4. Primary Data Sources & Results

This chapter summarizes the data used in this plan and presents the primary results supporting the key takeaway points of the plan listed in Chapter 3.

Sustainable Choices 2045

Duluth-Superior Long-Range Transportation Plan

Primary Data Sources for the 2045 LRTP

The following are the primary data sources supporting *Sustainable Choices 2045*:

- United States Census Bureau, including the American Community Survey
- MetroQuest online surveys — Phases 1 & 2
- Consultations with local jurisdictions and stakeholders
- Travel Demand Model (TDM) sources

United States Census Bureau

Trends regarding population, demographics, economics, and other characteristics are tracked using data published by the U.S. Census Bureau and other agencies. This includes the Census Bureau's American Community Survey, or ACS.

For metropolitan areas like Duluth-Superior, such data is collected and delivered according to at least one of three geographic levels: the metropolitan statistical area (MSA), the urbanized area (UZA), or the individual municipalities that comprise the MIC planning area.

The Duluth-Superior MSA is a much larger geographic area that contains the MPO. It includes counties with close economic ties to the metropolitan area. Trends in population, workforce, and transportation are all available for this geographic area and can be easily compared.

The Duluth-Superior UZA boundary delineates the portion of the MPO considered to be "urban" based on the population density. This is the smallest unit with which some employment and transportation-related data are delivered.

The trends and projections of Appendix E are largely based on census and ACS data.

MIC-Area Travel Demand Model (2018 Update)

Primary inputs (data sources) to the 2018 update of MIC's travel demand model (TDM) included U.S. Census Bureau data, traffic estimates from Minnesota DOT and Wisconsin DOT, and TAZ data that included information gathered from consultations with jurisdictions. Details of the TDM are provided in Appendix F.

The Metropolitan Transportation Planning Process:

- **Identifies travel and transportation issues and needs;**

(MIC tool: Community Engagement through online surveys, events and consultations)

- **Includes a demographic analysis of the community in question;**

(MIC tool: US Census Bureau/ACS data)

- **Examines travel patterns, trends and projected future demands;**

(MIC tool: Updated MIC Area Travel Demand Model)

...with the goal of providing a safe and efficient transportation system that provides mobility while not creating adverse impacts to the environment and historically under-served populations.

Source: FHWA
www.fhwa.dot.gov/planning/processes/metropolitan

Consultations with Jurisdictions & Stakeholders

MIC staff held 30 consultations with MIC area jurisdictions and other stakeholders. Most of these consultations were one-on-one, and involved asking key questions and receiving feedback. The MIC received 262 comments during these consultations. Summaries of these consultations, as well as the comments received during stakeholder meetings and consultations are provided in Appendices H and I.

Public Surveys

Public surveys included two phases of an online survey using the MetroQuest platform, as well as shorter, in-person dot surveys that allowed people to express their preferences about transportation priorities.

MIC-Area Transportation Issues

Based on demographic and travel demand model information, the following issues emerged as having key influences on the MIC -area transportation network and future investments in its infrastructure:

Continued Flat Growth And Aging Population

The MIC area population has decreased by nearly 4000 people since 1980 (151,381 to 147,541), although it has risen slightly since 2000. Thus, overall the MIC area population growth continues to be flat. The trend for the population in the two primary MIC area cities (Duluth and Superior) is very similar (Figures 4.1 and 4.2). However, there is a slight increase in some of the adjacent cities and townships, thus a sign of some decentralizing from the more urban core.

According to US Census and ACS household data, and reflection on past population trends summarized above, the projected percent population increase in 2045 is 3.4% across the MIC area, or a total population of 152,587. Duluth is projected to increase by 3.7%, while Superior is projected to increase by 2.7%. The only two municipalities with higher projected increases are the Cities of Proctor (11.1%) and Hermantown (10.9%). The projected 3.4% increase is what was used in the travel demand model (TDM) to produce 2045 outcomes.

Figure 4.1: Population of Duluth and Superior (1980—2015)

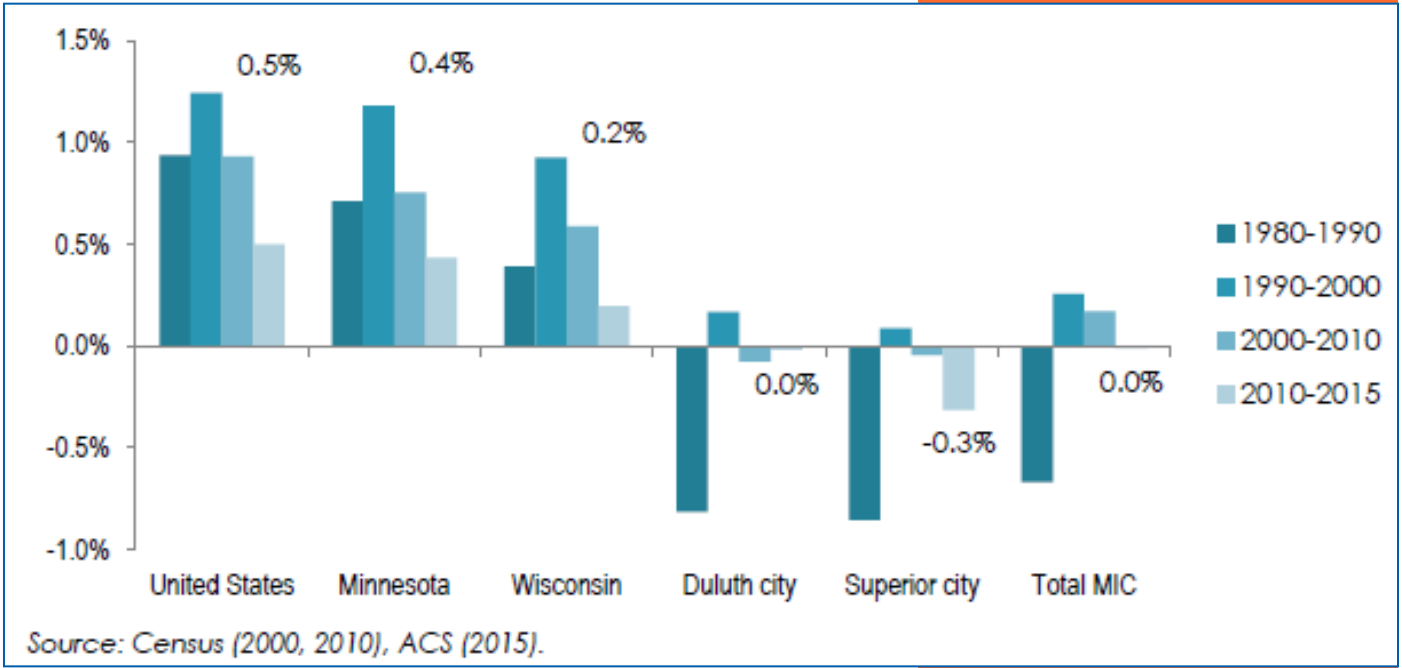
	Duluth	Superior
1980	92,811	29,571
2000	86,918	27,368
2015	86,178	26,817

The age structure of the MIC area population is also of importance. There are two age cluster concentrations in the Duluth-Superior area that are larger than across the nation—those between the ages of 20-24 and 50-64. In the MIC area, 28% of the population is at least 55 years or older, compared to 26.5% across the nation. In contrast, the U.S. share of the population that is 25-54 (i.e. prime working age adults) is 40.3%, compared to 37.1% in the MIC area. This can have implications for the economy, local municipal finances, and demand for services. See Figure 4.3.

In St. Louis County the proportion of the population aged 55 or older is projected to rise from 36% to 38% between 2020 and 2035, but drop to 34% in 2050, sooner than the projected rise for Minnesota statewide. The increasing number of seniors may also translate into increased demand for more accessible transportation options and increased transit service.

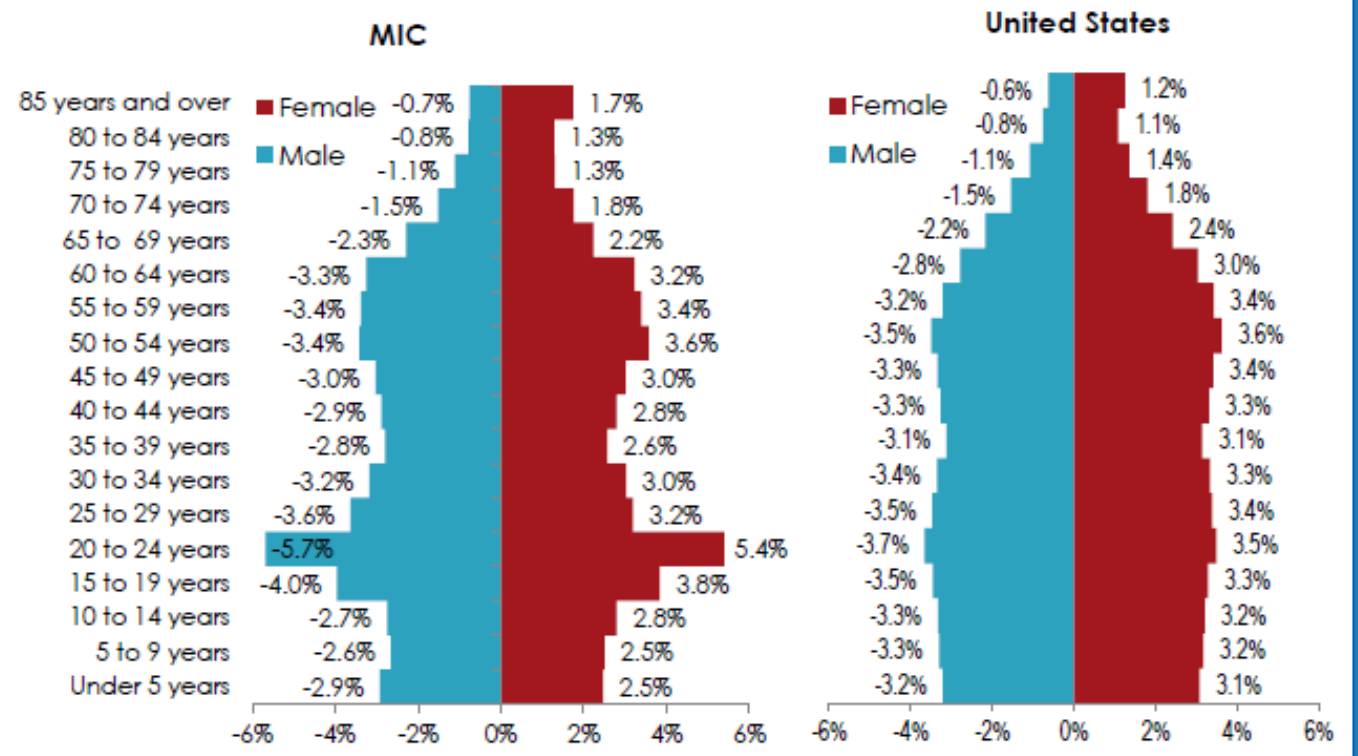
See Appendix E pages 2-12 for additional details and full data.

Figure 4.2: Annualized Population Growth in Major Population Centers & Benchmark Regions (also Figure 1 in Appendix E)



Source: Census (2000, 2010), ACS (2015).

Figure 4.3: Population Pyramids (2015) (also Figure 3 in Appendix E)



Source: ACS (2015).

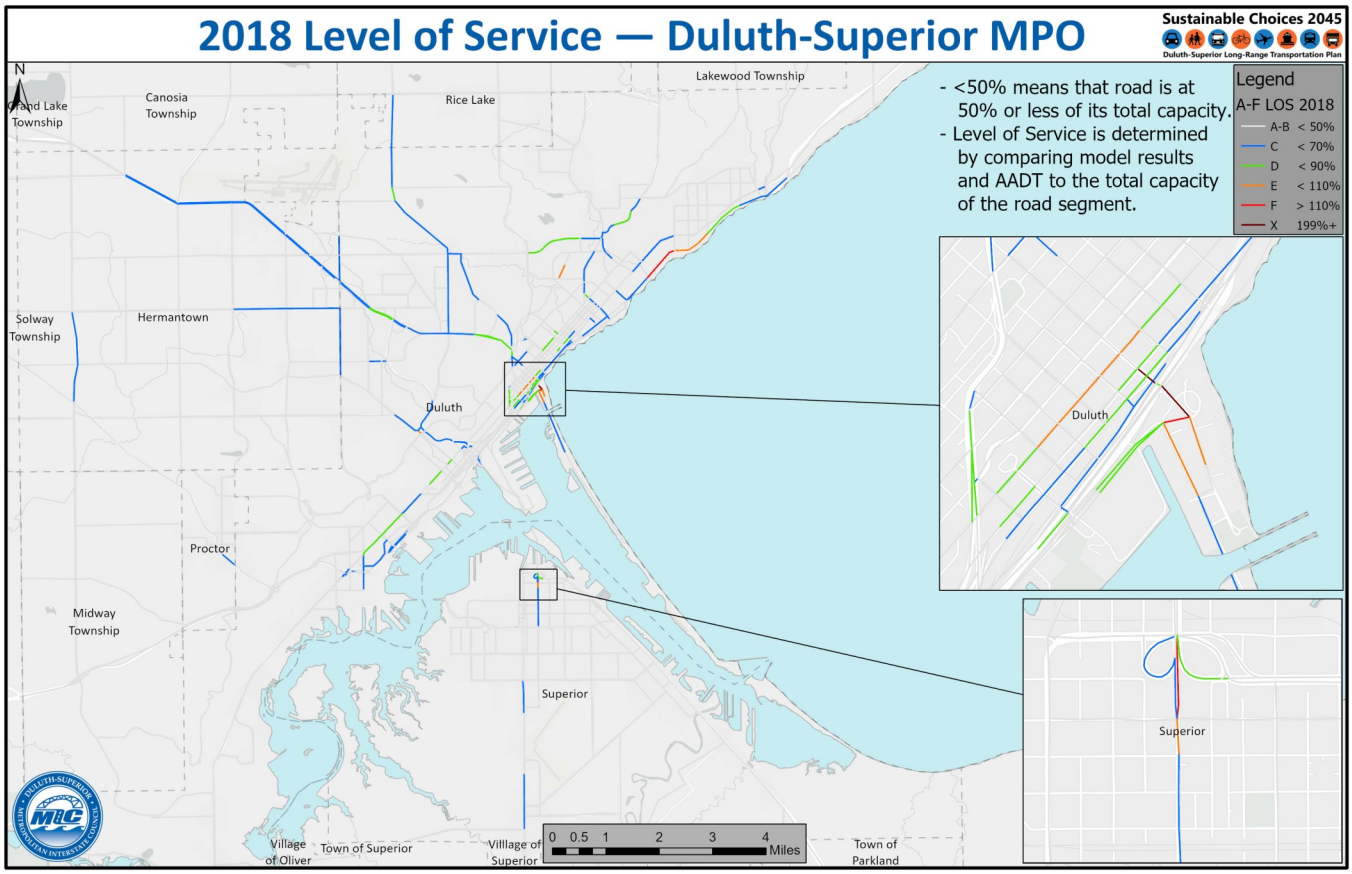
Level of Service / Travel Demand Model Outputs

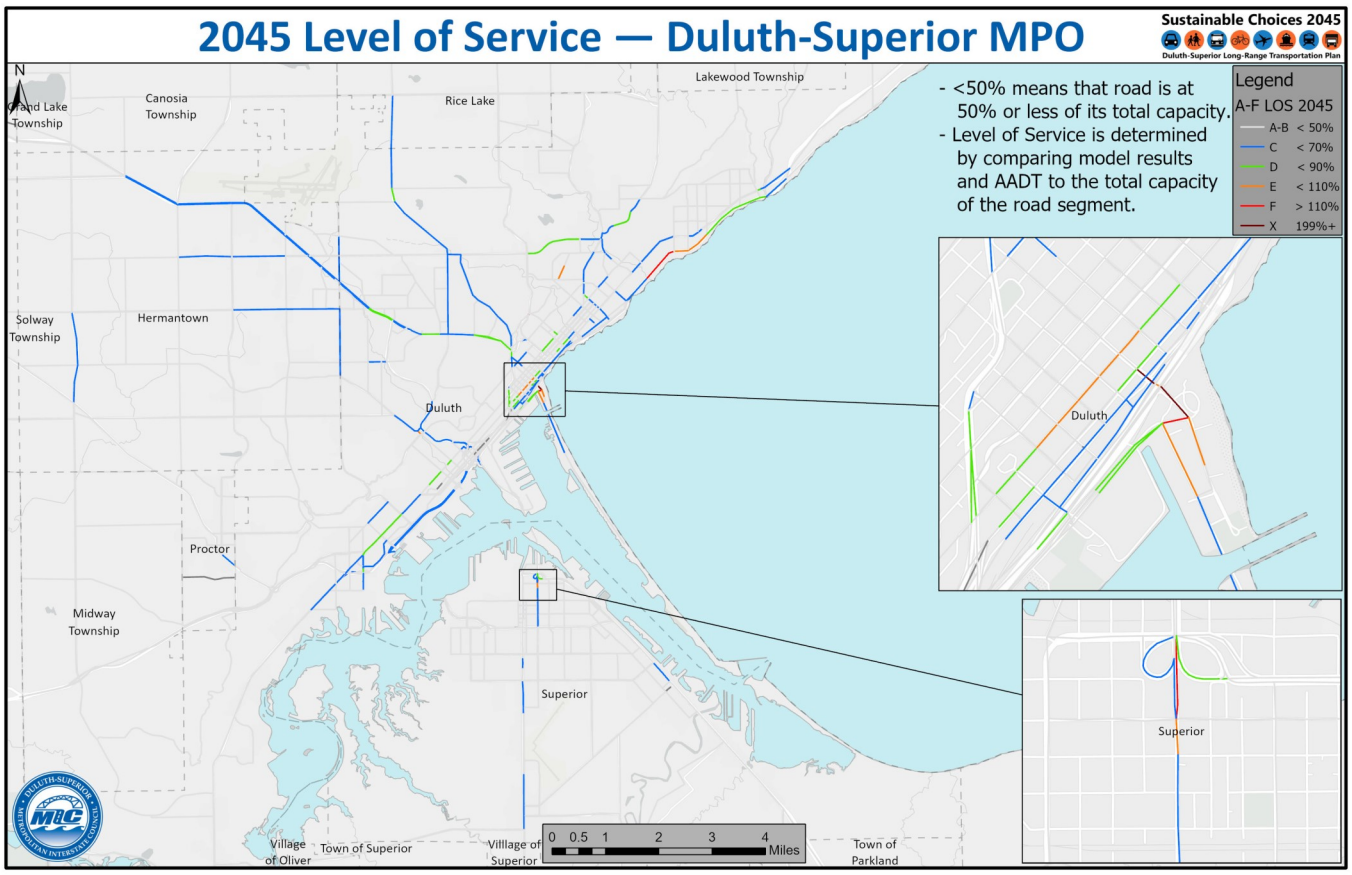
Level of service (LOS) is determined by looking at what the total capacity of the road is and comparing it to the total daily traffic on the road segment. AADT is used where available for current year totals and then adjustments are made based on growth expectations. The population in the Duluth-Superior area is not expected to rise significantly by 2045, so the model only shows minor increase/decrease (1%-2%) to LOS.

There are concerns with current and future LOS for a few road corridors in the Duluth-Superior area. Concern areas are any road corridors that have a LOS that exceeds 90% capacity. 90% to 110% capacity is classified as LOS E (At Capacity). 110%+ is classified as LOS F (Above Capacity). 200% means the road is at two times its capacity. The percentages listed in Figure 4.4 represent the projected LOS in 2045. The LOS service values and maps for 2018 and 2045 are nearly identical (Map 4.1).

Overall, as can be seen in Map 4.1, there are very few LOS and congestion problems projected in the MIC area. That said, the model that projects the LOS, does not necessarily capture

Map 4.1: MIC Area Level of Service—2018 vs 2045





congestion at intersections. There are intersections in the MIC area that do have congestion problems during peak hours or during significant events. Examples include the intersections at Arrowhead Road and Rice Lake Road, London Road and 21st Avenue, London Road and 40th Avenue E, Lake Avenue-Railroad Street-Canal Park Drive, Hammond Avenue and Belknap Street, and the I 35 ramp at 5th Avenue W/Harbor Drive.

Since congestion is mostly a peak hour phenomenon, people can address it through behavioral changes if they want to avoid it, reducing the need and cost of adding more road capacity.

The following are a couple of related pieces of data that are useful to understanding traffic patterns in the MIC area:

- The AADT on key MIC area roadways generally increased from 2013-2017, to give a general slight increase between 2009-2017. The one significant exception to this was Wisconsin Trunk Highway 35 south of Superior. See Table 20 in Appendix E for more details.
- More than twice as many people commute into the MIC area for work as commute outside (Figure 4.5). Further, commuter distances are approximately the same over the past 10 years, and 58% of commuters have less than a 20 minute commute (Figures 4.6 and 4.7). Reasons for this are not clear, but may be due to a lack of housing, a lack of affordable housing, desired access to other school districts, or a desire for a more suburban lifestyle. Commute mode is identified in Figure 4.8. See pages 33-45 in Appendix E for more details.

Figure 4.4: 2045 Projected LOS Concerns

Duluth—LOS F

210%
North Lake Avenue
I-35 to West Superior Street

200%
South Lake Avenue
I-35 to Canal Park Drive

119%
London Road
Tischer Creek to 40th Avenue

117%
Railroad Street
Lake Avenue to Canal Park Drive

Duluth—LOS E

100%
London Road
40th Avenue E to 47th Avenue E

98%
Canal Park Drive
South Lake Ave to Buchanan St

Lake Avenue South
Railroad St to Buchanan St

91-95%
West 1st Street
4th Avenue W to 1st Avenue E

Superior—LOS F

118%
I-535
N 5th Street to North Bound on Ramp

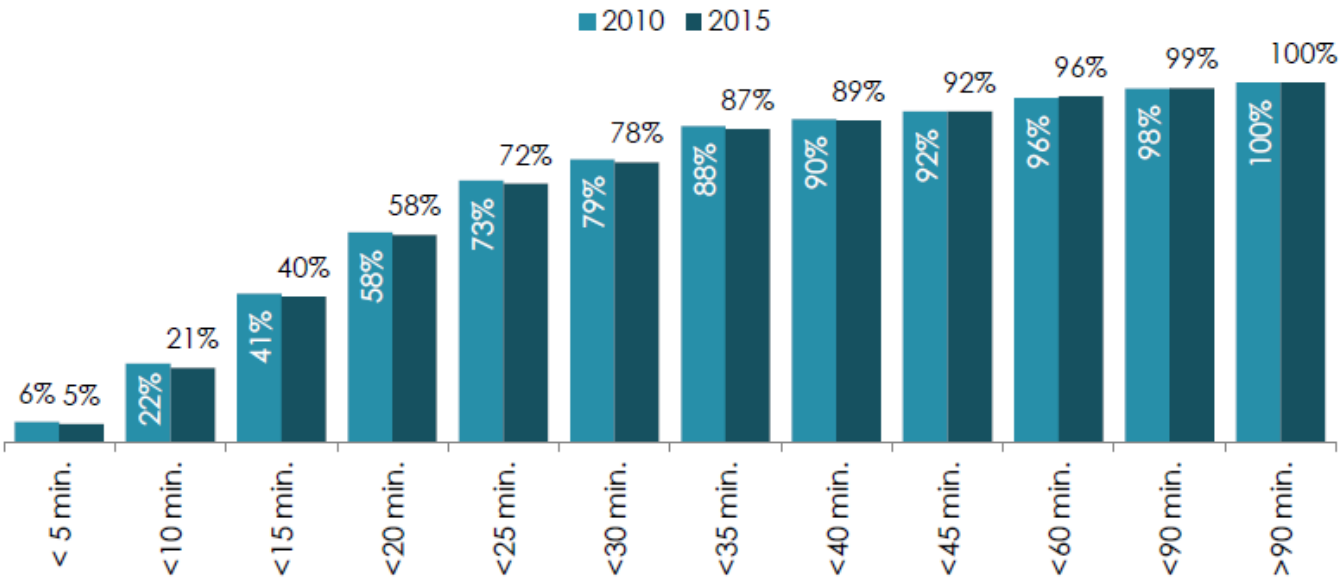
Superior—LOS E

98%
Hammond Avenue
6th Street to 5th Street

Figure 4.5: Commuting Into and Out Of the MIC Area

2015 data shows that 31,159 people are potentially commuting into the area for work on a daily basis, while 14,726 people are commuting outside the area. 56,223 people both live and work within the MIC area. See page 43 of Appendix E for additional information.

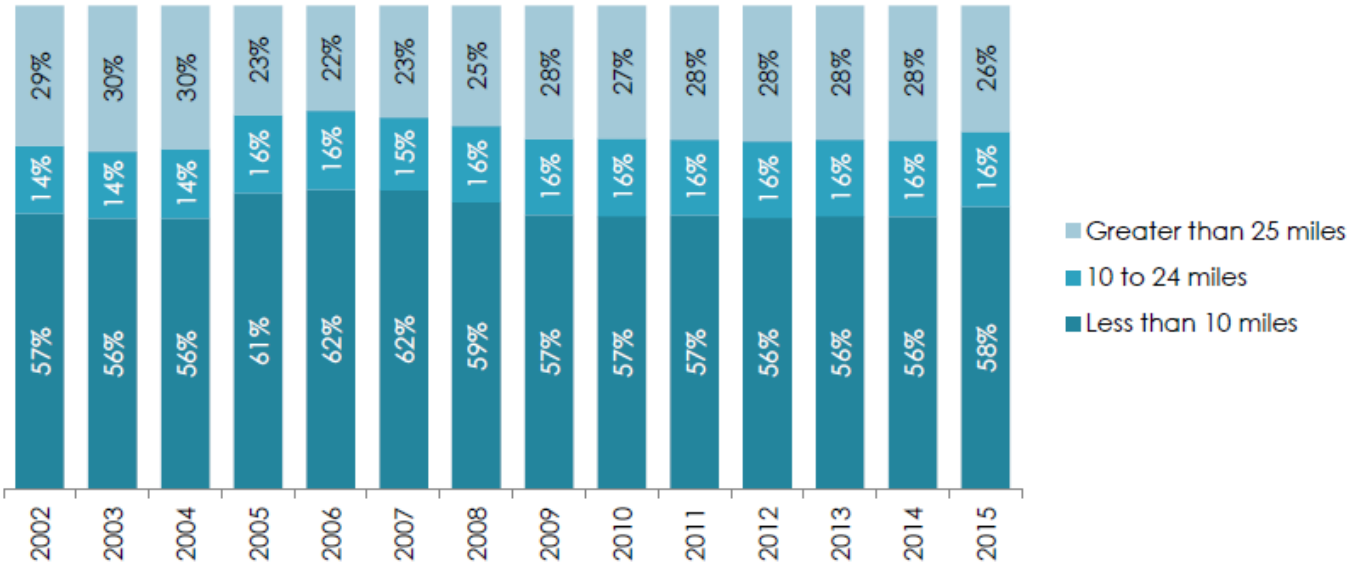
Figure 4.6: Share of Duluth-Superior MSA by Commute Length (Time) (2010-2015)



Source: ACS 2010, 2015.

The commute time in the Duluth-Superior area is relatively low for most people—58% have a commute time of less than 20 minutes, while 78% have a commute time under 30 minutes. Commute times changed very little between 2010 and 2015.

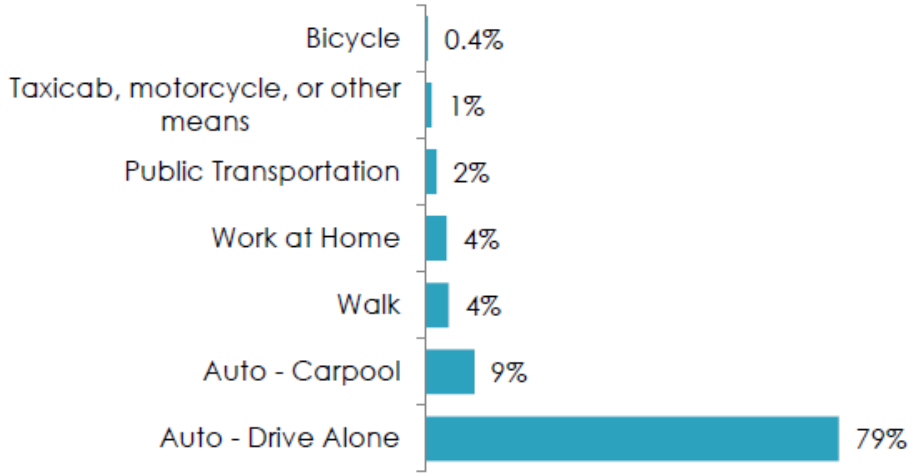
Figure 4.7: Historical Shares of Distance Traveled by Commuters



Source: LEHD 2015.

The commute distance in the Duluth-Superior area is relatively low for most people—58% have a commute distance less than 10 miles, while 74% have a commute distance less than 24 miles. Commute distances changed very little between 2002 and 2015.

Figure 4.8: Duluth-Superior MSA by Commute Mode Share (2015)



Source: ACS 2015.

The responses gathered in the local MetroQuest survey (see page 4-5—4-7) are significantly higher than the corresponding mode values from ACS. This is not surprising for three reasons. One, the ACS values consider the entire MSA which includes a vast majority of very rural areas, not representative of the MIC area. Two, the ACS values represent the "primary" mode of travel, which very much differs from the MetroQuest survey question. Three, the ACS values are specific to travel to work, whereas the MetroQuest survey question was broader in regard to transportation or travel to any place.

Poverty Concerns

The poverty level in the MIC area (18%) is higher than the national (15%), and Minnesota (11%) and Wisconsin (13%) statewide percentages. Of note, the poverty level in both the Cities of Duluth and Superior is 21%, and the Village of Oliver is 20%. The only other municipalities in the MIC area with greater than 10% poverty is the Town of Parkland (13%). See Figure 4.9 and Appendix E for more details.

The relatively high poverty levels should play a real role in decision-making regarding our transportation system, as people in poverty are often limited in their options for transportation due to cost or other access barriers, which increases the importance of maintaining multiple options that are accessible for this population.

18%

of the total MIC area population is below poverty

Figure 4.9: Population by Poverty Level (2015) (see also Table 12 in Appendix E)

Geography	Population With Income Data	Below Poverty Level	% Below Poverty (2015)
United States	308,619,550	47,749,043	15%
Minnesota	5,295,613	596,662	11%
Wisconsin	5,589,889	724,348	13%
St. Louis County, MN	192,546	30,869	16%
Douglas County, WI	42,376	6,713	16%
MIC (MN)	**109,103**	**19,201**	**18%**
Duluth city	*80,675*	*17,331*	*21%*
Hermantown city	*8,799*	*643*	*7%*
Proctor city	*2,950*	*267*	*9%*
Rice Lake township	*4,110*	*324*	*8%*
Grand Lake township	*2,656*	*122*	*5%*
Lakewood township	*2,431*	*224*	*9%*
Canosia township	*2,213*	*44*	*2%*
Solway township	*1,917*	*65*	*3%*
Duluth township	*1,866*	*146*	*8%*
Midway township	*1,486*	*35*	*2%*
MIC (WI)	**30,633**	**5,760**	**19%**
Superior city	*25,636*	*5,320*	*21%*
Superior town	*2,035*	*99*	*5%*
Parkland town	*1,330*	*168*	*13%*
Lakeside town	*578*	*41*	*7%*
Superior village	*695*	*61*	*9%*
Oliver village	*359*	*71*	*20%*
Total MIC	**139,736**	**24,961**	**18%**

Source: ACS 2015.

Cost & Funding Concerns

This plan includes $3.1 billion in total revenues (funding to resurface or reconstruct transportation infrastructure) and $2.5 billion in total expenditures (cost of short, mid, and long term federally eligible projects over the next 25 years). Additionally, $1.2 billion is estimated for operations and maintenance (revenues are partially from general fund budgets and not fully reliant on transportation related taxes). Finally, as detailed in Chapter 6, there is an estimated additional $199 million in unfunded transportation needs.

The following demonstrate the significant concerns associated with costs and funding of the MIC-area transportation system:

"highway construction costs rose 66% between 2003 and 2016."

Infrastructure costs continue to rise. While the price of construction has doubled since 2000, highway construction costs rose 66% between 2003 and 2016 (Long, Elliott. 2017. *Soaring Construction Costs Threaten Infrastructure Push*, Progressive Policy Institute, Washington DC. 13 pp).

The American Society of Civil Engineers (ASCE) 2018 Twin Ports Area's Infrastructure Report Card graded our roads D+, ports C+, aviation B-, and bridges B-. Except for aviation these grades are very similar to the national grades of D for roads, C+ for ports, D for aviation, and C+ for bridges. The local report card did not grade rail or transit, which received grades of B and D– nationally. The estimated total costs across the country for these needed infrastructure investments is $2.4 trillion , with a funding gap estimated at $1.2 trillion. The MIC area obviously has infrastructure improvement needs, and has a similar funding problem—see below.

The estimated total cost of planned projects in the MIC area over the next 25 years is $2.5 billion, with an additional $199 million in unfunded needs

The MIC area is facing numerous extremely expensive infrastructure projects in the immediate and near future, including the Twin Ports Interchange, Thompson Hill, Blatnik Bridge reconstruction, major Bong Bridge work, among others. This does not include the regular costs of maintenance across the system, annual dredging of the shipping channel, and the upgrade and reconstruction of the Soo Locks.

State and federal funding tied to fuel taxes continue to decline due to inflation, greater fuel efficiency, and the introduction of electric vehicles. New and alternative funding mechanisms are necessary.

Fiscal Constraint

As can be determined from Figure 6.7 the fiscal analysis in this plan is showing an overall surplus of approximately $571 million over the 25-year life of the Plan. At the same time one of the plan's main premises is that there is not enough revenue to cover the existing transportation infrastructure expenses within the MIC area. At first glance, there appears to be a significant contradiction. However, there is not. The short explanation is that the MIC area has very large and expensive bridge and highway projects that will take place within this 25-year planning horizon. However, the exact scope of those projects and their associated costs is not defined at this time. The longer explanation includes three key factors to consider:

1. The project lists in this plan ONLY cover federally eligible and/or regionally significant urban transportation projects and NOT the entire publicly funded transportation system in the Duluth-Superior area. While federally funded and regionally significant roadways include all of the state DOT's roads and much of each county's roadway system within the MIC area, this fiscal analysis excludes the local/residential roadway system needs, which for the cities in the MIC area, comprises a large percentage of their roadway network. Therefore, the surpluses for the respective cities are no-where near the revenues needed to cover the expenses of their local roadway system, and thus the costs of these projects are not factored into this financial analysis. It is reasonable to state that there is presently not enough funding to cover ALL transportation needs for the Duluth-Superior area. Evidence of this is the recent adoption of local transportation sales taxes by the City of Duluth and St. Louis County to add available revenue and reduce the gap in needed funds.
2. While ideal for planning purposes, it is difficult to fully and accurately project long-term revenues and expenditures over a 25-year timeframe, largely due to the fact that none of the roadway jurisdictions program their revenue or projects past a 10-year timeframe. In the short and mid-term timeframes, the project lists are largely based on expected revenues and lists of projects identified in capital improvement programs that generally look out 10 years. Projecting out further than 10 years and then

The project lists in this plan ONLY cover federally eligible and regionally significant urban transportation projects and NOT the entire publicly funded transportation system in the Duluth-Superior area

selecting projects for that timeframe is an exercise of estimates and best guesses and is limited in its overall usefulness. In reality, the list of projects in the long term does not reflect the entirety of transportation work that will take place in those 15 years and therefore results in the identified surpluses.

3. The planning and design for the anticipated major work on the Blatnik Bridge and I-35 corridor in the MIC area has not been conducted. While it is fully anticipated this work will happen during the life of this plan, the actual scope of these projects is not known yet. It is anticipated the costs will exceed the projected revenues of MnDOT District 1 and WisDOT Northwest Region and will require either funding from statewide sources to fill the gap or keeping these projects within available funds through alternative approaches.

Geography of the MIC Area

The geography of the MIC area presents numerous challenges to the function and maintenance of the transportation system. The two primary cities in the MIC area (Duluth and Superior), while adjacent to each other, clustering the highest density, are separated by both the St Louis River and estuary and Lake Superior. The only connections are three automobile bridges, and two railroad bridges. Two, both Duluth and Superior have long narrow primary corridors. This is especially true of Duluth. Three, the significant steep hills along the length of Duluth are barriers, especially during the winter. All of these contribute to difficulties in achieving highest efficiencies across the transportation system. This is especially challenging for transit operations, during construction in certain key locations, or during large scale emergency or evacuation situations.

Duluth's steep hills create a significant challenge to its multimodal transportation network, especially during the winter.

The mode data in this chapter can be compared with data in Figure 4.8 and Figure 15 in Appendix E, which is from the American Community Survey (ACS). The ACS survey considers only the primary mode of a person's commute, while our survey considered all modes a person may use for moving from one place to another, including commuting.

Public Survey Results

The original data summarized here is detailed in Appendices B, C, and D.

MetroQuest Phase 1 participants:

- The primary age groups were 25-49 (50%) and 50-64 (28%).
- The vast majority (67%) were employed full-time, while 8% were employed part-time, and 13% were retired. In addition, 5% were students, 3% worked or stayed at home, and 4% were unemployed.
- The majority had household incomes of $55,000-99,000 (31%), less than $40,000 (27%), or $100,000-199,999 (26%). Less than 2% had household incomes greater than $200,000.
- 52% were female, while 48% were male.

MetroQuest Phase 2 participants:

- The primary age groups were 25-49 (45%) and 50-64 (29%).
- The vast majority (62%) were employed full-time, while 12% were employed part-time, 10% were retired, and 9% were students. Alternatively 4% worked or stayed at home. 3% were unemployed.
- The majority had household incomes of less than $40,000 (30+%), $100,000-199,999 (30%), and $55,000-99,000 (25%). This included 21% less than $25,000. Less than 4% had household incomes greater than $200,000.
- 55% were male, while 45% were female.

Movement By Mode

To start the MetroQuest Phase 1 survey, people were asked three questions regarding which modes they used, in regard to four modes: walking, biking, taking a bus or shuttle, and driving or riding in an automobile.

The first question was "How often have you used each mode for transportation within the past year?"

The second question asked people to identify the most significant challenges or barriers to travel by each mode, selecting up to three options from a list.

MetroQuest Online Surveys

The Phase 1 survey included responses from 542 participants. The Phase 2 survey included responses from 275 participants. Of those participants that identified their zip code, the vast majority (greater than 90% in each survey) lived in or adjacent to the MIC area.

The participant demographics were similar in both surveys, with a good balance of household incomes and gender, and less of a balance between age groups and employment status, despite some effort to do so.

The Phase 1 survey produced 299 open comments regarding the five planning factors/goals, as well as 623 open comments associated with the interactive map.

While we did not achieve perfect balance of all socio-economic categories among survey respondents, overall, we believe the surveys are representative of, and include input from, the community as a whole.

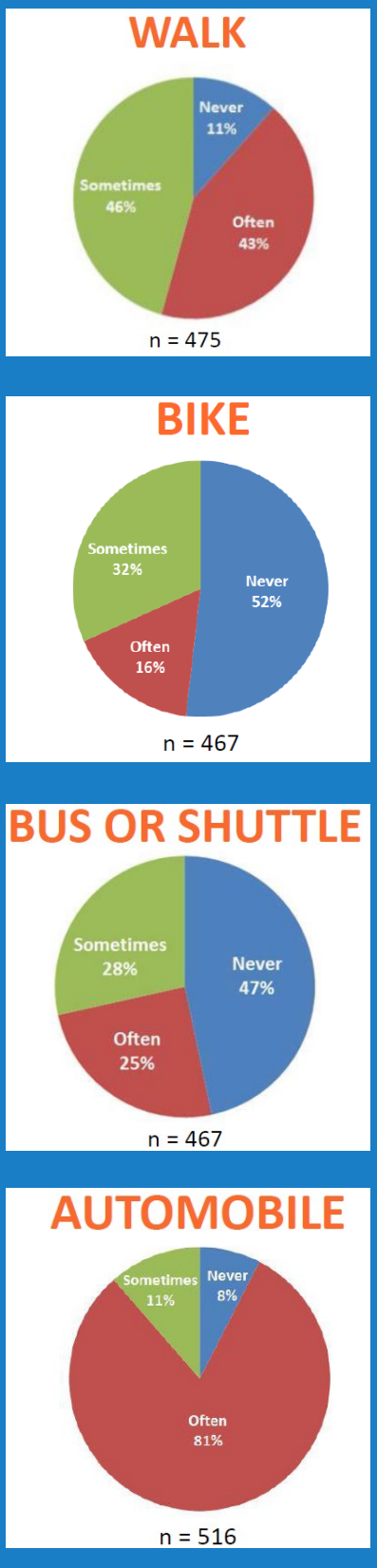
Overall, we believe the surveys are representative of, and include input from, the community as a whole.

Finally, in considering removal of the identified challenges or barriers, people were asked to select whether or not they believed 1) that it would generally improve that mode as a transportation option and 2) that they would personally use that mode more as a means of travel. Appendix G displays the responses to these questions.

In regard to modes people used for transportation within the past year (Figure 4.10):

- 89% of respondents said they walked, which also means 11% said they never walked.
- 52% of respondents never biked.
- 53% of respondents took a bus or shuttle.
- 92% of respondents drove or rode in an automobile, which also means that 8% never drove or rode in an automobile.

Figure 4.10: Mode Choice



Walking

The most selected significant challenges or barriers to walking were:

- Sidewalks in poor condition or difficult to use
- Distance to destinations
- Unsafe crossings
- Lack of or gaps in sidewalk network

If the identified significant challenges or barriers to walking were removed, 309 people said it would generally improve this mode of travel and 173 people said they would personally walk more often for travel.

15% of respondents that never walk for transportation would walk more if the identified challenges or barriers were removed. Of all respondents (whether they never, sometimes, or often walked), 43% said they would walk more if the identified challenges or barriers were removed. Perhaps this is a sign of a limit to how much or how far people are willing to walk for transportation.

Bicycling

The most selected significant challenges or barriers to bicycling were:

- Do not feel safe riding in the street

- Comfort (weather, arriving sweaty, etc.)
- Terrain (steep incline)
- Distance is too far to my destination
- Inability to carry passengers, or other items

If the identified significant challenges or barriers to biking were removed, 228 people said it would generally improve this mode of travel, and 191 people said they would personally bike more often for travel.

23% of respondents that never bike for transportation would bike more if the identified challenges or barriers were removed. However, 57% respondents that sometimes bike and 65% of respondents that often bike said they would bike more if the identified challenges or barriers were removed.

Using a Bus or Shuttle

The most selected significant challenges or barriers to using a bus or shuttle were:

- Takes too long or indirect routes
- No late night service
- Too infrequent

If the identified significant challenges or barriers to using a bus or shuttle were removed, 247 people said it would generally improve this mode of travel, and 156 people said they would personally use a bus or shuttle more often for travel.

17% of respondents that never use a bus or shuttle for transportation would use a bus or shuttle more if the identified challenges or barriers were removed. Of all respondents (whether they never, sometimes, or often walked), not more than 48% said they would bus or shuttle more if the identified challenges or barriers were removed. Far more respondents believed removing the challenges or barriers would generally improve the mode, than would personally use a bus or shuttle more, which indicates a level of disconnect with this mode and people's perceptions of it.

Driving or Riding in an Automobile

The most selected significant challenges or barriers to driving or riding in an automobile were:

Public transportation investment yields a 4-to-1 return to the U.S. economy, including long-term productivity enhancements, such as improved sales and workforce access

Economic Impact of Public Transportation Investment, (2014)
American Public Transportation Association,
www.apta.com/resources

For additional information on Duluth-area transit, see the Duluth Transit Authority's ***Duluth Transit Development Plan Update Final Report*** **(2017)**

- High cost of owning a car
- Road construction
- Difficulties related to parking
- Traffic congestion

If the identified significant challenges or barriers to driving or riding in an automobile were removed, 269 people said it would generally improve this mode of travel, and 113 people said they would personally use an automobile more often for travel.

26% of respondents that never drive or ride in an automobile and 34% of respondents that sometimes drive or ride in an automobile said they would drive or ride in an automobile more if the identified challenges or barriers were removed.

Further, 20% of respondents that often drive or ride in an automobile would do so more if the identified challenges or barriers were removed. Perhaps these results are a sign of a limit to how much driving one will do, and/or that local people are part of a national trend of an increasing number of people choosing not to be automobile-dependent.

Demographic Influence by Mode

Walk

- The percentage of respondents who often walk for transportation steadily decreases with age.
- The percentage of respondents who walk for transportation decreases with increasing household income—especially from $55-99 K (91%, n = 109) and $100-199 K (83%, n = 87), and even more so between $100-199 K and $200 K or more (57%, n = 7).
- Women walk for transportation slightly more than men (93% vs 87%, n = 357).

Bike

- 75% of currently unemployed respondents never bike for transportation, and 0% often do so (n = 16).
- 34% of retirees bike for transportation (n = 41)
- 68% of students bike for transportation (n = 19)
- The highest percentage of respondents who never bike

Socio-Economic Demographics Influences Mode Choice

(59%, n = 93) have a household income $39 K or less.

- Only 41% of respondents with a household income of $39K or less bike for transportation, while the percentage for all other household income categories range between 50-58%.
- More men bike for transportation than women (56% vs 44%, n = 354)

Bus or Shuttle

- Respondents of working age (25-49) use a bus or shuttle for transportation less (by at least 9%) than all other age categories except those of age 75 or older (overall n = 373).
- There is a clear inverse relationship between household income and bus or shuttle ridership.
- 53% of respondents that are employed fulltime never use a bus or shuttle for transportation (n = 250).
- 94% of respondents that are currently unemployed use a bus or shuttle for transportation (n = 16).
- 74% of respondents that are students use a bus or shuttle for transportation (n = 19).
- More women use a bus or shuttle for transportation than men (65% vs 43%, n = 357).

Automobile:

- While 92% of respondents said they drove or rode in an automobile for transportation, those that are currently unemployed do so much less frequently (56%, n = 16) vs a minimum of 84% (students being the 84%) for all other employment categories (overall n = 397).
- The only household income level with under 93% of respondents driving or riding in automobiles for transportation was those making $39 K or less (n = 98)
- There was no real difference in driving or riding in automobiles between gender (93% men vs 92% female, n = 383).

Mode Prioritization

In the MetroQuest Phase 2 survey, people were asked whether our transportation system should prioritize multiple modes or prioritize automobiles. Prioritizing multiple modes considers

Top Identified Transportation Priorities from the Phase 1 Survey.

MetroQuest Phase 1 survey respondents selected the following factors as the 10 most important to wise transportation investment:

- Provide choices for all people of all ages, incomes, and abilities
- Effective emergency response capabilities
- Provide viable travel choices for all
- Access to key population and employment centers
- Do not create costly environmental problems
- Consider community needs and wants
- Use evidence-based decision-making
- Address inefficiencies in our system
- Enhance the regional/ global competitiveness of the Duluth-Superior Port
- Maintain current infrastructure

the needs of all people, including those walking, biking, taking transit, and driving.

People prioritizing multiple modes would rather reduce auto-oriented infrastructure to accommodate a multi-modal network. Not surprisingly, people prioritizing automobiles would rather not reduce auto-oriented infrastructure to accommodate a multi-modal network.

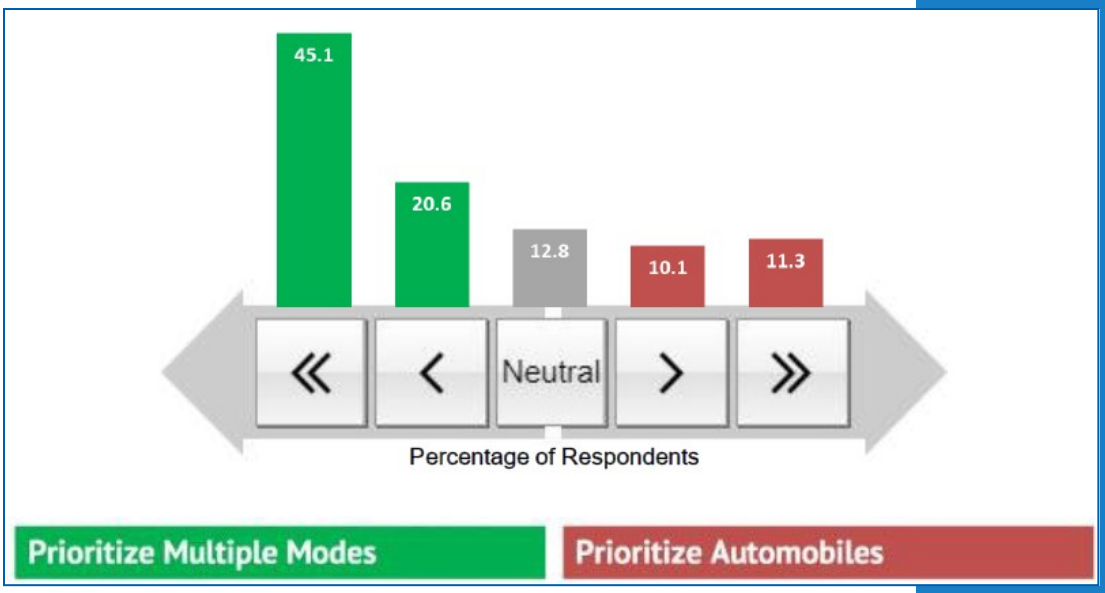
Of the 257 people who responded to this question, 116 (or 45%) strongly preferred prioritizing multiple modes. Further, 169 (or 66%) overall preferred prioritizing multiple modes.

Conversely, 55 people (or 21%) preferred prioritizing automobiles, with only 29 people (or 11%) strongly so. This information is presented in Appendix C and summarized in Figure 4.11.

Transit Comments

The following are summaries of the primary themes expressed in the comments received during both the MetroQuest Phase 1 survey and meetings with partner groups. All comments can be read in Appendix D.

Figure 4.11: Prioritizing Multiple Modes vs. Prioritizing Automobiles in the MIC Area Transportation System



- Numerous comments reflect that riders believe MIC area transit options are on time, are a good value, and are a

positive option for some.

- There is interest in multimodal options, including transit, for reasons of equity, health, and the environment.
- Numerous suggestions regarding improving transit operations were shared, most specifically relating to frequency of service, earlier and later hours of service, and overall rider experience, including safety and comfort of bus shelters.
- Numerous concerns regarding STRIDE operations were expressed, especially in regards to meeting the needs of riders, scheduling, and improving efficiency.
- There is awareness that transportation options, including transit, drive and enhance the local economy. A specific examples of this is transit being a means for people of all ages and abilities to access employment that would otherwise be a barrier. However, transit operators and employers should coordinate together to optimize routes and times of service for employees.
- There is interest in, and understanding of, the benefits of passenger rail between the MIC area and the Twin Cities.

What Transportation Issues Matter Most?

In Person Dot Surveys

People at numerous public events were given three dot stickers or given three stars to use online, and asked to place them under the planning perspectives (the five goals of the Long Range Transportation Plan (LRTP)) they believed our transportation resources should be directed towards.

Reminded of the context of the LRTP, that we have many needs but limited resources, survey respondents placed the three dots or stars in whatever manner they chose, including one each to three different goals, two to one goal and one to another, or all three under the same goal.

Results

A total of 1591 responses were received. Of that, 843 (53%) were via in-person dot surveys at five public events, 676 (42%) were via the online MetroQuest Phase 2 survey, and 72 (5%) were via a paper copy of the MetroQuest survey.

A quick glance at the pie chart of survey results (Figure 4.12)

What Transportation Issues Matter Most?

Survey Respondents' Ranking of Plan Goals:

Health of People & the Environment

It is important to protect and enhance the environment, and promote energy conservation and public health through responsible transportation system policies and design. Ignoring these can lead to significant future costs in terms of human health, property damage, and environmental remediation.

Supporting Great Places & Neighborhoods

A livable and equitable community is a safe and connected place where people can live independent, healthy and meaningful lives. These places have a diverse and resilient local economy, transportation options that access needed services, and provide opportunities and choices for people of all ages and ability to engage in the community's civic, economic, and social life.

Reducing Injuries and Crashes

Continually improving the safety of the Duluth-Superior transportation system for all users and modes is obviously important. A part of system safety is ensuring we are prepared to handle emergencies and disasters. Additionally, a well-functioning system is secure, helping people feel free from danger or fear.

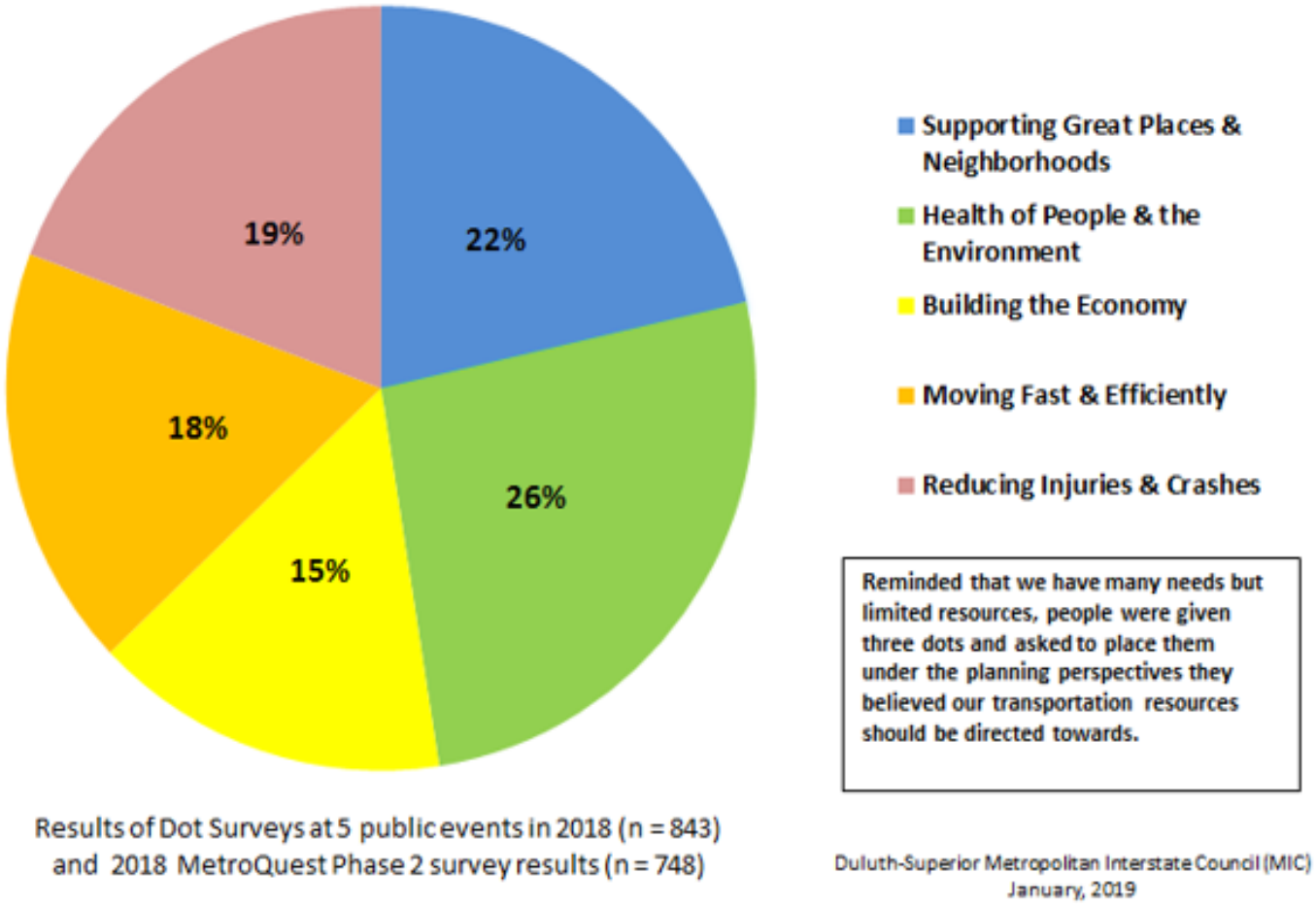
Moving Fast & Efficiently

Ensuring people and goods get to where they need to go is an essential purpose of a local transportation system. Factors such as how easy it is for people and goods to move from one place to another, how well-connected primary destinations are, and ensuring all modes of transportation operate as one seamless network, are all important.

Building the Economy

Local and regional transportation systems are critical to a healthy economy. It is important to develop and maintain our transportation system to support economic productivity, efficiency, and competitiveness. As visitors contribute significantly to our local economy, it is important our transportation system enhance travel and tourism

Figure 4.12 What Transportation Issues Matter Most?



indicates people want to achieve all the goals in a relatively balanced way. The difference between the lowest chosen total (15%) and the highest chosen total (26%) is only 11% across all five goals. It is important to people that we use our limited resources in a manner that makes an honest attempt to achieve all of the five goals of our transportation system.

Given the above, the following trends within the general observation of a desired relative balance are also noteworthy:

- The goals of Health of People and the Environment and Supporting Great Places and Neighborhoods were the only goals to have greater than 20% selection overall.
- Health of People and the Environment was the only goal to have greater than 20% selection in all 5 dot surveys at public

events and the MetroQuest survey (range = 22.9 - 30.9%).

- The goal of Building the Economy was the only goal to not be selected greater than 20% in any survey.
- Supporting Great Places and Neighborhoods was selected greater than 20% four of the six times.
- Reducing Injuries and Crashes was selected greater than 20% three of the six times.
- Moving Fast and Efficiently was selected greater than 20% two of the six times.
- The goal of Health of People and the Environment was not only the highest selected overall, it was highest selected in the MetroQuest survey, as well as highest selected 4 of the 5 dot surveys at public events.
- The other time it was selected second-highest, and was nearly 7% higher than the third highest selected goal. This, along with results identified in the first bullet above, clearly suggests people desire the Health of People and the Environment goal be met.
- The goal of Building the Economy was not only the lowest selected overall, it was lowest (or tied for lowest) in all 5 dot surveys at public events, as well as third lowest in the MetroQuest survey, 6.5 % lower than the goal of Health of People and the Environment.
- The goal of Building the Economy was nearly 11% lower than Health of People and the Environment overall, and as much as 25+% lower in one of the dot surveys.
- It is unclear if these results indicate people do not understand the important role of transportation in Building the Economy and achieving economic vitality, or if people simply prefer our limited resources be used more to achieve the other goals.
- The goal of Supporting Great Places and Neighborhoods was the only goal other than Health of People and the Environment to be selected highest during any of the surveys. It was selected second highest overall, as well as highest once, and third highest three times. However, it was also selected fourth highest once – in the MetroQuest survey. This, along with results identified in the first bullet above, suggests people desire the Supporting Great Places

and Neighborhoods goal be met.

In addition to the points above, it is noteworthy that while most of the attention and project emphasis historically has focused on "Moving Fast and Efficiently" (moving people and goods) and "Reducing Injuries and Crashes" (i.e., safety-related goals). While these remain as important goals, two of the other goals of our transportation system, "Health of People and the Environment" and "Supporting Great Places and Neighborhoods", (livable communities and equity) were ranked more highly overall by our survey respondents.

Further, the goal of "Health of People and the Environment" was ranked as much as 18% higher than the goals of "Moving Fast and Efficiently" and "Reducing Injuries and Crashes."

Top Identified Priorities

The MetroQuest Phase 1 survey included lists of factors related to each of the five goals (planning perspectives) of this plan. There were 32 overall factors/options to choose from. Given our limited resources, people were asked to select up to three factors from each of the five lists they believe are the most important to wise transportation investments. Appendix B identifies all the factors and options for each goal, and the results of which factors were chosen as top priorities. Figure 4.13 lists the top selected factors from the Phase 1 survey.

Eight of top selected factors from the Phase 1 survey were included in the Phase 2 survey in order to determine a final overall priority of factors we should consider in regard to our transportation system. People were asked to select and order in terms of preference the five factors they believe should be prioritized. The final order and details are presented in Figure 4.14.

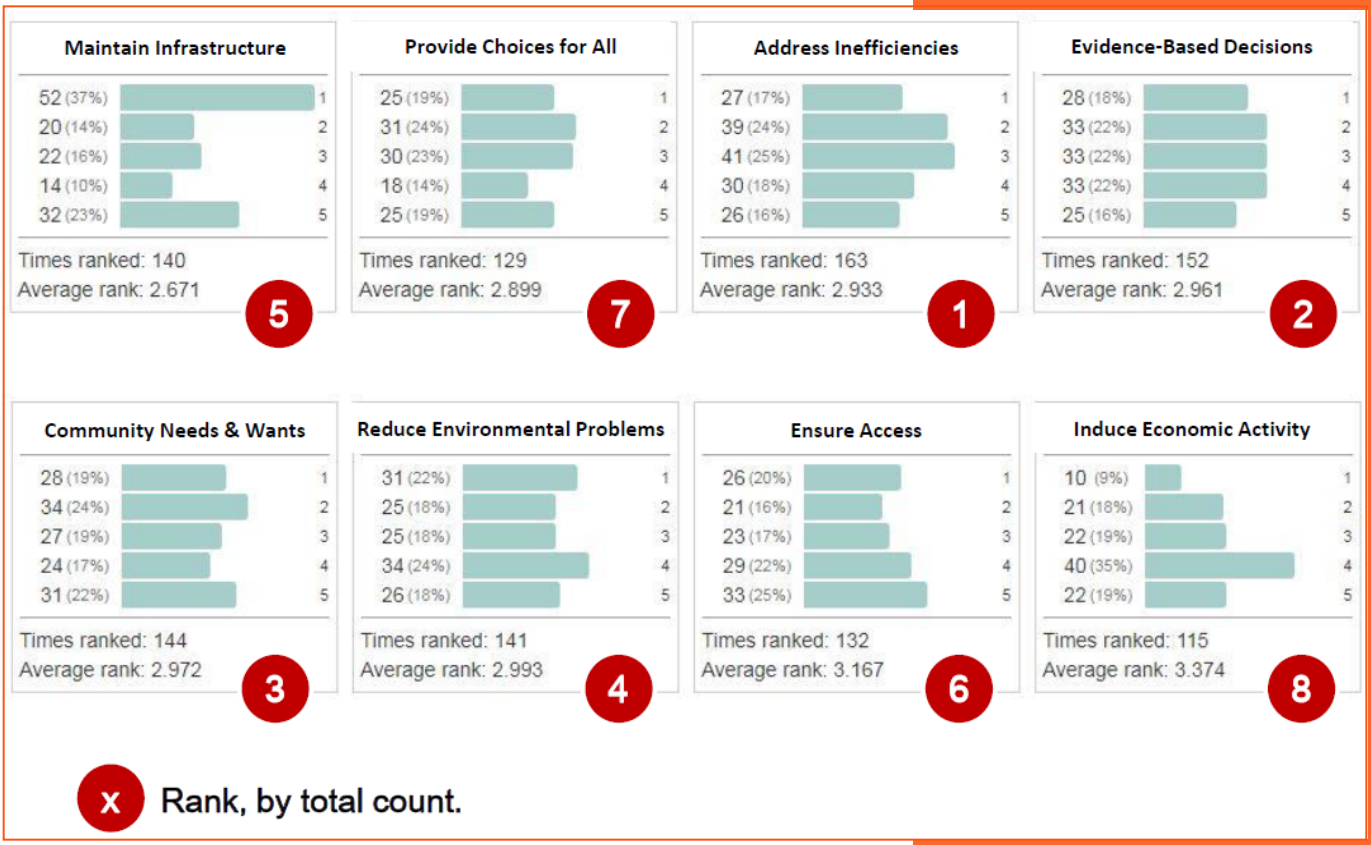
Addressing inefficiencies in our system (developing a transportation system that is fully interconnected, safe, and functional, creating easy and reliable movement from one place to another and between one mode to another) was the most selected factor—selected 163 times. Using evidence-based decisions was the second most selected factor—selected 152 times. Inducing economic activity (developing a transportation system that supports a strong economy—moving both people and goods) was selected the fewest

Figure 4.13
Top Identified Transportation Priorities from the Phase 1 Survey.

MetroQuest Phase 1 survey respondents selected the following factors as the 10 most important to wise transportation investment:

- Provide choices for all people of all ages, incomes, and abilities
- Effective emergency response capabilities
- Provide viable travel choices for all
- Access to key population and employment centers
- Do not create costly environmental problems
- Consider community needs and wants
- Use evidence-based decision-making
- Address inefficiencies in our system
- Enhance the regional/ global competitiveness of the Duluth-Superior Port
- Maintain current infrastructure

Figure 4.14: Top 5 Options in Order of Preference



times—selected 115 times. Interestingly, while only the fifth most selected factor, maintaining our current infrastructure (preserving and maintaining our existing transportation system before we expand it) had by far the highest number selected as the top priority—selected 52 times.

Overall, the results once again indicate people want a balance of factors to be considered and prioritized. This is demonstrated by the fact that the number of times each of the eight was selected is fairly closely clustered (range = 163—115), and the average rank of selection for each factor ranges from 2.67 to 3.38. See Figure 4.14.

Demographic Influence by Priority Options

In this section "inverse with age" means that the older the person, the less likely the person was to select the given option.

Provide choices for all people of all ages, incomes, and abilities

- 73% of respondents with a household income of $40-54K

selected this option the most (n = 56) of all income brackets. Selection declined steadily with increasing household income. The pattern was nearly identical for "Provide viable travel choices for all".

- Selection of this option was inverse with age.
- A greater percentage of females (72%, n = 200) selected this option than males (55%, n = 187).

Consider community needs and wants

- 61% of respondents with a household income of $40-54K selected this option the most (n = 56) of all income brackets. Selection declined steadily with increasing household income.
- Selection of this option was inverse with age.
- A greater percentage of females (58%, n = 200) selected this option than males (49%, n = 187).

Infrastructure that fits the neighborhood character

- Respondent selection of this option by household income and age was fairly similar.
- Males and females selected this option at the same percentage (45%).

Create places that people love and enjoy

- Respondent selection of this option by household income was nearly identical for all categories.
- Selection of this option was inverse with age.
- Females (47%, n = 200) selected this option at nearly the same percentage as males (44%, n = 187).

Prioritize safety for vulnerable users

- While there was no clear pattern of respondent selection of this option by age, the 16-18 and 19-24 categories were much higher than the others.
- Females (51%, n = 200) selected this option at a much higher percentage than males (36%, n = 187).

Emphasize safe design

- 71% of respondents with a household income of $200 K or more selected this option the most (n = 7) of all income brackets. Selection increased steadily with increasing household income.

- A greater percentage of males (61%, n = 187) selected this option than females (51%, n = 200).

Use evidence-based decision-making

- Respondent selection of this option was generally increased with increasing age.
- Females (41%, n = 200) selected this option at nearly the same percentage as males (42%, n = 187).

Access to key population and employment centers

- Respondent selection of this option by household income was relatively similar and high (no category < 52%).

Enhance the regional/global competitiveness of the Duluth-Superior Port

- Respondent selection of this option by age was bell-shaped with the 25-49 category selecting it the most (53%, n = 201)

Do not create costly environmental problems

- Selection of this option was gently increasing with increasing household income, until the $200 K or more category. Only the $200 K or more category selected it at less than 52%.
- Selection of this option was generally inverse with age, with all but one group selecting it at 50% or more.
- Females (57%, n = 200) selected this option at nearly the same percentage as males (54%, n = 187).

Reduce stormwater runoff/flooding

- 57% of respondents with a household income of $200 K or more selected this option the most (n = 7) of all income brackets. Selection increased steadily with increasing household income.
- Females (43%, n = 200) selected this option at nearly the same percentage as males (42%, n = 187).

Minimize toxic pollution

- 52% of respondents with a household income of $40-54K selected this option the most (n = 56) of all income brackets. Selection generally declined steadily with increasing household income.
- Selection of this option was generally inverse with age. The notable selections were 65% of the 19-24 category and

48% of the 65-74 category.

- A greater percentage of females (43%, n = 200) selected this option than males (37%, n = 187).

Ensure infrastructure that does not hinder physical activity

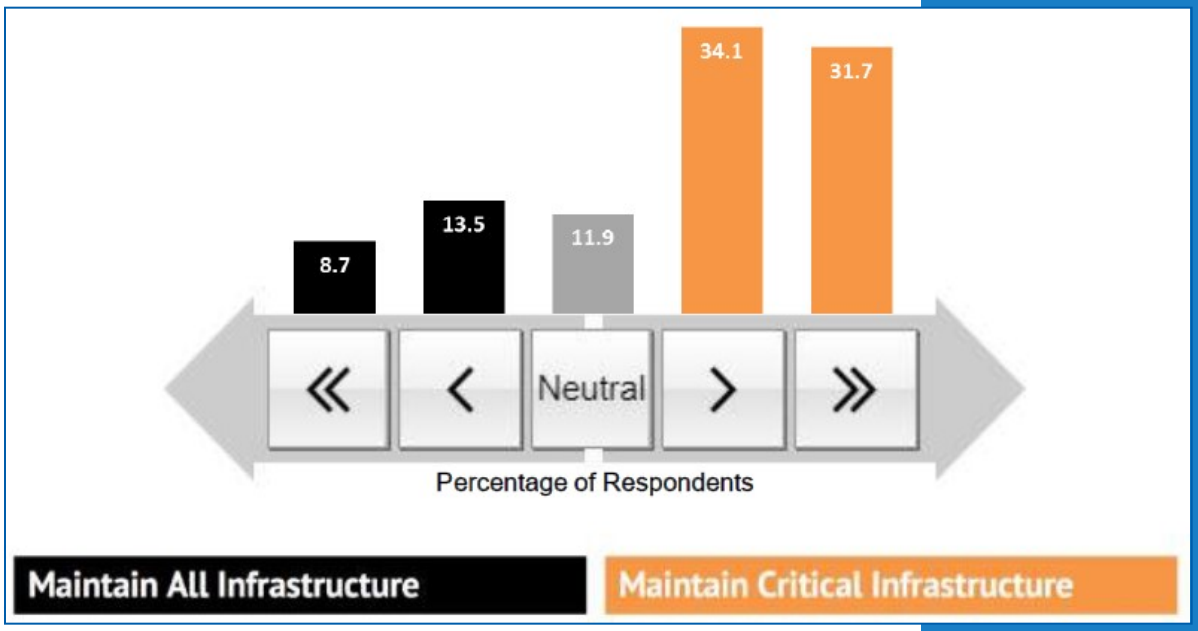
- Respondent selection of this option by household income was bell-shaped with the $100-199 K category selecting it the most (48%, n = 96)
- Selection of this option generally increased with increasing age.
- Females (39%, n = 200) selected this option at nearly the same percentage as males (41%, n = 187).

Maintaining Our Transportation Infrastructure

Maintaining our current infrastructure was the tenth highest selected factor (out of 32) in the MetroQuest Phase 1 survey, selected a total of 215 times.

In determining the overall priority of factors to consider in regard to our transportation system as part of the MetroQuest Phase 2 survey, "Maintaining our current infrastructure" was selected the fifth most times out of 8 (n = 140). As mentioned

Figure 4.15: 'Maintain All Infrastructure' vs. 'Maintain Critical Infrastructure' in the MIC Area Transportation System



earlier, it had by far the highest number selected as the top priority—selected 52 times. This is depicted in Figure 4.15.

In the MetroQuest Phase 2 survey, people were asked whether we should maintain all of our infrastructure (maintain all portions of the entire existing system as is, regardless of use), or maintain critical infrastructure (maintain the system to what is anticipated or needed, focusing maintenance on critical, higher priority portions of the system)?

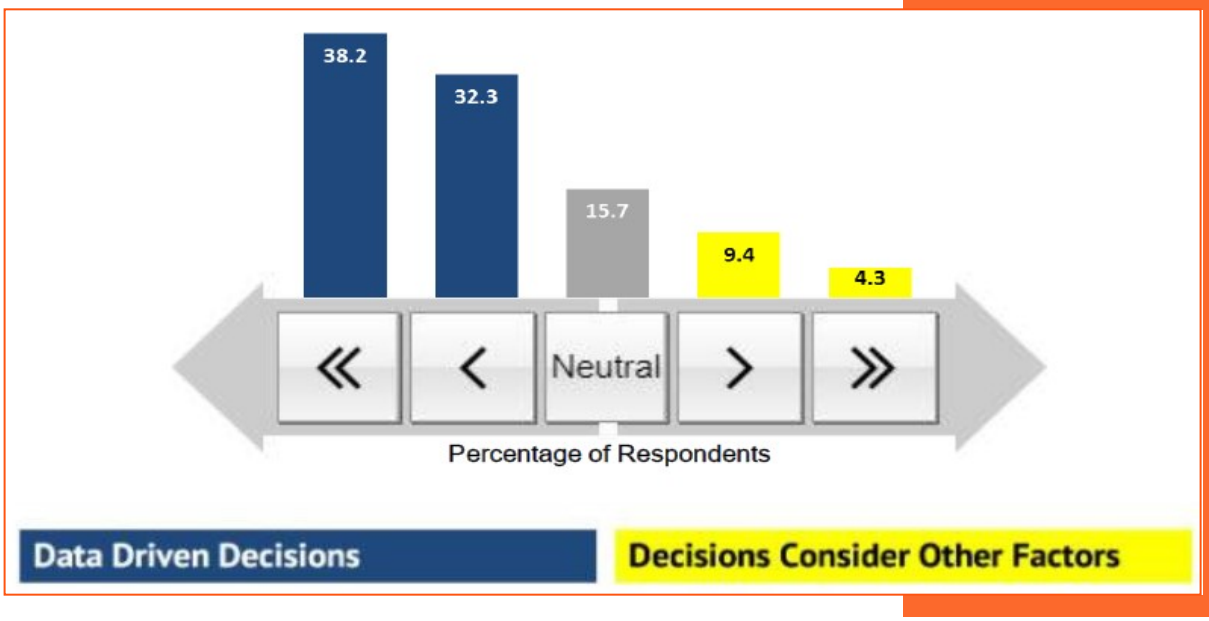
Of the 252 people who responded to this question, 166 (or 66%) overall preferred maintaining critical infrastructure, with 80 people (or 32%) strongly preferring. Conversely, 56 people (or 22%) preferred maintaining all infrastructure, with only 22 people (or 9%) strongly so. Additionally, 78 comments related to maintenance of our transportation system were submitted from both survey takers and MIC partners.

This information is presented in Appendix C, and summarized in Figure 4.15.

Base Decisions on Data and Evidence

In the MetroQuest Phase 2 survey, people were asked whether decisions about our transportation system should be based on data, analysis, and research (be more objective), or be based on political, societal, and other factors (be more subjective)?

Figure 4.16: Base Decisions on Data vs. Base Decisions on Political, Societal, or Other Factors



Of the 254 people who responded to this question, 179 (or 70.5%) overall preferred decisions based on data, analysis, and research, with 97 people (or 38%) strongly preferring. Conversely, 35 people (or 14%) preferred decisions based on political, societal, and other factors, with only 11 people (or 4%) strongly so. This information is presented in Appendix C and summarized in Figure 4.16.