

# Attitudes & Perceptions of Transportation in Michigan: A 2013 Survey of Michigan Adults

October 21, 2013

Prepared for
The Michigan Department
of Transportation



# **Table of Contents**

Chapter 1. Purpose and Methods	13
1.1.1 Purpose	13
1.1.2 Interviewing	13
1.1.3 Quotas, oversampling, and weighting	13
1.1.4 Margin of error	14
1.1.5 Figures and tables	15
Chapter 2. Profile of the Sample	16
2.1 Personal Demographics	16
2.2 Driving Habits	16
2.3 Regions	16
2.3.1 Metro	16
2.3.2 University	17
2.3.3 Southwest	17
2.3.4 Bay	17
2.3.5 Grand	18
2.3.6 North	18
2.3.7 Superior	
Chapter 3. Familiarity with MDOT	
3.1 Familiarity with MDOT	19
Chapter 4. Evaluations of MDOT	22
4.1 Satisfaction with MDOT	
4.2 MDOT Projects: Right Solutions for Transportation Problems?	29
4.3 MDOT Statements: Moving in the Right Direction	31
4.4 MDOT Statements: Prioritizing Highway Improvements	
4.5 MDOT Statements: Adequately Supporting Local Transportation	
4.6 MDOT Statements: Responsive to Local Communities	
4.7 MDOT Statements: Decisions about State's Future Transportation	
4.8 MDOT Statements: Confidence in MDOT	
Chapter 5. Quality of Transportation in Michigan	
5.1 Quality of Transportation in the Past Five Years	
Chapter 6. Improving Transportation: Public Satisfaction & Transportation Priorities	
6.1 Road Conditions and Repair	
6.2 Traffic	
6.3 Alternative Modes of Transportation	
6.4 Information and Communication	
6.5 Combining Satisfaction Today with Priority for the Future	
6.6 Regions: Satisfaction Today with Priority for the Future	
6.6.1 Metro Region	
6.6.2 University Region	66





# MDOT State Long Range Transportation Plan

# **Attitudes & Perceptions Of Transportation**

6.6.3 Southwest Region	70
6.6.4 Bay Region	74
6.6.5 Grand Region	
6.6.6 North Region	80
6.6.7 Superior Region	
Appendix A. Survey Marginals	88
Appendix B. Profile of the Sample	97
List of Tables	
Table 1. Sample and Population Breakdown by Region	14





# **List of Figures**

Figure 1. MDOT Regions14	1
Figure 2. Michigan Residents Are a Little Less Familiar with MDOT Today than They Were in	
2011 (Question 1)	)
Figure 3. Very Little Regional Variation in Familiarity with MDOT (Question 1)20	)
Figure 4. Men, Especially Older Men, and Respondents with More Education Are More	
Familiar with MDOT (Question 1)21	Ĺ
Figure 5. Michigan Is Satisfied with the Job Being Done by the Michigan Department of	
Transportation (Question 2)	
Figure 6. With "Not Sures" Included, Public Level of Satisfaction Is Down from Previous Years	
(Question 2)	3
Figure 7. When We Remove "Not Sures," Satisfaction with MDOT Only Changed in 2009,	
Otherwise Remarkably Stable (Question 2)24	1
Figure 8. Southwest Residents Are the Most Satisfied with MDOT; Metro & North Are the	
Least Satisfied (Question 2)	
Figure 9. Men Are Most Satisfied with MDOT, While Women Are Much Less Willing To Say &	
Are Less Satisfied (Question 2)	ó
Figure 10. Removing "Not Sures": Men and Those Who Are Less Familiar with MDOT Are	
More Satisfied With MDOT (Question 2) 27	
Figure 11. The More One Commutes, the Less Dissatisfied One Is with MDOT (Question 2)28	3
Figure 12. Removing "Not Sures": The Less One Commutes, the More Very Satisfied and	_
Overall Dissatisfied One Is with MDOT (Question 2)	3
Figure 13. Respondents Are Less Likely to See All or Most MDOT Projects as Right Solution;	_
Though They Are Also Less Likely to Say Few or None (Question 5)	)
Figure 14. Metro Residents Least Likely to Believe MDOT Projects Were the Right Solutions	`
(Question 5)	J
Figure 15. By More than 3-to-1 Michigan Residents Think MDOT Is Headed in the Right	
Direction (Question 7b)	L
Figure 16. Metro Residents Are the Least Likely to Think MDOT Is Headed in the Right Direction (Ouestion 7b)	
(2	
Figure 17. Michigan Residents Are Much More Likely to Agree than Disagree That MDOT Does	
a Good Job Prioritizing Highway Improvements (Question 7d)	
Figure 18. Little Regional Variation in Perception about MDOT Job in Prioritizing Highway	)
Improvements (Question 7d)	1
Figure 19. Michigan Residents Are Much More Likely to Agree than Disagree That MDOT	t
adequately Supports Local Transportation Projects for City and County Governments (Question	
7e)	
Figure 20. Metro and Southwest Residents Least Likely and Grand and Bay Residents Most	_
Likely to Believe MDOT Adequately Supports Local Transportation Projects for the City and	
County Governments (Question 7e)	5





Figure 21. Slightly Fewer Michigan Residents Disagree That MDOT Is Responsive to the	
Concerns of Local Communities (Question 7f)	37
Figure 22. North Residents Much Less Likely and Grand Residents Most Likely to Believe	
MDOT Is Responsive to the Concerns of Local Communities (Question 7f)	38
Figure 23. Twice as Many Agree That They Trust MDOT Officials to Make Good Decisions	
about the State's Future Transportation System (Question 7a)	
Figure 24. Metro Residents Are the Least Likely to Think MDOT Officials Make Good Decision	
about the State's Future Transportation System; Though Regional Variation Is Small (Question	
7a)	40
Figure 25. More Agree than Disagree That They Have More Confidence in MDOT decisions	
than 3 Years Ago (Question 7c)	41
Figure 26. Bay and Grand Residents Are More Likely to Agree That They Have More	
Confidence in MDOT Today than They Did Three Years Ago (Question 7c)	
Figure 27. Percent Who Believe Transportation in Michigan Is Getting Better or Worse Is Same	e
as in 2011 (Question 6)	
Figure 28. Bay and Grand Residents Much More Likely to Say the Quality of Transportation I	
Better (Question 6)	
Figure 29. Michigan Adults with the Longest Commutes Are Most Likely to Say Transportation	
Has Gotten Worse and Least Likely to Say It Has Gotten Better in Past Five Years (Question 6)	
Remainder "Not sure."	
Figure 30. More Resources for Future Priorities: Road Conditions and Repair (Question 3)	
Remainder "Not sure."	
Figure 31. Public Satisfaction: Road Conditions and Repair (Question 4)	
Figure 32. Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)	
Figure 33. More Resources for Future Priorities: Traffic (Question 3)	
Figure 34. Public Satisfaction: Traffic (Question 4)	
Figure 35. Mean Satisfaction Score for Traffic Priorities over Time (Question 4)	
Figure 36. More Resources for Future Priorities: Alternative Modes of Transportation (Question)	
3)	
Figure 37. Public Satisfaction: Alternative Modes of Transportation (Question 4)	55
Figure 38. Mean Satisfaction Score for Alternative Modes of Transportation over Time	
(Question 4)	
Figure 39. More Resources for Future Priorities: Information and Communication	
(Question 3)	
Figure 40. Public Satisfaction: Information and Communication (Question 4)	58
Figure 41. Mean Satisfaction Score for Information and Communication Priorities over Time	
(Question 4)	
Figure 42. All Adults: The Importance of Transportation Items as a Future Priority by the Lev	
of Satisfaction with the Items (Questions 3, 4)	
Figure 43. Metro: The Importance of Transportation Items as a Future Priority by the Level of	
Satisfaction with the Items (Ouestions 3, 4)	62





Figure 44. Metro Residents: Mean Satisfaction Score for Road Condition Priorities over Time
(Question 4)63
Figure 45. Metro Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)
64
Figure 46. Metro Residents: Mean Satisfaction Score for Alternative Modes of Transportation
Priorities over Time (Question 4)
Figure 47. Metro Residents: Mean Satisfaction Score for Information and Communication
Priorities over Time (Question 4)65
Figure 48. University: The Importance of Transportation Items as a Future Priority by the Level
of Satisfaction with the Items (Questions 3, 4)66
Figure 49. University Residents: Mean Satisfaction Score for Road Condition Priorities over
Time (Question 4)67
Figure 50. University Residents: Mean Satisfaction Score for Traffic Priorities over Time
(Question 4)
Figure 51. University Residents: Mean Satisfaction Score for Alternative Modes of
Transportation Priorities over Time (Question 4)
Figure 52. University Residents: Mean Satisfaction Score for Information and Communication
Priorities over Time (Question 4)
Figure 53. Southwest: The Importance of Transportation Items as a Future Priority by the Level
of Satisfaction with the Items (Questions 3, 4)70
Figure 54. Southwest Residents: Mean Satisfaction Score for Road Condition Priorities over
Time (Question 4)71
Figure 55. Southwest Residents: Mean Satisfaction Score for Traffic Priorities over Time
(Question 4)
Figure 56. Southwest Residents: Mean Satisfaction Score for Alternative Modes of
Transportation Priorities over Time (Question 4)
Figure 57. Southwest Residents: Mean Satisfaction Score for Information and Communication
Priorities over Time (Question 4)
Figure 58. Bay: The Importance of Transportation Items as a Future Priority by the Level of
Satisfaction with the Items (Questions 3, 4)
Figure 59. Bay Residents: Mean Satisfaction Score for Road Condition Priorities over Time
(Question 4)
Figure 60. Bay Residents: Mean Satisfaction Score for Traffic Priorities over Time75
(Question 4)
Figure 61. Bay Residents: Mean Satisfaction Score for Alternative Modes of Transportation
Priorities over Time (Question 4)
Figure 62. Bay Residents: Mean Satisfaction Score for Information and Communication
Priorities over Time (Question 4)
Figure 63. Grand: The Importance of Transportation Items as a Future Priority by the Level of
Satisfaction with the Items (Questions 3, 4)
Figure 64. Grand Residents: Mean Satisfaction Score for Road Condition Priorities over Time
(Question 4)





# **MDOT State Long Range Transportation Plan**

O	Grand Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question
,	Grand Residents: Mean Satisfaction Score for Alternative Modes of Transportation
O	over Time (Question 4)79
	Grand Residents: Mean Satisfaction Score for Information and Communication
-	over Time (Question 4)79
	North: The Importance of Transportation Items as a Future Priority by the Level of
_	n with the Items (Questions 3, 4)80
	North Residents: Mean Satisfaction Score for Road Condition Priorities over Time
_	4)
Figure 70.	North Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)
	81
	North Residents: Mean Satisfaction Score for Alternative Modes of Transportation
Priorities of	over Time (Question 4)82
Figure 72.	North Residents: Mean Satisfaction Score for Information and Communication
	over Time (Question 4)
	Superior: The Importance of Transportation Items as a Future Priority by the Level of
Satisfactio	n with the Items (Questions 3, 4)83
Figure 74.	Superior Residents: Mean Satisfaction Score for Road Condition Priorities over Time
(Question	4)84
Figure 75.	Superior Residents: Mean Satisfaction Score for Traffic Priorities over Time
	4)
Figure 76.	Superior Residents: Mean Satisfaction Score for Alternative Modes of Transportation
Priorities of	over Time (Question 4)85
Figure 77.	Superior Residents: Mean Satisfaction Score for Information and Communication
Priorities of	over Time (Question 4)





# **Executive Summary**

In general, we find the Michigan public to be fairly satisfied with the Michigan Department of Transportation (MDOT) and that satisfaction, although slightly higher today, has been fairly stable over time. Less than half of Michigan residents believe all or most of MDOT's projects were the right solutions to the state's transportation problems, and this percentage has declined since 2011. There is a significant gender gap in both familiarity with and satisfaction with MDOT.

Michigan residents are more likely to see transportation as getting better than worse, although there are big regional differences here—some regions overwhelmingly believe that it's getting better, while other regions have as many or more residents who believe transportation is getting worse. These results are unchanged from 2011.

As has always been the case since 2006, but more than ever now, the public's top agenda for transportation is better pavement. Other high agenda items include the level of highway safety, better traffic flow, bridge maintenance, faster and more efficient completion of highway projects, the removal of highway snow, ice, and debris, the availability of public transportation for elderly and disabled, and the degree to which public views are considered.

Metro residents have always been the least happy with Michigan's transportation system and with MDOT. We still see that today in most, albeit not all, measures. However, the difference between metro residents and the rest of the state is much less pronounced than it had been in previous surveys.

# **Evaluations of MDOT and Michigan Transportation**

Michigan adults are generally satisfied with MDOT.

Satisfaction ratings are slightly higher, but fairly stable overtime.

- Dissatisfaction is at its lowest (26%, versus 27% in 2011, 31% in 2009, and 29% in 2006).
- Satisfaction ratings have been fairly stable over time, up from a dip in 2009 at the height of the recession and better than they were in 2006.
  - Once we exclude "not sures" and other non-responses, the percent satisfied with MDOT is the exact same as 2011 (73%) and better than 2009 (68%) and 2006 (71%)
  - o If you take the margin of satisfied residents over dissatisfied residents, the 2013 result 2.8-to-1 is about the same as 2011 (2.7-to-1) and considerably better than 2009 (2.2-to-1) and 2006 (2.4-to-1).





Women and Metro residents are the least satisfied with MDOT.

- In an earlier question we found that men, especially older men were considerably more familiar with MDOT than women.
  - o This translated into a high percentage of women saying they were "not sure" to the satisfaction question.
  - o However, even after removing "not sures," satisfaction toward MDOT among women is considerably lower.
- Metro residents had the lowest level of satisfaction toward MDOT (70%) while Southwest residents had the highest (85%).
  - We have seen this pattern previously, but what stands out this year is that satisfaction among Metro residents has improved greatly over the years, and the gap between Metro and the other regions is now the smallest it has ever been.
- There has been a sizeable drop in the percent who say all or most of the projects MDOT completed were the right solutions to the transportation problems facing Michigan, from 48% to 41%. Today's results are more comparable to what was found in 2006 and 2009.
  - Again, Metro residents were the least likely to say all or most of these projects were the right solution, although again the gap between Metro and the rest of the state is not large.

# Perception of Transportation in Michigan

More say the quality of transportation is better than say it is worse, but differences are great between regions.

- More (30%) of Michigan residents believe the quality of transportation in Michigan is better than it was five years ago than believe it to be worse (24%)—a +6% gap.
  - o The gap between those who think the quality has gotten better versus those who say it is worse varies greatly by region, with the most positive in Grand (+28%) and Bay (+18%) and with more saying it is worse in University (-1%) and in Metro (-3%).
- By a 60% to 17% margin, Michigan residents are much more likely to agree than disagree that *MDOT* is moving in the right direction.
- By a 58% to 23% margin, Michigan residents are much more likely to agree than disagree that *MDOT does a good job prioritizing highway improvements in Michigan*.





In response to the various agree/ disagree statements about MDOT, opinion is remarkably consistent with 2011.

- By a 54% to 20% margin, Michigan residents are much more likely to agree than disagree that *they think MDOT adequately supports local transportation projects for city and county governments*.
- By a 55% to 23% margin, Michigan residents are much more likely to agree than disagree that *they think MDOT is responsive to the concerns of local communities*.
- By a 53% to 24% margin, Michigan residents are much more likely to agree than disagree that *they trust MDOT officials to make good decisions about State's future transportation system*.
- By a 44% to 29% margin, Michigan residents are much more likely to agree than disagree that *I have more confidence in MDOT today than I did three years ago*.

# **Improving Transportation**

We gave respondents a list of 21 aspects of transportation in the state and asked (1) how satisfied they were with them and (2) how important a priority they were for receiving greater resources to improve them. For most of these priorities, satisfaction has been fairly stable, especially since 2011.

The number one priority is the condition of pavement in Michigan.

- One item stands out as being at the top of the public's agenda on the basis of these two measures combined:
  - o *The condition of the pavement, such as being smooth and free of potholes:* Among the most important of priorities and by far the last in public satisfaction. Satisfaction on this has fallen to its lowest point ever.
- Other top priorities where the relative importance is high compared to relative satisfaction:
  - o *The level of safety on Michigan's highways:* Satisfaction is quite high here, but this also one of the priorities that residents rank as most import. Satisfaction had been rising from 2006 to 2011, but declined slightly in 2013.
  - The speed and amount of snow and ice removal: Again one
    of the most important, with relative satisfaction more
    middling.
  - o *The maintenance of bridges:* The fourth highest in importance, but again middling levels of satisfaction.
  - Availability of public transportation services for the elderly and persons with disabilities: Relative satisfaction is middling and is considerably lower than its relative importance.

Highway safety remains one of the very most important priorities, where satisfaction has declined slightly after making good growth over previous surveys.





- o *The speed and efficiency with which state highway projects are completed:* On the lower end in relative satisfaction but on the higher end in importance.
- o *The removal of debris from highways, such as animals, glass, torn tires, and trash:* Middling in importance but among the lower half in relative satisfaction.
- o The degree to which the public's needs and views are taken into consideration: On the high side in importance and on the low side in satisfaction, and we have to wonder if satisfaction would be even lower if it were not for the fact that we were actually considering their views at the time.
- The flow of traffic during highway construction: The third lowest in satisfaction among the middle in relative importance.





# **MDOT Regional Summaries**

While regional differences are not dramatic, they do exist. The following is a summary of how each region distinguishes itself when it comes to public attitudes toward transportation in Michigan.

### Metro

People in this region are the least satisfied with MDOT, although the gap between Metro and the rest of the regions on this measure is considerably smaller than it has been in previous years, and Metro overall satisfaction ratings are considerably higher. Metro residents are also the least likely to think that MDOT's projects were the right solutions to Michigan's transportation problems, but the difference between Metro and the other regions is not large. Despite the improvement in satisfaction ratings over the years, slightly more Metro residents believe the quality of transportation in Michigan is worse than believe it is better today than it was five years ago. Metro residents are the least likely to believe that MDOT adequately supports local transportation projects for the city and county governments, and the least likely to trust MDOT officials to make good decisions about the State's future transportation system. When it comes to the relative order of priorities, the opinion of Metro residents resembles opinion statewide, with the exception of the greater importance assigned to the flow of traffic during highway construction and rush hour.

### University

University residents do not stand out on many questions. Like Metro residents, slightly more University residents believe the quality of transportation in Michigan is worse than believe it is better today than it was five years ago. The condition of pavement, while still a top priority with the least satisfaction, is a little less important in this region, but beyond that, no important difference from statewide results when it comes to priorities.

### Southwest

Southwest residents are the most satisfied, which had been the case for this region in 2006 and 2009. However, along with Metro residents, they are the least likely to believe MDOT adequately supports local transportation projects for the city and county governments. In terms of priorities, Southwest is less satisfied, relative to other regions, ,with the availability of alternatives to driving for both long distance and local trips, the availability of passenger air services, and with electronic message boards.

### Bay

Bay residents are the most likely to believe that all or most MDOT projects were the right solutions to the transportation problems facing Michigan, and many more believe the quality of transportation is better than believe it is worse today than five years ago. Along with Grand





region, Bay residents are the most likely to have more confidence in MDOT today than three years ago. In terms of comparing Bay priorities with statewide priorities, satisfaction with stripes and markers and with information on road closing and work zones is lower relative to other priorities.

### Grand

Where Grand really stands out is the much higher percentage of residents who say the quality of transportation is better than say it is worse than it was five years ago. Grand is also among the most likely to think MDOT adequately supports local transportation projects for the city and county governments and is the most likely to think MDOT is responsive to the concerns of local communities. There is not a big difference with the region compared to residents statewide on priorities, with perhaps the biggest difference being the lower relative importance assigned to bridge maintenance—still up there in importance, but no longer among the top three or four.

### North

After Metro, residents in the North region are the least satisfied with the job MDOT is doing and is among the regions least likely to think MDOT is moving in the right direction. They are also much less likely to think MDOT is responsive to the concerns of local communities. Despite the fact that the sample size for this region is considerably smaller (n=100) and we would expect to see more variance purely because of greater random error, we see very little difference in the relative importance and satisfaction of transportation priorities when compared with residents statewide.

### Superior

Superior does not stand out dramatically on any of the evaluation measures. The only thing to note is that residents in Superior are among the least likely to think MDOT is moving in the right direction. However, when it comes to the relative position of priorities, there is a good deal of difference between Superior residents and statewide residents. Satisfaction is relatively lower for electronic message boards, availability of passenger air service, the number of available highway lanes, availability of public transportation services for the elderly and persons with disabilities, and the speed and amount of snow and ice approval. On the other hand, satisfaction is considerably higher regarding the flow of traffic during rush hour.





# **Chapter 1. Purpose and Methods**

### 1.1.1 Purpose

This study explores the opinions of adult residents of the state of Michigan toward Michigan Department of Transportation (MDOT) and the state of transportation in Michigan. This is the fourth in a series since 2006, so part of this analysis is to see what might have changed over time and how well MDOT is improving public satisfaction with its job performance. The recommendations in this report are intended to provide the public voice for MDOT's long-range transportation planning.

### 1.1.2 Interviewing

Professional interviewers, working from a central, monitored location, between August 7 and August 15, 2013, interviewed a random sample of 1100 adult Michigan residents. The average interview was 16 minutes long. Potential respondents were contacted through random digit dialing (RDD). Attempts were made each night to reach people who were not at home the previous night, before moving on to new telephone numbers. This emphasis on callback improves accuracy by including hard-to-reach respondents.

A dual frame sample was utilized to include landline and phone cell samples. One hundred and eighty completes (180) came from a cell phone sample and the remainder came from a landline sample.

### 1.1.3 Quotas, oversampling, and weighting

We divided the state into the seven MDOT regions (see **Figure 1** below). In order to get enough interviews in each of these regions, we set a quota and oversampled the less populated regions. All regions had between 100 and 300 randomly drawn interviews. Data was then weighted proportionally, based on the size of the adult population determined in the 2010 Census and estimated growth from the 2012 Census estimates (see **Table 1** for actual and weighted sample size).

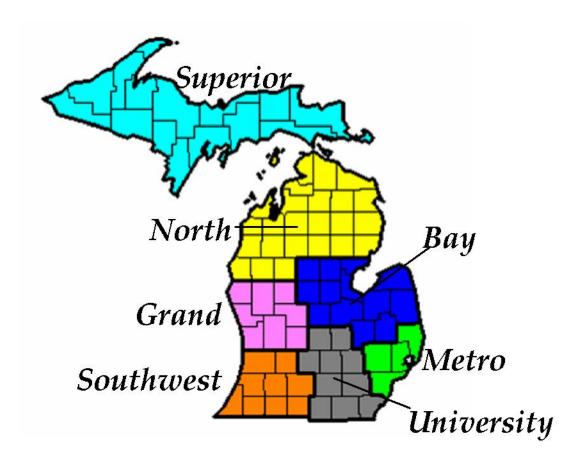
Table 1. Sample and Population Breakdown by Region

Regions	Adult Population	Actual Sample Size	Weighted Sample Size
Metro	41%	300	452
University	15%	150	169
Southwest	9%	150	103
Bay	12%	150	134
Grand	13%	150	140
North	6%	100	65
Superior	3%	100	36





Figure 1. MDOT Regions



Quotas were also set for age and gender to match the known proportion of age groups and men and women in the adult population within each region. After the data was collected, we also weighted the data by gender, age, and race to match the known proportion within each region's adult population.

Finally, as noted earlier, this survey included a cell phone and landline sample. When calling both samples we measure cell phone usage and weight the data to have the right balance of cell phone only and cell phone mostly households in Michigan, as determined by the National center for Health Statistics annual Wireless Substitution Reports.<sup>1</sup>

### 1.1.4 Margin of error

The margin of error at the 95% confidence level is about +/-2.95% for a sample of 1100. However, due to the geographic oversampling, a true margin of random error for the entire sample is closer to +/-4.3%. The margin of error is larger for subgroups, depending on

<sup>&</sup>lt;sup>1</sup>Blumberg SJ, Luke JV, Ganesh N, et al. *Wireless substitution: State-level estimates from the National Health Interview Survey, 2010–2011.* National health statistics reports; no 61. Hyattsville, MD: National Center for Health Statistics. 2012.



Michigan Department of Transportation

subgroup size. (See Volume Two for a more detailed explanation of sampling and the margin of error.)

## 1.1.5 Figures and tables

Figures are integrated into the text. Top-line results (i.e., Marginals) can be found in the Appendix of this report. Banners or cross-tabulated tables can be found in the second volume of this report.





# Chapter 2. Profile of the Sample

The Profile of the Sample in the Appendix presents a demographic profile of Michigan adults across the state and in eight regions. Understanding the demographic characteristics of Michigan adults helps us to understand better how regions differ in their attitudes toward transportation in Michigan. Throughout this report, we show how Michigan adults differ on key questions regionally (if there are regional differences important enough to show).

# 2.1 Personal Demographics

Michigan adults are split by gender, with 52% women and 48% men. Twenty-one percent (21%) are 18 to 29 years of age, and 17% are over 65 years of age.

One-third (32%) of Michigan adults have a high school education or less, and 41% have a college education.

Forty-one percent (41%) of the sample say they have household incomes under \$40,000, and 20% have household incomes over \$100,000.

Seventy-eight percent (78%) of the state's adult population is White, while 22% is non-White.

# 2.2 Driving Habits

Fifty-one percent (51%) of Michigan residents drive a car to work of which 49% drive alone to work and 2% carpool; another 6% get to work by some other means. The remaining 43% either do not work or work at home. Fifty-six percent (56%) of all Michigan adults commute to work. Eleven percent (11%) of all Michigan adults (19% of all commuters) have a commute that is 45 minutes or more.

# 2.3 Regions

As noted earlier, we have divided the state into the seven MDOT regions to see if opinion toward transportation issues varies in the state. Regions are shown in **Figure 1**.

### 2.3.1 Metro

This region consists of Detroit and most, but not all, of its suburbs. It also includes Port Huron, making it a region with three international crossings to Canada. It is the smallest region in terms of land mass, but makes up 41% of the entire Michigan adult population.

This region has the highest proportion of adult residents with household incomes over \$100,000 (27%). The adult residents of this region are also the least White (65%), with the highest proportion of African-Americans (24%).





Residents in this region are among the most likely to commute over an hour to work (10%). Commuters are the least likely to drive alone to work (82%)—not because they are any more likely to carpool (3%) but, rather, because they are more likely to bike (5%), walk (5%) or take public transit (6%).

### 2.3.2 University

This region consists of the western exurbs of Detroit, the capital city of Lansing, and the smaller cities of Jackson and Ann Arbor. Michigan's two flagship universities are in this region. It is the second largest region in terms of the state's adult population (15%).

This region's population is the youngest, with one-quarter (24%) of the population under 30 years of age. The University region, living up to its name, is also the most educated, with 45% of the adults having completed college.

Residents in this region are among the most likely to work outside of their homes (61%), with a high percentage of residents who commute 45 minutes or more to work (27%). Commuters in this region are the most likely to walk to work (5%), but they are among the least likely to take public transit to work (0% in our poll).

### 2.3.3 Southwest

This region is considerably smaller in population (nine percent) and consists of nine counties in the Southwest corner of the state. Kalamazoo is the largest city in the region. Smaller cities include Battle Creek and Benton Harbor/St. Joseph.

Relatively few residents in this region have household incomes over \$100,000 (13%), while one half have household incomes under \$40,000 (49%).

Residents in this region are among the most likely to work outside of their homes (58%), but the least likely (4%) to drive more than an hour to work.

### 2.3.4 Bay

Twelve percent (12%) of Michigan's adult population live in these 13 counties surrounding Saginaw Bay. This region includes the cities of Flint, Saginaw, Midland, and Bay City.

This region has fewer residents with a college education (35%). It is the second lowest in residents with household incomes over \$100,000 (11%) and the highest in the proportion of residents with incomes of \$50,000 or less (61%). The region also has the second highest percentage of non-Whites (15%).

Residents in this region are the most likely to drive an hour or more to work (13%). Carpooling in this region is relatively high (9% of commuters).





### 2.3.5 Grand

This region is home to 13% of Michigan's adult population and is the fastest growing region in the state. It includes Grand Rapids and the much smaller cities of Muskegon and Holland.

The Grand Region has the fewest adults (37%) with household incomes under \$40,000. This region is also quite young, with only 45% of residents over 50 years of age and 23% under 30 years of age.

This is the only region where we found more (53%) who said they did not work outside their home than who said they did (47%). This region has the highest proportion of commuters who drive alone (92%), but the second highest percentage of commuters who use public transportation (5%).

### 2.3.6 North

This region consists of roughly the northern third of Michigan's Lower Peninsula. Despite its large land mass, only 6% of the state lives in this region. There are no urban areas in this region. In our sample, this region is represented by only 100 interviews, so the results here should be taken with much more caution.

The North Region has the lowest proportion of residents with household incomes over \$100,000 (10%) and the most with household incomes under \$40,000 (50%). The North is the oldest region, with 60% of adults 50 years of age or older and only 14% under 30 years of age.

The North Region has 56% of adults working outside their homes, and only 6% of North adults drive more than an hour to work.

### 2.3.7 Superior

This region, representing the entire Upper Peninsula, is largest in terms of land area but the smallest (3%) in terms of population. This is also the only region whose population has dropped since 2000. There are no urban areas in this region and very few four-lane highways, but it does contain an international crossing with Canada. Like the North region, we only conducted 100 interviews here, so the numbers here should be taken with much more caution.

This region is the most White (94%) and the least likely (24%) to have completed a college education.

Fifty-eight percent (58%) of Superior residents commute to work, and this region has the highest percentage of commuters who drive to work alone (95%). However, that commute is much less likely to be long (no respondent from this region said they had a commute longer than 45 minutes).





# **Chapter 3. Familiarity with MDOT**

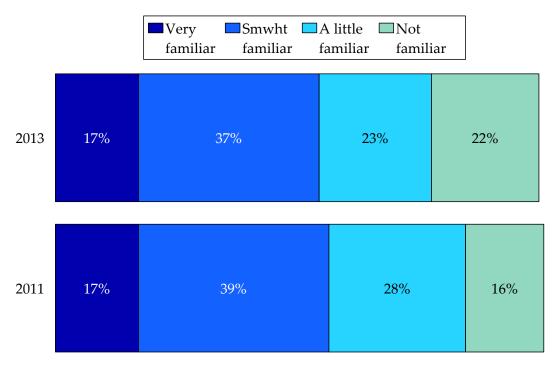
Since 2011, the MDOT Attitude and Perceptions Survey has started with a question of familiarity with MDOT.

# 3.1 Familiarity with MDOT

Since 2011, there has been an uptick in the percent who said they are not familiar with MDOT, from 16% to 22%, although nearly all of this has come from those who are only a little familiar. (**Figure 2**). The percentage of Michigan residents who are very familiar is unchanged, and the percentage of somewhat familiar is down just 2%, from 39% to 37%.

Figure 2. Michigan Residents Are a Little Less Familiar with MDOT Today than They Were in 2011 (Question 1)

Q1. How familiar are you with the Michigan Department of Transportation?



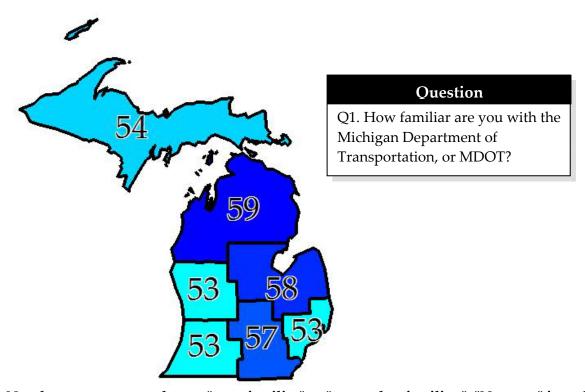
Remainder "Not sure."





Regionally, there is very little variation in the percent of residents who are very or somewhat familiar with MDOT, with as low of 53% in three regions and a high of 59% in North (**Figure 3**).

Figure 3. Very Little Regional Variation in Familiarity with MDOT (Question 1)



Numbers are percent who are "very familiar" or "somewhat familiar." "Not sure" is excluded from this analysis.

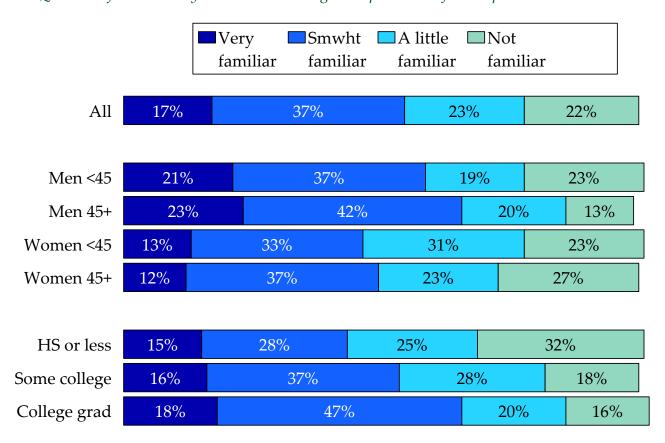




There is a strong relationship between familiarity with MDOT and gender and education, with women being much less familiar with MDOT, while men—especially older men—are much more familiar (**Figure 4**). Likewise, college graduates are more familiar with MDOT than are those with some college and those with no college education.

Figure 4. Men, Especially Older Men, and Respondents with More Education Are More Familiar with MDOT (Question 1)

Q1. How familiar are you with the Michigan Department of Transportation?



Remainder "Not sure."





# **Chapter 4. Evaluations of MDOT**

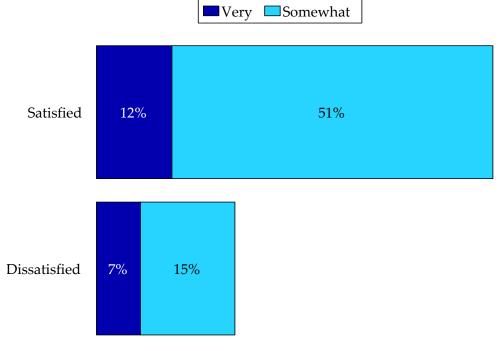
We ask eight questions in this survey that specifically evaluate MDOT. These measures are tools to assess how well MDOT delivers services and products to its customers. The key measure is satisfaction with MDOT. We have asked that question since 2006, as well as another question asking if the MDOT projects are the right solutions to the problem Michigan faces in transportation. Finally, we gave respondents a series of statements about MDOT and asked them to agree-disagree. This too has been asked since 2006, but the scale was changed somewhat in 2011, so overtime comparisons only go back to the last survey.

### 4.1 Satisfaction with MDOT

Our evaluative measure asks respondents how satisfied they are with the job MDOT is doing—very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied. This is a forced-choice measure, with no middle or neutral category. Nearly two-thirds (63%) of the public is satisfied with MDOT and 22% is dissatisfied (**Figure 5**). Overall, feelings in a positive or negative direction are not strong, with only 12% very satisfied and 7% very dissatisfied.

Figure 5. Michigan Is Satisfied with the Job Being Done by the Michigan Department of Transportation (Question 2)

Q2. How satisfied are you with the job the Michigan Department of Transportation is doing?



Remainder "Not sure."

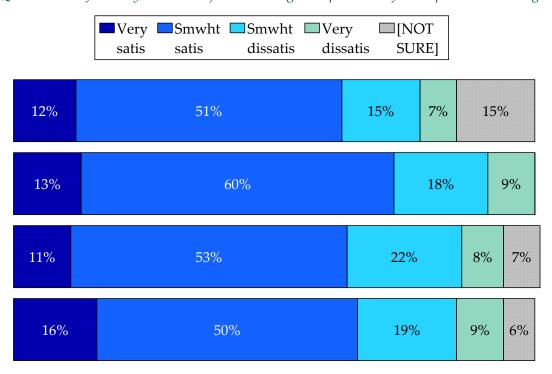




There is a confounding result when we look at these numbers over the course of the four surveys. In the 2011 survey, the satisfaction question excluded "not sure" and any other non-response options. However, "not sure" or some sort of non-response was recorded in every other year (**Figure 6**). Indeed, in 2013, the proportion of "not sures" doubled from amounts measured in the first two surveys. Thus, we are going from a survey year (2011) where the proportion of "not sures" was nil to a survey year (2013) where it was especially high.

Figure 6. With "Not Sures" Included, Public Level of Satisfaction Is Down from Previous Years (Question 2)

Q2. How satisfied are you with the job the Michigan Department of Transportation is doing?



Another way to think of this is to consider the ratio of Michigan residents satisfied with MDOT to the Michigan residents dissatisfied. This year that ratio is 2.86 satisfied residents for every one dissatisfied resident, which is just higher than the ratio in 2011 (2.70-to-1). The ratio was much lower in 2009 (2.13-to-1), when the level of satisfaction was at its nadir, and was 2.36-to-1 in 2006. Thus the ratio today is at its highest point, though not significantly higher than it was in 2011.

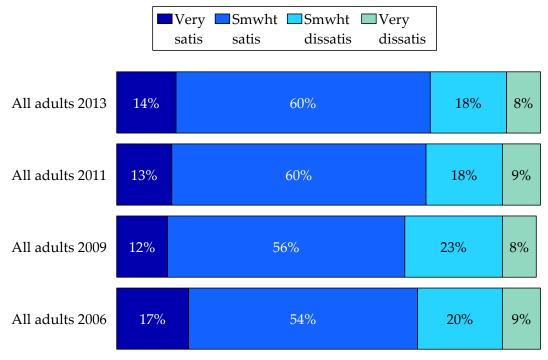




The unfortunate exclusion of "not sures" in 2011 can leave us with the impression that there was a spike in satisfaction that year, which subsided in 2013. However, in reality, all of the variation comes from the disappearance of non-response in 2011 and the larger resurgence of "not sures" in 2013. Indeed if one treats "not sures" as missing data and excludes them from the analysis, what is revealed is a very marginal increase in satisfaction with MDOT since 2011, with both years representing an increase from a slight depression during 2009 (**Figure 7**).

Figure 7. When We Remove "Not Sures," Satisfaction with MDOT Only Changed in 2009, Otherwise Remarkably Stable (Question 2)





"Not sure" is excluded from this analysis.

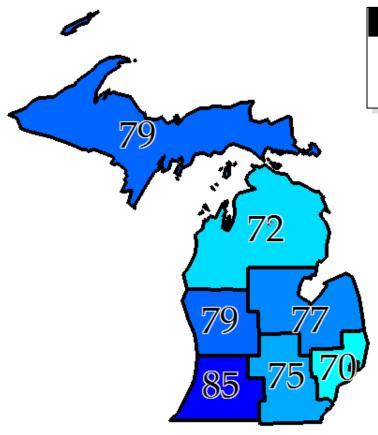
Given the potential variation of "not sures" along with their exclusion in 2011, we think the appropriate way to compare MDOT's satisfaction measure over time is either 1) to exclude "not sures" from the analysis; or 2) to compare the ratio of those who are satisfied with MDOT to those who are not. By any of these two measures, satisfaction with MDOT has been consistent since 2011 and is up from 2006 and, especially, from 2009.





Regionally, satisfaction is greatest in Southwest and lowest in Metro, with North not far behind (**Figure 8**). That satisfaction is lowest in Metro is nothing new. It has been the case in all four surveys since 2006. What is new is the fact that the gap between Metro and the rest of the state is not as pronounced as it was in the other three surveys.

Figure 8. Southwest Residents Are the Most Satisfied with MDOT; Metro & North Are the Least Satisfied (Question 2)



### **Ouestion**

Q2. How satisfied are you with the job the Michigan Department of Transportation is doing?

"Not sure" is excluded from this analysis.

(Please note: in this map and in all maps to follow, one part of a bifurcated response is presented. In this case, the numbers shown are the percentage of respondents who are satisfied. Not shown is the percentage of respondents who are dissatisfied. To make this presentation of data work, we exclude from these maps those respondents who say they are "not sure." Thus, when the map shows 85% satisfied in the Southwest, it means that 85% *of those who had an opinion* are satisfied, and 15% of those who had an opinion are dissatisfied. Because we exclude those who are "not sure" in the maps (not just for this satisfaction measure, but for all measures in this report), these numbers will be higher on average than those reported in the bar graphs.)

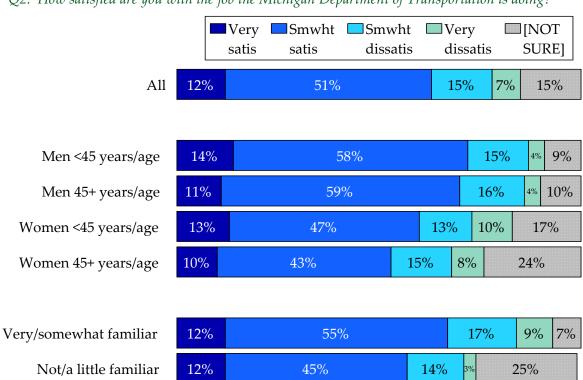




Because there was an age and gender gap in familiarity, we see something similar in satisfaction with MDOT. When "not sures" are included, we can see that women, who were much less familiar with MDOT, are far more likely to not come up with an opinion of satisfaction or dissatisfaction with the department (**Figure 9**). This is especially true for women over 45 years of age. This pattern can also be seen when we compare satisfaction among those who are very or somewhat familiar with MDOT to those who are not or only a little familiar. One-quarter of those who are less familiar are also unable to express any kind of satisfaction or dissatisfaction with MDOT.

Figure 9. Men Are Most Satisfied with MDOT, While Women Are Much Less Willing To Say & Are Less Satisfied (Question 2)

Q2. How satisfied are you with the job the Michigan Department of Transportation is doing?



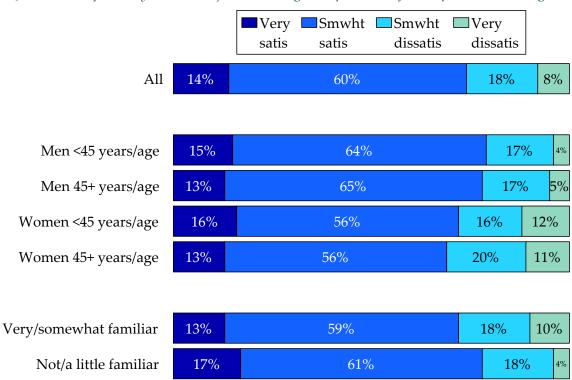




If we remove those who are not sure about their satisfaction with MDOT from the analysis, we can still see that women are much less satisfied with MDOT (**Figure 10**). However—despite women being less familiar—those who are less familiar are more satisfied with MDOT.

Figure 10. Removing "Not Sures": Men and Those Who Are Less Familiar with MDOT Are More Satisfied With MDOT (Question 2)





"Not sure" is excluded from this analysis.

Our final breakdown of the satisfaction question has to do with the length of one's commute, and again we will present this data with and without those who are "not sure" (**Figures 11 and 12**). Surprisingly, the percent of "not sures" runs fairly constant for those with no commute, those with a short commute (less than 45 minutes), and those with a long commute. But what is especially interesting is the degree to which those with no commute are more likely to be either dissatisfied or very satisfied with MDOT, while the longer the commute one has, the least likely the respondent chooses one of those extremes and the more likely they will settle for somewhat satisfied. This pattern runs counter to what we have found in previous surveys.





Figure 11. The More One Commutes, the Less Dissatisfied One Is with MDOT (Question 2)

Q2. How satisfied are you with the job the Michigan Department of Transportation is doing?

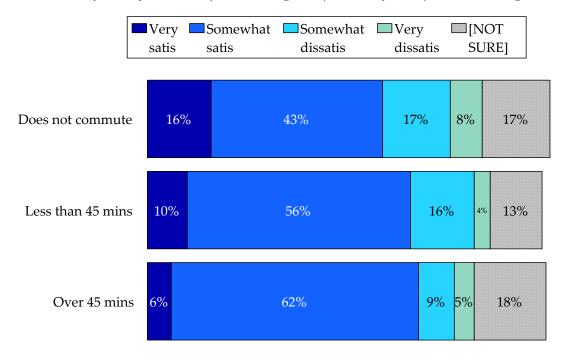
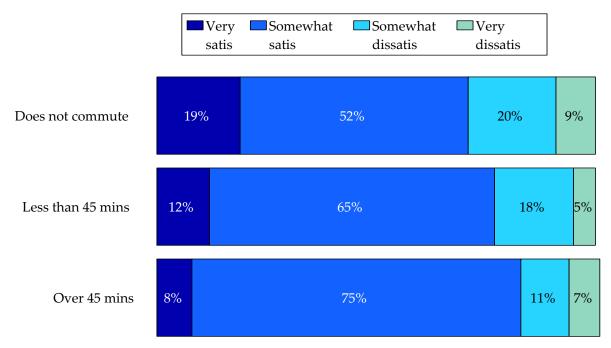


Figure 12. Removing "Not Sures": The Less One Commutes, the More Very Satisfied and Overall Dissatisfied One Is with MDOT (Question 2)

Q2. How satisfied are you with the job the Michigan Department of Transportation is doing?



"Not sure" is excluded from this analysis.





# 4.2 MDOT Projects: Right Solutions for Transportation Problems?

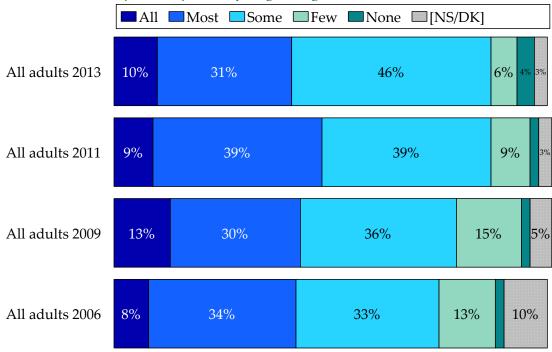
Another MDOT evaluative question is:

Q5. In considering the range of projects that MDOT has completed—from highway and bridge repairs and expansions, to safety programs, to public transportation, to providing public information and roadside assistance—how many of these projects do you believe were the right solutions for the transportation problems facing Michigan: all, most, some, few, or none?

One interesting thing about the results for this question—in comparison to the overall satisfaction measure discussed earlier—is that the percentage who were "not sure" in 2013 is the same as in 2011, which is not many (3%). The percent who said all or most projects are the right solution jumped in 2011 (**Figure 13**). In this survey, that percentage returned to the vicinity of results found in 2006 and 2009, with only 41% saying all or most projects were the right solution. However, the percent saying few or no projects are the right solutions is the lowest it has ever been.

Figure 13. Respondents Are Less Likely to See All or Most MDOT Projects as Right Solution; Though They Are Also Less Likely to Say Few or None (Question 5)

Q5. In considering the range of projects that MDOT has completed—from highway and bridge repairs and expansions, to safety programs, public transportation, and providing public information and roadside assistance—how many of these projects do you believe were the right solutions to the transportation problems facing Michigan?

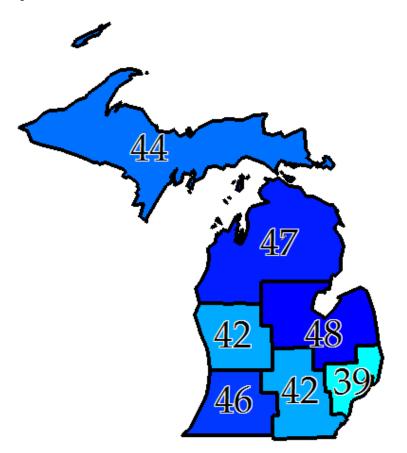






As it has in the past, regionally this question breaks down a little differently from the satisfaction measure. Metro is the least likely to say that all or most projects were the right solution (**Figure 14**). However, North, which had the second lowest level of satisfaction, is among the regions with the highest percentage saying all or most projects were the right solution. Overall, however, the variation between regions on this question is not very large.

Figure 14. Metro Residents Least Likely to Believe MDOT Projects Were the Right Solutions (Question 5)



### Question

Q5. In considering the range of projects that MDOT has completed—from highway and bridge repairs and expansions, to safety programs, public transportation, and providing public information and roadside assistance—how many of these projects do you believe were the right solutions to the transportation problems facing Michigan?

"Not sure" is excluded from this analysis.



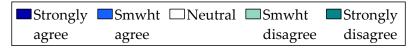


# 4.3 MDOT Statements: Moving in the Right Direction

We asked respondents how much they agreed or disagreed with six statements about MDOT. For the rest of this chapter we will go over each statement in declining order, based on strength of public agreement. The statement with the highest level of agreement is *I think MDOT is moving in the right direction*. Well over one half (60%) of Michigan residents agreed with the statement and 17% disagreed (**Figure 15**). This is pretty much what it was in 2011 (62% to 21%), with a very slight decline in the percent who disagree.

Figure 15. By More than 3-to-1 Michigan Residents Think MDOT Is Headed in the Right Direction (Question 7b)

Q7. How strongly do you agree or disagree with the following statements?



b. I think MDOT is moving in the right direction



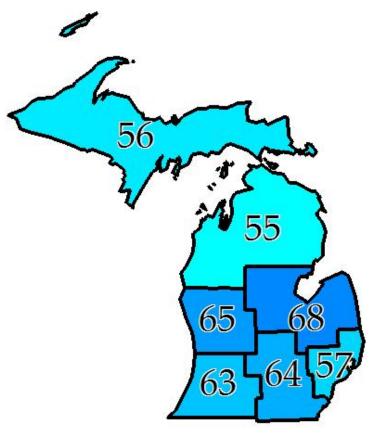
Remainder "Not sure."





Metro, North, and Superior are the regions where residents are least likely to agree that MDOT is headed in the right direction (**Figure 16**).<sup>2</sup> However, the variation between regions is not great and well within the margin of error.

Figure 16. Metro Residents Are the Least Likely to Think MDOT Is Headed in the Right Direction (Question 7b)



### Question

Q7b. Percent agree: I think MDOT is moving in the right direction

"Not sure" is excluded from this analysis.

<sup>2</sup>In the map for the Q7 series, the percent shown is the percent who agree of only those who either agree or disagree. Because there is a large neutral category—those neither agree nor disagree—it, along with "unsures," is removed from this analysis. For that reason the percent who agree will appear larger than it would be in the overall bar graphs where unsures and neutrals are included in the numbers.



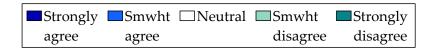


# 4.4 MDOT Statements: Prioritizing Highway Improvements

The statement with the next highest level of agreement is *MDOT does a good job prioritizing highway improvements in Michigan*. Fifty-eight percent (58%) agree with this statement, while only 23% disagree (**Figure 17**). This is comparable to 2011, albeit with slightly fewer who agree and who disagree.

Figure 17. Michigan Residents Are Much More Likely to Agree than Disagree That MDOT Does a Good Job Prioritizing Highway Improvements (Question 7d)

Q7. How strongly do you agree or disagree with the following statements?



d. MDOT does a good job prioritizing highway improvements in Michigan



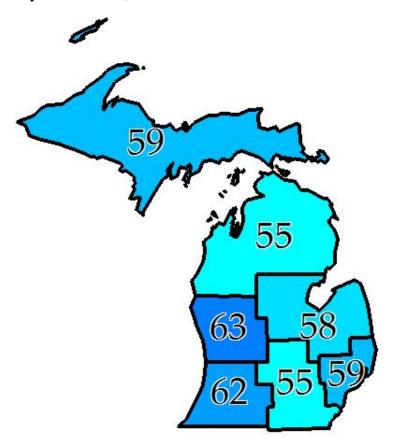
Remainder "Not sure."





There is very little regional variation on this question, with Grand residents the most likely to agree (63%) that MDOT does a good job prioritizing highway improvements in Michigan, and North and University only slightly less likely to agree (**Figure 18**).

Figure 18. Little Regional Variation in Perception about MDOT Job in Prioritizing Highway Improvements (Question 7d)



# Question

Q7d. Percent agree: I think MDOT does a good job prioritizing highway improvements in Michigan

"Not sure" is excluded from this analysis.





# 4.5 MDOT Statements: Adequately Supporting Local Transportation

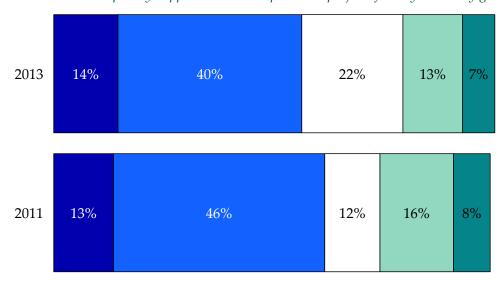
The next statement—I think MDOT adequately supports local transportation projects for city and county governments—has slightly fewer either agreeing (54%) or disagreeing (20%—**Figure 19**). The ratio of agreement to disagreement is still very strong, with more than 2.5 residents agreeing for every one that disagrees.

Figure 19. Michigan Residents Are Much More Likely to Agree than Disagree That MDOT adequately Supports Local Transportation Projects for City and County Governments (Question 7e)

Q7. How strongly do you agree or disagree with the following statements?



e. I think MDOT adequately supports local transportation projects for city & county govts



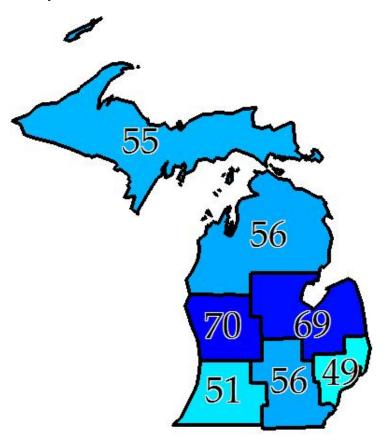
Remainder "Not sure."





Here we definitely see some stronger regional variation, with Metro and Southwest being much less likely to agree that MDOT adequately supports local transportation projects for city and county governments (**Figure 20**). Indeed, in Metro more disagree (51%) than agree (49%) when "unsure" and "neither agree nor disagree" is removed. However, in Grand and Bay regions, there is strong agreement that MDOT does an adequate job here.

Figure 20. Metro and Southwest Residents Least Likely and Grand and Bay Residents Most Likely to Believe MDOT Adequately Supports Local Transportation Projects for the City and County Governments (Question 7e)



#### Question

Q7e. Percent agree: I think MDOT adequately supports local transportation projects for city and county governments



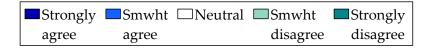


## 4.6 MDOT Statements: Responsive to Local Communities

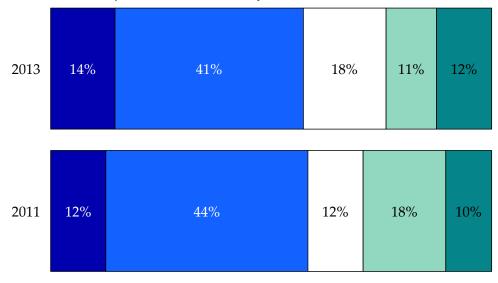
There is only one statement where we see any meaningful difference from 2011, and that *is I think MDOT is responsive to the concerns of local communities*. However, even here the change is not especially dramatic. The percent agreeing with this statement is basically the same as in 2011 (56% in 2011 and 55% in 2013), but the percent disagreeing has dropped significantly from 29% to 23% (**Figure 21**).

Figure 21. Slightly Fewer Michigan Residents Disagree That MDOT Is Responsive to the Concerns of Local Communities (Question 7f)

Q7. How strongly do you agree or disagree with the following statements?



f. I think MDOT is responsive to the concerns of local communities

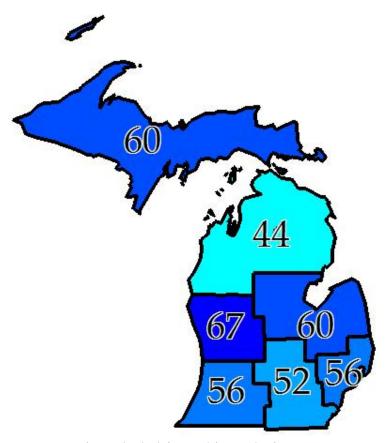






There is again some meaningful regional variation here with North residents least likely to believe that MDOT is responsive to local communities—more disagreeing with the statement than agreeing with it (56% to 44% when "unsure" and "neither agree nor disagree" is removed—**Figure 22**). Grand residents, on the other hand are twice as likely to agree (67%) than disagree (33%).

Figure 22. North Residents Much Less Likely and Grand Residents Most Likely to Believe MDOT Is Responsive to the Concerns of Local Communities (Question 7f)



#### **Question**

Q7f. Percent agree: I think MDOT is responsive to the concerns of local communities



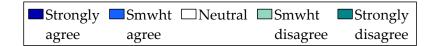


# 4.7 MDOT Statements: Decisions about State's Future Transportation

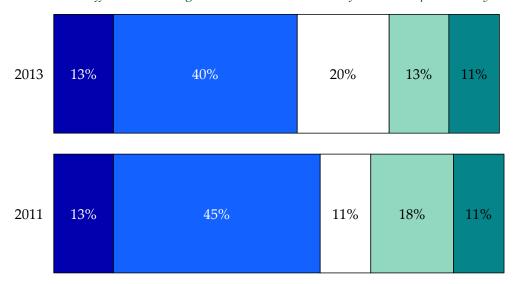
The penultimate of the six statements in terms of the ratio of agreement to disagreement—I trust MDOT officials to make good decisions about State's future transportation system—still has more than twice as many Michigan residents agreeing (53%) than disagreeing (24%—**Figure 23**). Basically the same result as was found in 2011.

Figure 23. Twice as Many Agree That They Trust MDOT Officials to Make Good Decisions about the State's Future Transportation System (Question 7a)

Q7. How strongly do you agree or disagree with the following statements?



a. I trust MDOT officials to make good decisions about State's future transportation system

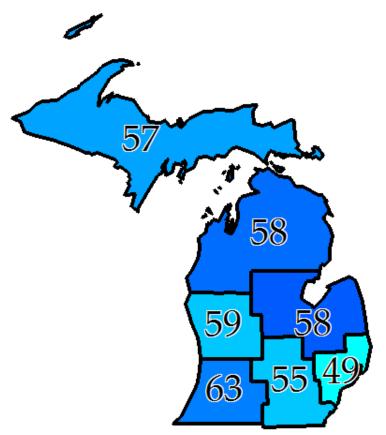






There is only a little regional variation when it comes to the question of MDOT officials making good decisions about the State's transportation future (**Figure 24**). Metro residents are the least likely to trust MDOT officials to make good decisions, which is to be expected given the lower satisfaction with MDOT among Metro residents. All other regions are not statistically different from each other and only Southwest agrees with the statement more than Metro beyond the margin of error.

Figure 24. Metro Residents Are the Least Likely to Think MDOT Officials Make Good Decisions about the State's Future Transportation System; Though Regional Variation Is Small (Question 7a)



### Question

Q7a. Percent agree: I trust MDOT officials to make good decisions about the State's future transportation system



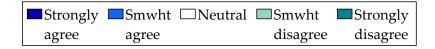


## 4.8 MDOT Statements: Confidence in MDOT

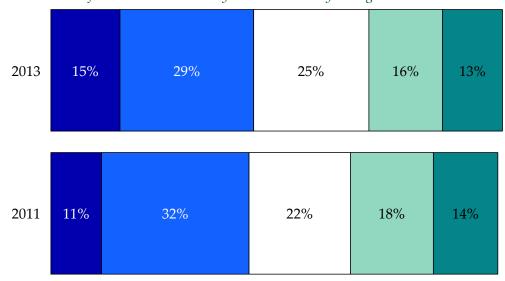
The statement with the lowest level of agreement is *I have more confidence in MDOT today than I did three years ago* (**Figure 25**). Forty-four percent (44%) agree and 29% disagree with the statement, which again represents basically no change since 2011. That this would have the lowest level of agreement is not surprising. This is not necessarily a measure of the confidence they have now but a measure of change in confidence in last the last three years. If a respondent who is confident now was equally confident three years ago, the correct response is to disagree.

Figure 25. More Agree than Disagree That They Have More Confidence in MDOT decisions than 3 Years Ago (Question 7c)

Q7. How strongly do you agree or disagree with the following statements?



c. I have more confidence in MDOT today than I did three years ago



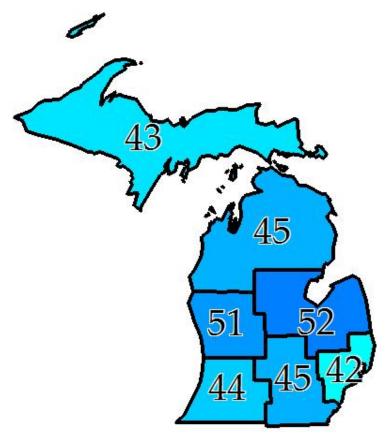
<sup>&</sup>quot;Not sure" is excluded from this analysis.





Bay and Grand residents are more likely to agree that they have more confidence in MDOT today than they did three years ago, but again the variation among the regions is not very large (**Figure 26**).

Figure 26. Bay and Grand Residents Are More Likely to Agree That They Have More Confidence in MDOT Today than They Did Three Years Ago (Question 7c)



## **Question**

Q7c. Percent agree: I have more confidence in MDOT today than I did three years ago





# Chapter 5. Quality of Transportation in Michigan

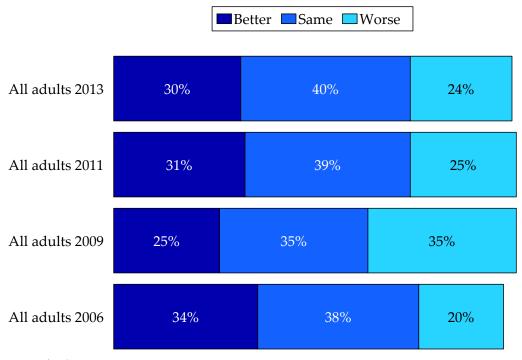
We asked one question whose purpose was less to evaluate MDOT directly and more to measure the public's general perception of the present state of transportation and the way it is funded.

## 5.1 Quality of Transportation in the Past Five Years

To get a sense of whether the public thinks transportation quality is changing, we asked respondents whether the quality of transportation in Michigan is better, the same, or worse than it was five years ago. More Michigan adults think transportation quality is better than worse (30% versus 24%), although a large plurality (40%) of residents see no change (**Figure 27**). This represents no change from the last survey in 2011. In 2009, in the midst of the recession, there was a very clear drop in the percent who believed that the transportation system had gotten better, and an increase in those who believed it grew worse. This rebounded in 2011, but it has never returned to the level first measured in 2006.

Figure 27. Percent Who Believe Transportation in Michigan Is Getting Better or Worse Is Same as in 2011 (Question 6)

Q6. Is the quality of transportation in Michigan better, the same, or worse than it was five years ago?

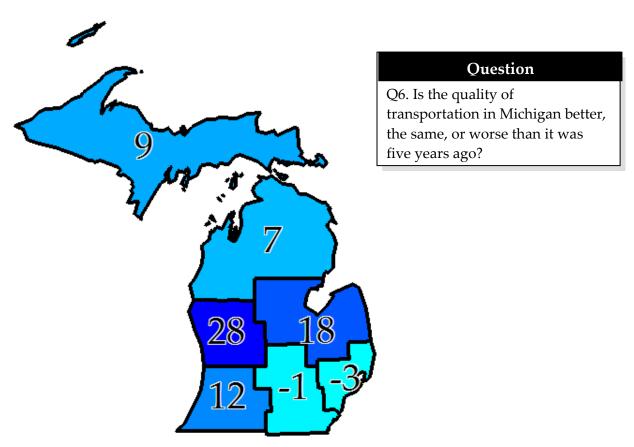






Regionally, there are big variations on this question, with residents in the Southeastern part of the state (Metro and University Regions) more likely to say the quality of transportation in Michigan is worse than say it is better than 5 years ago (**Figure 28**—note the numbers in the graph represent the percentage who believe the quality of transportation has gotten better *minus* the percent who say it is worse). This contrasts greatly with Bay and, especially, Grand regions where the percent who say transportation is better far outflanks the percent who say it has gotten worse.

Figure 28. Bay and Grand Residents Much More Likely to Say the Quality of Transportation Is Better (Question 6)



Number represents percent better minus percent worse. "Not sure" and "Same" are excluded from this analysis.

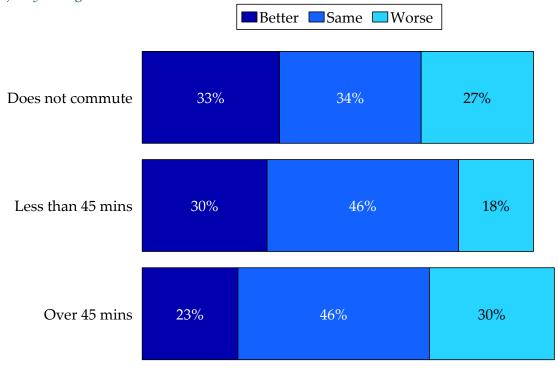




Residents with the longest commutes (45 minutes or more to work) are much more likely than short commuters to say transportation quality is worse than it was five years ago (30% versus 18%), and are less likely to say transportation has gotten better (23% versus 30%—**Figure 29**). However, those who do not commute are quite divided, with the largest percentage saying transportation is getting better, but also a sizeable proportion (27%) saying it is getting worse.

Figure 29. Michigan Adults with the Longest Commutes Are Most Likely to Say Transportation Has Gotten Worse and Least Likely to Say It Has Gotten Better in Past Five Years (Question 6).

Q6. Is the quality of transportation in Michigan better, the same, or worse than it was five years ago?







# Chapter 6. Improving Transportation: Public Satisfaction & Transportation Priorities

To learn the public's preference for what it wants in terms of improved transportation in Michigan in the future, we ask respondents two sets of questions and apply them to the same list of transportation priorities. The first question reads:

Q3. Michigan faces a series of transportation priorities with limited resources. I am going to read you a list of priorities for Michigan's state transportation. In thinking about Michigan's priorities for the future, I would like you to tell me, on a scale of 1 to 5, how important it is that Michigan spend more resources to improve each area. Please keep in mind that asking for any increase in resources in one area requires a decrease in resources in another area.

This question was followed by 21 items in the list, given in a random order. A second question was then read, followed by the same list of items, which is also given in a random order:

Q4. I am going to read you a similar list of aspects of Michigan's state transportation. For each, please tell me how satisfied you are on a scale of 1 to 5.

These two sets of questions tap into similar things—the more satisfied one is with an aspect of Michigan's state transportation, the less likely one is to see it as a priority and vice-versa. However, the two questions do not perfectly correlate. Correlation ranges from  $R^2 = -.22$  (the electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays) to  $R^2 = -.07$  (the availability of lanes and pathways for bicycles), with the correlations strongest on items which the public finds relatively low in importance. Thus, while they are related, these two questions do measure different ways of setting priorities: (1) how happy the public is with transportation now; (2) what the public wants the state to do more of in the future.

The latter question aims to impose the sense of a zero-sum situation where an increase in resources to improve something must come at a cost of cuts elsewhere. However, these instructions do not fully mitigate how respondents answer the questions, as the budgetary restraints are simply too hypothetical, leading to an overall increase in spending in the aggregate of responses. This is especially the case since the question does not also suggest that increased spending would or could lead to an increase in taxes. If it had, we suspect it would have led to lower correlations between the two sets of questions.

In the sections that follow, we will report the results for both series, and then report the interaction between the two series among all Michigan adults and those within each of the seven MDOT regions. For the purpose of reporting these results in this section, we have divided the 21 items into four rough categories: (1) road conditions and repair; (2) traffic; (3) alternative modes of transportation; and (4) information.





On the five-point *satisfaction scale*, these items receive mean scores among all respondents (the average score for the five point scale) that range from 2.55 to 3.67. The higher the mean score, the more satisfied, on average, Michigan adults are with that item, with the highest possible score being a "5" (most satisfied) and the lowest being a "1" (least satisfied). On the five-point *importance scale* (for spending resources to improve an area of transportation), the mean score range is anywhere from 3.22 to 4.23. On this scale, the higher the score, the more important it is to spend more resources, with the highest possible score being a "5" (most important) and the lowest being a "1" (relatively less important). Among all respondents, a difference of .15 to .20 in the mean score between items using the same scale is statistically significant (depending on the item).





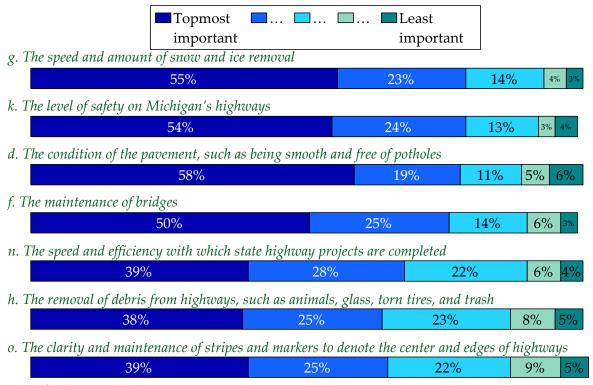
## 6.1 Road Conditions and Repair

The category of road conditions and repairs is the largest, with seven items. Four of these items rank among the most important. When it comes to satisfaction with these seven items, they cover the full range of most to least satisfied.

The two items with the highest level of importance are the speed and amount of snow and ice removal (mean=4.23) and the level of safety on Michigan's highways (mean=4.22). This is followed by the condition of the pavement, such as being smooth and free of potholes (mean=4.19) and the maintenance of bridges (mean=4.13—**Figure 30**).

Figure 30. More Resources for Future Priorities: Road Conditions and Repair (Question 3)

Q3. How important is it for Michigan to spend more on these priorities?



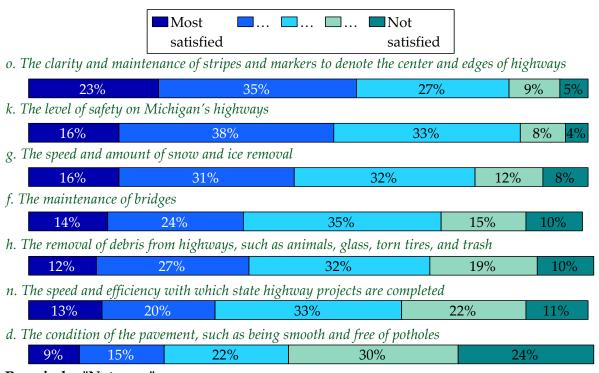




However, when it comes to items with the highest satisfaction, only two stand apart on top: *The clarity and maintenance of stripes and markers to denote the center and edges of highways* (mean=3.66) (**Figure 31**). This item is followed closely, in terms of satisfaction ratings, by *the level of safety on Michigan's highways* (mean = 3.56).

Figure 31. Public Satisfaction: Road Conditions and Repair (Question 4)

Q4. How satisfied are you with each of these priorities?



Remainder "Not sure."

In terms of satisfaction, the third highest item in the category of road repair and maintenance is the speed and amount of snow and ice removal (mean = 3.35).

Highway safety is also a slightly lower priority relative to other items for residents with higher incomes and higher levels of education, and those with commutes over one hour. Bridge maintenance is also a relatively lower priority for those with commutes over one hour or with lower household incomes.

Satisfaction is considerably lower for the maintenance of bridges (mean = 3.17), the removal of debris from highways, such as animals, glass, torn tires, and trash (mean = 3.12), and the speed and efficiency with which state highway projects are completed (mean = 3.01). However, the least satisfied item by far, was one of the three that residents found to be the most important: The condition of the pavement, such as being smooth and free of potholes (mean = 2.55).

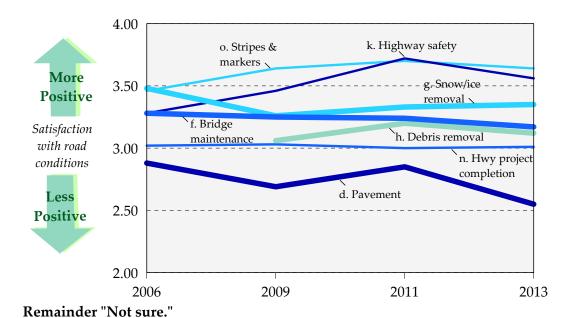




In **Figure 32**, we can compare satisfaction means scores for the road condition priorities over time and see the degree to which they change. When we do that, we see the greatest movement occurring on the condition of pavements. This priority has always had the lowest levels of satisfaction, but as we can see, with a bit of fluctuation, it has dropped slowly since 2006. The public is clearly much less satisfied with pavement conditions than it is with a host of other road condition priorities.

Figure 32. Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

Q4. How satisfied are you with each of these priorities?



Highway safety was making a nice increase from 2006 to 2011, which was good to see given its importance. However that has turned into a slight drop for 2013.

Dissatisfaction with pavement conditions was the highest with all demographic subgroups. Indeed when it comes to satisfaction, these items did not vary much among demographic subgroups. However, there is some variance when it comes to importance. Bridge maintenance, for example was the fourth most important priority for all Michigan residents, but it ranks 12th among residents under 35 years of age. Completing highways projects on time and removing debris for highways is relatively more important to this younger demographic. Meanwhile, for residents over 65 years in age, the condition of pavement is a little less important.





### 6.2 Traffic

When it comes to importance, priorities related to traffic issues—four items in this year's survey—fall in the middle (**Figure 33**). The help in *removing congestion-causing incidents on interstates in urban areas by clearing accidents and providing motorist assistance to disabled vehicles* (mean = 4.02) is considered, of the four, to be the most important priority for the state's limited resources, while *the number of available highway lanes* (mean = 3.56) is considered by Michigan residents to be the least important.

Figure 33. More Resources for Future Priorities: Traffic (Question 3)

Q3. How important is it for Michigan to spend more on these priorities?



p. The help in removing congestion-causing incidents on interstates in urban areas by clearing accidents and providing motorist assistance to disabled vehicles



m. The flow of traffic during highway construction



i. The flow of traffic during rush hour



e. The number of available highway lanes







These two least and most important traffic items are the top two of the four in satisfaction ratings, with the greatest level of satisfaction going to the number of highway lanes (mean = 3.67—**Figure 34**). As a matter of fact, the number of highway lanes is the priority with the greatest level of satisfaction among all 21 priorities asked in this survey.

Satisfaction is considerably lower for the two other traffic items: *the flow of traffic during rush hour* (mean = 3.07); and *the flow of traffic during highway construction* (mean = 2.96). Satisfaction the flow of traffic during highway construction was the lowest for all 21 items in the survey save for the condition of pavement.

Figure 34. Public Satisfaction: Traffic (Question 4)

Q4. How satisfied are you with each of these priorities?



e. The number of available highway lanes



p. The help in removing congestion-causing incidents on interstates in urban areas by clearing accidents and providing motorist assistance to disabled vehicles



i. The flow of traffic during rush hour



m. The flow of traffic during highway construction

		-		
9%	23%	33%	23%	11%

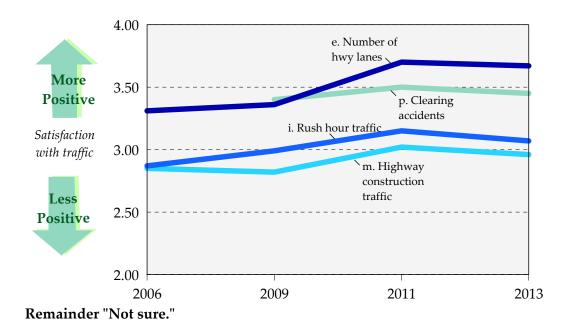




Over time, the pattern of average satisfaction with traffic-related items has been fairly consistent, rising slightly from 2009 to 2011 and remaining flat since (**Figure 35**).

Figure 35. Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

Q4. How satisfied are you with each of these priorities?



For residents over 65 years of age *removing congestion-causing incidents on interstates in urban areas by clearing accidents and providing motorist assistance to disabled vehicles* is both less important relative to other priorities and is a priority with which they are more satisfied. Satisfaction with *the flow of traffic during rush hour* is higher with voters over 65 years of age and men over 50 years of age. Education also appears to be related to satisfaction with the flow of rush hour traffic, as those with higher levels of education report greater relative satisfaction.





## 6.3 Alternative Modes of Transportation

Of the 21 priorities in our list, six are devoted to alternative modes of transportation. Four of these priorities are the least important of all 21 priorities tested in the poll. However, it is important as we look at these items to remember that the question was about priorities in funding with explicit instructions that increased funding for one priority meant decreased funding for another. Under this zero-sum game, bike paths, passenger air service, local public transportation, and long distance (intercity) public transportation lose out (**Figure 36**).

In the middle of the pack of 21 in terms of importance is the *availability of sidewalks for pedestrians* (mean = 3.71). The only alternative mode priority that rises toward the top in importance is the *availability of public transportation services for the elderly and persons with disabilities* (mean = 4.03).

Figure 36. More Resources for Future Priorities: Alternative Modes of Transportation (Question 3)

Q3. How important is it for Michigan to spend more on these priorities?



s. Availability of public transportation services for the elderly and persons with disabilities



b. The availability of sidewalks for pedestrians



r. The availability of alternatives to driving for long distance trips such as intercity passenger rail or intercity bus services

28% 21% 25% 12% 12%

q. The availability of alternatives to driving for local trips such as local bus or "Dial-A-Ride" public transportation services

26% 24% 24% 13% 11%

t. Overall availability of passenger air services

19%	23%	29%	13%	10%
-----	-----	-----	-----	-----

c. The availability of lanes and pathways for bicycles

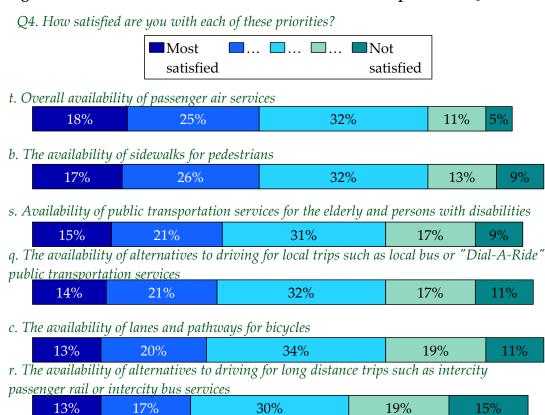
24%	19%	24%	18%	14%
-----	-----	-----	-----	-----





While importance does not rank high for the alternative modes of transportation relative to other priorities, neither does public satisfaction. All of the six items in this category rank either in the middle or among the lower half in satisfaction. The highest satisfaction is for *overall availability of passenger air services* (mean=3.43), which ranked low in importance. The second and third highest in satisfaction are the two items that residents found most important in this group—public transportation services for the elderly and disabled, and sidewalks for pedestrians (**Figure 37**).

Figure 37. Public Satisfaction: Alternative Modes of Transportation (Question 4)



Remainder "Not sure."

Lower in satisfaction ratings is the availability of alternatives to driving for local trips (mean=3.06) and the availability of lanes and pathways for bicycles (mean=3.10). The lowest level of satisfaction, which is lower than all but condition of payment among Michigan residence, is the availability of alternatives to driving for long distance trips such as intercity passenger rail or intercity bus services (mean=2.93)

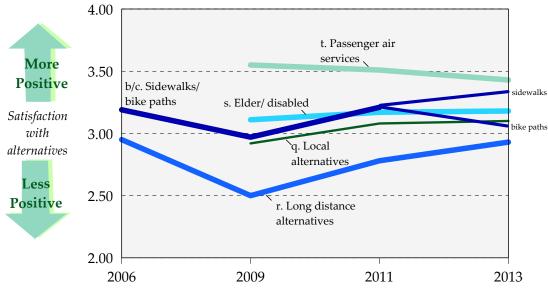




Only this alternative for driving long-distance trips was available across all four surveys (**Figure 38**). Bike paths and sidewalks for pedestrians were asked in the previous surveys, but as a single question. This year we split that item into two separate questions, and found that satisfaction was higher for sidewalks than for bike paths. All of the other priorities were first asked in 2009. There has certainly been a slight increase in the satisfaction toward local and long distance alternatives, although most of that gain occurred between 2009 and 2011, which we believe represents a bounce back from the general decline in satisfaction that occurred in 2009. Everything else has been mostly flat, with no change falling outside the margin of error.

Figure 38. Mean Satisfaction Score for Alternative Modes of Transportation over Time (Question 4)

Q4. How satisfied are you with each of these priorities?







## 6.4 Information and Communication

Our final fourth category of priorities concerns relaying information or improving communications. These items are in the middle of the pack in importance, with one that is a considerably less important spending priority—the electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays (mean=3.52—**Figure 39**).

Figure 39. More Resources for Future Priorities: Information and Communication (Question 3)





a. The number of clear roadside signs visible during the night



u. The degree to which the public's needs and views are taken into consideration



j. The availability and clarity of information provided to the public on road closures and work zones



l. The electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays



Remainder "Not sure."

When it comes to satisfaction with these four information priorities, there is again a big divide, with three of the items among the highest in satisfaction among all priorities (**Figures 40**). However, one priority ranks considerably lower in terms of public satisfaction—the degree to which the public's needs and views are taken into consideration (mean=3.02).





Figure 40. Public Satisfaction: Information and Communication (Question 4)

Q4. How satisfied are you with each of these priorities?



a. The number of clear roadside signs visible during the night



l. The electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays



j. The availability and clarity of information provided to the public on road closures and work zones



u. The degree to which the public's needs and views are taken into consideration



#### Remainder "Not sure."

In terms of other subgroup differences that stand out, the number of clear roadside signs visible during the night is rated especially high in importance among Michigan residents over 65 years of age and, not surprisingly, much lower by younger men (under 45 years of age). Residents over 65 years of age also rate the degree to which the public's needs and views are taken into consideration as much less important. Finally, residents with the lowest household incomes (under \$50,000) are much less satisfied with the degree to which the public's needs and views are taken into consideration, while residents with the highest household incomes are much more satisfied with this priority.

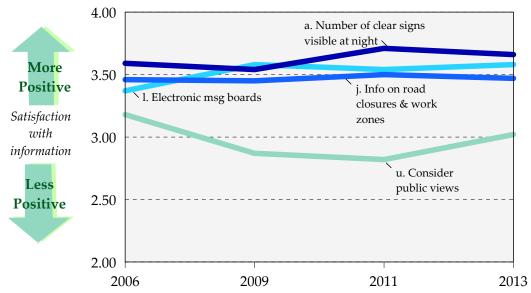




Finally, in terms of change over time in satisfaction with the four priorities, the three with the greatest level of satisfaction have been very flat over the 4 surveys, while *the degree to which the public's needs and views are taken into consideration* has rebounded after declining in satisfaction from 2006 to 2011 (**Figures 41**).

Figure 41. Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)

Q4. How satisfied are you with each of these priorities?







## 6.5 Combining Satisfaction Today with Priority for the Future

We can take the mean scores of all 21 items in both lists and plot them in a scatter graph (Figure 42). In this graph, the y-axis, or vertical axis, represents the importance of increasing funding to improve each aspect of Michigan's transportation system. The higher the item appears on the graph, the greater its importance as a spending priority. The x-axis, or horizontal axis, of the graph shows the level of satisfaction for each item. The higher the level of satisfaction, the further to the right the item appears on the graph. All told, those items closer to the top left corner are the ones that, based on public perception, should be Michigan's greatest priorities. Those items in the lower right hand corner are of lesser priority, based on public opinion. However, it is important to remember that public opinion is not always right. Public perception and experience are incredibly important for MDOT to understand as it plans transportation in and for the future. In some instances, the state should directly work to improve areas that the public wants to improve. In other instances, these results may suggest that Michigan needs to engage in a public information campaign to improve awareness of the importance of a particular aspect of transportation, or to improve awareness of what has been accomplished in that area. Either way, a successful plan for transportation is one that considers and addresses public opinion.

More important g. Snow/ice d. Condition of k. Level of ■ 4.2 pavement removal hwy safety e. Bridge maintenance s. Elder/disabled a. Number of Importance of an Item (Q3) o. Hwy projects 4.0 clear signs c. Clearing completion accidents u. Consider pub views i. Info road ■ close/work zones h. Debris o. Stripes m. Hwy 3.8 removal and markers construction b Pedestrian traffic sidewalks h. Rush hour d. Number of 3.6 traffic hwy lanes I. Electronic r. Long-distance message boards options q. Local trans 3.4 options ■ t. Passenger air services c. Bike lanes/paths Less 3.2 important 2.5 2.9 Weaker rating Stronger rating Satisfaction with an Item (Q4)

Figure 42. All Adults: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)

In this graph, one item in the top left corner stands out as the biggest priority for MDOT:

d. The condition of the pavement, such as being smooth and free of potholes





Although the wording has been changed somewhat over the years, this item has always been in the top left corner of every gap graph for all four surveys. In 2009, this item was up in that left hand corner by itself as well, although in that year residents were much less satisfied with the availability of long distance options. In 2006 and 2011, pavement conditions shared that corner with a number of other items.

Eight other items stand out as having a relatively higher level of importance compared with their relative level of satisfaction. This includes four that rank among the most important and where satisfaction is fairly high. They are, in order of higher to lower satisfaction:

- k. The level of safety on Michigan's highways
- g. The speed and amount of snow and ice removal
- f. The maintenance of bridges
- s. Availability of public transportation services for the elderly and persons with disabilities

The other four items are considered less important than the four above, but public satisfaction with them is considerably lower:

- h. The removal of debris from highways, such as animals, glass, torn tires, and trash
- u. The degree to which the public's needs and views are taken into consideration
- o. The speed and efficiency with which state highway projects are completed
- m. The flow of traffic during highway construction

Of the nine items discussed so far, six are in the highway condition and maintenance category. One relates to traffic, one to public information, and one to alternative modes of transportation.

# 6.6 Regions: Satisfaction Today with Priority for the Future

Regionally, these nine items remain fairly stable. Although some of the items do shift around in some regions, for the most part these core nine items are the top priority. In this section, because the sample sizes of the regions are smaller and the degree that items can shift around based on random error is greater, we will note the different confidence intervals for each region. The confidence interval tells us the range (+ or -) around the mean score where we can be 95% confident that the true mean lies.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> The confidence interval of a mean is calculated using the factors: the mean score, the standard deviation, and the sample size. Since the first two of those can vary from item to item, the confidence interval will also vary, even when sample size holds constant.



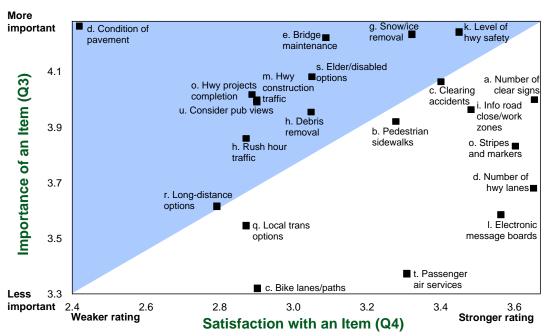
Michigan Department of Transportation

Page 61

#### 6.6.1 Metro Region

Since this region makes up 42% of the state's population, what is true for the state is likely to be true for this region. That is why **Figure 43**, which plots out the interaction between the average importance of items and the average satisfaction with items in the Metro area, looks very much like Figure 42, which plotted the same thing for the whole state. In Figure 43, the condition of the pavement remains very much alone in the top left corner. The only real difference to note is the higher importance of two traffic items, the flow of traffic during rush hour and the flow of traffic during highway construction, although they are not necessarily lower—relative to the other items—in satisfaction.

Figure 43. Metro: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)



The importance of these regional scatterplot graphs is to show the relative relationship of these items with each other in each region. However, it is important to note that this means the graphs do not all have the same scale. The low end of the satisfaction scale (the horizontal or x-axes in these graphs) is slightly higher in the statewide scatterplot (from 2.5 to 3.7) than it is for the Metro region (2.4 to 3.7). The importance scale (the vertical or y-axis) is also a little higher in the Metro plot (3.3 to 4.3) than in the statewide plot (3.2 to 4.25).





The confidence interval of mean satisfaction on the various priorities for the Metro region ranges from +/-0.12 to +/-0.14, so as we look at the four overtime graphs (**Figures 44-47**), we can say the following about the Metro region with sufficient statistical certainty:

- Satisfaction with the condition of the pavement has declined since 2011 and greatly since 2006.
- Although flat since 2011, satisfaction with the number of available highway lanes jumped in 2011 from lower levels in 2009 and 2006.
- Satisfaction with the availability of passenger air service has declined since 2011.
- Since 2006, satisfaction with considering public views has declined somewhat.

Figure 44. Metro Residents: Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

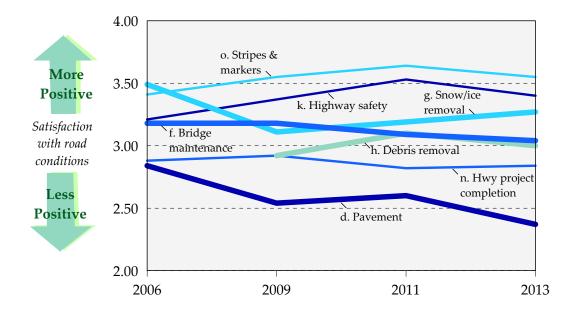






Figure 45. Metro Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

Q4. How satisfied are you with each of these priorities?

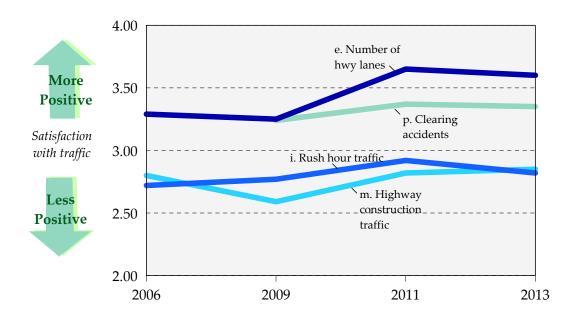


Figure 46. Metro Residents: Mean Satisfaction Score for Alternative Modes of Transportation Priorities over Time (Question 4)

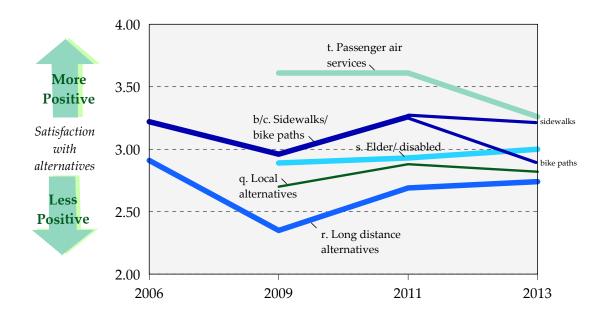
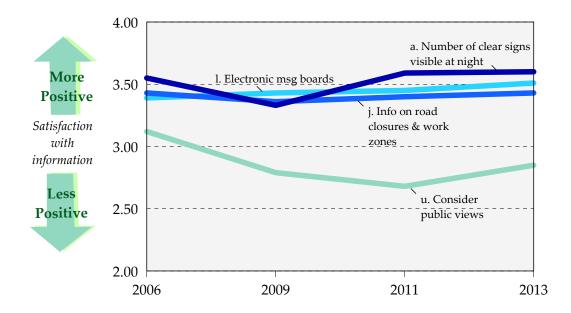






Figure 47. Metro Residents: Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)



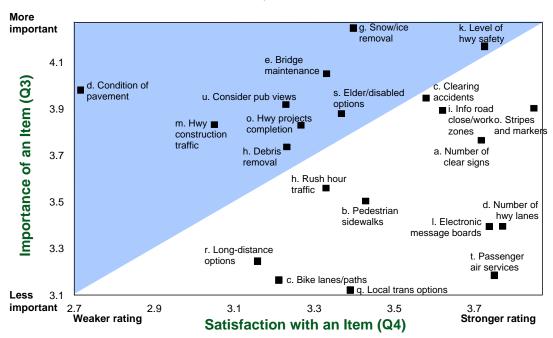




#### 6.6.2 University Region

For the University Region, we also see the same basic statewide pattern. The slight difference here is that the relative satisfaction with the availability of alternatives to driving for long distance trips such as intercity passenger rail or intercity bus services is considerably lower than it is statewide (**Figure 48**). Despite there being so much less satisfaction with this item, it is not given any more importance among University residents relative to the other items. The other difference is the relatively lower importance of the level of safety on Michigan's highways, although the difference is not great.

Figure 48. University: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)



The satisfaction scale is higher in the University region (2.7 to 3.9) than it is in statewide (2.5 to 3.7), so as a whole, University residents are more satisfied with the various transportation priorities.





The confidence interval of mean satisfaction for the various priorities for the University region ranges from +/-0.14 to +/-0.21, so as we look at the four overtime graphs (**Figures 49-52**), we can say the following about the University region with sufficient statistical certainty:

- There has been a decline in satisfaction with the level of highway safety since 2011, after a steady increase from 2006 to 2011.
- The satisfaction with the condition of pavement has dropped since 2011.
- After an increase in satisfaction with traffic priorities between 2009 and 2011, things have leveled off, with a slight decline in satisfaction with the flow of highway construction traffic.
- Since 2009, there has been a steady increase in satisfaction with the availability of alternatives to driving for long distance trips.
- There has been a steady increase in satisfaction with the degree to which the public's needs and views are taken into consideration since 2009, returning to where things were in 2006.

Figure 49. University Residents: Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

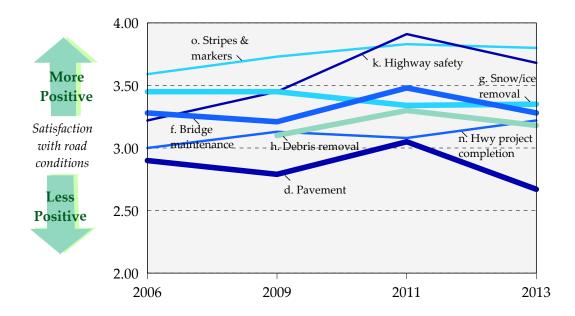






Figure 50. University Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

Q4. How satisfied are you with each of these priorities?

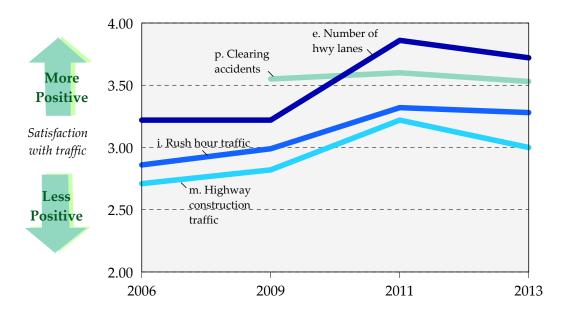


Figure 51. University Residents: Mean Satisfaction Score for Alternative Modes of Transportation Priorities over Time (Question 4)

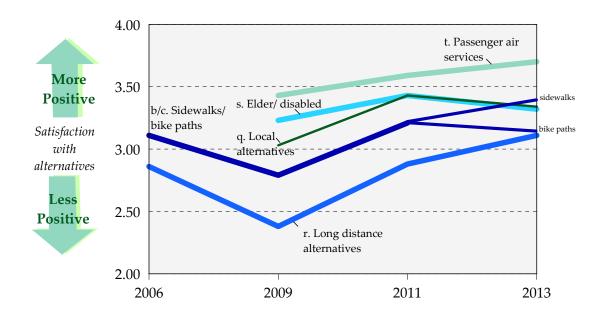
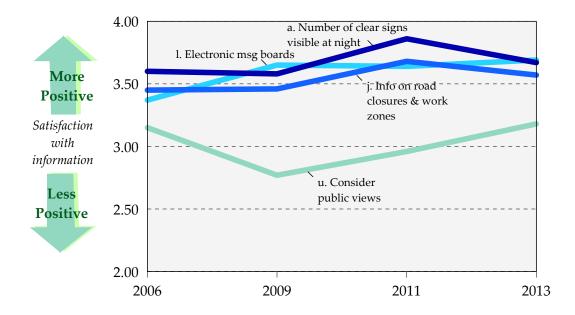






Figure 52. University Residents: Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)







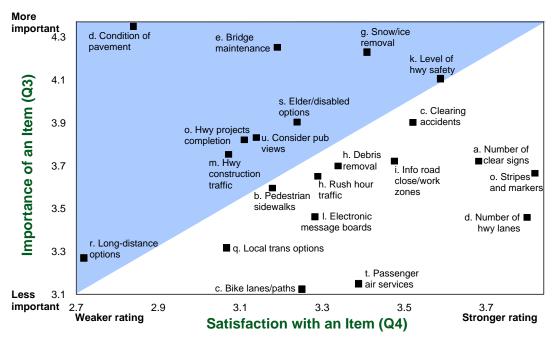
#### 6.6.3 Southwest Region

This is the only region where something other than the condition of the pavement, such as being smooth and free of potholes scored lower in actual satisfaction. That item is the availability of alternatives to driving for long distance trips such as intercity passenger rail or intercity bus services (**Figure 53**), which still ranks low in the importance scale. Other significant differences here include the relatively lower satisfaction on a number of lower importance items:

- The electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays
- Overall availability of passenger air services
- The availability of alternatives to driving for local trips.
- The availability of sidewalks for pedestrians

Thus satisfaction in the Southwest region drops significantly relative to all other items on four items related to alternative modes of transportation.

Figure 53. Southwest: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)



Similar to the University region, the satisfaction scale is higher in the Southwest scatterplot (2.7 to 3.9) than it is in the statewide scatterplot (2.5 to 3.7), so as a whole, Southwest residents are more satisfied with the various transportation priorities.





The confidence interval of mean satisfaction on the various priorities for the Southwest region ranges from +/-0.15 to +/-0.21, so as we look at the four overtime graphs (**Figures 54-57**), we can say the following about the Southwest region with sufficient statistical certainty:

- There has been a decline in satisfaction with the level of highway safety, after an increase in 2011.
- Satisfaction with bridge maintenance has declined since 2006.
- There has been a decline in the satisfaction with the condition of the pavement since 2006, although the drop from 2011 is in itself insignificant.
- There was a steep decline in the satisfaction with electronic message boards since 2011.

Figure 54. Southwest Residents: Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

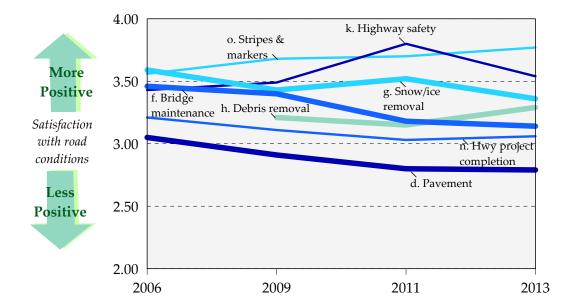






Figure 55. Southwest Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

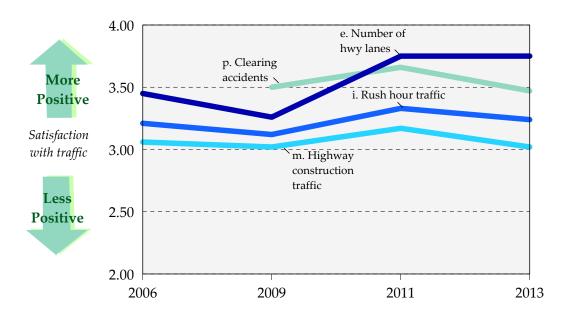


Figure 56. Southwest Residents: Mean Satisfaction Score for Alternative Modes of Transportation Priorities over Time (Question 4)

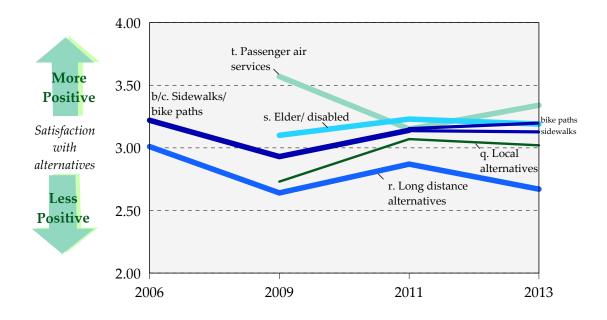
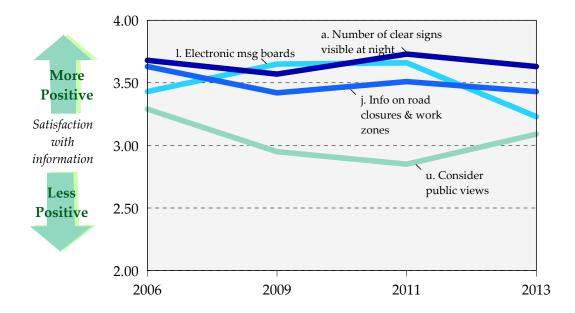






Figure 57. Southwest Residents: Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)



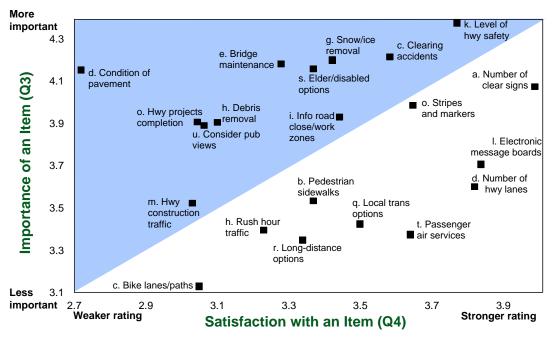




#### 6.6.4 Bay Region

The results for Bay region are also not tremendously different from statewide results. The most significant difference is the lower relative satisfaction for the availability and clarity of information provided to the public on road closures and work zones and the clarity and maintenance of stripes and markers to denote the center and edges of highways. What stands out the most for the Bay region is the fact that the entire satisfaction scale is much higher than it is for the state, with the lower end of the scale starting at 2.7 instead 2.5 and the top end of the scale going over 4.0, instead of 3.7 (**Figure 58**). Thus overall, Bay is clearly more satisfied.

Figure 58. Bay: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)



The confidence interval of mean satisfaction on the various priorities for the Bay region ranges from +/-0.15 to +/-0.21, so as we look at the four overtime graphs (**Figures 59-62**), we can only say the following about the Bay region with sufficient statistical certainty:

- Satisfaction with the condition of the pavement has dropped somewhat since 2011, although not as by as much as in other regions.
- Satisfaction with the availability with the availability of alternatives to driving for long distance trips is up strongly since 2011.





Figure 59. Bay Residents: Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

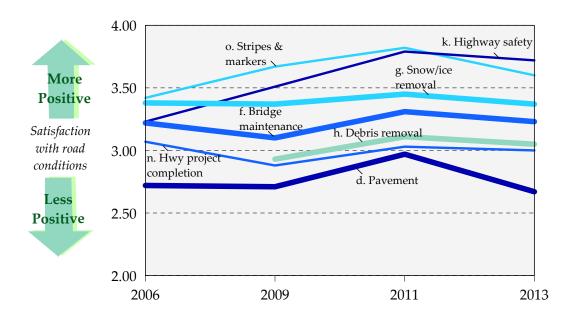


Figure 60. Bay Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

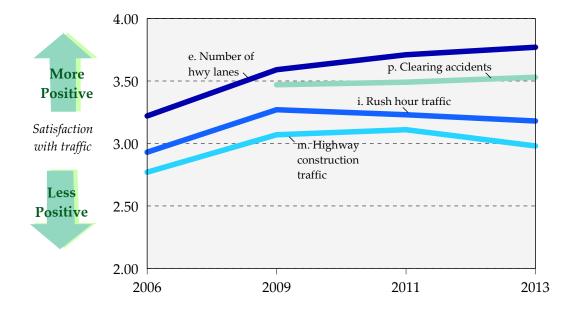






Figure 61. Bay Residents: Mean Satisfaction Score for Alternative Modes of Transportation Priorities over Time (Question 4)

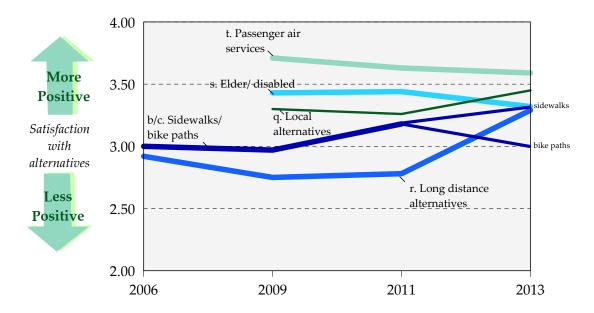
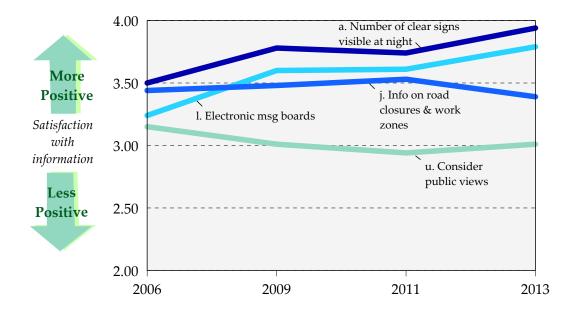


Figure 62. Bay Residents: Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)



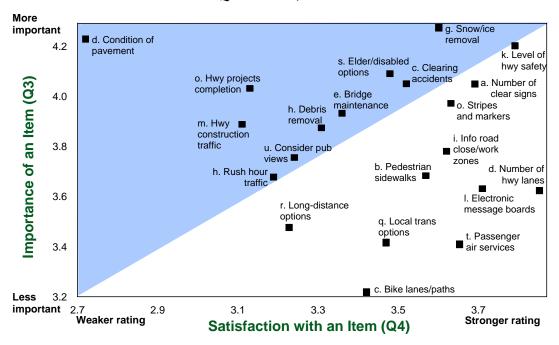




#### 6.6.5 Grand Region

The satisfaction scale in the scatterplot for Grand is higher (+0.2 on both ends), but the difference in the relative positioning of the items is not very large. Perhaps most interesting is that bridge maintenance is not among the top four most important priorities (**Figure 63**).

Figure 63. Grand: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)



The confidence interval of mean satisfaction on the various priorities for Grand region ranges from +/-0.15 to +/-0.20, so as we look at the four overtime graphs (**Figures 64-67**), we can only say the following about the Grand region with sufficient statistical certainty:

- Satisfaction with the condition of the pavement has dropped since 2011.
- Satisfaction with the availability of alternatives to driving for local trips and to driving for long distance trips is up somewhat since 2011.





Figure 64. Grand Residents: Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

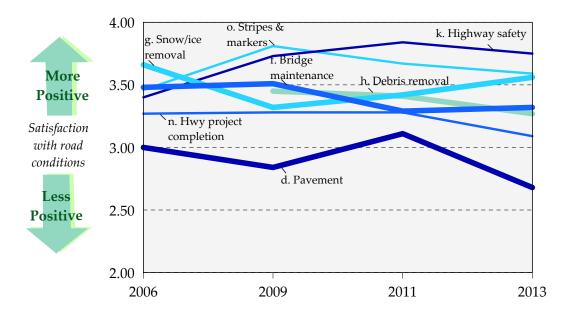


Figure 65. Grand Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

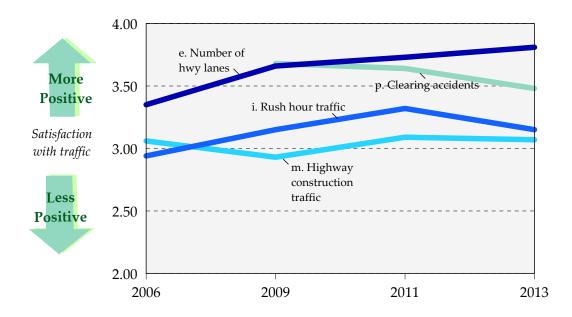






Figure 66. Grand Residents: Mean Satisfaction Score for Alternative Modes of Transportation Priorities over Time (Question 4)

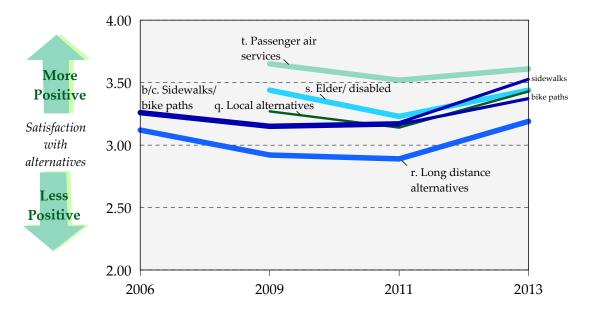
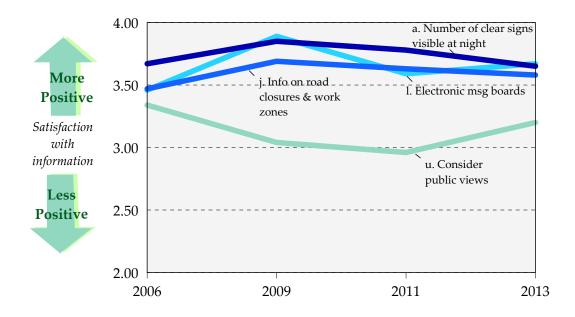


Figure 67. Grand Residents: Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)



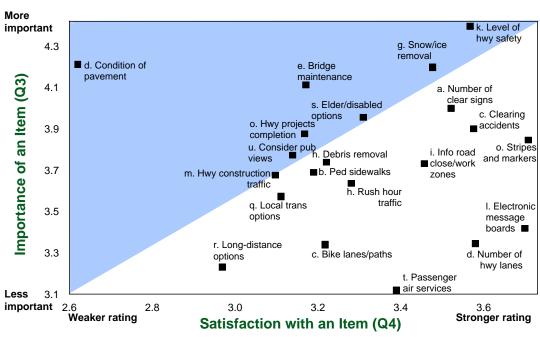




#### 6.6.6 North Region

The scale for North is only a tiny bit higher than it was for the entire state (+0.1 at both ends), but the importance scale is considerably wider because the topmost important priority (the level of safety on Michigan's highways) is that much more important and the least important priority (overall availability of passenger air services) is that much less important (Figure 68). Of course, it could also be that with the North region we are dealing with only 100 interviews and thus will get a wide variance, although we are not getting a wider variance when it comes to satisfaction. Indeed, the relative positioning of items is remarkably similar to what it is statewide, especially once you control for the fact that two items are pushing the importance scale higher and lower.

Figure 68. North: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)



With only 100 interviews, the confidence interval of mean satisfaction on the various priorities for North region ranges from +/-0.18 to +/-0.26, so as we look at the four overtime graphs (**Figures 69-72**), we can say the following about the North region with sufficient statistical certainty:

- Satisfaction with the condition of the pavement has dropped since 2011.
- Satisfaction with the level of highway safety has dropped since 2011.
- Satisfaction with the degree to which the public's needs and views are taken into consideration is up since 2009, returning to close to 2006 levels.
- There is a slight drop in the satisfaction with the number of clear roadside signs visible during the night.





Figure 69. North Residents: Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

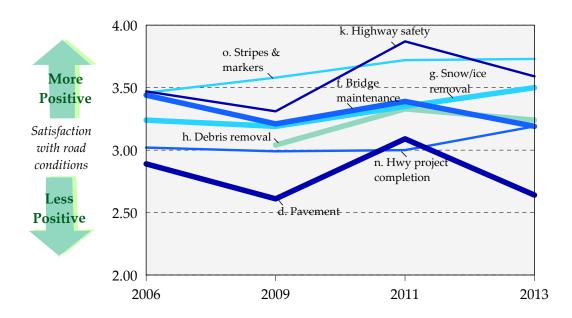


Figure 70. North Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

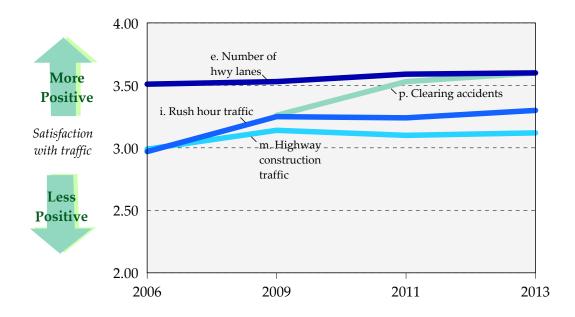






Figure 71. North Residents: Mean Satisfaction Score for Alternative Modes of Transportation Priorities over Time (Question 4)

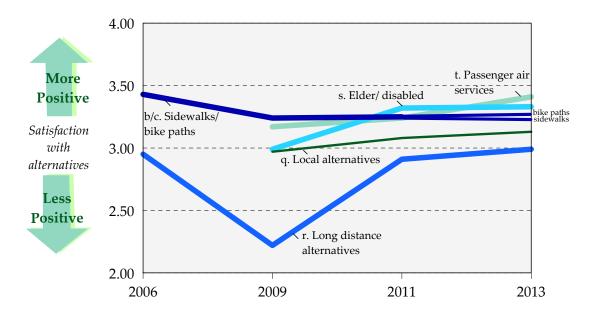
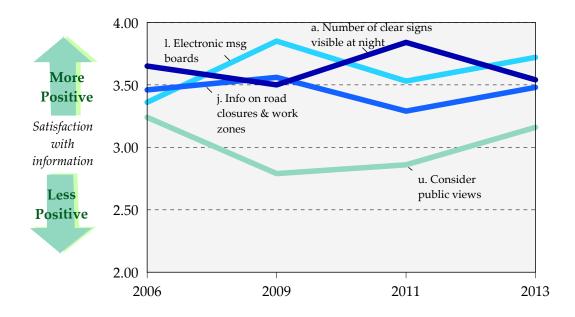


Figure 72. North Residents: Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)







#### 6.6.7 Superior Region

Finally, we have the same issue with Superior region—another region where we have just 100 interviews—where the importance scale is both higher and lower, but the satisfaction is only a little larger (**Figure 73**). However, unlike the North region, we do see significant differences between Superior's scatterplot and the statewide scatterplot. Satisfaction is considerably lower for five priorities. Three of them are perceived as being relatively less important:

- The electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays
- Overall availability of passenger air services
- The number of state highways to meet traffic demands

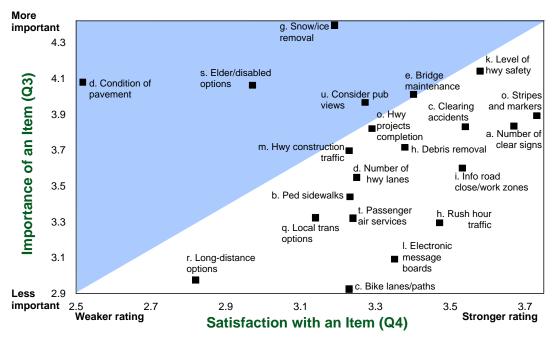
And two are considered relatively more important:

- The speed and amount of snow and ice removal
- Availability of public transportation services for the elderly and persons with disabilities

Finally, there is one priority where satisfaction is relatively higher

• The flow of traffic during rush hour

Figure 73. Superior: The Importance of Transportation Items as a Future Priority by the Level of Satisfaction with the Items (Questions 3, 4)







Again, with only 100 interviews, the confidence interval of mean satisfaction on the various priorities for Superior region ranges from +/-0.20 to +/-0.26, so as we look at the four overtime graphs (**Figures 74-77**), we can say the following about the Superior region with sufficient statistical certainty:

- Satisfaction with the condition of the pavement has dropped sharply since 2011.
- Satisfaction with the level highway safety has dropped some since 2011.
- Satisfaction with the availability with the availability of alternatives to driving for long distance trips is up since 2009, returning to closer to 2006 levels.
- Since 2011, there has been an increase in satisfaction with the degree to which the public's needs and views are taken into consideration.

Figure 74. Superior Residents: Mean Satisfaction Score for Road Condition Priorities over Time (Question 4)

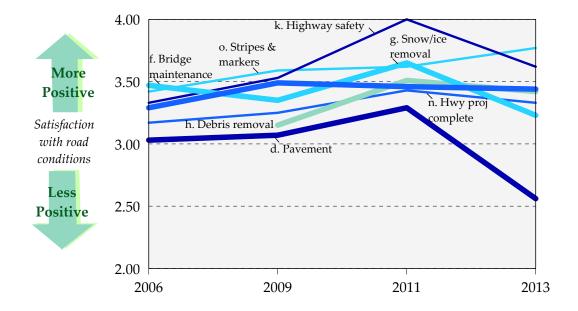






Figure 75. Superior Residents: Mean Satisfaction Score for Traffic Priorities over Time (Question 4)

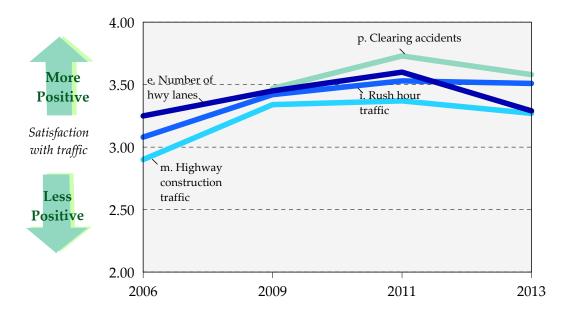


Figure 76. Superior Residents: Mean Satisfaction Score for Alternative Modes of Transportation Priorities over Time (Question 4)

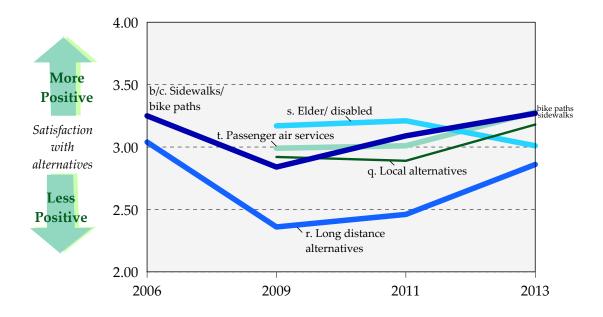
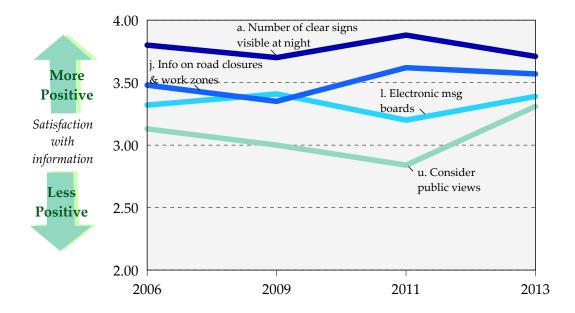






Figure 77. Superior Residents: Mean Satisfaction Score for Information and Communication Priorities over Time (Question 4)







# Appendix A. Survey Marginals





### Marginals\* Michigan Adults Sample Size=1100 August 7-15, 2013

[LANDI	LINE CALL]
I	Hello. My name is and I am calling from Mountain West, a national
public o	pinion firm. We are conducting a brief survey about transportation issues facing people
-	igan. We are not selling anything, and this number was selected at random.
[CELL F	PHONE CALL]
I	Hello. My name is and I am calling from Mountain West, a national
public o	pinion firm. We are not selling anything. We are conducting a brief survey about
issues p	eople are facing in Michigan, and this number was selected at random. Is now a good
time to t	talk and are you in a safe place to continue with this phone call?
1	[RECORD FROM OBSERVATION]  Men48%  Women52%
	Regions:
	Metro [300 interviews]41% University [150 interviews]15%
	Southwest [150 interviews]9%
	Bay [150 interviews]12%
	Grand [150 interviews]13%
	North [100 interviews]6%
S	Superior [100 interviews]3%
Age:	
	18-34 years28%
3	35-49 years24%
5	50-64years29%
[	65+ years





<sup>\*</sup>Percentages may not add to 100% due to rounding. Quotas were set for geographic area. Data are weighted by region and for age, gender, and race within each region to reflect Michigan's true population distribution as found in the 2010 Census and the 2012 Census population estimations. One hundred and eighty (180) of the 1100 interviews were conducted by cell phone. Data was also weighted by cell phone usage to match CDC estimations for Michigan.

Q1. First of all, how familiar are you with the Michigan Department of Transportation, or MDOT (pronounced EM-DOT)? Would you say you are <u>very familiar</u>, <u>somewhat familiar</u>, <u>a little familiar</u>, or <u>not at all familiar</u> with MDOT?

Very familiar	17%
Somewhat familiar	37%
A little familiar	
Not at all familiar	22%
[NOT SURE]	1%

Q2. MDOT is the state agency responsible for the routes designated by the letters M, US, and I, the border crossings, buses, freight trains, and airports. Overall how satisfied are you with the job MDOT is doing?—would you say you are <u>very satisfied</u>, <u>somewhat satisfied</u>, <u>somewhat dissatisfied</u>, or <u>very dissatisfied</u> with the job MDOT is doing?

Very satisfied	12%
Somewhat satisfied	51%
Somewhat dissatisfied	15%
Very dissatisfied	7%
[NÓT SURE]	

Q3. Michigan faces a series of transportation priorities with limited resources. I am going to read a list of priorities for Michigan's state transportation on Interstates and State Highways where you live. In thinking about Michigan's priorities for the future, I would like you to tell me how important it is for Michigan to spend more resources to improve that area. Please keep in mind that asking for any increase in resources in one area requires a decrease in resources in another area. To do this, we will use a scale of "1" to "5" where a "5" means it is topmost important for Michigan to spend more resources to improve that area and a "1" means that it is least important for Michigan to spend more resources to improve that area. Of course you may also use any number in between. [RANDOMIZE; DO NOT READ DON'T KNOW] The first/next item is:

	Least important	2	3	4	Topmost important	DK
a. The number of clear roadside signs visible during the night		8%	19%	25%	42%	1%
b. The availability of sidewalks for pedestrians	8%	10%	22%	23%	37%	0%
c. The availability of lanes and pathways for bicycle	s14%	18%	24%	19%	24%	1%
d. The condition of the pavement, such as being smooth and free of potholes	6%	5%	11%	19%	58%	1%
e. The number of available highway lanes	6%	10%	30%	26%	26%	1%
f. The maintenance of bridges	3%	6%	14%	25%	50%	1%
g. The speed and amount of snow and ice removal	3%	4%	14%	23%	55%	1%
h. The removal of debris from highways, such as animals, glass, torn tires, and trash	5%	8%	23%	25%	38%	0%





	Least important	2	3	4	Topmost important	DK
i. The flow of traffic during rush hour	8%	9%	26%	23%	34%	1%
j. The availability and clarity of information provided to the public on road closures and work zones		8%	24%	26%	38%	1%
k. The level of safety on Michigan's highways	4%	3%	13%	24%	54%	1%
l. The electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays		13%	24%	25%	28%	1%
m. The flow of traffic during highway construction	5%	7%	24%	26%	37%	1%
n. The speed and efficiency with which state highway projects are completed	4%	6%	22%	28%	39%	1%
o. The clarity and maintenance of stripes and markers to denote the center and edges of highways	5%	9%	22%	25%	39%	0%
p. The help in removing congestion-causing incidents on interstates in urban areas by clearing accidents and providing motorist assistance to disabled vehicles		5%	19%	30%	42%	1%
q. The availability of alternatives to driving for local trips such as local bus or "Dial-A-Ride" public transportation services.	11%	13%	24%	24%	26%	3%
r. The availability of alternatives to driving for long distance trips such as intercity passenger rail, intercity bus services	12%	12%	25%	21%	28%	3%
s. Availability of public transportation services for the elderly and persons with disabilities	5%	7%	17%	23%	47%	1%
t. Overall availability of passenger air services	10%	13%	29%	23%	19%	5%
u. The degree to which the public's needs and views are taken into consideration	4%	8%	23%	22%	41%	2%





Q4. Now we will go through the same attributes to find out how satisfied you are with MDOT's efforts to provide the following services on Interstates and State Highways where you live. Again we will use a 1 to 5 scale – this time a 5 means you are most satisfied with that service and a "1" means that you are the not at all satisfied with that service. And again you may also use any number in between. Please do <u>not</u> consider city and county streets in your responses. [RANDOMIZE; DO NOT READ DON'T KNOW] The first/ next service is:

	Not satisfied	2	3	5	Most Satisfied	DK
a. The number of clear roadside signs visible during the night	4%	10%	26%	37%	23%	1%
b. The availability of sidewalks for pedestrians	9%	13%	32%	26%	17%	2%
c. The availability of lanes and pathways for bicycles	11%	19%	34%	20%	13%	3%
d. The condition of the pavement, such as being smooth and free of potholes	24%	30%	22%	15%	9%	0%
e. The number of available highway lanes	5%	6%	30%	37%	22%	0%
f. The maintenance of bridges	10%	15%	35%	24%	14%	2%
g. The speed and amount of snow and ice removal	8%	12%	32%	31%	16%	1%
h. The removal of debris from highways, such as animals, glass, torn tires, and trash	10%	19%	32%	27%	12%	0%
i. The flow of traffic during rush hour	9%	19%	40%	21%	11%	1%
j. The availability and clarity of information provided to the public on road closures and work zones		10%	34%	33%	17%	1%
k. The level of safety on Michigan's highways	4%	8%	33%	38%	16%	1%
l. The electronic message boards that warn drivers of potential traffic delays and offer them ways to avoid delays		9%	27%	33%	24%	1%
m. The flow of traffic during highway construction		23%	33%	23%	9%	0%
n. The speed and efficiency with which state highway projects are completed		22%	33%	20%	13%	1%
o. The clarity and maintenance of stripes and markers to denote the center and edges of highways	5%	9%	27%	35%	23%	1%
p. The help in removing congestion-causing incidents on interstates in urban areas by clearing accidents and providing motorist assistance to disabled vehicles		10%	33%	33%	16%	2%
q. The availability of alternatives to driving for local trips such as local bus or "Dial-A-Ride" public transportation services.	11%	17%	32%	21%	14%	5%
r. The availability of alternatives to driving for long distance trips such as intercity passenger rail or intercity bus services	15%	19%	30%	17%	13%	6%





	Not				Most	
	satisfied	2	3	5	Satisfied	DK
s. Availability of public transportation services for the elderly and persons with disabilities	9%	17%	31%	21%	15%	6%
t. Overall availability of passenger air services	5%	11%	32%	25%	18%	8%
u. The degree to which the public's needs and views are taken into consideration		20%	36%	22%	10%	2%

Q5. In considering the range of projects that MDOT has completed – from highway and bridge repairs and expansions, to safety programs, public transportation, and providing public information and roadside assistance – how many of these projects do you believe were the right solutions to the transportation problems facing Michigan? Would you say that <u>all</u>, <u>most</u>, <u>some</u>, <u>few</u>, or <u>none</u> of these projects were the right solutions to the transportation problems facing Michigan?

All	10%
Most	31%
Some	46%
Few	6%
None	4%
[NOT SURE/DON'T KNOW]	

Q6. Is the quality of transportation in Michigan <u>better</u>, <u>the same</u>, or <u>worse</u> than it was five years ago?

Better	30%
The same	40%
Worse	24%
[NOT SURE/DON'T KNOW]	5%

Q7. Now I am going to read you a series of short statements about MDOT. For each statement, please tell me whether you <u>agree strongly</u>, <u>agree somewhat</u>, <u>neither agree nor disagree</u>, <u>disagree somewhat</u>, or <u>disagree strongly</u>. [RANDOMIZE[ [DO NOT READ 'DON'T KNOW'].The first/next is:

	Strongly agree	Smwht agree	Neutral	Smwht S disagree		DK
a. I trust MDOT officials to make good decisions about the State's future transportation system	J	40%	20%	13%	11%	2%
b. I think MDOT is moving in the right direction	19%	41%	21%	9%	8%	2%
c. I have more confidence in MDOT today than I did three years ago	15%	29%	25%	16%	13%	3%
d. MDOT does a good job prioritizing highway improvements in Michigan	16%	42%	17%	16%	7%	3%
e. I think MDOT adequately supports local transportation projects for the city and county governments	14%	40%	22%	13%	7%	3%
f. I think MDOT is responsive to the concerns of loca communities		41%	18%	11%	12%	3%





My last questions are so that we can group your answers with those in similar groups.

#### [IF REACHED VIA LANDLINE]

D2. Do you have a working cell phone? [IF NO/DK] Does anyone in your household have a working cell phone?

Yes, working cell phone	[SKIP TO D4]
No personal phone, but yes someone in house	[SKIP TO D4]
No, no cell phone in house	[SKIP TO D5]
[NOT SURE]	[SKIP TO D5]

#### [IF REACHED VIA CELL PHONE]

D3. Is there at least one telephone INSIDE your home that is currently working and is **not** a cell phone?

Yes, working landline phone in house	
No, no landline 85%	[SKIP TO D5]
[NOT SURE]	

D4. Now thinking about all the people in your household, including yourself, of all the telephone calls that your household receives, are all or almost all calls received on cell phones, some received on cell phones and some on regular home phones, or very few or none on cell phones

All/almost all cell phones	29%
Some cell phone	42%
Few cell phone	
[DON'T KNOW/REFUSED]	

D5. Do you have a paid job where you work outside the home?

Yes56%	[CONTINUE]
No42%	
[REFUSED/NOT SURE]2%	

D6. Are you a licensed commercial driver?

Yes	4%
No	93%
[NOT SURE]	3%

D7. Which of the following best describes how you get to work now? [READ EACH ITEM]

Walk	2%
Bicycle	2%
Drive to work by yourself	47%
Use a car pool	
Ride a bus or other public transport	2%
[DOES NOT COMMUTE TO WORK]	
[REFUSED/NOT SURE]	3%





D8. About how long does it take to commute to and from work every day? [RESPONSES ARE ONLY THOSE WHO COMMUTE

Does not commute	1%
15 minutes or less	.33%
16 – 30 minutes	.34%
31 – 45 minutes	.11%
46 minutes to 1 hour	.10%
Over 1 hour	8%
[REFUSED/NOT SURE]	3%

D9. Have you or a member of your household used the following means of transportation in the past year to get from place to place? [READ EACH ITEM. ACCEPT MULTIPLE RESPONSES]

	All mentions
Walk	62%
Bicycle	39%
Car	87%
Ride a bus or other public transport	28%
Drive to work by yourself	
Ride Sharing	
Air	
[REFUSED/NOT SURE]	4%

D10. Do you consider yourself Hispanic, Latino; or of Caribbean, Mexican, Central or South American origin?

Yes	5%
No	89%
[NOT SURE/REFUSED]	

D11. Could you please tell me your race? [DO NOT READ OPTIONS; ASK REGARDLESS OF RESPONSE ABOVE]

White/Caucasian	74%
Black/African-American	12%
Hispanic/Latino	1%
Asian/Pacific Islander	2%
Native American	1%
Other (SPECIFY)	0%
[DON'T KNOW/REFUSED]	

D12. What is the last year of schooling that you completed? [DO NOT READ]

Less than high school	5%
High school graduate	
Technical/vocational	3%
Some college	25%
4 year college graduate.	23%
Post-graduate work	
[REFUSED/NOT SURE	]6%





D13. If you added together the yearly income of all the people who were living in your household last year, before taxes, would the total be: less than \$30,000; \$30,000 to less than \$40,000; \$40,000 to less than \$50,000; \$50,000 to less than \$60,000; \$60,000 to less than \$75,000, \$75,000 to less than \$100,000,or \$100,000 or greater? **[PROBE]** 

Less than \$30,000	
\$40,000-\$49,999	
\$50,000-\$59,9997%	
\$60,000-\$74,9999%	
\$75,000-\$99,9998%	
\$100,000 or more16%	
[REFUSED/NOT SURE]22%	[PROBE; DO NOT TAKE REFUSALS EASILY]





## Appendix B. Profile of the Sample





## Profile of the Sample

	Count	Percent		
All adults	1100	100%	AGE GROUP	
MDOT REGIONS			Under 45 yrs485	46%
Metro	452	41%	45+ yrs577	54%
University	169	15%	RACE	
Southwest		9%	White789	78%
Bay		12%	Non- White218	22%
Grand		13%		
Superior		3%	RACE Afr-Am/Black133	120/
North	63	6%	Non- Black864	13% 87%
MDOT REGIONS				07 /0
Detroit metro		41%	RACE	<b>5</b> 0/
So. MI (non-Detr)		50%	Hispanic52	5%
North Michigan	100	9%	Non- Hispanic981	95%
MDOT REGIONS			EDUCATION LEVEL	
South Michigan		91%	HS or less329	32%
North Michigan	102	9%	Some college278	27%
GENDER			College grad424	41%
Men	528	48%	AGE BY GENDER	
Women	571	52%	Men <45232	22%
HOUSEHOLD INCOME			Men 45+287	27%
Under \$40,000	356	41%	Women < 45253	24%
\$40,000- \$59,999		17%	Women 45+302	28%
\$60,000- \$99,999	182	21%	AGE BY GENDER	
\$100,000+		20%	Men <65429	40%
HOUSEHOLD INCOME			Women <65460	43%
Under \$50,000	420	50%	Men 65+90	8%
\$50,000- \$99,999		30%	Women 65+96	9%
\$100,000+		20%	SOCIO-ECONOMIC STATUS	
		_0 ,0	Non coll <\$50K320	37%
HOUSEHOLD INCOME	E0.4	E00/	Non coll >\$50K186	22%
Under \$60,000 \$60,000+		59% 41%	Coll <\$100K227	26%
•	337	41 /0	Coll >\$100K128	15%
INCOME BY GENDER			EDUCATION BY GENDER	
Men <\$60K		24%	Not coll grad men265	26%
Men >\$60K		24%	Coll grad men225	22%
Women <\$60K		34%	Not coll grad women343	33%
Women >\$60K	151	18%	Coll grad women200	19%
AGE GROUP			EDUCATION BY AGE AND GENDER	
18-29 years old		21%	Non coll grd men <60195	26%
30-39 years old		15%	Coll grad men <60161	21%
40-49 years old	181	17%	Non coll grd wom <60253	33%
50-64 years old	324	30%	Coll grad wom <60147	19%
65+ years old	190	17%	-	
AGE GROUP		-051		
18-34 years old		28%		
35-49 years old		24%		
50-64 years old		30%		
65+ years old	190	17%		





## Profile of the Sample (continued)

Count	Percent	
D5 PAID JOB OUTSIDE HOME	(4.4	==0/
Work outside home		57%
Not work outside home	. 466	43%
D7 HOW DO YOU GET TO WORK		
Drive to work alone	. 517	49%
Carpool		2%
All other means	. 59	6%
[NOT COMMUTE TO WORK]	. 466	44%
D7 HOW DO YOU GET TO WORK		
Drive /ride car	. 541	51%
Not by car		6%
[NOT COMMUTE TO WORK]	. 466	44%
•	. 100	11/0
D7 HOW DO YOU GET TO WORK		
Mass transit	. 19	2%
Not by mass transit	. 581	55%
[NOT COMMUTE TO WORK]	. 466	44%
D8 TIME TO COMMUTE TO WORK		
Does not commute	. 471	44%
Less than 30 mins		39%
30 to 59 mins		12%
1 hour +		5%
	. 01	0 70
D8 TIME TO COMMUTE TO WORK		
Does not commute		44%
Less than 45 mins		45%
Over 45 mins	113	11%



