

Qualitative Economic Analysis Meeting Findings

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Michigan Statewide Tolling Feasibility Analysis

CDM Smith.



Contents

Appendix A.	Meeting Materials	7
VI.	Summary	6
V.	Notable Trends by Organization Type	6
IV.	Future Considerations	5
III.	Policy Factors	5
١١.	Business Costs	3
I.	Geography	2
Qualitative Eco	onomic Analysis Interview Findings	1



Qualitative Economic Analysis Interview Findings

This supporting document to the main Feasibility Analysis Report summarizes a series of qualitative economic analysis interview meetings conducted for the Michigan Statewide Tolling Study. For this analysis, the project team met with 11 study outreach groups from across the state to identify major themes and economic considerations related to tolling important to the groups and their constituents. This analysis supported making assumptions and recommendations for tolling appropriate for Michigan as part of the Implementation Plan.

Table 1: Study Outreach Group Interviews

Interview Date	Organization	Primary Location	Organization Type
August 11, 2021Grand Rapids Chamber and The Right PlaceWest MichiganChamber of Commerce		Chamber of Commerce	
August 19, 2021 Detroit Regional Chamber		Southeast Michigan	Chamber of Commerce
August 24, 2021	Automotive Supplier	Statewide and Out-of- State	Logistics
October 25, 2021	Michigan Chamber of Commerce	Statewide	Chamber of Commerce
October 25, 2021	Small Business Association of Michigan	Statewide	Business Association
November 4, 2021	Logistics and Supply Chain Collaboration Committee	Statewide	Logistics
November 23, 2021	Regional Retail Supplier	Statewide and Out-of- State	Logistics
December 3, 2021	University of Michigan Economic Department	Statewide	Research University
December 6, 2021	Business Leaders for Michigan	Statewide	Business Association
December 15, 2021	MEDC/Pure Michigan	Statewide	Tourism and Economic Development
February 11, 2022	Michigan Restaurant and Lodging Association	Statewide	Tourism and Economic Development



The economic analysis interviews were conducted from August 2021 through February 2022, as shown in Table 1. The next several sections of this report summarize the feedback from these interviews. The feedback is labeled with the organization types defined in Table 1. The interviews were set up to cover four discussion areas that tolling could impact – geography, business costs, policy factors, and future considerations. When applicable, the study outreach groups were asked about discussion areas related to passenger vehicles and freight separately. This was done to obtain Michigan-based feedback on the different economic impacts of tolling for these two broad user groups. The presentation and questions asked of the interviewees during the meeting and discussion are in Appendix A.

I. Geography

Given that economic impact perspectives can vary by location, this section's goal was to understand opportunities and concerns about the location of the organization and the constituents they represent. Feedback was requested from both a passenger vehicle and freight perspective, given that economic impacts can vary for different user groups.

Feedback on passenger vehicles:

- In urban areas, there are a lot of short-distance movements with an average of 10-mile trips (Chamber of Commerce).
- Diversion to local roads was discussed as a potential concern for leisure trips, however, the option to provide toll rebates was intriguing (Business Association, Chamber of Commerce).
- Some organizations saw diversion as a positive to increase local economic development (Chamber of Commerce, Tourism and Economic Development).
- Travel time reliability and congestion management can provide positive messaging points related to the value of toll funding for highway improvements (Chambers of Commerce).
- Various study outreach groups' concerns regarding Michigan highway ingress and egress would be alleviated if tolling gantries were installed. There would need to be more awareness that All Electronic Tolling (AET) would not require the removal of highway exits, nor would it install toll booths at exits and entrances. Most people associate these things with causing delays and requiring right-of-way (Logistics, Tourism and Economic Development).
- Various study outreach groups mentioned I-94 as "low-hanging fruit" for needed improvements and a good corridor to consider tolling on (Business Association, Logistics, Research University).
- Equity concerns came up in many interviews with the suggestion of not tolling around low-income and urban areas, such as Detroit (Business Association, Chamber of Commerce, Research University).
- Any tolls imposed in the Detroit Metropolitan region would go into the city of Detroit, which would disproportionately impact city residents who travel outside of it for various services and work opportunities not offered within the city (Chamber of Commerce).
- West Michigan is rapidly growing, and it has caused congestion issues, especially north and south of Grand Rapids. There has been a lot of work to connect Grand Rapids, Holland, and Muskegon over the past two decades. It would be looked at very poorly if tolling was to break this connection rather than improve it (Chamber of Commerce).
- The managed lanes concept is intriguing to balance congestion issues in west Michigan and provide drivers a choice (Chamber of Commerce).



Feedback on freight:

- Michigan is an origin and final destination state for trucks. Since lower Michigan is a Peninsula, it puts manufacturers at a disadvantage. Michigan does not have as much pass-through traffic as other Midwestern states, and the cost of tolling would be incurred by in-state freight (Chamber of Commerce).
- Some businesses indicated they often register out of state because Michigan registration fees are high and would put another tank on their trucks and fill up out of state if gas taxes continue to increase (Chamber of Commerce).
- When considering the current and projected transportation taxes and fees, the addition of tolls could be a huge burden on businesses and hurt the economy (Business Association, Logistics).
- Most freight carriers in Michigan drive over 450 miles a day (Logistics).
- Poor road conditions are a major concern for the trucking industry, especially between Lansing and Grand Rapids (Logistics).
- On the east side of the state, travel time reliability is a concern due to how congested the roadways are in the densely populated areas (Logistics).
- In southwest Michigan, the "lake effect" snow amounts can make the highways dangerous and a common concern for truck drivers (Logistics).
- Winter conditions may lead truckers to take toll roads more often due to better-plowed facilities (Business Association, Logistics).
- Miles per gallon would have to be poor to move freight off a highway to an alternative route. For instance, an 18wheeler would not divert, but a smaller truck would (Logistics).
- Safety and travel time reliability were identified as main priorities when choosing routes (Chamber of Commerce, Logistics).
- Travel time reliability is most challenging in Flint, Dearborn, and Lansing (Logistics).
- Regional Retail Supplier Feedback (Logistics):
 - » They have 400+ drivers that travel 23 million miles per year.
 - » The average truck trip is about 150-175 miles roundtrip.
- Automotive Supplier Feedback (Logistics):
 - » In 2020, their truck drivers drove 7 million miles. In 2021, the miles driven were down 15% from a normal year due to the pandemic.

II. Business Costs

This section focused on how tolls affect the cost of doing business both as an additional fee and the associated benefit of improved roadways to understand the impact tolling would have on Michigan's economy. The discussion centered on vehicle type, direction, travel, and road condition.

Feedback on passenger vehicles, especially related to tourists and commuters:

• Those who value travel time reliability are more likely to pay a toll than deal with congestion (Chamber of Commerce, Research University).

- Michigan drivers could be swayed to support tolling with better operation and maintenance of roads, especially in inclement weather (Business Association).
- The vehicle cost of wear and tear is not top of mind. Even if people are paying less in the long run, a toll is perceived as a direct out-of-pocket cost, and the perception would be that they are paying more (Chamber of Commerce).
- There were less concerns on impacts on in-state tourism travel. However, the potential of tolling being a deterrent for out-of-state tourists from visiting could be a concern. The responses were mixed, as some perceived having travel time reliability as a positive for tourism, as people would arrive at their destination in the anticipated time frame with less congestion and delays (Business Association, Tourism and Economic Development).
- There have been fewer complaints from out-of-state drivers, including tourists, about road conditions on Michigan's limited-access highway system in the last ten to 15 years. However, the condition of the local road system is more of a concern (Tourism and Economic Development).
- Cost may be an issue for tourists driving at first but seeing the benefits of increased roadway operations and maintenance would make it worth it (Business Association, Chamber of Commerce, Tourism and Economic Development).
- Road improvement and congestion management would help tourism when tourists see Michigan did fix the roads (Business Association, Tourism and Economic Development).

Feedback on freight:

- The greatest concern expressed with tolling freight vehicles was adding costs. There have been a lot of recent upward price pressures on freight operations (Business Association, Chamber of Commerce, Logistics).
- Tolls can make sense for just-in-time manufacturing if they help provide reliably faster travel times (Business Association, Chamber of Commerce, Logistics).
- Business organizations are pro-fixing roads, as are their members. However, with additional costs like tolling, it needs to come with benefits such as fixing roads, better operations, maintenance, reduced congestion, travel time reliability, etc. (Business Association, Chamber of Commerce).
- Michigan potholes and road quality is an issue that cannot be overlooked, and any solution will be looked at by businesses objectively (Business Association, Chamber of Commerce).
- Tolls would greatly impact costs for suppliers when they cannot pass them on to their customers. Many routes utilized by freight are the ones that the feasibility analysis identified as those advanced from preliminary Phase 1 screening (Logistics).
- Costs for suppliers are based on costs per mile and the price and/or availability of parts (Logistics).
- The increase in fuel costs has increased delivery costs to and from manufacturers (Logistics).
- The feasibility analysis' proposed toll rates are not ridiculous compared to other states' tolling rates. The rates being considered would likely not force truck drivers to alternative routes (Logistics).
- The tolls can be considered in their pricing and passed on to the customer. For example, pass-through costs would be roughly \$3 million, calculated as 7 million miles x 32 cents per mile toll rate for large commercial vehicles (Logistics).
- Operation costs have increased 20% in the past year and have not stabilized since the pandemic (Logistics).



• The typical truck trailer costs are \$130,000 - \$150,000. A company is likely to get at least half a million miles+ out of the truck trailer (Logistics).

III. Policy Factors

Implementing tolling in Michigan would require feasibility, political will, and legislation. The policy factors discussion section focused on tolling operations, technology, and concerns such as double taxation and equity factors.

Feedback:

- Double taxation is a major concern. Study outreach groups were intrigued by potential fuel tax rebate programs or other options to offset some toll costs (Business Association, Chamber of Commerce).
- Interoperability and reciprocity would be key selling points for a tolling program. Many drivers already have toll collection technology, such as transponders, used by surrounding states (Business Association, Research University, Tourism and Economic Development).
- Political resistance to tolling is expected due to recent additional state and federal investments in transportation, although these recent investments do not solve long-term funding issues (Business Association, Logistics).
- Any major changes to transportation funding in Michigan should consider amending Act 51 and how it impacts urban areas (Chamber of Commerce).
- Income-based discount programs should be explored to offset costs for low-income areas (Chamber of Commerce, Research University).
- Gas price variability has caused fleets to fill up in other states or switch fleets to propane (Business Association).
- It is easier to collect fuel tax than collect taxes for electric vehicles. There are competing priorities between encouraging environmental improvements and current transportation funding sources (Logistics).

IV. Future Considerations

One goal of the tolling feasibility analysis is to determine if tolling could be a sustainable revenue source for the state of Michigan. The future considerations discussion section focused on how tolls can be a sustainable resource and evolving trends and changes associated with new technology, electric vehicles, and other transport needs.

Feedback:

- Synergies with tolling technology, infrastructure, and other technological advancements such as broadband or connected vehicles should be explored (Business Association).
- AET technology is intriguing because it removes some of the inconvenience of tolling to drivers related to old toll booths. However, there still needs to be a focus on ensuring the system is customer-friendly for people who have transponders from other states or do not have transponders (Business Association, Logistics, Tourism and Economic Development).
- All study outreach groups understand the decline of the motor fuel tax due to improving fuel efficiency and the additional challenges Electric Vehicles (EV) will bring to that revenue stream (Business Association, Chamber of Commerce, Logistics, Research University, Tourism and Economic Development).
- The vehicles-miles-traveled (VMT) trends and EV impacts over the next 20 years will be important when discussing transportation funding publicly (Business Association, Chamber of Commerce, Logistics, Research University, Tourism and Economic Development).

- Many study outreach groups agreed that commercial freight adoption of EVs will be much slower than in the passenger car fleet (Business Association, Chamber of Commerce, Logistics, Research University, Tourism and Economic Development).
- A business is testing EV fleets in 2022 to analyze the cost differences between gas and electric power (Logistics).
- Demographics could be a factor when considering future VMT. Generation Z seems more hesitant to obtain a driver's license with ridesharing and other options for commuting. Also, Michigan's population is not growing as fast as other states where tolling is growing fast. Older populations are staying off highways because of speed (Research University).

V. Notable Trends by Organization Type

Business Associations and Chambers of Commerce see the value in a sustainable transportation revenue source that will ultimately fix certain Michigan roads now and in the future. These organizations are also concerned about double taxation and additional fees that could negatively impact certain people or businesses. Rebate programs or similar relief should be considered for certain groups, including low-income drivers, for tolling to be supported.

Logistic organizations face various roadway issues such as travel time reliability, congestion, winter road conditions, equipment wear and tear, etc., that tolling could improve. The benefits and costs should be weighed and communicated effectively if tolling were implemented.

Modern tolling systems and improved roadways would likely have a mixed impact on tourism. Tourism and Economic development organizations would anticipate a short-term decline in tourism as tourists adjust to the tolls. However, recovery would be expected in the medium and long-term due to improved roads and driving experience.

VI. Summary

The qualitative feedback gathered from study outreach groups identified concerns on the impact on businesses, lowincome areas, and double taxation. However, all study outreach groups met with understood the need for a sustainable revenue stream for Michigan's roads and highways. The feedback gathered will be used when considering where and how tolling implementation could take effect. Additionally, key insights on public messaging were gained through these interviews that will be considered when planning potential engagement and National Environmental Policy Act (NEPA) processes for tolling in Michigan.



Appendix A. Meeting Materials





A.1. Interview Questions

CMDOT HNTB Smith

Qualitative Economic Interview Questions Summer/Fall 2021

Thank you for taking the time to meet with our study team today to share your thoughts around the feasibility of modern tolling in Michigan. The purpose of today's interview is to help our study team define what economic considerations are important to you and your organization/membership. Outcomes of our discussion today will help the team develop specific quantitative economic analysis to be completed as part of the of the next phase of the study.

Today's questions revolve broadly around four quadrants that may impact our future economic analysis:

- > geography,
- ➢ business costs,
- > policy, and
- future considerations.

Is there a specific quadrant that you would like to focus today's conversation around?

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1. Geography (Slide 13)

Perspectives vary by location, hence we seek to better understand your perspective and concerns

• Interviewee perspective - identify/plot:



- Elaborate on the importance of the following movements to your geography
 - o Passenger
 - Commuters
 - Mode choice for transit/shared rides
 - Low-income population
 - Travel time reliability/value of time
 - Traffic diversion impacts (negative/positive)

o Freight

- Freight (long-haul vs. local)
- Mode choice for raw materials transport
- Travel time reliability/value of time
- Traffic diversion impacts (negative/positive)

o Other

- Tourism Sector
- Land development patterns

Other questions

- If we can provide a dedicated funding source with benefits of courtesy patrols, added capacity, and safety benefits for roads going through your community would this be attractive to businesses and residents in your community?
- What do you hear in your region about the "new normal" post the COVID-19 pandemic for traffic patterns?
 - What is the basis/source for the opinion?

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2. Cost of Doing Business (Slide 14)

The following questions concern how tolls affect the cost of doing business – both as an additional fee AND the associated benefit of improved roadways. Questions focus on:

- Vehicle type commercial vehicle transport and visitor-related passenger vehicles
- Direction in- vs. out-of- state origin and destination
- Travel vehicle-miles-traveled (VMT) and vehicle-hours-traveled (VHT)
- o Road condition congestion and deterioration on business costs, as well as quality of life

Commercial Vehicles

- Michigan Truck traffic on Study corridors
 - Users Which local industries use?
 - o Shippers
 - What local goods are produced?
 - Where are they trucked?
 - o Receivers
 - What material inputs are used?
 - Where do they come from?
 - Routes which are primarily used?
 - User costs perceptions of poorly maintained roads, how do they locally impact:
 - Vehicle operating costs (VOC)?
 - o Time?
 - o Reliability?
 - Safety?
 - Routing decisions impact by road condition?
 - Development Does road condition inhibit business attraction/development efforts?
- Business Costs magnitude and impacts
 - How do current road conditions affect business costs?
 - Do transport costs associated with road condition inhibit business retention/expansion/attraction?
- Future international commerce potential via Gordie Howe International Bridge?

Passenger Vehicle Questions (Tourism)

- o Where do they originate?
 - In-State? vs. Out-of-state?
- Where do they terminate?
- What is the magnitude of regional tourism? Share of local economy?
 - Employment?
 - Annual sales?
 - Detail helpful lodging, food/beverage, retail, recreation
- Travel time/conditions
 - Road congestion and/or conditions are major routes problematic (i.e., deter tourists)?
 - Would better roads and higher levels of service attract more visitors/users?
 - Would tourists pay tolls? Or would tolls repel tourists

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3. Policy (Slide 12)

- Tolling Operations/Technology/Use raise logistical questions which may impact Michigan economy including:
 - o Interoperability how important is coordination with other states/systems?
- Tolling Concerns do tolls raise double-taxation and/or other considerations?
 - Discount Programs should they be available? If so to whom and how?
 - o Equity should programs be used to alleviate burden on low-income population? How?

4. Future Considerations (Slide 15)

The following questions concern how tolls provide a sustainable revenue source and help manage evolving trends/changes associated with new technology, electric vehicles, and other transport needs.

- Proliferation of EVs
 - How would the emersion of EVs in the US Market affect your operations?
 - o Do you have thoughts on timeline of EV migration in Michigan?
 - o Any local barriers to supporting EV emersion?

Technology Deployment

- Could tolling technology deployment help support local goals?
- o Could local barriers slow tolling technology deployment?
- What type of projects would help business CV? Tourism PV?

Improvements Sought	cv	PV
Reconstruct in-kind		
Widen + reconstruct		
Widen only		
Managed lanes/express lanes (priced)		
Other		

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A.2. Presentation



Tolling Study Requirements

P.A. 140 of 2020 (July 8, 2020) requires:

Michigan Department of Transportation

- · MDOT engage an outside consulting firm to conduct
 - Feasibility study (Step 1)
 - Strategic implementation plan (Step 2)
- · Per Legislation language, Study must consider:
 - Economic impact and feasibility of tolling (Economic impact is focus of this presentation)
 - o Impact on out-of-state operators
 - Maximize use of Michigan workers and products
 - Revenues
 - o Consider a discount program
 - Optimize toll rates
 - Financing
 - o Assess federal tolling programs applicability
 - o Identify required tolling rules
 - o Evaluate long-term financing opportunities
 - Identify Candidate Corridors
- Deliver prior to July 8, 2022.

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Toll Study Approach



Corridors Advanced from Preliminary Phase 1 Screening

Interstates	US Hwys	State Hwys			
1-69	US-131	M-6			
1-75	US-23	M-10			
1-94		M-14			
1-96		M-39			
I-196		M-59			
I-275					
1-696					
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Note: Corridors listed in no hierarchical order



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Education & Myth Busting





- Five available Federal tolling programs
- All Electronic Tolling (AET) technology does not require toll booths
- Only need space for a gantry to be built and possible limited ROW for corridor operational improvements identified
- Collection costs average 12% to 18% of tolls
- Data driven study, focusing on education



- X Federal legislation doesn't allow
- X Tolling requires toll booths in the road
- X Requires toll booth plazas at every exit
- X Collection costs 50% of the toll revenue
- X Decision is already made on the outcome

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Legislative Feedback Provided So Far

Meetings to Date:

Sen. Hollier

Sen. Lauwers Rep. Sneller

Rep. Berman

Rep. Liberati

Rep. LaFave

Rep VanSingel

Sen. Outman Sen. Schmidt

Sen. McBroom

Sen. Victory

Sen. Bizon

Rep. Griffin

Sen. Geiss Sen. Bullock

Sen. T&I Chair Barrett House Policy Staff

Senate Policy Staff

Rep. Puri

Rep. Roth

House Transportation Chair O'Malley

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- Motor Fuel Tax future revenue model
- Electric vehicle future transportation budget implications
- Road User Charges -- likelihood and significance
- Tax Structure double taxation and other considerations
- Toll Technology
 - Agency Infrastructure new and operable between states
 - Users existing devices (GPS/car/phone) and/or new transponders (affordable, portable)

Traffic Effects

- Diversion-local business/tourism
- Equity fair and equitable for everyone

Operations

Violations – how to handle

Enforcement -- Red-light-running concerns and license plate technology enforce

Other

- Legislators EZ Pass holders are familiar with tolling technology
- July 2022 nobody wants it to become a political football





Stakeholder Feedback Received So Far

Meetings to Date:

Small Business Association of Michigan

Motor Carrier Advisory Board Michigan Trucking Assoc. Michigan Municipal League

Detroit Regional Chamber

Business Leaders for Michigan

Michigan Chamber of Commerce

UAW-CAP

NAACP

Grand Rapids Chamber

Funding

- Vehicle Miles Traveled/Road User Charges approaches as opposed to tolling
- Toll Revenue Fund non-transportation purposes? Displace existing funds?
- Stakeholders Support anything that provides sustainable transportation/road revenue
- · One-time Funding Influx Distracts from sustainable solutions (peak/valley funding approach)
- Geographic Equity Impacts to Detroit/northern Michigan

Discount Program

- Structure What would it look like?
- Avoid Burdens Don't add another layer of complexity to access discount programs

Equity

- Low-Income Population Should programs alleviate tolling burden? How?
- Geographic Down state v. up north

Traffic

- Diversion Local community impact variations (positive/negative)?
- Sector Effect on gas stations, mechanics, etc.

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Key Economic Considerations



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Economic Considerations – Geography



- ✓ Passengers
 - Commuters
 - Mode choice for transit/shared rides
 - · Low-income population
 - Travel time reliability/value of time
 - Diversion impacts (negative/positive)
- ✓ Freight
 - · Long-haul vs. local
 - · Mode choice for raw materials transport
 - · Travel time reliability/value of time
 - Diversion impacts (negative/positive)
- Other
 - · Tourism Sector
 - · Land development patterns

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Economic Considerations – Business Costs



- ✓ Toll Facility User Costs
 - Supply chain/logistics impacts
 - Labor impacts
- User Benefits
 - Quantify time and distance changes
 - Monetize
 - Value of time
 - Travel time reliability
 - Vehicle operating costs (VOC)
 - Accidents/other

✓ Economic Impacts

- Manufacturing retention/expansion/attraction
- Professional Services retention/expansion/attraction
- Tourism and discretionary spending



Economic Considerations – Policy



✓ Road Funding

- Future transportation investments
- Sustainable funding streams
- Revenue distribution (state vs. local)
- Investment & life cycle decisions/asset management

Tolling Operations

- Discount programs
- Interoperability & enforcement

✓ Tolling Concerns

- Double taxation considerations
- Fair & equitable solutions

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Economic Considerations – Future



Realities

- Fuel tax revenue decline
- Proliferation of EVs into US market
- · Road User Charges and linked opportunities

✓ Tools to address gaps

- Toll technology advancement
- Consumer acceptance and demand
- Financial markets/cost of \$
- Political-will

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Open Discussion



Open Discussion



- ✓ Economic questions we should address?
- Michigan Sectors disproportionately impacted by tolling?
- Michigan policies that hinder tolling advancement?
- ✓ Tolling impacts on International border traffic?
- ✓ Other tolling concerns?

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