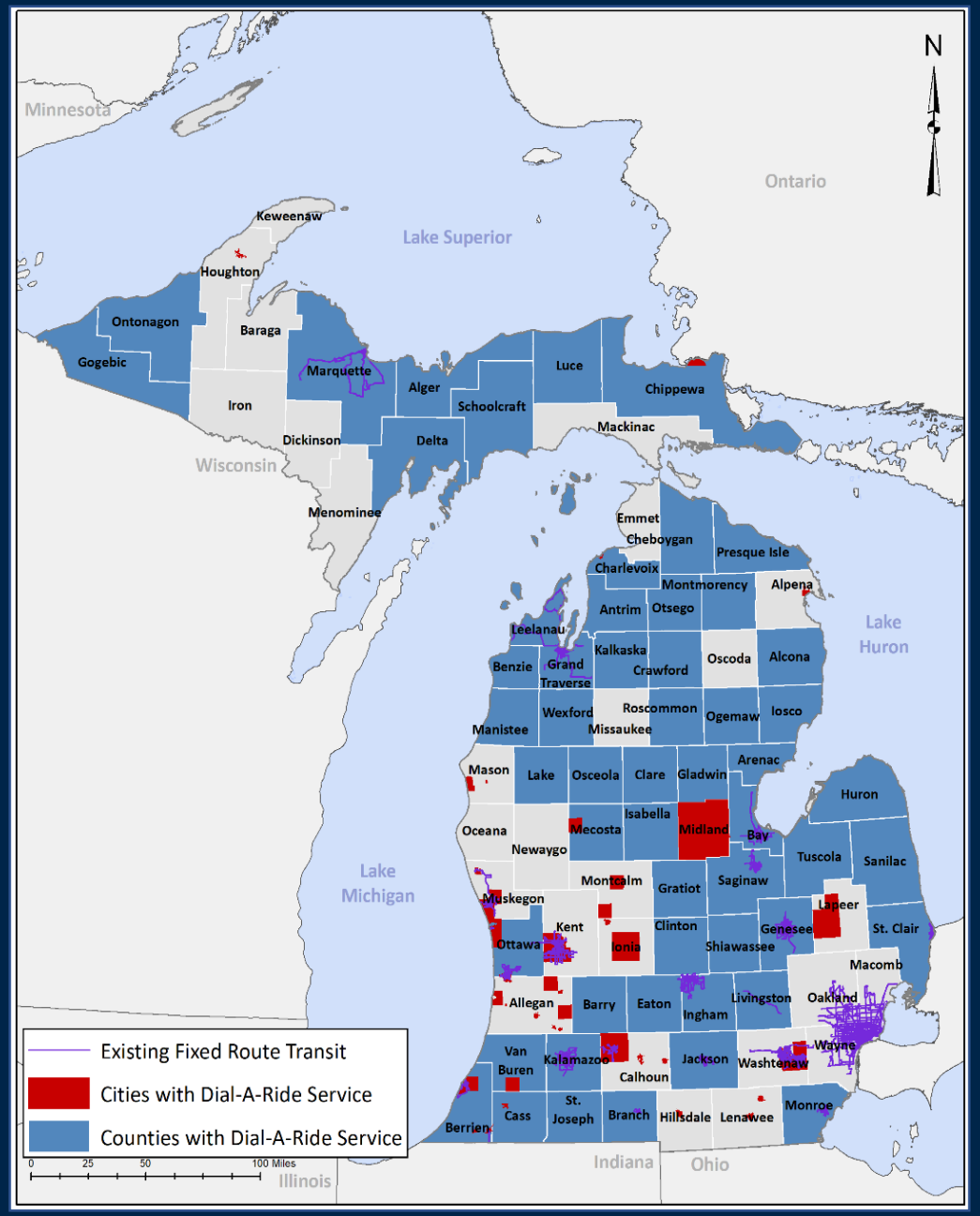
Some form of transit service exists in every county, with >82.2M transit trips taken in 2019

Key Trends

- Ridership declining
  (COVID response will have significant impacts)
- Expenses increasing

Current Funding

- $269.1M state spending in FY2020
- State funding increasing
- Federal funding stable

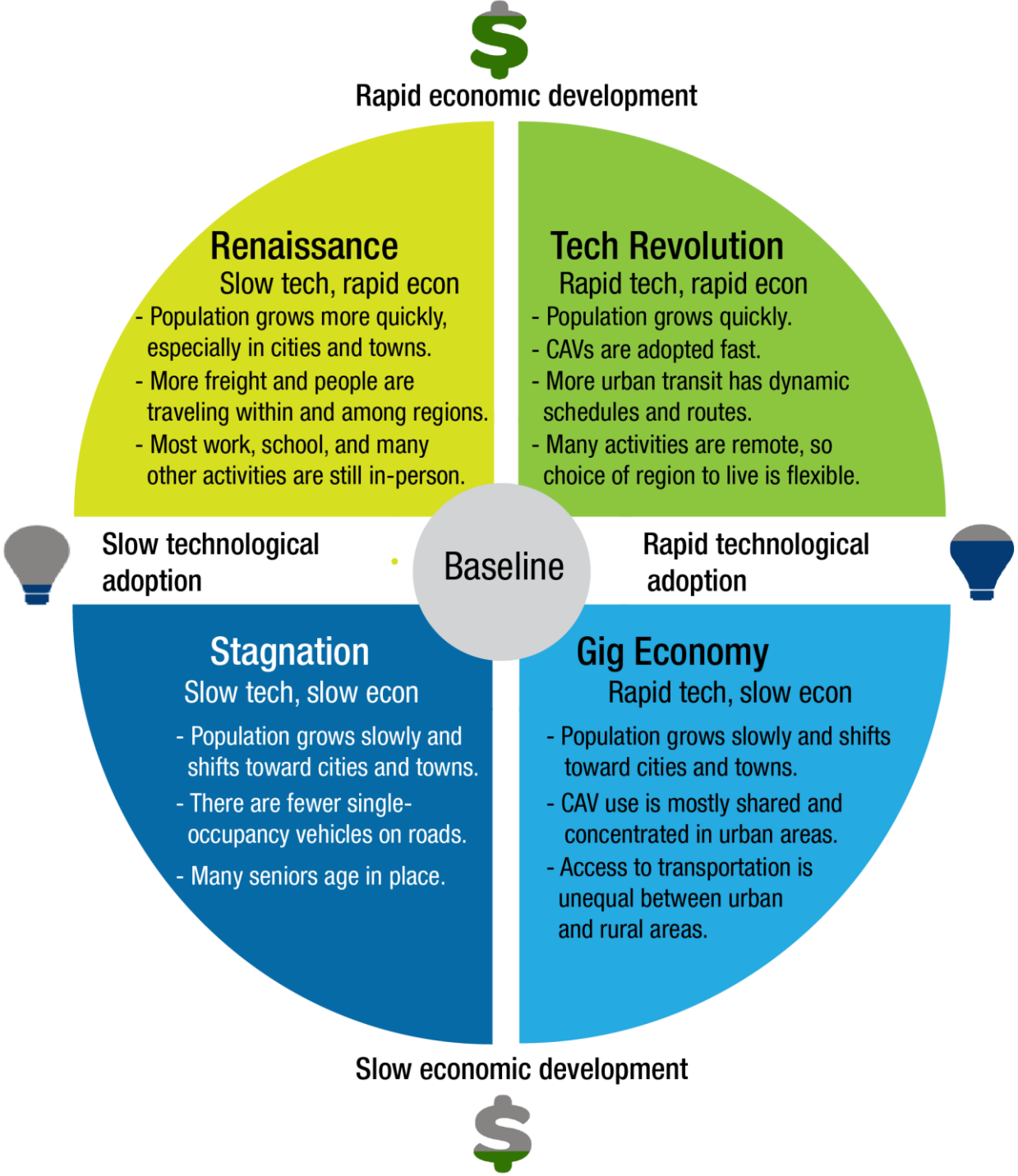


Active Transportation

Infrastructure, Safety Treatments, Facilities

Michigan's network is comprised of various facilities for pedestrians, bicyclists, and vehicle modes in a variety of arrangements, depending on environment

Mode Types Permitted Per Facility					
facility type		pedestrians	bicyclists	parked vehicles	moving vehicles
sidewalks	C	■			
pedestrian streets	C	■			
pedestrian lanes	N	■			
shared use paths/sidepath	C	■	■		
trails	C	■	■		
shoulders	C	■	■	■	
striped bike lanes	C		■		
sharrows	C		■		■
wide outside lane/curb lane	C		■	■	■
shared roadways	C		■	■	■
separated bike lanes	O		■		
bike routes	C	■	■	■	■
bike blvd/neighborhood greenway	O	■	■	■	■
advisory bike lanes/advisory shoulders	O	■	■		■
shared streets	O	■	■	■	■
yield streets	N	■	■	■	■



MM2045 Scenarios

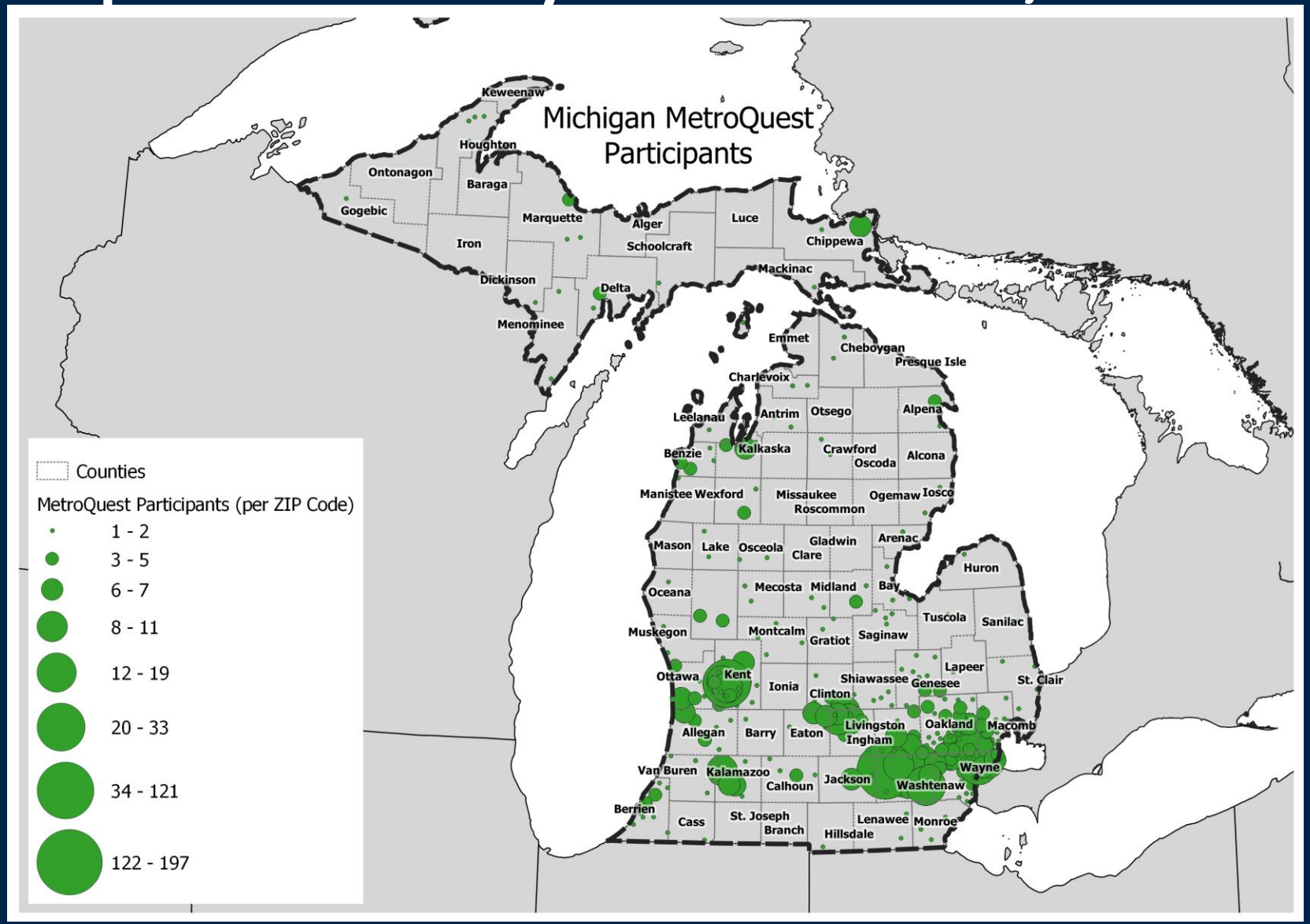
Certainties (apply to all scenarios)

- Funding below needs
- Economic cycles
- Aging population
- Changing transportation technology
- Alternate energy sources
- Communications and computing technology

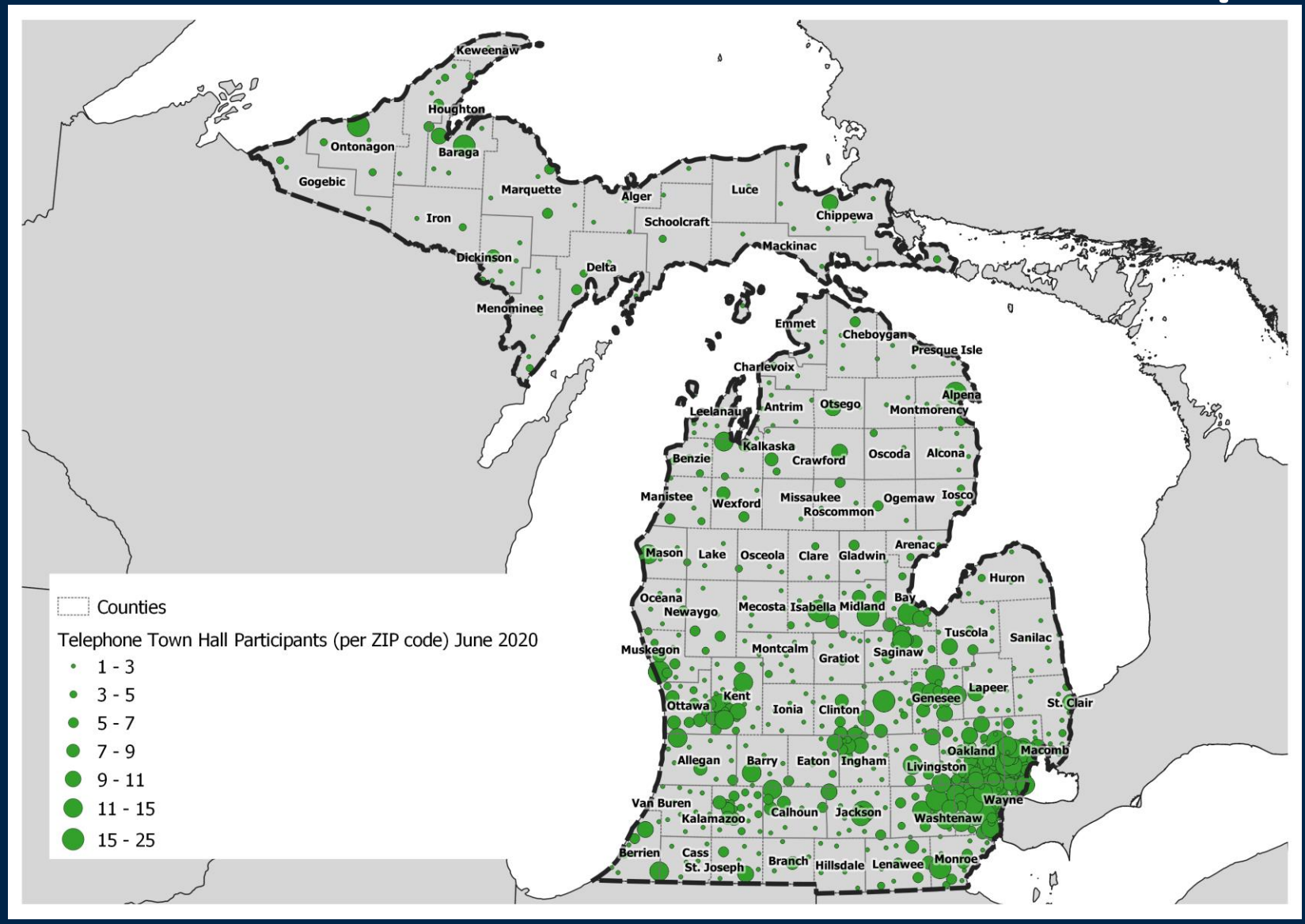
Scenario Planning Results Implementation

- ✓ Inform implementation strategies to achieve MM0245 vision, goals, and objectives
- ✓ Offer insightful perspective to guide similar scenario planning exercises for MDOT's planning partners (using underlying scenario planning assumptions, trends, and drivers of change
- ✓ Identify actions or steps are needed to remain responsive to disruptive changes

Metroquest Survey Results – 1,429 Surveys



Telephone Townhalls– 3,302 Participants



ADA Survey – ~200 Surveys

- Survey out until 12/31/2020
- Partnership with Michigan Department of Civil Rights
- Please view on website: www.michiganmobility.org
- Findings to be released from all surveys by 1/31/2021

Next Steps

Task 3 – Strategies and Performance Measures

- ✓ Strategies workshop scheduled for January 12 via Zoom
- ✓ Please contact us if interested in attending

Task 6 – Future Needs

Task 7 – Financial Plan

Future Highway Needs

Perform Needs Analysis

- Estimate current and future conditions based on existing funding resources
- Develop benchmark for performing gap analysis
- Estimate the difference (gap) between benchmark vs. existing funding threshold

Benchmarks for Review

- Freeways – 95%
- Nonfreeways - 85%

Michigan Mobility 2045 - Timeline	
March – November 2020	Public Input (Policy, Objectives, Strategies)
May – June 2021	Draft Plan Development
July-August 2021	Draft Plan Complete (30-day comment period)
October 2021	Adopt Final Plan (State Transportation Commission)

Michigan 2045 Mobility

Thank you.

MDOT