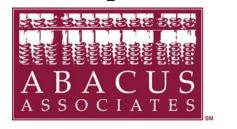


# Attitudes & Perceptions of Transportation in Michigan: A 2014 Survey of Michigan Adults

October 3, 2014

Prepared for The Michigan Department of Transportation



# **Table of Contents**

| Chapter 1. Purpose and Methods                                    | 10 |
|---|----|
| 1.1 Purpose   | 10 |
| 1.2 Interviewing  | 10 |
| 1.3 Quotas, Oversampling, and Weighting                           | 10 |
| 1.4 Margin of Error   | 12 |
| 1.5 Figures and Tables  | 12 |
| Chapter 2. Familiarity with MDOT                                  | 13 |
| 2.1 Familiarity with MDOT   | 13 |
| Chapter 3. Evaluations of MDOT                                    | 16 |
| 3.1 Satisfaction with MDOT  | 16 |
| 3.2 Comparing Levels of Satisfaction with Various MDOT Activities | 24 |
| 3.3 Satisfaction with Air Travel                                  | 33 |
| Chapter 4. Public Assessment Of Driving Behaviors                 | 39 |
| 4.1 Texting While Driving   | 40 |
| 4.2 Drinking and Driving  | 43 |
| 4.3 Talking on a Cell Phone While Driving                         | 45 |
| 4.4 Speeding  | 47 |
| 4.5 Not Wearing a Seat Belt                                       | 49 |
| Chapter 5. Bicycle Riding   | 51 |
| 5.1 Number of Bicycles in Household                               | 51 |
| 5.2 Bike Riding in the Past Year                                  | 53 |
| 5.3 Bike Riding as Recreation or Transportation                   | 56 |
| Chapter 6. Public Transportation                                  | 60 |
| 6.1 Long Distance Transportation                                  | 60 |
| 6.2 Public Transportation   | 62 |
| Chapter 7. MDOT Information and Communication                     | 64 |
| 7.1 MI Drive  | 64 |
| 7.2 MDOT Website  | 66 |
| 7.3 Social Media  | 68 |
| Appendix A. Survey Marginals                                      | 72 |
|   |    |





# **List of Tables**

| Table 1. Sample and Population Breakdown by Region11  |
|---|
| Table 2. Satisfaction Mean Score, Rank, and Category for MDOT & Other Transportation  |
| Activities  |
| Table 3. Satisfaction Mean Scores For MDOT Activities By Michigan Prosperity Region30   |
| Table 4. Satisfaction Rankings For MDOT Activities By Michigan Prosperity Region31  |
| Table 5. Satisfaction Rankings For Aspects of Air Travel By Michigan Prosperity Region 37   |
| List of Figures   |
| Figure 1. Michigan Prosperity Regions   |
| Figure 2. Michigan Residents Are Increasingly Less Familiar with MDOT Since 2011 (Question 1)   |
| Figure 3. Residents in Eastern Side of State Report Less Familiarity with MDOT (Question 1).14  |
| Figure 4. Women, Especially Younger Women, Are the Least Familiar with MDOT (Question 1)  |
| 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)  |
| Figure 7. When "Not Sures" Are Removed, Satisfaction with MDOT Is Remarkably Stable over  |
| the Eight Years (Question 2)  |
| Figure 8. Southwest Residents Are the Least Satisfied with MDOT; Northeast residents are the  |
| Most Satisfied (Question 2)   |
| Figure 9. Women and Residents Who Are Less Familiar with MDOT Are Much Less Willing To State Their Level of Satisfaction (Question 2) |
| Figure 10. Removing "Not Sures": Women and Those Who Are Less Familiar with MDOT Are  |
| More Satisfied with MDOT (Question 2)   |
| Figure 11. Residents Who Are Dissatisfied Most Often Cite the Condition, Repairs, and   |
| Construction on Michigan Roads (Question 2a)  |
| Figure 12. Residents Who Are Dissatisfied Most Often Cite the Condition, Repairs, and   |
| $Construction\ on\ Michigan\ Roads\ or\ the\ Lack\ of\ Public\ Transportation\ (Question\ 2a)23$                                      |
| Figure 13. MDOT Activities That Rank the Highest in Satisfaction Ratings among Michigan   |
| Residents (Question 3 series)   |
| Figure 14. MDOT Activities That Rank in the Middle in Satisfaction Ratings among Michigan   |
| Residents (Question 3 series)   |
| Figure 15. MDOT Activities That Rank the Lowest in Satisfaction Ratings among Michigan  |
| Residents (Question 3 series)   |
| Figure 16. A Little Over One-Third of Michigan Residents Flew in the Past Year (Questions 5   |
| and 6)  |





| Figure 17. Residents in the More Southern Regions Are More Likely To Have Flown in Past       |
|---|
| Year than Residents in the More Northern Regions (Question 5)35                               |
| Figure 18. Satisfaction Measures for Aspects of Air Travel among Michigan Residents Who       |
| Have Flown in Past Year (Question 7 series)   |
| Figure 19. Texting Is the Driving Behavior That Concern Residents the Most; Least Concerned   |
| about Seat Belts and Speeding (Question 4 series)   |
| Figure 20. Cell Phone Users Are Equally Concerned about Texting and Driving, but Much Less    |
| Concerned About Talking & Driving (Questions 4a and 4d)                                       |
| Figure 21. Younger Men Are Slightly Less Likely to Consider Texting and Driving a Serious     |
| Problem, but All Age/Gender Subgroups Consider It Very Serious (Question 4a)41                |
| Figure 22. The Percent Who Find Texting While Driving to Be a Serious Problem Is High         |
| Throughout the State (Question 4a)  |
| Figure 23. Younger Men Are Slightly Less Likely to Consider Drinking & Driving a Very         |
| Serious Problem, but All Age/Gender Groups Believe It Is Serious (Question 4c)43              |
| Figure 24. Perception of Drinking and Driving as a Very Serious Problem Is Lowest in the      |
| Upper Peninsula (Question 4c)   |
| Figure 25. Younger Men Are Much Less Likely and Older Women Are Much More Likely to           |
| Perceive Talking On a Cell Phone as a Very Serious Problem (Question 4d)45                    |
| Figure 26. Perception of Talking On the Cell Phone as a Very Serious Problem Is Highest In    |
| West Michigan; Lowest in East Michigan (Question 4d)  |
| Figure 27. Men, Especially Younger Men, Are Much Less Likely to Believe Speeding Is a         |
| Serious Problem (Question 4e)   |
| Figure 28. Perception of Speeding as a Very Serious Problem Is Highest In Detroit Metro;      |
| Lowest in Southwest Michigan (Question 4e)  |
| Figure 29. Men, Especially Younger Men, Are Less Likely to Believe That Not Wearing a Seat    |
| Belt is a Serious Problem (Questions 4b)  |
| Figure 30. Perception of Not Wearing a Seat Belt as a Very Serious Problem Is Highest In      |
| Detroit Metro; Lowest in Southwest Michigan (Question 4b)                                     |
| Figure 31. Seniors Are Least Likely To Have Any Bikes in the Household; Residents Between     |
| 35-49 Years of Age Most Likely to Have Multiple Bikes (Question 8)51                          |
| Figure 32. Resident in Metro & Northeast Least Likely To Own Bikes; South Central Residents   |
| Most Likely to Own One (Question 8)   |
| Figure 33. Less Than One-Half Of Residents Have Ridden Bike in Past Year; Men & Younger       |
| Residents More Likely to Have Ridden Bike (Question 9)53                                      |
| Figure 34. Residents in Metro & Northeast Least Likely To Ride Bikes; South Central Residents |
| Most Likely to Ride (Question 9)  |
| Figure 35. African-American Residents Much Less Likely To Have Ridden Bike In Past Year       |
| (Question 9)55  |
| Figure 36. Most Bike Riding Is for Recreation Only; Transportation by Bike Is More Common for |
| Younger Men (Question 10)   |
| Figure 37. Biking For Transportation Is Highest In South Central; Lowest In Southeast         |
| (Ouestion 10)   |





| Figure 38. For Those Who Bike, One-Half Do So At Least Once a Week & One-Half Do So Less      |
|---|
| Often Than Once a Week (Question 11)  |
| Figure 39. Few Commute To Work Via Bike; Nearly All Are Under 45 Years of Age and More        |
| Likely to Be Male (Question 12)   |
| Figure 40. One-In-Ten Michigan Residents Have Used Long Distance Transportation in            |
| Michigan (Question 13)60  |
| Figure 41. Usage of Long Distance Transportation Is Greatest in South Central; Least in Upper |
| Peninsula and Northwest (Question 13)61   |
| Figure 42. Two out of Ten Michigan Residents Say They Have Taken Public Transportation in     |
| Michigan (Question 15)  |
| Figure 43. Upper Peninsula Residents Are Far Less Likely to Have Taken Public Transportation  |
| (Question 15)63   |
| Figure 44. Slightly More Than One-In-Ten Michigan Residents Have Visited MI Drive             |
| (Question 17)64   |
| Figure 45. Metro, South Central, and Southwest Residents Most Likely To Have Visited MI       |
| Drive (Question 17)65   |
| Figure 46. One-Quarter of Residents Have Visited MDOT's Website; Residents over Sixty- five   |
| years of Age Are Much Less Likely to Have Visited (Question 19)66                             |
| Figure 47. South Central Residents Are the Most Likely to Have Visited MDOT's Website         |
| (Question 19)   |
| Figure 48. Very Few Residents Have Ever Received Information from MDOT through Social         |
| Media (Question 24)   |
| Figure 49. Residents Are Fairly Divided Over Where They Get Highway Condition                 |
| Information; One-Half Say Television or Radio (Question 22)                                   |
| Figure 50. Older Residents More Likely To Get Info from TV; Mid-Age Groups from Radio; and    |
| Younger Residents from Apps (Question 22)   |
| Figure 51. One-Half of Residents Turn To Television or Radio to Get Transportation            |
| Information (Question 23)   |





## **Executive Summary**

In general, the Michigan public remains fairly satisfied with the Michigan Department of Transportation (MDOT) and that satisfaction continues to be remarkably stable since the first time this question was asked in 2006. Familiarity with MDOT has diminished somewhat since 2011.

As has steadily been the case since 2006, public satisfaction is the lowest regarding maintenance of pavement on state highways and the highest on the safety of state highways. Those few who access MDOT's communications (MI Drive, website, social media) are also highly satisfied with those communications.

When it comes to air travel, satisfaction is highest with the design, maintenance, and service at passenger airports, and it is lowest with the cost of airline tickets and the availability of alternative means—public transportation, taxis, shuttles—to get to the airport. However, only one-third (35%) of Michigan residents flew in the past year.

When it comes to driving behaviors, residents are very concerned about drinking and driving and texting while driving.

Forty-three percent 43% of Michigan residents biked in past year, but only 9% bike for transportation purposes (as opposed to only biking for fun and exercise), and only 25% bike at a frequency of more than once a week (during the biking season).

One-fifth (21%) of Michigan residents have taken public transportation in the past year and 11% have taken long distance transportation (bus or rail). Evaluations of the quality of those means of transport among those who used them are middling—that is in the middle of the range of all satisfaction measures in this survey.

One-quarter (23%) of Michigan residents have visited MDOT's website, while very few use MI Drive (12%), or, especially, receive MDOT's social media (7%), although those who do give these forms of communications very high satisfaction ratings. Residents are quite divided about where they get their information about road conditions—television, radio, smartphone apps, or other on-line means of communications. What seems clear is that smartphone apps will soon become a much larger means of communication as its much younger users age and as these apps increase their penetration with older audiences.





## **Evaluations of MDOT and Michigan Transportation**

Michigan adults are generally satisfied with MDOT.

Satisfaction ratings have been stable overtime.

- Dissatisfaction is at its lowest (25%, versus 26% in 2013; 27% in 2011, 31% in 2009, and 29% in 2006).
- MDOT satisfaction ratings have been fairly stable over time—just a tiny dip in the recession year of 2009.
  - o When "not sures" and other non-responses are excluded, the percent satisfied with MDOT is exactly the same as 2013 (74%) and better than 2011 (73%), 2009 (68%), and 2006 (71%)
  - o The margin of satisfied residents over dissatisfied residents for 2014 is 3.0-to-1, which is better than 2013 (2.8-to-1), 2011 (2.7-to-1) and considerably better than 2009 (2.2-to-1) and 2006 (2.4-to-1).
- Those who are more familiar with MDOT are more positive if "not sures" are included, but when they are excluded, those who are more familiar are less positive.
- Detroit Metro residents had the lowest level of satisfaction toward MDOT in all previous surveys, but the percentage satisfied has continued to increase with every survey. This year Southwest residents have lower levels of satisfaction (67%) than Detroit Metro residents (71%).
- Highest levels of satisfaction can be found in Northeast (85%).

## Satisfaction with MDOT Activities

Respondents were given a list of 19 MDOT activities and asked how satisfied they were with each.

Residents are least satisfied with the condition of pavement in Michigan.

- One activity stands out as having the lowest level of satisfaction:
  - Maintaining the pavement on state highways to keep them smooth & free of potholes
- Other MDOT activities with relatively low levels of satisfaction include:
  - Making certain sufficient alternatives to driving for long distance trips are available, such as intercity passenger rail or intercity bus services
  - Quickly & efficiently completing state highway construction projects





Residents are most satisfied with the level of highway safety.

- MDOT activities with relatively high levels of satisfaction include:
  - Making Michigan state highways & interstates as safe as possible in their design & construction, & with clear markings & signage
  - Building & maintaining a sufficient number of rest areas for state highways & interstates
  - Warning drivers of potential traffic delays & offering ways to avoid delays through electronic signs

# Michigan Prosperity 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.

#### Detroit Metro

People in this region have been the least satisfied with MDOT in previous polls, and for the first time (albeit, with newly defined and a greater number of regions) this is not the region with the lowest satisfaction score. It is the second lowest. However, when the average of all 19 satisfaction mean scores for individual MDOT activities are calculated, Detroit Metro is the lowest in satisfaction, with satisfaction scores that are lower than the statewide measure on every item. However, when it comes to air travel, Detroit Metro residents are the most satisfied, especially with the number of flights and the choice of destinations. Detroit Metro residents are among the most concerned about all of the driving behaviors measured in the survey. They have a lower-than-average level of biking activity, but are more likely to use MDOT's website and MI Drive.

### Southeast Michigan

On the various satisfaction measures, Southeast Michigan did not distinguish itself much. It was among the most satisfied with the number of air flights and destinations at its nearest airport. Residents in this region are among the most concerned with driving while texting or talking on the cell phone. They have the highest use of public transportation, but record a surprisingly low level of bike riding.

#### Southwest

Although the make-up of the region is slightly different, this region has shifted pretty dramatically from being among the most to among the least satisfied—and in this poll it is the least satisfied with MDOT—although its level of satisfaction is considerably higher relative to all other regions when the average of satisfaction measures from all 19 individual MDOT activities is calculated. Among those activities, the region is less satisfied with the building and





maintaining of a sufficient number of rest areas and with the availability of sufficient public transportation services for the elderly and disabled. They are more satisfied with the flow of traffic during rush hour, and are less concerned with cell phone talking and texting while driving or with speeding. They are more likely to report using MI Drive.

#### South Central

This region is most distinguished by its greater usage of bikes, of long-distance bus and rail, and of MI Drive and MDOT's website. Residents here tend to be less satisfied with warnings of potential traffic delays and offering of ways to avoid delays through electronic signs. They are less satisfied with the number of commercial flights and the available destinations at their closest airport. They are more satisfied with removing debris from highways, such as animals, glass, torn tires, and trash. Finally, they are less likely to see texting while driving as a very serious problem.

## East Michigan

These residents are less satisfied with the removal of debris from the high ways and the real time information on the current conditions on state highways and interstates. They are less likely to find talking on the cell phone to be a problem, have a fairly low level of biking, and are the least likely to have visited MI Drive or MDOT's website.

## East Central Michigan

These residents tend to be less satisfied with warnings of potential traffic delays, with the conditions of bridges, and with the removal of debris from the highways, but they are more satisfied with public transportation for the elderly and disabled, with the flow of traffic during construction, and with the available and affordable parking at their nearest airport. Drinking and driving is a greater concern here. There is a surprisingly high level of biking and a low level of public transportation. These residents are also less likely to visit MI Drive or MDOT's website.

## West Michigan

This is a fairly average region in that it does not stand out on many questions. They tend to be more concerned about texting or talking on the phone while driving. They are more satisfied with the available and affordable parking at their nearest airport. They also report a high level of biking.

#### Northeast

This region has the highest satisfaction score. They are more satisfied with the availability of public transportation for the elderly and disabled. They are less satisfied with the availability of taxis or other for hire services. They are also less satisfied with how long it takes them to drive to their nearest airport. This region also reports the fewest number of bikes in the household.

#### Northwest

When the average satisfaction scores for all 19 MDOT activities is calculated, this region ranks among the most satisfied. They are more satisfied with traffic flow after accidents or during





construction and with the number of bike lanes, but less satisfied with the removal of debris from the highway. They are the least concerned about texting and driving, have one of the lowest levels of biking and of long distance transportation usage, and among the lowest in MI Drive visits.

## Upper Peninsula

When the average of satisfaction scores for all 19 MDOT activities is calculated, this region is the most satisfied. They are especially more satisfied with the flow of traffic during rush hour, and less satisfied with the number of rest areas on highways, with ice removal, and with public transportation for the elderly and disabled. Many of the driving behaviors, such as texting or drinking while driving, or not wearing a seat belt are all of much less concern in this region. Residents here report the lowest level of public transportation and long-distance transportation e.g., bus or rail) usage. They are also the least likely to use MI Drive.





# **Chapter 1. Purpose and Methods**

## 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 fifth 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.

## 1.2 Interviewing

Professional interviewers, working from a central, monitored location, between August 4 and August 21, 2014, interviewed a random sample of 1400 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. Two hundred and thirty completes (230) came from a cell phone sample and the remainder came from a landline sample.

# 1.3 Quotas, Oversampling, and Weighting

The state is divided into the ten Michigan Prosperity Region regions. Since these regions are new, this is the first time the Attitudes and Perception survey has used them (see **Figure 1** below). In order to get enough interviews in each of these regions, a quota is set and the less populated regions are oversampled. 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 2013 Census estimates (see **Table 1** for actual and weighted sample size).





Figure 1. Michigan Prosperity Regions



Table 1. Sample and Population Breakdown by Region

| Regions               | Adult Population | Actual<br>Sample Size | Weighted<br>Sample Size |  |
|-----------------------|------------------|-----------------------|-------------------------|--|
| Upper Peninsula       | 4%               | 100                   | 54                      |  |
| Northwest             | 3%               | 100                   | 45                      |  |
| Northeast             | 2%               | 100                   | 31                      |  |
| West Michigan         | 15%              | 175                   | 216                     |  |
| East Central Michigan | 6%               | 100                   | 84                      |  |
| East Michigan         | 8%               | 150                   | 113                     |  |
| South Central         | 5%               | 100                   | 69                      |  |
| Southwest             | 8%               | 125                   | 114                     |  |
| Southeast Michigan    | 10%              | 150                   | 143                     |  |
| Detroit Metro         | 38%              | 300                   | 533                     |  |
| TOTAL                 | 100%             | 1400                  | 1400                    |  |

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, the data





was also weighted by gender, age, and race to match the known proportion within each region's adult population.

Finally, as noted earlier, this survey included both a cell phone and a landline sample. When calling both samples, measured cell phone usage was measured and the data weighted to approximate the current 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>

## 1.4 Margin of Error

The margin of error at the 95% confidence level is about +/-2.6% for a sample of 1400. However, due to the geographic oversampling, the true margin of random error for the entire sample is closer to +/-4.2%. The margin of error is larger for subgroups, depending on subgroup size. (See Volume Two for a more detailed explanation of sampling and the margin of error.)

# 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.

<sup>&</sup>lt;sup>1</sup>Blumberg SJ, Ganesh N, Luke JV, et al. *Wireless substitution: State-level estimates from the National Health Interview Survey*, 2012. National health statistics reports; no 61. Hyattsville, MD: National Center for Health Statistics. December, 2013.





# **Chapter 2. Familiarity with MDOT**

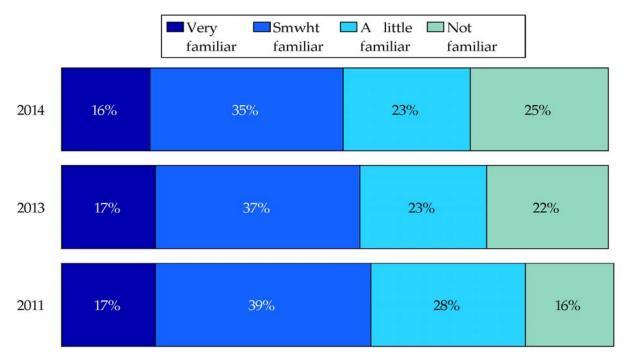
Since 2011, the MDOT Attitude and Perceptions Survey has started with a question of familiarity with MDOT.

## 2.1 Familiarity with MDOT

Since 2011, there has been a slow but steady increase in the percentage who say they are not familiar with MDOT, from 16% to 25%. (**Figure 2**). The percentage of Michigan residents who are very familiar is mostly unchanged, but the percentage who are *at least* somewhat familiar is down from 56% in 2011 to 51% today.

Figure 2. Michigan Residents Are Increasingly Less Familiar with MDOT Since 2011 (Question 1)





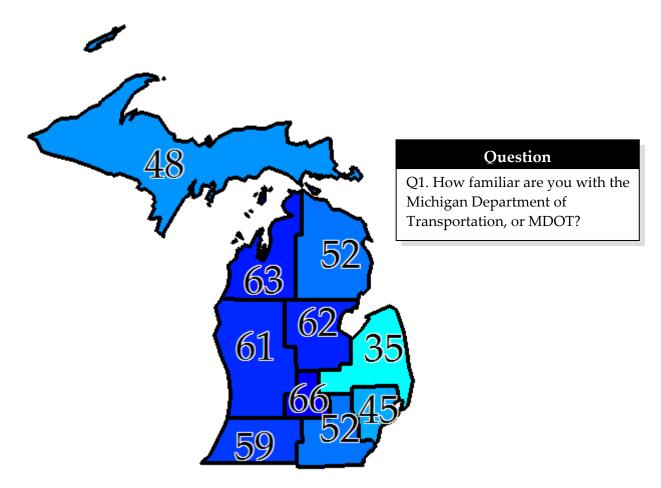
The remainder, not shown in figure but part of the overall 100%, is made up of respondents saying "not sure" or some similar type of non-response.





Regionally, there is very surprisingly large variation in the percentage of residents who are very or somewhat familiar with MDOT, with familiarity considerably lower in the east, including Detroit Metro, and considerably higher in the western half of the state. (**Figure 3**).

Figure 3. Residents in Eastern Side of State Report Less Familiarity with MDOT (Question 1)



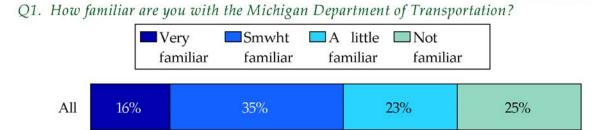
Numbers are percent who are "very familiar" or "somewhat familiar." "Not sure" and similar non-responses are excluded from this analysis and are not part of the overall 100% total.

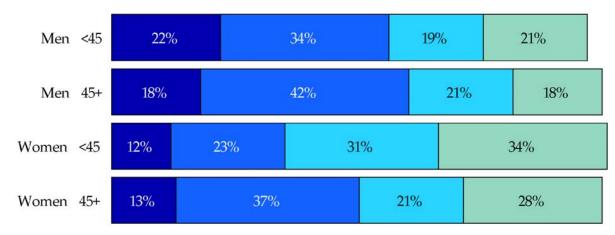




There is a strong relationship between familiarity with MDOT and gender and age, with women, especially women under 45 years of age, being much less familiar with MDOT, while men—especially older men—are much more familiar (**Figure 4**).

Figure 4. Women, Especially Younger Women, Are the Least Familiar with MDOT (Question 1)





The remainder, not shown in figure but part of the overall 100%, is made up of respondents saying "not sure" or some similar type of non-response.





# **Chapter 3. Evaluations of MDOT**

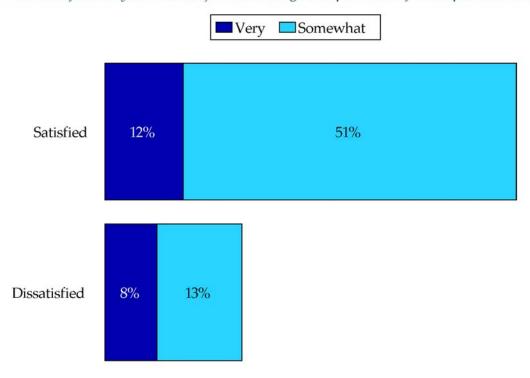
Twenty questions in this survey were asked that specifically evaluate MDOT. These measures are tools to assess how well MDOT delivers services and products to its customers. The key measure is satisfaction with MDOT. This question has been asked since 2006. In addition to that satisfaction was measured for 19 different MDOT activities.

## 3.1 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 21% is dissatisfied (**Figure 5**). Overall, feelings in a positive or negative direction are not strong, with only 12% very satisfied and 8% very dissatisfied.

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





The remainder, not shown in figure but part of the overall 100%, is made up of respondents saying "not sure" or some similar type of non-response.

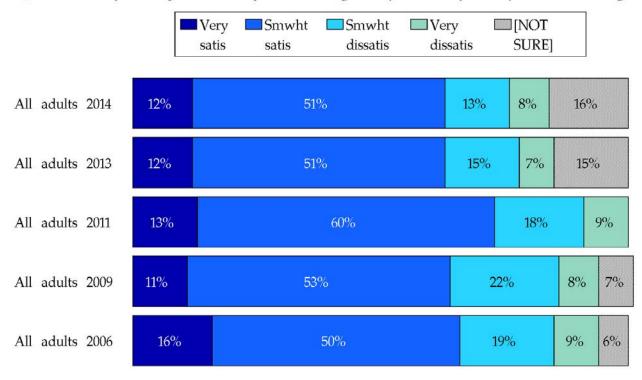




There is a confounding result when reviewing these numbers over the course of the five surveys. In the 2011 survey, the satisfaction question excluded "not sure" and any other non-response options. However, "not sure" or some sort of non-response was recorded in every other year (**Figure 6**). Indeed, in 2012 and 2013, the proportion of "not sures" was more than double the percentages measured in the first two surveys. Thus, the result go 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)





Another way to think of this is to consider the ratio of the proportion of Michigan residents satisfied with MDOT to the proportion of dissatisfied Michigan residents. This year that ratio is 3.0 satisfied residents for every one dissatisfied resident, which is just a bit higher than the ratio in 2011 (2.7-to-1). The ratio was much lower in 2009 (2.1-to-1), when the level of satisfaction was at its nadir, and was 2.4-to-1 in 2006. The previous high had been in 2013, when it was 2.9-to-1. Thus the ratio today is at its highest point, though not significantly higher than it was in 2011.

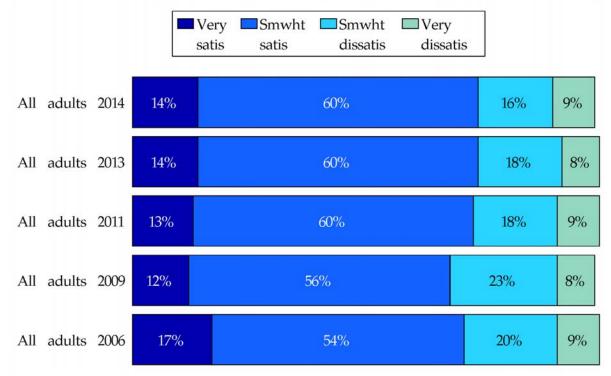




The unfortunate exclusion of "not sures" in 2011 can leave us with the impression that there was a spike in satisfaction that year, which subsided in 2013. However, in reality, all of the variation comes from the disappearance of non-response in 2011 and the larger resurgence of "not sures" in 2013. Indeed, if "not sures" are treated as missing data and exclude 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 "Not Sures" Are Removed, Satisfaction with MDOT Is Remarkably Stable over the Eight Years (Question 2)





"Not sure" and similar non-responses are excluded from this analysis and are not part of the overall 100% total.

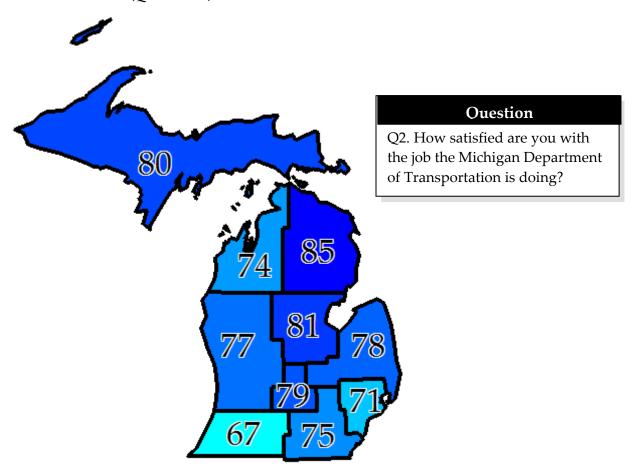
Given the potential variation of "not sures" along with their exclusion in 2011, the appropriate way to compare MDOT's satisfaction measure over time is to either 1) exclude "not sures" from the analysis; or 2) compare the ratio of those who are satisfied with MDOT to those who are not. By either of 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 the Northeast and lowest in the Southeast (**Figure 8**). The least satisfied region, in all of our previous surveys, has been Detroit Metro.. This is the first survey—with the regional definitions changing somewhat—in which the Metro region is not the least satisfied. Indeed, satisfaction has been slowly and surely increasing in the Metro regions ever since the first survey. Satisfaction in the Southwest, on the other hand, has fluctuated between extreme high and lows over the years. While again, this analysis is not using the exact same set of regions this year, the previous version of Southwest was the most satisfied in the 2013 survey, and this year it's the least.

Figure 8. Southwest Residents Are the Least Satisfied with MDOT; Northeast residents are the Most Satisfied (Question 2)



"Not sure" and similar non-responses are excluded from this analysis and are not part of the overall 100% total.

(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 map presentation of data work, respondents who say they are "not sure" are excluded. Thus, when the map shows 85% satisfied in the Northeast, that means 85% *of those who had an opinion* are



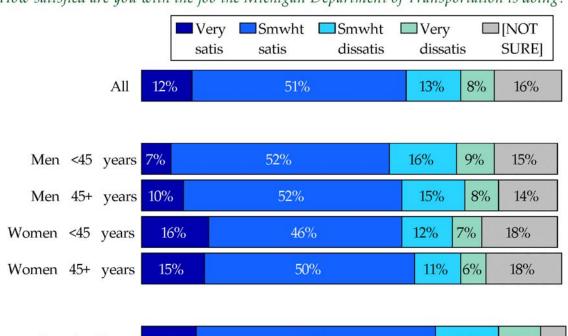


satisfied, and 15% of those who had an opinion are dissatisfied. Because those who are "not sure" are excluded in the maps (not just for this satisfaction measure, but for all measures in this report), these numbers will be higher on average than those reported in the bar graphs.)

Because there was an age and gender gap in familiarity, something similar can be found in satisfaction with MDOT. When "not sures" are included, women, who were much less familiar with MDOT, are more likely to not be able to respond to the satisfaction question (**Figure 9**). This pattern can also be seen when levels of satisfaction is compared 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. Women and Residents Who Are Less Familiar with MDOT Are Much Less Willing To State Their Level of Satisfaction (Question 2)

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



 Very/somewhat familiar
 13%
 57%
 15%
 10%
 6%

 Not/a little familiar
 11%
 45%
 12%
 5%
 26%

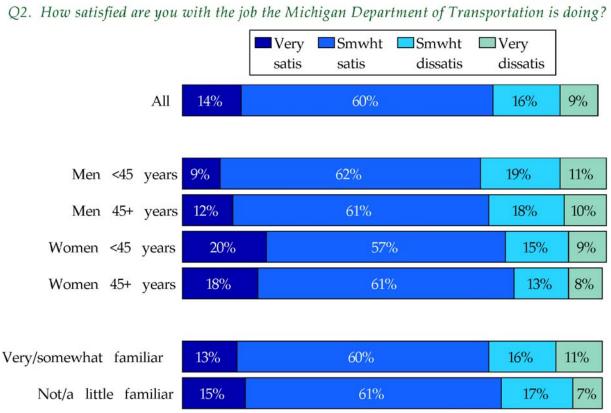
Numbers in any one bar may not add up to 100% because of rounding.





If those who are not sure about their satisfaction with MDOT are removed from the analysis, women are more likely to be satisfied, and especially more likely to be *very* satisfied with MDOT (**Figure 10**). In general it is true that those who are less familiar are more satisfied with MDOT.

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



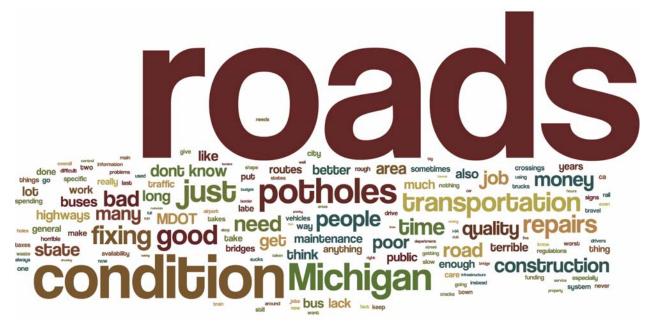
"Not sure" and similar non-responses are excluded from this analysis and are not part of the overall 100% total.

For those who said they were dissatisfied, the satisfaction question was followed up by asking "is there anything specific about MDOT or the job that it is doing that leads you to be dissatisfied?" Figure 11 represents a word cloud of the words used to answer that question. The larger the size of the font, the more frequently the word was used.





Figure 11. Residents Who Are Dissatisfied Most Often Cite the Condition, Repairs, and Construction on Michigan Roads (Question 2a)



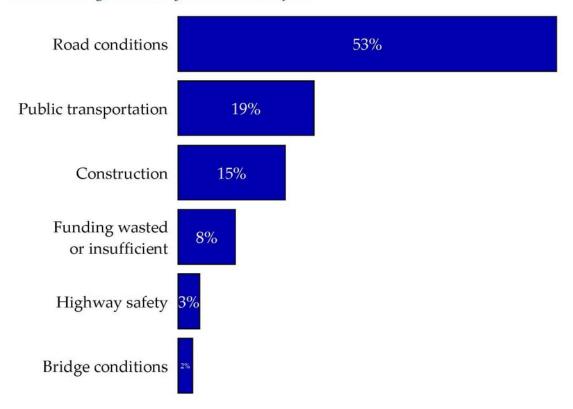




While Figure 11 is good at showing the qualitative results of the open-ended response, **Figure 12** confirms what the word cloud suggests—that, overwhelmingly, those who are dissatisfied with MDOT cite road and pavement conditions as the source of their dissatisfaction. Other frequently cited reasons for dissatisfaction include the lack of public or long-distance transportation and the number or the speed of completion for construction projects. There were also mentions of inefficient or insufficient use of funding.

Figure 12. Residents Who Are Dissatisfied Most Often Cite the Condition, Repairs, and Construction on Michigan Roads or the Lack of Public Transportation (Question 2a)

Q2a. [If "very or somewhat dissatisfied"] Is there anything specific about MDOT or the job that it is doing that leads you to be dissatisfied?



Although most people gave one response, Figure 12 allows for multiple responses. Other responses, not included in this figure, were not voiced by at least 2% of those who were dissatisfied.





21%

9%

## 3.2 Comparing Levels of Satisfaction with Various MDOT Activities

In addition to the overall level of satisfaction, Michigan residents were asked to rate their level of satisfaction with 19 MDOT activities. Respondents were given the following instructions for rating this series of activities:

I am going to read you a list of activities the Michigan Department of Transportation undertakes to improve transportation in the state. After each, please tell me how satisfied you are with that particular MDOT activity. We will use a 1 to 5 scale — with a 5 meaning you are most satisfied with that service and a "1" means that you are not at all satisfied with that service. You may also use any number in between. If the item pertains to highways, please only consider the highway system MDOT is responsible for, which are interstates, U.S. Routes and routes that start with an "M"—and not city and county roads.

In **Figures 13, 14, and 15**, the results are presented as the average (mean) score of all responses for each activity, followed by average scores for each region. The results are presented across all three figures, from the most satisfying activity at the top of Figure 12 to the least satisfying activity at the bottom of Figure 14.

Figure 13. MDOT Activities That Rank the Highest in Satisfaction Ratings among Michigan Residents (Question 3 series)

Q3. How satisfied are you with each of these priorities? (Activities with highest scores)



k. Providing clear information to the public on road closures and work zones

27%

| 21%          | 6                  | 35%                        | 12%                        | 4%          |    |
|--------------|--------------------|----------------------------|----------------------------|-------------|----|
| Building and | maintaining a sufj | ficient number of rest are | eas for state highways and | interstates |    |
| 20%          |                    | 34%                        | 26%                        | 11%         | 7% |

38%

d. Quickly and efficiently removing snow and ice from state highways and interstates

| 10 % 25 % 15 % 7 % | 18% | 36% | 25% | 13% | 7% |
|--------------------|-----|-----|-----|-----|----|
|--------------------|-----|-----|-----|-----|----|

h. Quickly and efficiently restoring normal traffic flow after traffic accidents and incidents

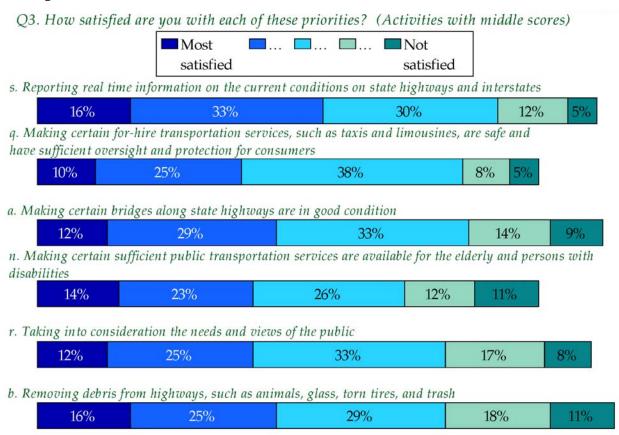


The remainder, not shown in figure but part of the overall 100%, is made up of respondents saying "not sure" or some similar type of non-response.





Figure 14. MDOT Activities That Rank in the Middle in Satisfaction Ratings among Michigan Residents (Question 3 series)

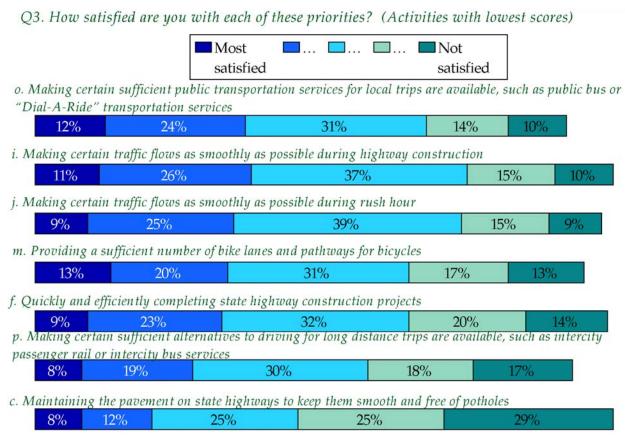


The remainder, not shown in figure but part of the overall 100%, is made up of respondents saying "not sure" or some similar type of non-response.





Figure 15. MDOT Activities That Rank the Lowest in Satisfaction Ratings among Michigan Residents (Question 3 series)



The remainder, not shown in figure but part of the overall 100%, is made up of respondents saying "not sure" or some similar type of non-response.

MDOT has at least some role in five other activities or transportation services that respondents evaluate later in the survey. These include the quality of public transportation and various forms of MDOT communication. Many of these can only be evaluated if they have been used or experienced, so only residents who say they have personal experience were asked to evaluate each specific activity or service. While the five evaluation measures will be discussed later in the report, **Table 2** reports the mean scores for all 24 measures—the nineteen MDOT activities and the five more experiential-based evaluations—all in rank order. In Table 14, each of the items is also assigned to a category. *Communication* items tend to rank higher in satisfaction. Items related to *alternatives to privately owned cars* and maintenance tend to rank lower. Other categories, like traffic flow, and design and build, tend to be more spread out over the range of satisfaction levels.





Table 2. Satisfaction Mean Score, Rank, and Category for MDOT & Other Transportation Activities

| Activities  |      | 3.6        |                              |
|---|------|------------|------------------------------|
| Activity  | Rank | Mean score | Category                     |
| The quality of information that you received from MDOT through social media * (Q25)   | 1    | 3.9        | Communication                |
| MDOT's MI Drive website * (Q18)   | 2    | 3.89       | Communication                |
| Making Michigan state highways & interstates as safe as possible in their design & construction, & with clear markings & signage (Q3e)                    | 3    | 3.76       | Maintenance                  |
| MDOT's website * (Q20)  | 3    | 3.76       | Communication                |
| Providing clear information to the public on road closures & work zones (Q3k)   | 5    | 3.57       | Traffic flow                 |
| The quality of the public transportation * (Q16)  | 6    | 3.56       | Alt. to privately owned cars |
| Building & maintaining a sufficient number of rest areas for state highways & interstates (Q3g)   | 7    | 3.51       | Design & Build               |
| Warning drivers of potential traffic delays & offering ways to avoid delays through electronic signs (Q31)  | 8    | 3.48       | Traffic flow                 |
| Quickly & efficiently removing snow & ice from state highways & interstates (Q3d)   | 9    | 3.46       | Maintenance                  |
| Quickly & efficiently restoring normal traffic flow after traffic accidents & incidents (Q3h)   | 10   | 3.45       | Traffic flow                 |
| Reporting real time information on the current conditions on state highways & interstates (Q3s)   | 11   | 3.44       | Communication                |
| The quality of the long distance bus or rail transportation * (Q14)   | 12   | 3.42       | Alt. to privately owned cars |
| Making certain for-hire transportation services, such as taxis & limousines, are safe & have sufficient oversight & protection for consumers (Q3q)        | 13   | 3.32       | Alt. to privately owned cars |
| Making certain bridges along state highways are in good condition (Q3a)   | 14   | 3.2        | Maintenance                  |
| Making certain sufficient public transportation services are available for the elderly & persons with disabilities (Q3n)                                  | 14   | 3.2        | Alt. to privately owned cars |
| Taking into consideration the needs & views of the public (Q3r)   | 16   | 3.18       | Communication                |
| Removing debris from highways, such as animals, glass, torn tires, & trash (Q3b)  | 17   | 3.16       | Maintenance                  |
| Making certain sufficient public transportation services for local trips are available, such as public bus or "Dial-A-Ride" transportation services (Q3o) | 18   | 3.15       | Alt. to privately owned cars |
| Making certain traffic flows as smoothly as possible during highway construction (Q3i)  | 19   | 3.13       | Traffic flow                 |
| Making certain traffic flows as smoothly as possible during rush hour (Q3j)   | 20   | 3.1        | Traffic flow                 |
| Providing a sufficient number of bike lanes & pathways for bicycles (Q3m)   | 21   | 3.04       | Alt. to privately owned cars |
| Quickly & efficiently completing state highway construction projects (Q3f)  | 22   | 2.94       | Design & Build               |
| Making certain sufficient alternatives to driving for long distance trips are available, such as intercity passenger rail or intercity bus services (Q3p) | 23   | 2.83       | Alt. to privately owned cars |
| Maintaining the pavement on state highways to keep them smooth & free of potholes (Q3c)   | 24   | 2.44       | Maintenance                  |
| *Asked of only those who used or experienced this item.   |      |            |                              |





When it comes to **communication**, those few who have experienced MDOT's social media, MI Drive, or MDOT's website gave these items the highest satisfaction ratings—representing three of the top four items in Table 2. More middling ranking of communications activities included reporting real time information on the current conditions on state highways and interstates (11th) and taking into consideration the needs and views of the public (16th). The latter always seems ironic in that it appears in a survey that embodies MDOT's attempt to consider the needs and views of the public. Most respondents probably do not see the irony.

Traffic flow has two communication-related activities that rank toward the top: providing clear information to the public on road closures and work zones (5th) and warning drivers of potential traffic delays and offering ways to avoid delays through electronic signs (8th). Quickly and efficiently restoring normal traffic flow after traffic accidents and incidents (10th) is also a traffic flow activity that ranks middling to high. However, a couple of traffic flow activities rank toward the bottom: making certain traffic flows as smoothly as possible during highway construction (19th) and making certain traffic flows as smoothly as possible during rush hour (20th)

When it comes to **design and build**, two items rank toward the top: *making Michigan state highways and interstates as safe as possible in their design and construction, and with clear markings and signage* (3<sup>rd</sup>) and *building and maintaining a sufficient number of rest areas for state highways and interstates* (7<sup>th</sup>). However, *quickly and efficiently completing state highway construction projects* (22<sup>nd</sup>) ranks near the bottom.

The highest ranking item in **maintenance** is sort of the cusp between high and middle: *quickly & efficiently removing snow and ice from state highways and interstates* (9th). Other lower, middling items, include *making certain bridges along state highways are in good condition* (14th) and *removing debris from highways, such as animals, glass, torn tires, and trash* (17th). Maintenance also has the lowest ranked activity of all 24: *maintaining the pavement on state highways to keep them smooth & free of potholes* (24th). It's score is considerably lower than any other item in the poll and has consistently been the lowest rated activity in every one of the satisfaction surveys that has been conducted.

The highest ranked of these is the quality of public transport (6<sup>th</sup>). Clumped in the lower middle are the quality of the long distance bus or rail transportation (12<sup>th</sup>), making certain for-hire transportation services, such as taxis & limousines, are safe and have sufficient oversight and protection for consumers (13<sup>th</sup>), making certain sufficient public transportation services are available for the elderly and persons with disabilities (14<sup>th</sup>), making certain sufficient public transportation services for local trips are available, such as public bus or "Dial-A-Ride" transportation services (18<sup>th</sup>). The items with the lowest level of satisfaction include providing a sufficient number of bike lanes & pathways for bicycles (21<sup>st</sup>) and making certain sufficient alternatives to driving for long distance trips are available, such as intercity passenger rail or intercity bus services (23<sup>rd</sup>). It should be noted that items related to the quality of public transportation and of long distance bus and rail service, were asked only





of those who used those services and did not specifically mention MDOT, in part because MDOT is not solely responsible for that quality and because the respondent would likely have little idea what contribution MDOT makes in those areas to improve the quality.

Table 3 reverts back to the 19 satisfaction measures of MDOT activities asked in the question 3 series. It again has the relative statewide ranking (among the 19) and the statewide mean score, but it also includes the mean scores for activities within each of the 10 Michigan Prosperity Regions.<sup>2</sup> Comparing the regions with each other is less interesting, for there is a typical pattern that tends to mirror the overall state satisfaction. For example, if one compares the regional mean scores with the state mean scores, Detroit Metro is less satisfied than the state average for all 19 measures. In addition, the three northern most regions are going to be more satisfied on nearly all 19 activities than the state mean. For that reason, it does not tell us much to go through each activity and see which region has the highest and lowest score. More interesting and more revealing is comparing the relative rank order of the activity within each region, to see if there is an activity that does especially well or especially poorly compared to its relative ranking among all residents.

**Table 4** shows the relative ranking of all 19 activities across the state and within each region. It also notes when that regional ranking differed from the state by more than five places. If the regional rank is 5 place *higher* than the state rank, it is noted with a **blue box** and **blue font**. If the regional ranking is *lower* by more than five places from the state ranking, then it is noted by a **red box** and **red font**.

<sup>&</sup>lt;sup>2</sup> One of the reasons this report goes back to just the 19 activities asked in Q3 in Table 3 and not all 24 satisfaction measures shown in Table 2, is that the other 5 were not asked of everyone—just those who used or experienced them. Thus the sample size in many regions are just too small to analyze with an accuracy.



EMDOT Michigan Department of Transportation

| Table 3. Satisfaction Mean Scores For MDOT Activities By Michigan Prosperity Region  Michigan Prosperity Regions                                     |       |       |      |      |      |       |        |        |       |      |      |      |
|--|-------|-------|------|------|------|-------|--------|--------|-------|------|------|------|
|  |       |       |      |      | Mi   | chiga | n Pros | sperit | y Reg | ions |      |      |
|  | state | state | UP   | NW   | NE   | W     | EC     | E      | SC    | SW   | SE   | DM   |
| MDOT Activity  | rank  | score | 1    | 2    | 3    | 4     | 5      | 6      | 7     | 8    | 9    | 10   |
| Making Michigan state highways & interstates as safe as possible in their design & construction, & with clear markings & signage                     | 1     | 3.76  | 3.90 | 3.85 | 3.87 | 3.79  | 3.77   | 3.83   | 3.86  | 3.94 | 3.83 | 3.63 |
| Providing clear information to the public on road closures & work zones  | 2     | 3.57  | 3.8  | 3.87 | 3.85 | 3.48  | 3.60   | 3.52   | 3.57  | 3.60 | 3.72 | 3.51 |
| Building & maintaining a sufficient number of rest areas for state highways & interstates  | 3     | 3.51  | 3.54 | 3.74 | 3.72 | 3.46  | 3.78   | 3.73   | 3.65  | 3.42 | 3.65 | 3.36 |
| Warning drivers of potential traffic delays & offering ways to avoid delays through electronic signs   | 4     | 3.48  | 3.67 | 3.65 | 3.62 | 3.49  | 3.35   | 3.73   | 3.16  | 3.68 | 3.42 | 3.42 |
| Quickly & efficiently removing snow & ice from state highways & interstates  | 5     | 3.46  | 3.51 | 3.86 | 3.54 | 3.72  | 3.55   | 3.50   | 3.49  | 3.74 | 3.29 | 3.26 |
| Quickly & efficiently restoring normal traffic flow after traffic accidents & incidents  | 6     | 3.45  | 3.88 | 3.87 | 3.6  | 3.31  | 3.55   | 3.56   | 3.46  | 3.56 | 3.45 | 3.35 |
| Reporting real time information on the current conditions on state highways & interstates  | 7     | 3.44  | 3.74 | 3.66 | 3.54 | 3.41  | 3.4    | 3.26   | 3.28  | 3.61 | 3.55 | 3.40 |
| Making certain for-hire transportation services, such as taxis & limousines, are safe & have sufficient oversight & protection for consumers         | 8     | 3.32  | 3.68 | 3.50 | 3.31 | 3.35  | 3.36   | 3.44   | 3.45  | 3.44 | 3.51 | 3.14 |
| Making certain bridges along state highways are in good condition  | 9     | 3.2   | 3.71 | 3.53 | 3.38 | 3.29  | 3.21   | 3.36   | 3.31  | 3.37 | 3.22 | 2.98 |
| Making certain sufficient public transportation services are available for the elderly & persons with disabilities                                   | 9     | 3.2   | 3.13 | 3.35 | 3.54 | 3.28  | 3.57   | 3.37   | 3.17  | 3.22 | 3.23 | 3.04 |
| Taking into consideration the needs & views of the public  | 11    | 3.18  | 3.44 | 3.41 | 3.33 | 3.12  | 3.31   | 3.23   | 3.19  | 3.33 | 3.16 | 3.1  |
| Removing debris from highways, such as animals, glass, torn tires, & trash   | 12    | 3.16  | 3.62 | 3.16 | 3.21 | 3.13  | 3.04   | 3.00   | 3.31  | 3.43 | 3.00 | 3.15 |
| Making certain sufficient public transportation services for local trips are available, such as public bus or "Dial-A-Ride" transportation services. | 13    | 3.15  | 3.27 | 3.36 | 3.66 | 3.19  | 3.38   | 3.44   | 3.20  | 3.24 | 3.16 | 2.95 |
| Making certain traffic flows as smoothly as possible during highway construction   | 14    | 3.13  | 3.58 | 3.62 | 3.43 | 3.06  | 3.42   | 3.28   | 3.29  | 3.3  | 3.24 | 2.9  |
| Making certain traffic flows as smoothly as possible during rush hour  | 15    | 3.1   | 3.67 | 3.33 | 3.26 | 3.14  | 3.29   | 3.18   | 3.24  | 3.41 | 3.17 | 2.86 |
| Providing a sufficient number of bike lanes & pathways for bicycles  | 16    | 3.04  | 3.48 | 3.59 | 3.11 | 3.06  | 3.29   | 3.04   | 2.76  | 2.85 | 2.83 | 3.01 |
| Quickly & efficiently completing state highway construction projects   | 17    | 2.94  | 3.40 | 3.37 | 3.10 | 3.07  | 3.06   | 2.98   | 2.77  | 3.11 | 3.07 | 2.71 |
| Making certain sufficient alternatives to driving for long distance trips are available, such as intercity passenger rail or intercity bus services  | 18    | 2.83  | 3.16 | 2.89 | 3.11 | 3.08  | 2.96   | 3.03   | 2.72  | 2.91 | 2.74 | 2.66 |
| Maintaining the pavement on state highways to keep them smooth & free of potholes  | 19    | 2.44  | 2.95 | 2.92 | 2.73 | 2.66  | 2.59   | 2.32   | 2.83  | 2.81 | 2.35 | 2.14 |





| Table 4. Satisfaction Rankings For MDOT   | Activ | vities | By        | Mich      | igan      | Pro   | sper      | ity R     | egio      | n         |          |    |
|---|-------|--------|-----------|-----------|-----------|-------|-----------|-----------|-----------|-----------|----------|----|
|   |       |        |           |           | Mi        | chiga | n Pros    | sperit    | y Reg     | ions      |          |    |
|   | state | state  | UP        | NW        | NE        | W     | EC        | E         | SC        | SW        | SE       | DM |
| MDOT Activity   | rank  | score  | 1         | 2         | 3         | 4     | 5         | 6         | 7         | 8         | 9        | 10 |
| Making Michigan state highways & interstates as safe as possible in their design & construction, & with clear markings & signage                    | 1     | 3.76   | 1         | 4         | 1         | 1     | 2         | 1         | 1         | 1         | 1        | 1  |
| Providing clear information to the public on road closures & work zones   | 2     | 3.57   | 3         | 1         | 2         | 4     | 3         | 5         | 3         | 5         | 2        | 2  |
| Building & maintaining a sufficient number of rest areas for state highways & interstates   | 3     | 3.51   | <u>11</u> | 5         | 3         | 5     | 1         | 2         | 2         | <u>9</u>  | 3        | 5  |
| Warning drivers of potential traffic delays & offering ways to avoid delays through electronic signs  | 4     | 3.48   | 7         | 7         | 5         | 3     | <u>11</u> | 2         | <u>15</u> | 3         | 7        | 3  |
| Quickly & efficiently removing snow & ice from state highways & interstates   | 5     | 3.46   | <u>12</u> | 3         | 7         | 2     | 5         | 6         | 4         | 2         | 8        | 7  |
| Quickly & efficiently restoring normal traffic flow after traffic accidents & incidents   | 6     | 3.45   | 2         | <u>1</u>  | 6         | 8     | 5         | 4         | 5         | 6         | 6        | 6  |
| Reporting real time information on the current conditions on state highways & interstates   | 7     | 3.44   | 4         | 6         | 7         | 6     | 8         | <u>12</u> | 10        | 4         | 4        | 4  |
| Making certain for-hire transportation services, such as taxis & limousines, are safe & have sufficient oversight & protection for consumers        | 8     | 3.32   | 6         | 11        | <u>13</u> | 7     | 10        | 7         | 6         | 7         | 5        | 9  |
| Making certain bridges along state highways are in good condition   | 9     | 3.2    | 5         | 10        | 11        | 9     | 15        | 10        | 7         | 11        | 11       | 13 |
| Making certain sufficient public transportation services are available for the elderly & persons with disabilities                                  | 9     | 3.2    | <u>18</u> | 15        | 7         | 10    | <u>4</u>  | 9         | 14        | <u>15</u> | 10       | 11 |
| Taking into consideration the needs & views of the public   | 11    | 3.18   | 14        | 12        | 12        | 14    | 12        | 13        | 13        | 12        | 13       | 10 |
| Removing debris from highways, such as animals, glass, torn tires, & trash  | 12    | 3.16   | 9         | <u>17</u> | 15        | 13    | <u>17</u> | <u>17</u> | <u>z</u>  | 8         | 16       | 8  |
| Making certain sufficient public transportation services for local trips are available, such as public bus or "Dial-A-Ride" transportation services | 13    | 3.15   | 16        | 14        | <u>4</u>  | 11    | 9         | 7         | 12        | 14        | 13       | 14 |
| Making certain traffic flows as smoothly as possible during highway construction  | 14    | 3.13   | 10        | <u>8</u>  | 10        | 17    | <u>7</u>  | 11        | <u>9</u>  | 13        | <u>9</u> | 15 |
| Making certain traffic flows as smoothly as possible during rush hour   | 15    | 3.1    | <u>7</u>  | 16        | 14        | 12    | 13        | 14        | 11        | <u>10</u> | 12       | 16 |
| Providing a sufficient number of bike lanes & pathways for bicycles   | 16    | 3.04   | 13        | <u>9</u>  | 16        | 17    | 13        | 15        | 18        | 18        | 17       | 12 |
| Quickly & efficiently completing state highway construction projects  | 17    | 2.94   | 15        | 13        | 18        | 16    | 16        | 18        | 17        | 16        | 15       | 17 |
| Making certain sufficient alternatives to driving for long distance trips are available, such as intercity passenger rail or intercity bus services | 18    | 2.83   | 17        | 19        | 16        | 15    | 18        | 16        | 19        | 17        | 18       | 18 |
| Maintaining the pavement on state highways to keep them smooth & free of potholes   | 19    | 2.44   | 19        | 18        | 19        | 19    | 19        | 19        | 16        | 19        | 19       | 19 |





In the **Upper Peninsula**, there is more satisfaction with the activity of *making certain traffic flows* as *smoothly as possible during rush hour* relative to the other activities than there is in other regions. There is considerably less satisfaction with:

- Building & maintaining a sufficient number of rest areas for state highways & interstates;
- Quickly & efficiently removing snow & ice from state highways & interstates;
- Making certain sufficient public transportation services are available for the elderly & persons with disabilities

In the **Northwest**, there is less satisfaction with the activity of *removing debris from highways*, *such as animals, glass, torn tires, & trash* relative to the other activities than there is in other regions. There is considerably more satisfaction with:

- Quickly & efficiently restoring normal traffic flow after traffic accidents & incidents;
- Making certain traffic flows as smoothly as possible during highway construction;
- Providing a sufficient number of bike lanes & pathways for bicycles

In the **Northeast**, there is less satisfaction with the activity of *making certain for-hire transportation* services, such as taxis & limousines, are safe & have sufficient oversight & protection for consumers relative to the other activities than there is in other regions. There is considerably more satisfaction with *making certain sufficient public transportation services for local trips are available,* such as public bus or "Dial-A-Ride" transportation services.

In **West Michigan** the ranking of the activities does not greatly differ (5 places or more) from the statewide ranking.

In **East Central Michigan**, there is less satisfaction with the activities of warning drivers of potential traffic delays & offering ways to avoid delays through electronic signs and removing debris from highways, such as animals, glass, torn tires, & trash relative to the other activities than there is in other regions. There is considerably more satisfaction with making certain sufficient public transportation services are available for the elderly & persons with disabilities and that traffic flows as smoothly as possible during highway construction.

In **East Michigan**, there is less satisfaction with the activity of *reporting real time information on* the current conditions on state highways & interstates and removing debris from highways, such as animals, glass, torn tires, & trash relative to the other activities than there is in other regions.

In **South Central**, there is less satisfaction with the activity of *warning drivers of potential traffic delays & offering ways to avoid delays through electronic signs* relative to the other activities than there is in other regions. There is more satisfaction with *removing debris from highways*, *such as animals, glass, torn tires, & trash* and *making certain traffic flows as smoothly as possible during highway construction*.

In the **Southwest**, there is less satisfaction with the activity of building & maintaining a sufficient number of rest areas for state highways & interstates and making certain sufficient public transportation services are available for the elderly & persons with disabilities relative to the other activities than there is in other regions. There is more satisfaction with making certain traffic flows as smoothly as possible during rush hour.





The ranking of satisfaction with MDOT activities in the **Southeast** mostly reflects the statewide rankings, with the exception of more satisfaction with *making certain traffic flows as smoothly as possible during highway construction*.

In **Detroit Metro** the ranking of the activities does not greatly differ (5 places or more) from the statewide ranking. This is in part because Detroit Metro is so much more populated that its results have a much bigger impact on the state results.

## 3.3 Satisfaction with Air Travel

In addition to the measures of MDOT activities, Michigan residents were also asked to rate their level of satisfaction with air travel in the state, with eight questions dealing with various aspects of air travel. These satisfaction measures are not included above in Table 2, because they are not direct measures of MDOT and respondents would not necessarily understand MDOT's role in air travel activities—in some cases MDOT's role is fairly obvious and substantial, while in other cases much less so.

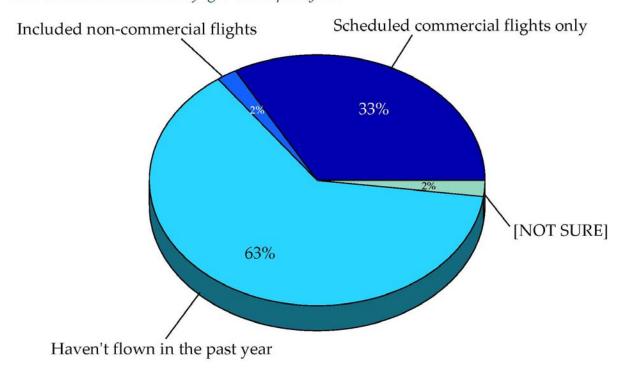
The first thing to measure is who has engaged in air travel. To that end, respondents were asked if they have flown in or out of Michigan in the past year. This is followed up that with a question as to whether they had flown only on a scheduled commercial airline, as opposed to a non-scheduled commercial airline in the past year. A little over one-third of Michigan residents (35%) say they have flown in the past year, with just 2% including a flight that was not commercially scheduled (**Figure 16**).





Figure 16. A Little Over One-Third of Michigan Residents Flew in the Past Year (Questions 5 and 6)

Q5. Have you flown in or out of Michigan in the last year? [IF "YES"] Q6. Were the flights you took only on a scheduled commercial airline or did you also fly on an airplane other than on a scheduled commercial flight in the past year?

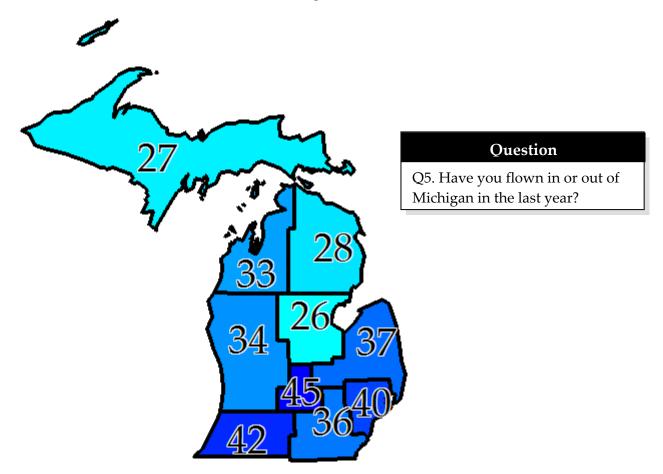






Not surprisingly, residents in the southern part of the state are more likely to have flown in the past year than residents in the more northern regions (**Figure 17**).

Figure 17. Residents in the More Southern Regions Are More Likely To Have Flown in Past Year than Residents in the More Northern Regions (Question 5)



"Not sure" and similar non-responses are excluded from this analysis and are not part of the overall 100% total.





For those very few who said they had flown on a non-commercial flight last year, they were also asked to rate their level of satisfaction for the general aviation facilities you have used for flights you have taken that were not scheduled commercial flights. The mean score given is a very high 4.27, suggesting a great deal of satisfaction, but because so few were asked this question, this result can only be seen as suggestive.

The statewide and ten regional mean scores for the other seven aviation satisfaction measures can be seen in **Table 5**. There is a large range, with a high level of satisfaction with *the design, maintenance, and service at the airport passenger terminal* (mean=4.12) and a quite low level of satisfaction with *the cost of airline tickets at your closest commercial airport compared to the cost at other airports* (mean=2.93). Unlike the other satisfaction measures, there is little difference in the relative ranking of the seven aviation satisfaction measures. The aspects of air travel which get the highest satisfaction ratings statewide also get the highest ratings in each of the 10 regions. Likewise, ticket costs get the lowest ratings across the state and in each of the 10 regions. *The length of the time it takes to drive to an airport* has the second highest level of satisfaction across the state and in most regions, with exception of the Upper Peninsula, West Michigan, and East Central Michigan, where it ranks 5<sup>th</sup>. *The availability of alternative means—such as public transportation, taxis, or shuttles—to get to the airport* is the second lowest statewide and for every region except the Upper Peninsula.





|  | Michigan Prosperity Regions |       |      |      |      |      |      |      |      |      |      |      |
|--|-----------------------------|-------|------|------|------|------|------|------|------|------|------|------|
|  | state                       | state | UP   | NW   | NE   | W    | EC   | E    | SC   | SW   | SE   | DM   |
| MDOT Activity  | rank                        | score | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |
| The design, maintenance, and service at the airport passenger terminal*  | 1                           | 4.12  | 3.9  | 4.26 | 3.84 | 4.23 | 4    | 4.33 | 3.93 | 4.26 | 4.05 | 4.08 |
| The amount of time it takes to drive to an airport   | 2                           | 3.75  | 3.69 | 3.82 | 3.17 | 3.88 | 3.73 | 3.79 | 3.85 | 3.9  | 3.69 | 3.7  |
| The choice of destinations available from your closest commercial airport                                      | 3                           | 3.71  | 3.35 | 3.24 | 3.25 | 3.75 | 3.48 | 3.63 | 3.19 | 3.34 | 3.99 | 3.91 |
| The number of scheduled flights available from your closest commercial airport                                 | 4                           | 3.67  | 3.15 | 3.38 | 3.15 | 3.59 | 3.3  | 3.69 | 3.07 | 3.69 | 3.94 | 3.87 |
| The amount of available and affordable parking at the airport you use*   | 5                           | 3.6   | 3.93 | 3.7  | 3.03 | 3.88 | 4.1  | 3.14 | 3.84 | 3.08 | 3.75 | 3.59 |
| The availability of alternative means—such as public transportation, taxis, or shuttles—to get to the airport* | 6                           | 3.09  | 3.74 | 2.64 | 3.07 | 2.83 | 3.12 | 3.14 | 3.07 | 2.91 | 3.4  | 3.12 |
| The cost of airline tickets at your closest commercial airport compared to the cost at other airports          | 7                           | 2.93  | 2.51 | 2.55 | 2.62 | 2.85 | 2.72 | 3.02 | 2.71 | 3.03 | 3.25 | 2.99 |

Residents who have not flown recently are not able to answer some of the questions that deal most directly with the experience of flying. Therefore only those who had flown in the past year were asked, specifically, about alternative means to get to the airport, the design, maintenance, and service at the passenger terminal, and the amount of available and affordable parking. This means that some of the result above are for a broad group of people than the other results. Figure 18, below, makes the comparison only for those who have flown

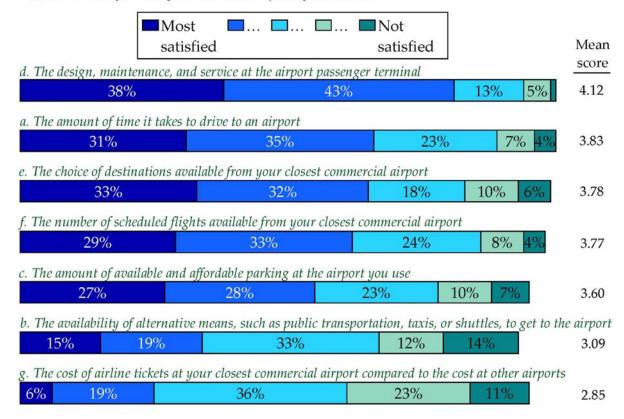




**Figure 18** shows satisfaction results and mean scores for those residents who have flown. The relative order of these items are the same as they were in Table 5. With the exception of ticket prices, when the universe is narrowed down to those who have travelled by air in the past year, overall satisfaction increases.

Figure 18. Satisfaction Measures for Aspects of Air Travel among Michigan Residents Who Have Flown in Past Year (Question 7 series)





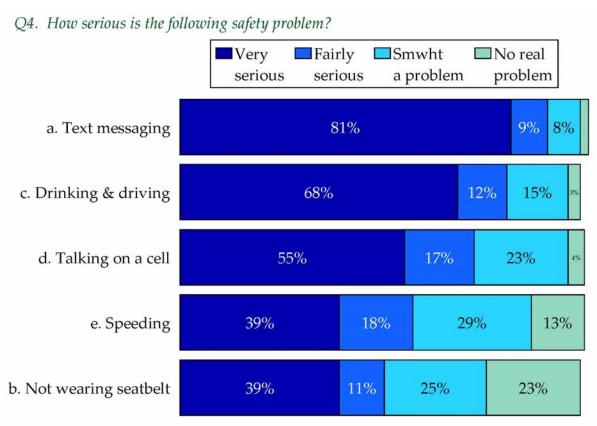




# **Chapter 4. Public Assessment Of Driving Behaviors**

In the survey, respondents were asked to assess how problematic they presently find five different driving behaviors on Michigan highways and interstates (**Figure 19**). Text messaging while driving is the most serious problem, followed by drunk driving, and talking on the cell phone while driving. The least serious problems, according to Michigan residents, are speeding and not wearing a seatbelt.

Figure 19. Texting Is the Driving Behavior That Concern Residents the Most; Least Concerned about Seat Belts and Speeding (Question 4 series)



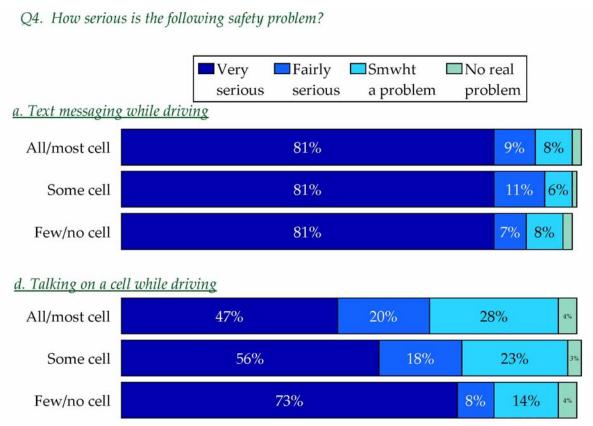




#### 4.1 Texting While Driving

Two of these driving behaviors involve cellphones—texting and talking on a cell phone while driving. However, attitudes toward only one of these is related to the proportion of phone calls the respondent conducts on a cell phone (**Figure 20**). The more a respondent uses a cell phone as opposed to a landline, the less likely he or she finds talking on cell phone while driving to be a serious problem. However, the sense that texting while driving is a very serious problem is very high regardless of the extent of cell phone use.

Figure 20. Cell Phone Users Are Equally Concerned about Texting and Driving, but Much Less Concerned About Talking & Driving (Questions 4a and 4d)



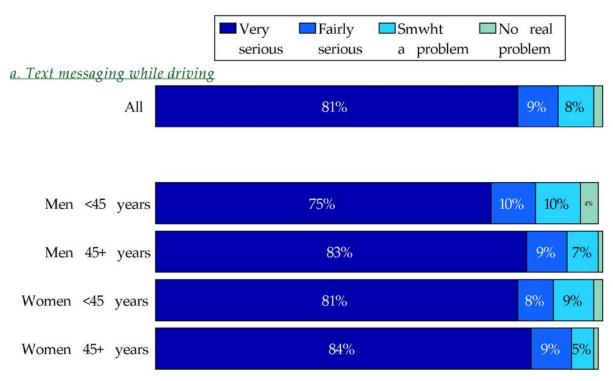




Across age and gender there is not a lot of difference in opinion about texting and driving, although men under 45 years of age are slightly less likely to believe it is a very serious problem on Michigan state roads (**Figure 21**).

Figure 21. Younger Men Are Slightly Less Likely to Consider Texting and Driving a Serious Problem, but All Age/Gender Subgroups Consider It Very Serious (Question 4a)

Q4. How serious is the following safety problem?

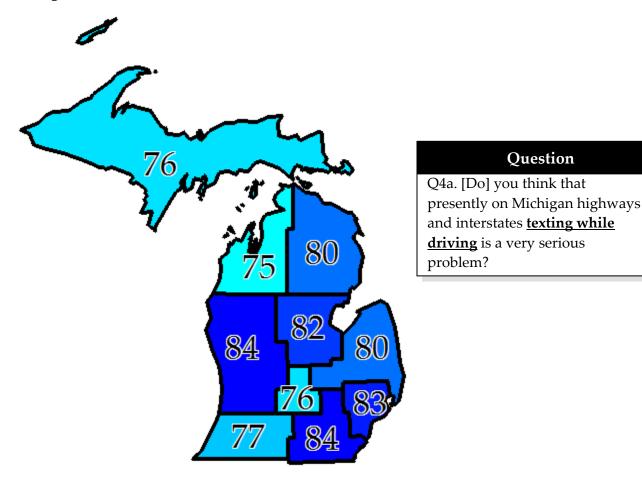






Regional results range from 75% to 84% who view text messaging while driving as a serious problem, however the 9% difference between the highest and lowest result is not statistically significant (**Figure 22**).

Figure 22. The Percent Who Find Texting While Driving to Be a Serious Problem Is High Throughout the State (Question 4a)





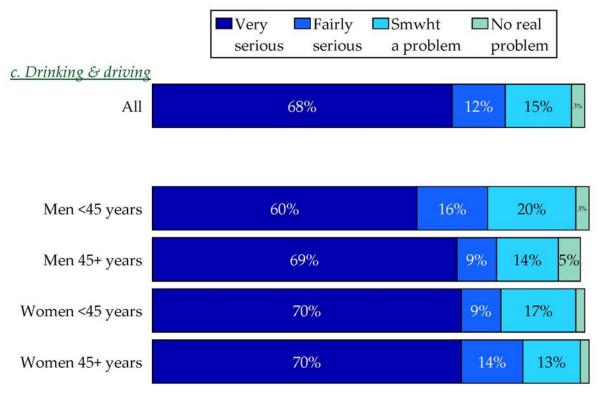


## 4.2 Drinking and Driving

When it comes to drinking and driving, all age and gender groups view this behavior as a very serious problem, but, again, younger men are less likely to say the behavior is a very serious problem (Figure 23).

Figure 23. Younger Men Are Slightly Less Likely to Consider Drinking & Driving a Very Serious Problem, but All Age/Gender Groups Believe It Is Serious (Question 4c)

Q4. How serious is the following safety problem?

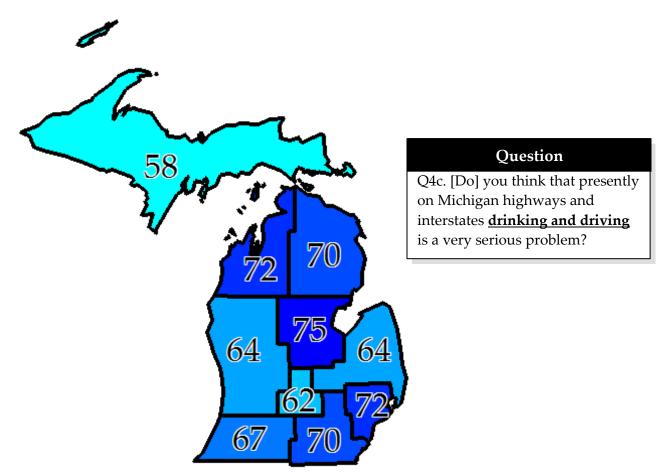






Residents in the Upper Peninsula are considerably less likely to see drinking and driving as a very serious problem (**Figure 24**).

Figure 24. Perception of Drinking and Driving as a Very Serious Problem Is Lowest in the Upper Peninsula (Question 4c)





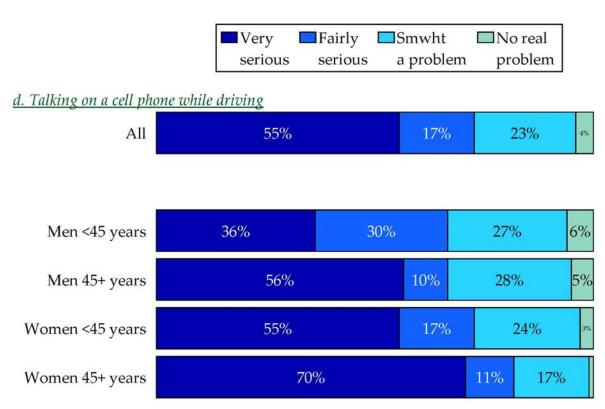


## 4.3 Talking on a Cell Phone While Driving

There is a very pronounced age and gender gap when it comes to the behavior of talking on the cell phone while driving (**Figure 25**). Residents who are under 45 years of age are much less likely to find talking on the cell phone while driving to be a very serious problem than those 45 years of age or older. Men are also much less likely than women to believe talking on a cell phone while driving is a very serious problem. Consequently, women 45 years of age or older (70%) are twice as likely as men under 45 years of age (36%) to believe this behavior is a very serious problem.

Figure 25. Younger Men Are Much Less Likely and Older Women Are Much More Likely to Perceive Talking On a Cell Phone as a Very Serious Problem (Question 4d)

Q4. How serious is the following safety problem?

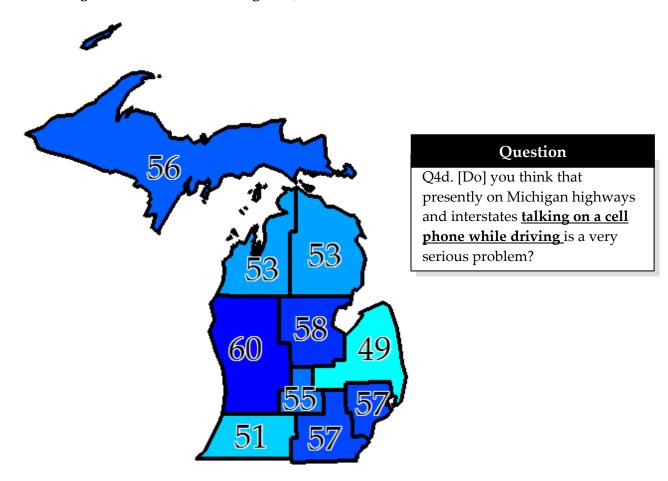






Perception that talking on a cell phone while driving is a very serious problem is greatest in West Michigan and lowest in east Michigan, but regional variation on this is not pronounced (**Figure 26**).

Figure 26. Perception of Talking On the Cell Phone as a Very Serious Problem Is Highest In West Michigan; Lowest in East Michigan (Question 4d)



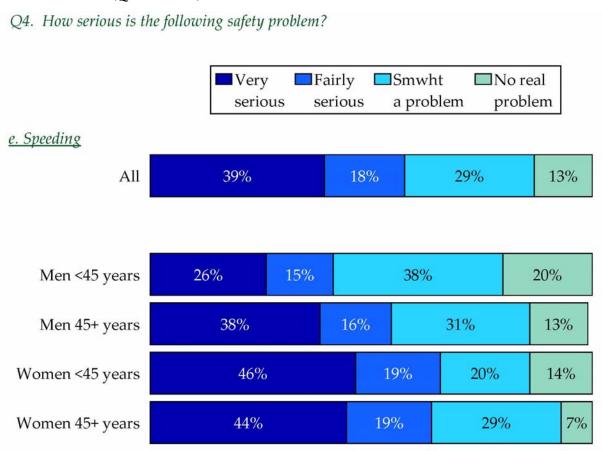




#### 4.4 Speeding

Men, especially younger men, are less likely to see speeding as a very serious problem compared to women (Figure 27). With women, there is not a comparable age gap on this question.

Figure 27. Men, Especially Younger Men, Are Much Less Likely to Believe Speeding Is a Serious Problem (Question 4e)

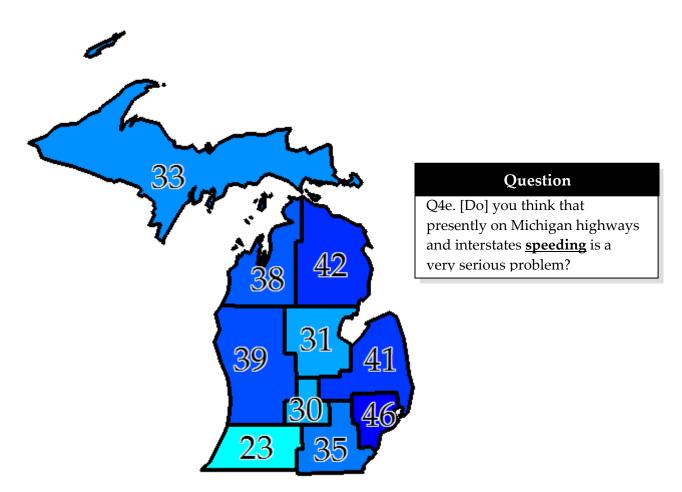






Perception that speeding is a very serious problem is twice as great in Detroit Metro as it is in Southwest Michigan (**Figure 28**).

Figure 28. Perception of Speeding as a Very Serious Problem Is Highest In Detroit Metro; Lowest in Southwest Michigan (Question 4e)





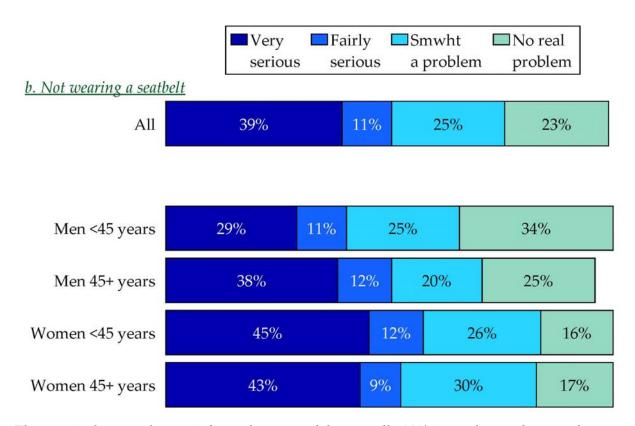


## 4.5 Not Wearing a Seat Belt

Again, when it comes to the issue of not wearing a seat belt, men, especially younger men, are less likely to see this as a very serious problem (**Figure 29**).

Figure 29. Men, Especially Younger Men, Are Less Likely to Believe That Not Wearing a Seat Belt is a Serious Problem (Questions 4b)

Q4. How serious is the following safety problem?

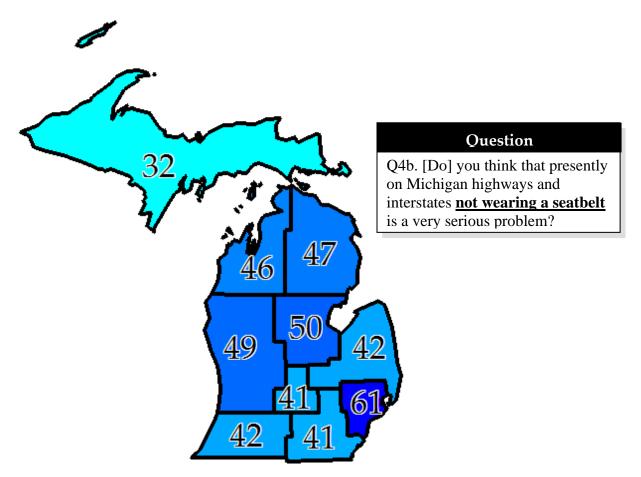






Perception that not wearing a seat belt is a very serious problem is nearly twice as great in Detroit Metro as it is in the Upper Peninsula (**Figure 30**).

Figure 30. Perception of Not Wearing a Seat Belt as a Very Serious Problem Is Highest In Detroit Metro; Lowest in Southwest Michigan (Question 4b)







# **Chapter 5. Bicycle Riding**

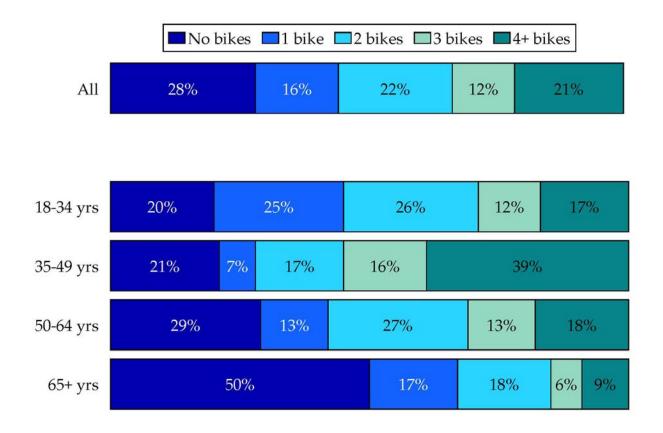
The survey included a series of questions about bike ownership and bike riding.

## 5.1 Number of Bicycles in Household

The first bicycle question asks how many bicycles are owned in the household. As a measure, it has its limitations, because it is highly correlated with the number of children in the household, which can be seen when broken down by age in **Figure 31**. Respondents with the most children in the household—those who are 35-49 years of age—are much more likely to say they have more than two bikes. However, when it comes to which households have no bikes, the older the respondent, the less likely there is any bike, with the drop beginning sharply among residents who are 50-64 years of age.

Figure 31. Seniors Are Least Likely To Have Any Bikes in the Household; Residents Between 35-49 Years of Age Most Likely to Have Multiple Bikes (Question 8)

Q8. How many bicycles do you own in your household?

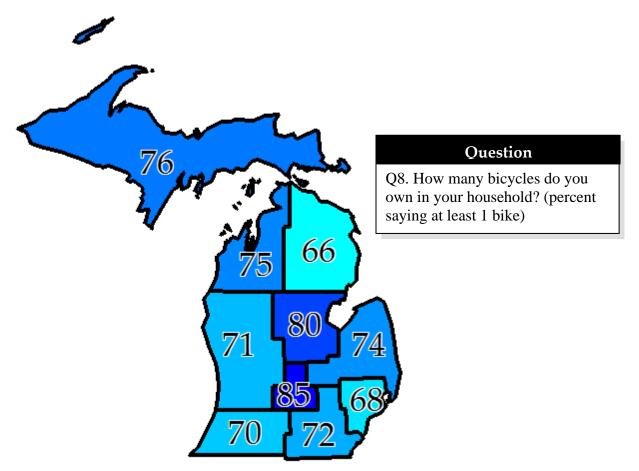






The percentage of households with at least one bike is highest in South Central Michigan and lowest in Detroit Metro and in Northeast (**Figure 32**).

Figure 32. Resident in Metro & Northeast Least Likely To Own Bikes; South Central Residents Most Likely to Own One (Question 8)





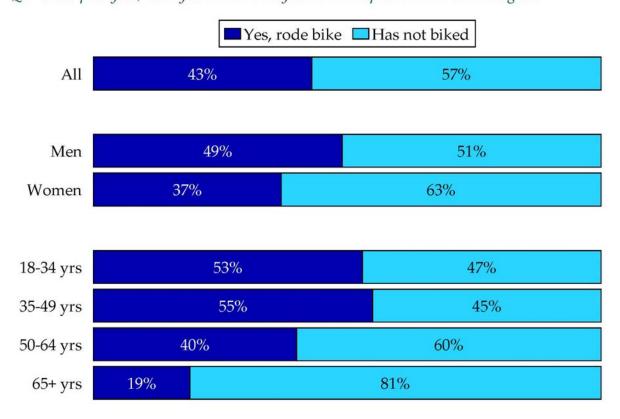


## 5.2 Bike Riding in the Past Year

In the past year, 43% say they have ridden on a bike (**Figure 33**). Men are more likely than women to say they have ridden in the past year. Starting at 50 years of age, the older the resident gets the less likely they have ridden a bike in past year.

Figure 33. Less Than One-Half Of Residents Have Ridden Bike in Past Year; Men & Younger Residents More Likely to Have Ridden Bike (Question 9).

Q9. In the past year, have you ridden a bicycle on a bike path or road in Michigan?

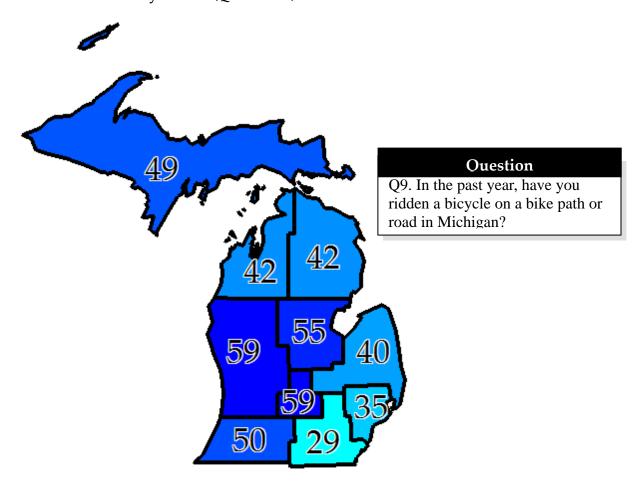






When it comes to who has ridden a bike in the past year, residents in the Southeast and in Detroit Metro are the least likely, while residents in South Central and West Michigan are the most likely (Figure 34).

Figure 34. Residents in Metro & Northeast Least Likely To Ride Bikes; South Central Residents Most Likely to Ride (Question 9)



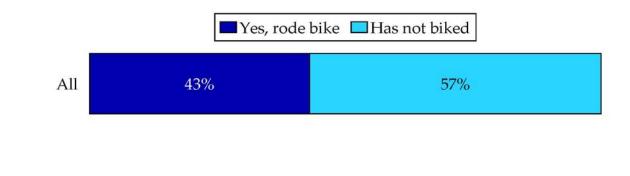


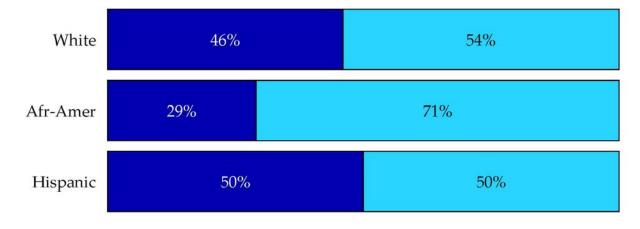


There is an interesting breakdown of bicycling by race. African-Americans are much less likely than Whites or Hispanics to say they have ridden a bike in the past year (**Figure 35**).

Figure 35. African-American Residents Much Less Likely To Have Ridden Bike In Past Year (Question 9).

Q9. In the past year, have you ridden a bicycle on a bike path or road in Michigan?







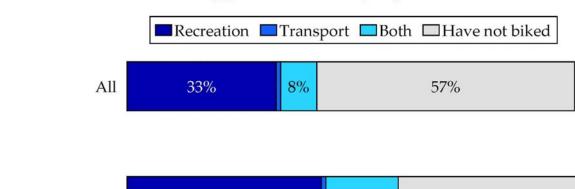


#### 5.3 Bike Riding as Recreation or Transportation

The question of whether they have biked in the past year is followed up with a question as to whether their biking was specifically to transport from one place to another, or whether it was for recreational purposes—that is for fun or exercise, or for both. The vast majority of bikers do so for recreational purposes (**Figure 36**). Only 9% of all Michigan residents say that any of their biking in the past year has been specifically for the purpose of transportation. Men and residents under 45 years of age are more likely to use biking for transportation purposes—but still their biking is overwhelmingly for recreation only.

Figure 36. Most Bike Riding Is for Recreation Only; Transportation by Bike Is More Common for Younger Men (Question 10).

Q10. Which best describes the biking you have done in the past year?



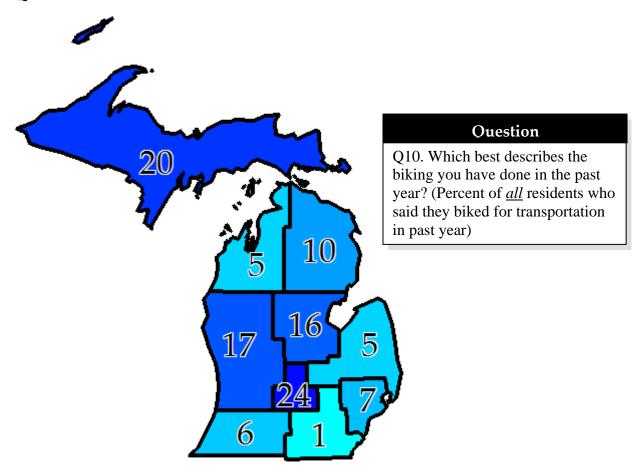






Similar to bike riding over all, biking for transportation purposes is greatest in South Central and lowest in Southeast (**Figure 37**).

Figure 37. Biking For Transportation Is Highest In South Central; Lowest In Southeast (Question 10)



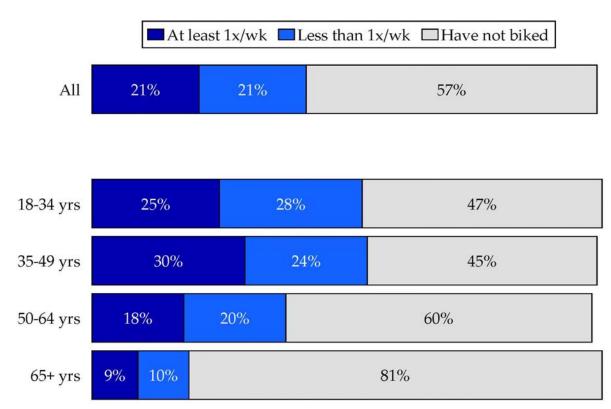




Roughly half of the residents who have biked in the past year, do so at a frequency of at least once a week, while the other half bike less than once a week (**Figure 38**). This pattern mostly holds true across age cohorts, even as overall biking diminishes with age. The exception is residents from 35 to 49 years of age, who bike the most frequently, even slightly more frequently than the youngest (under 35) cohort.

Figure 38. For Those Who Bike, One-Half Do So At Least Once a Week & One-Half Do So Less Often Than Once a Week (Question 11).

Q11. During the times that you do bike, how frequently would you say you bike?



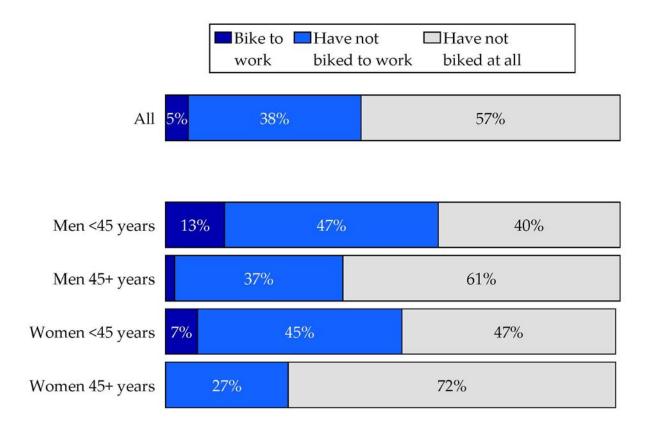




Very few (5%) report commuting to work in the past year (**Figure 39**). Again, it is more likely to happen for those under 45 years of age, and men are more likely to commute by bike than women.

Figure 39. Few Commute To Work Via Bike; Nearly All Are Under 45 Years of Age and More Likely to Be Male (Question 12).

Q12. In the past year, have you ever commuted to work using a bike?







# **Chapter 6. Public Transportation**

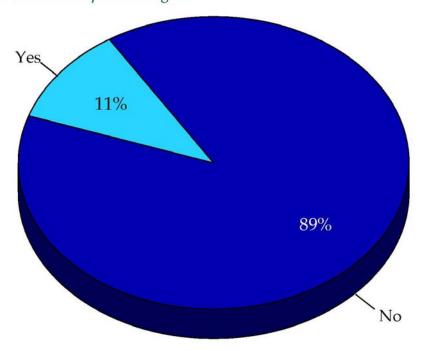
Michigan residents are asked if they have taken public transportation—asking separately about local or long distance. For those who have, a follow up question asks them to rate the quality of that transportation. These scores are reported above, in Table 2 of this report. They are repeated here. However, no regional analysis can be offered, because too few have experienced long-distance or local public transportation in the past year to give us a sufficient sample for regional analysis.

#### **6.1 Long Distance Transportation**

When asked if, in the past year, they have ever used bus or rail for long distance transportation trips that involved at least one stop in Michigan, only 11% say they have (**Figure 40**). Using the same 5 point scale as the previous satisfaction questions, those who have used long distance transportation give it an average (mean) satisfaction rating of 3.42.

Figure 40. One-In-Ten Michigan Residents Have Used Long Distance Transportation in Michigan (Question 13)

Q13. In the past year, have you ever used bus or rail for long distance transportation trips that involved at least one stop in Michigan?

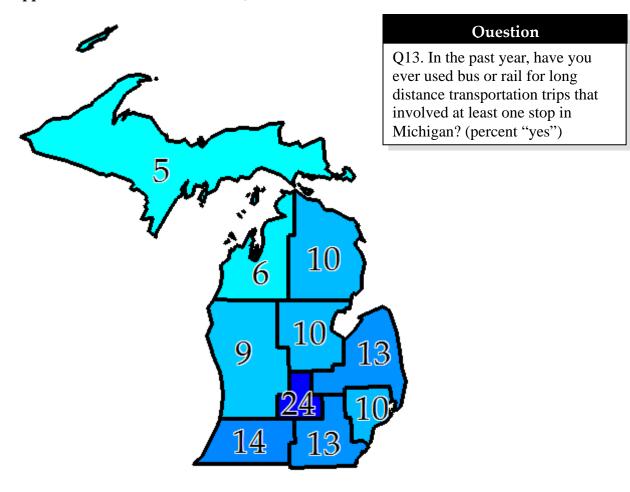






Long distance transportation is much more common in Lansing and least common in the Upper Peninsula and in the Northwest Region (**Figure 41**).

Figure 41. Usage of Long Distance Transportation Is Greatest in South Central; Least in Upper Peninsula and Northwest (Question 13)





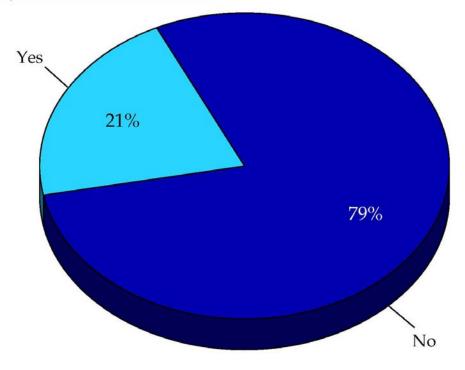


## 6.2 Public Transportation

When asked Michigan residents have you ever taken public transportation in the state of Michigan, such as a bus, dial-a-ride or commuter rail, 21% say they have (**Figure 42**). Using the same 5 point scale, those who have ridden the long distance transportation give it an average (mean) satisfaction rating of 3.56, which compared to all the satisfaction ratings measured in this report is on the higher end of the spectrum.

Figure 42. Two out of Ten Michigan Residents Say They Have Taken Public Transportation in Michigan (Question 15)

Q15. In the past year, have you ever taken public transportation in the state of Michigan, such as a bus, dial-a-ride or commuter rail?

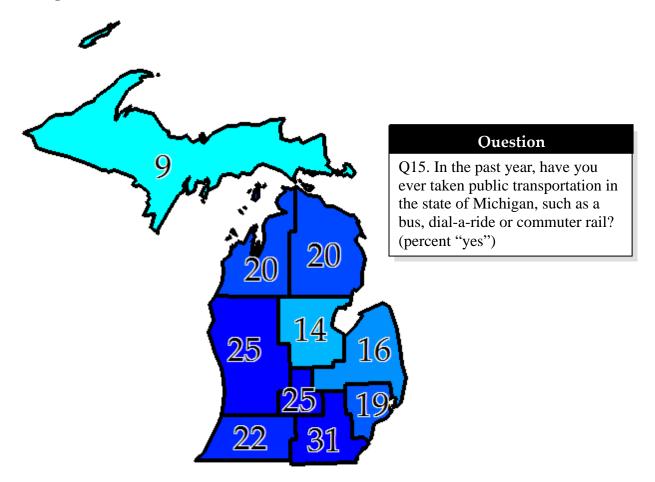






Not too surprisingly, the percentage of residents who say they have taken public transportation is considerably less in the Upper Peninsula and is highest in Detroit Metro (**Figure 43**).

Figure 43. Upper Peninsula Residents Are Far Less Likely to Have Taken Public Transportation (Question 15)







# Chapter 7. MDOT Information and Communication

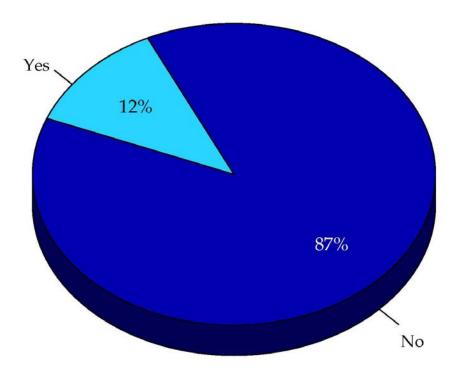
The last section of the report goes over a series of questions designed to find out how residents get their information about road conditions and traffic policy, the degree to which they use various MDOT means of communication and, for those who do, their overall satisfaction with those means of communication.

#### 7.1 MI Drive

Respondents are told that "the Michigan Department of Transportation hosts a website call MI Drive which gives detailed information for major state highways about construction projects and accidents, giving real time reports on traffic conditions and the speed traffic is flowing on those roads." They are then asked if they have ever been to this website. Twelve percent (12%) say they have been to MI Drive (**Figure 44**). Using the same 5 point satisfaction scale, those who have been to MI Drive give it an average (mean) satisfaction rating of 3.89. This is a very high score, more or less tied as the highest satisfaction score measured in this survey.

Figure 44. Slightly More Than One-In-Ten Michigan Residents Have Visited MI Drive (Question 17)

Q17. Have you ever been to MDOT website, MI Drive?

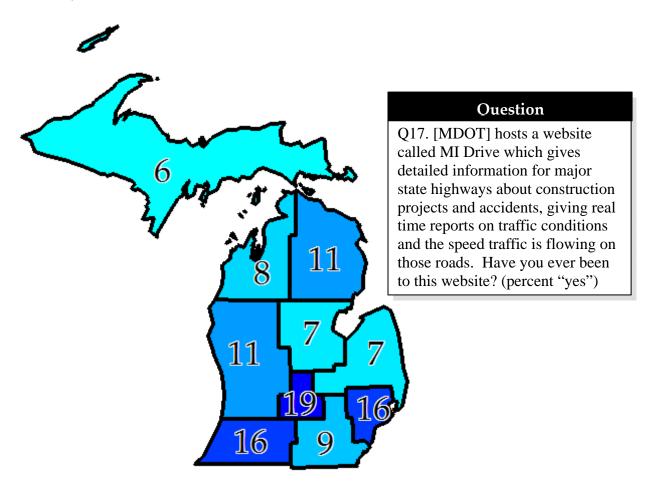






The percent of the population most likely to visit MI Drive is higher in regions in the southern part of the state and lower in northern regions (**Figure 45**).

Figure 45. Metro, South Central, and Southwest Residents Most Likely To Have Visited MI Drive (Question 17)



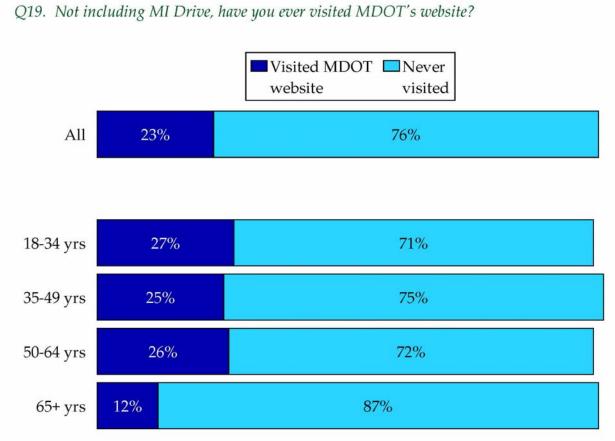




#### 7.2 MDOT Website

The questions on MI Drive are followed up with this question: "Not including MI Drive have you ever visited MDOT's website?" Slightly less than one-quarter (23%) of Michigan residents say they have visited the site (**Figure 46**). There is a big drop off in visits from residents over 65 years of age. Other than that, website visits are unrelated to age. Using the same 5 point satisfaction scale, those who have been to MDOT's website give it an average (mean) satisfaction rating of 3.76, which is also among the better average satisfaction results in this survey.

Figure 46. One-Quarter of Residents Have Visited MDOT's Website; Residents over Sixty-five years of Age Are Much Less Likely to Have Visited (Question 19)

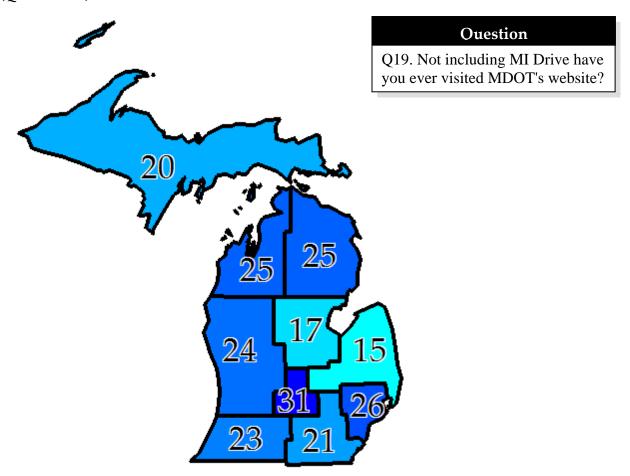






The percentage of the population most likely to visit MDOT's website is highest in South Central and Detroit Metro regions, and lowest in East and East Central Michigan (**Figure 47**).

Figure 47. South Central Residents Are the Most Likely to Have Visited MDOT's Website (Question 19)



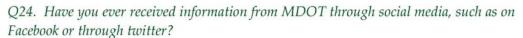


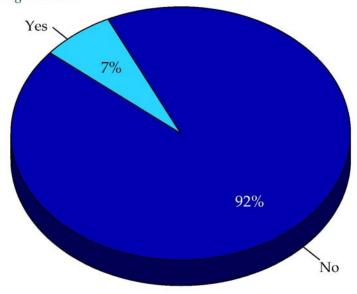


#### 7.3 Social Media

Respondents are asked if they have ever received information from MDOT through social media, such as on Facebook or through Twitter. Very few (7%) say they have. (**Figure 48**). This result is so small that it does not make sense to do any subgroup analysis, including regional analysis. Again, a follow up question asks those who visited the site to rate their satisfaction. This is the survey's highest satisfaction rating (3.90), although with so few who have actually experienced MDOT's social media, the confidence interval of this mean score is very large and the difference between this mean score and those of the other communication measures (scores that also come with somewhat limited sample sizes) should be seen as suggestive at best.

Figure 48. Very Few Residents Have Ever Received Information from MDOT through Social Media (Question 24)







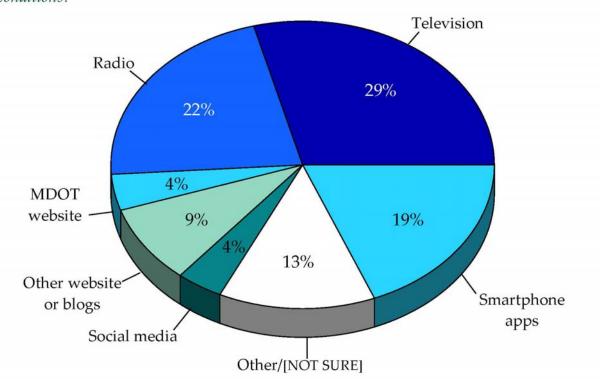


#### **Traffic and Transportation Information**

When asked where they go most frequently to obtain information on state highway and interstate conditions, residents are very divided in their responses, with 29% saying television, 22% saying radio, 19% saying a smart phone app, and 17% choosing some other form of internet source (social media, websites, blogs, etc.) (**Figure 49**).

Figure 49. Residents Are Fairly Divided Over Where They Get Highway Condition Information; One-Half Say Television or Radio (Question 22)

Q22. Where do you go most frequently to obtain information on state highways and interstate conditions?



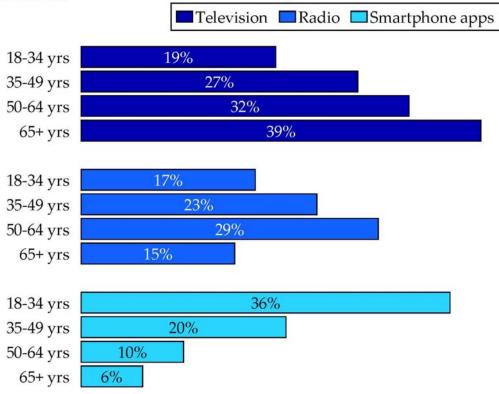




When broken down by age, these responses differ greatly. The preference for television increases with age, to the point that television is the overwhelming preference for residents 65 years of age or older (39%), compared with radio (15%) or smartphone apps (6%) (**Figure 50**). Radio, although always less likely to be preferred over television, no matter what age group, is more preferred for residents of a typical commuter age (from 35 to 65 years of age). Finally, smartphone apps have the reverse correlation with age that television has. The younger the resident, the more likely they are to turn to smartphone apps for the road condition information—to the degree that residents under 35 years of age say they use smartphone apps (36%) as much as television (19%) or radio (17%) combined.

Figure 50. Older Residents More Likely To Get Info from TV; Mid-Age Groups from Radio; and Younger Residents from Apps (Question 22)

Q22. Where do you go most frequently to obtain information on state highways and interstate conditions?



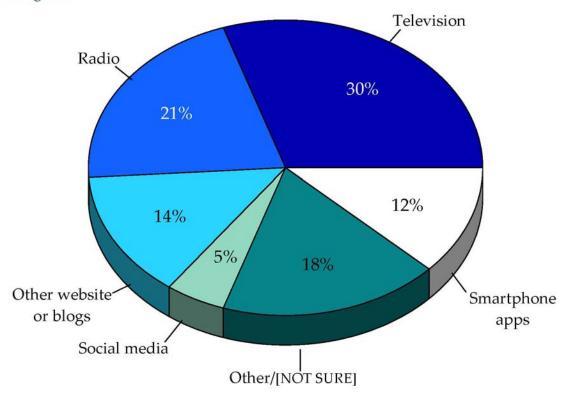




Finally, respondents are asked "In general, where do you go most frequently to get information on transportation issues in Michigan?" (**Figure 51**). Responses do not differ tremendously, thus it is not clear that respondents understood the distinction between the two issues.

Figure 51. One-Half of Residents Turn To Television or Radio to Get Transportation Information (Question 23)

Q23. In general, where do you go most frequently to get information on transportation issues in Michigan?







# Appendix A. Survey Marginals





### Marginals\* Sample Size=1400 August 4-21, 2014

| Gend | der: [RECORD FROM OBSERVATION]                               |     |
|------|--|-----|
|      | Men49%   |     |
|      | Women51%   |     |
|      |  |     |
| PROS | SPERITY REGIONS:   |     |
|      | Upper Peninsula [100 interviews]                             | 4%  |
|      | Northwest [100 interviews]                                   | 3%  |
|      | Northeast [100 interviews]                                   | 2%  |
|      | West MI [175 interviews]<br>East Central MI [100 interviews] | 15% |
|      | East Central MI [100 interviews]                             | 6%  |
|      | East MI [150 interviews]                                     | 8%  |
|      | South Central [100 interviews]                               | 5%  |
|      | Southwest [125 interviews]                                   | 8%  |
|      | Southeast MI [150 interviews]                                | 10% |
|      | Detroit Metro [300 interviews]                               | 38% |
|      |  |     |
| MDO  | T REGIONS:   |     |
|      | Superior4%   |     |
|      | North5%  |     |
|      | Grand 15%  |     |
|      | Bay14%   |     |
|      | Southwest 8%   |     |
|      | University15%  |     |
|      | Metro38%   |     |
|      |  |     |
|      |  |     |
| AGE: |  |     |
|      | 18-34 years27%   |     |
|      | 35-49 years25%   |     |
|      | 50-64years28%  |     |
|      | 65+ years18%   |     |
|      | [REFUSED]2%  |     |

<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 2013 Census population estimations. Two hundred and thirty (230) of the 1400 interviews were conducted by cell phone. Data was also weighted by cell phone usage to match CDC estimations for Michigan.





| [LANDLINE CALL]  Hello. Is there? My name is and I am calling from Mountain West, a national public opinion firm. We are conducting a brief survey about transportation issues facing people in Michigan. We are not selling anything, and this number was selected at random.   |
|--|
| [CELL PHONE CALL]  Hello. Is there? My name is and I am calling from Mountain West, a national public opinion firm. We are not selling anything. We are conducting a brief survey about issues people are facing in Michigan, and this number was selected at random. Is now a good time to talk and are you in a safe place to continue with this phone call? |
| Q1. First of all, how familiar are you with the Michigan Department of Transportation, or MDOT (pronounced EM-DOT)? Would you say you are very familiar, somewhat familiar, a little familiar, or not at all familiar with MDOT?  Very familiar  |
| 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 very satisfied, somewhat satisfied, somewhat dissatisfied with the job MDOT is doing?  Very satisfied               |
| [ASK ONLY IF Q2=3 or 4] Q2a [If "very or somewhat dissatisfied"] Is there anything specific about MDOT or the job that it is doing that leads you to be dissatisfied?  |





Q3. I am going to read you a list of activities the Michigan Department of Transportation undertakes to improve transportation in the state. After each, please tell me how satisfied you are with that particular MDOT activity. We will use a 1 to 5 scale – with a 5 meaning you are most satisfied with that service and a "1" means that you are not at all satisfied with that service. You may also use any number in between. If the item pertains to highways, please only consider the highway system MDOT is responsible for, which are interstates, U.S. Routes and routes that start with an "M"—and not city and county roads.

[RANDOMIZE] The first/ next item is:

| [KANDOWIZE] THE HIST, HEXT REIT IS.   | Not satisfied | 2   | 3   | 4   | Most satisfied | DK  |
|---|---------------|-----|-----|-----|----------------|-----|
| a. Making certain bridges along state highways are in good condition  | 9%            | 14% | 33% | 29% | 12%            | 2%  |
| b. Removing debris from highways, such as animals, glass, torn tires, and trash   | 11%           | 18% | 29% | 25% | 16%            | 1%  |
| c. Maintaining the pavement on state highways to keep them smooth and free of potholes  |               | 25% | 25% | 12% | 8%             | 1%  |
| d. Quickly and efficiently removing snow and ice from state highways and interstates  |               | 13% | 25% | 36% | 18%            | 1%  |
| e. Making Michigan state highways and interstates as safe as possible in their design and construction, and with clear markings and signage |               | 9%  | 21% | 38% | 27%            | 1%  |
| f. Quickly and efficiently completing state highway construction projects   | 14%           | 20% | 32% | 23% | 9%             | 2%  |
| g. Building and maintaining a sufficient number of rest areas for state highways and interstates  | 7%            | 11% | 26% | 34% | 20%            | 2%  |
| h. Quickly and efficiently restoring normal traffic flow after traffic accidents and incidents  | e<br>5%       | 10% | 32% | 34% | 15%            | 3%  |
| i. Making certain traffic flows as smoothly as possible during highway construction   | 10%           | 15% | 37% | 26% | 11%            | 1%  |
| j. Making certain traffic flows as smoothly as possible during rush hour  | 9%            | 15% | 39% | 25% | 9%             | 3%  |
| k. Providing clear information to the public on road closures and work zones  | 4%            | 12% | 26% | 35% | 21%            | 1%  |
| 1. Warning drivers of potential traffic delays and offering ways to avoid delays through electronic signs                                   | 6%            | 12% | 29% | 31% | 20%            | 2%  |
| m. Providing a sufficient number of bike lanes and pathways for bicycles  | 13%           | 17% | 31% | 20% | 13%            | 6%  |
| n. Making certain sufficient public transportation services are available for the elderly and persons with disabilities                     |               | 12% | 26% | 23% | 14%            | 14% |
|   |               |     |     |     |                |     |





|   | Not satisfied | 2   | 3   | 4   | Most satisfied | DK  |
|---|---------------|-----|-----|-----|----------------|-----|
| o. Making certain sufficient public transportation services for local trips are available, such as public bus or "Dial-A-Ride" transportation services. |               | 14% | 31% | 24% | 12%            | 8%  |
| p. Making certain sufficient alternatives to driving for long distance trips are available, such as intercity passenger rail or intercity bus services  | 17%           | 18% | 30% | 19% | 8%             | 9%  |
| q. Making certain for-hire transportation services such as taxis and limousines, are safe and have sufficient oversight and protection for consumers.   | <b>;</b>      | 8%  | 38% | 25% | 10%            | 14% |
| r. Taking into consideration the needs and views of the public  | 8%            | 17% | 33% | 25% | 12%            | 5%  |
| s. Reporting real time information on the current conditions on state highways and interstates  | 5%            | 12% | 30% | 33% | 16%            | 4%  |

Q4. Now I am going to read you short list of driving behaviors. After each, please tell me if you think that presently on Michigan highways and interstates the behavior is a <u>very serious safety problem</u>, a <u>fairly serious problem</u>, <u>somewhat of a problem</u>, or if you think that behavior presently presents <u>no real problem</u> for safety on Michigan state highways.

[RANDOMIZE LIST]

|  | Very<br>serious | Fairly serious | Somewhat of a | No<br>real | [NOT<br>SURE] |
|--|-----------------|----------------|---------------|------------|---------------|
|  | nrohlem         | nrohlem        | nrohlem       | nrohlem    | _             |
| a. Text messaging while driving          | 81%             | 9%             | 8%            | 2%         | 1%            |
| b. Not wearing a seat belt               | 39%             | 11%            | 25%           | 23%        | 2%            |
| c. Drinking and driving                  | 68%             | 12%            | 15%           | 3%         | 2%            |
| d. Talking on a cell phone while driving | 55%             | 17%            | 23%           | 4%         | 1%            |
| e. Speeding                              | 39%             | 18%            | 29%           | 13%        | 1%            |

Q5. Have you flown in or out of Michigan in the last year?

| Yes        | 37% |              |
|------------|-----|--------------|
| No         | 63% | [SKIP TO Q7] |
| [NOT SURE] | 0%  | [SKIP TO Q7] |





#### [ASK ONLY IF Q5=1]

Q6. Were the flights you took only on a scheduled commercial airline or did you also fly on an airplane other than on a scheduled commercial flight in the past year?

|   | All       | All who    |
|---|-----------|------------|
|   | residents | have flown |
| Only schedule commercial flight                 | 33%       | 90%        |
| Included flight other than scheduled commercial | 2%        | 5%         |
| [NOT FLOWN IN PAST YEAR (Q5)]                   |           |            |
| [NOT SURE]                                      | 2%        | 4%         |

Q7. I am going to read you a some aspects of air travel in Michigan, after each please tell me how satisfied you are with it, using the same 1 to 5 scale – with a "5" meaning you are most satisfied with it and a "1" means that you are not at all satisfied with that it. And again you may also use any number in between.

[RANDOMIZE LIST]

|   | Not satisfied | 2   | 3   | 4   | Most satisfied | DK  |
|---|---------------|-----|-----|-----|----------------|-----|
| a. The amount of time it takes to drive to an airport   |               | 6%  | 25% | 28% | 30%            | 6%  |
| [ASK ONLY IF Q5=1] b. The availability of alternative means—such as public transportation, taxis, or shuttles—to get to the airport       |               | 12% | 33% | 19% | 15%            | 7%  |
| [ASK ONLY IF Q5=1] c. The amount of available and affordable parking at the airport you use   | 7%            | 10% | 23% | 28% | 27%            | 4%  |
| [ASK ONLY IF Q5=1] d. The design, maintenance, and service at the airport passenger terminal  | 1%            | 5%  | 13% | 43% | 38%            | 0%  |
| e. The choice of destinations available from your closest commercial airport  | 5%            | 9%  | 22% | 25% | 29%            | 10% |
| f. The number of scheduled flights available from your closest commercial airport   |               | 8%  | 24% | 27% | 23%            | 13% |
| g. The cost of airline tickets at your closest commercial airport compared to the cost at other airports                                  | 11%           | 17% | 30% | 20% | 7%             | 16% |
| [ASK ONLY IF Q6=2] h. The general aviation facilities you have used for flights you have taken that were not scheduled commercial flights | 3%            | 4%  | 12% | 18% | 54%            | 10% |





Q8. How many bicycles do you own in your household?

| No bikes        | 28% |
|-----------------|-----|
| 1 bike          | 16% |
| 2 bikes         | 22% |
| 3 bikes         | 12% |
| 4 or more bikes | 21% |

Q9. In the past year, have you ridden a bicycle on a bike path or road in Michigan? [IF ASKED, THIS INCLUDES ANY STREET OR PATH, NOT JUST STATE OWNED]

| Yes        | 43% |               |
|------------|-----|---------------|
| No         | 57% | [SKIP TO Q13] |
| [NOT SURE] | 0%  | [SKIP TO Q13] |

#### [ASK ONLY IF Q9=1]

Q10. Which best describes the biking you have done in the past year? [READ LIST]

|   | All       | MI     |
|---|-----------|--------|
|   | residents | bikers |
| Your bike riding been for recreational purposes—th    | nat       |        |
| is for fun or exercise                                | 33%       | 77%    |
| Your bike riding has been to specifically transport   |           |        |
| vourself from one place to another                    | 1%        | 3%     |
| Your bike riding has been both for recreation and for | or        |        |
| practical transportation                              | 8%        | 19%    |
| [NOT RIDDEN BÎKE IN PAST YEAR (Q9)]                   |           |        |
| [NOT SURE/REFUSED]                                    | 0%        | 0%     |

#### [ASK ONLY IF Q9=1]

Q11. During the times that you do bike, would you say you bike <u>about once a day</u>, <u>less than once a week</u>, <u>about once a week</u>, <u>less than once a week</u>, <u>but more than once a month</u>, <u>about once a month</u>, <u>less than once a month</u>?

|  | All<br>residents | MI<br>bikers |
|--|------------------|--------------|
| Once a day                                   | 3%               | 6%           |
| Less than once a day/more than once a week   | 8%               | 19%          |
| Once a week                                  | 10%              | 24%          |
| Less than once a week/more than once a month | 5%               | 11%          |
| Once a month                                 |                  | 24%          |
| Less than once a month                       | 6%               | 15%          |
| [NOT RIDDEN BIKE IN PAST YEAR (Q9)]          | 57%              |              |
| [NOT SURE]                                   | 1%               | 1%           |





Q12. In the past year, have you ever commuted to work using a bike?

|                        | All       | MI     |  |
|------------------------|-----------|--------|--|
|                        | residents | bikers |  |
| Yes                    | 5%        | 12%    |  |
| No                     | 38%       | 88%    |  |
| [NOT RIDDEN BIKE (Q9)] | 57%       |        |  |
| [NOT SURE]             |           | 0%     |  |

Q13. In the past year, have you ever used bus or rail for long distance transportation trips that involved at least one stop in Michigan?

| Yes        | 11% |               |
|------------|-----|---------------|
| No         | 89% | [SKIP TO Q15] |
| [NOT SURE] |     |               |

#### [ASK ONLY IF Q13=1]

Q14. Using the same 5 point scale, please rate your satisfaction with the quality of the long distance bus or rail transportation you have experienced—with a "5" meaning you are <u>most</u> satisfied with it and a "1" means that you are <u>not at all</u> satisfied with that it.

| 189                      | % |
|--------------------------|---|
| 2                        | % |
| 3209                     | % |
| 424                      | % |
| 5269                     | % |
| [NOT SURE/DON'T KNOW] 49 | % |

Q15. In the past year, have you ever taken public transportation in the state of Michigan, such as a bus, dial-a-ride or commuter rail?

| Yes        | 21% |               |
|------------|-----|---------------|
| No         | 79% | [SKIP TO Q17] |
| [NOT SURE] |     |               |

#### [ASK ONLY IF Q15=1]

Q16. Using the same 5 point scale, please rate your satisfaction with the quality of the public transportation you have experienced—with a "5" meaning you are <u>most</u> satisfied with it and a "1" means that you are <u>not at all</u> satisfied with that it.

| 1  |                     | .10% |
|----|---------------------|------|
| 2  |                     | 7%   |
|    |                     |      |
|    |                     |      |
|    |                     |      |
| [N | OT SURE/DON'T KNOW] | 0%   |





Q17. The Michigan Department of Transportation hosts a website call MI Drive [PRON: "MY DRIVE"] which gives detailed information for major state highways about construction projects and accidents, giving real time reports on traffic conditions and the speed traffic is flowing on those roads. Have you ever been to this website?

| Yes        | 12% |               |
|------------|-----|---------------|
| No         | 87% | [SKIP TO Q19] |
| [NOT SURE] |     |               |

#### [ASK ONLY IF Q17=1]

Q18. Using the same 5 point scale, how you rate your satisfaction with MDOT's MI Drive [PRON: "MY DRIVE"] website?

| 1                     | 1%  |
|-----------------------|-----|
| 2                     | 8%  |
| 3                     | 23% |
| 4                     | 33% |
| 5                     | 33% |
| [NOT SURE/DON'T KNOW] |     |

Q19. Not including MI Drive [PRON: "MY DRIVE"] have you ever visited MDOT's website?

| Yes        | 23%             |    |
|------------|-----------------|----|
| No         | 76% [SKIP TO Q2 | 2] |
| [NOT SURE] |                 | 2  |

#### [ASK ONLY IF Q19=1]

Q20. Using the same 5 point scale, how you rate your satisfaction with MDOT's website?

| 1  |                     | 3%   |
|----|---------------------|------|
| 2  |                     | 5%   |
| 3  |                     | .28% |
| 4  |                     | .39% |
| 5  |                     | .23% |
| [N | OT SURE/DON'T KNOW] | 1%   |

#### [ASK ONLY IF Q19=1]

Q21. What has been the main reason that has taken you to MDOT's website?





Q22. Where do you go most frequently to obtain information on state highways and interstate conditions? [READ LIST, RANDOM ORDER; IF THEY GIVE MORE THAN 1, SAY: "I CAN ONLY NOTE ONE. IS THERE ONE SOURCE YOU USE THESE DAY MORE FREQUENTLY THAN OTHERS"]

| Television              | 29% |
|-------------------------|-----|
| Radio                   |     |
| MDOT website            | 4%  |
| Other websites or blogs | 9%  |
| Other websites or blogs | 4%  |
| Smartphone apps         | 19% |
| [OTHER (ENTER:          | 16% |
| [NONE]                  |     |
|                         |     |

Q23. In general, where do you go most frequently to get information on transportation issues in Michigan? [READ LIST, RANDOM ORDER; IF THEY GIVE MORE THAN 1, SAY: "I CAN ONLY NOTE ONE. IS THERE ONE SOURCE YOU USE THESE DAYS MORE FREQUENTLY THAN OTHERS"]

| Television        | 30%    |
|-------------------|--------|
| Radio             | 21%    |
| Websites or blogs | 14%    |
| Websites or blogs | 5%     |
| Smartphone apps   |        |
| OTHER (ENTER:     | 1 /10/ |
| NONE!             | 00/    |
| [NONE]            | 8%     |

Q24. Have you ever received information from MDOT through social media, such as on Facebook or through twitter?

| Yes        | 7% |               |
|------------|----|---------------|
| No         |    | [SKIP TO QD1] |
| [NOT SURE] |    |               |

#### [ASK ONLY IF Q24=1]

Q25. Using the same 5 point scale, please rate your satisfaction with the quality of information that you received from MDOT through social media— with a "5" meaning you are <u>most</u> satisfied with it and a "1" means that you are <u>not at all</u> satisfied with that it.

| 1 | 5                    | % |
|---|----------------------|---|
| 2 |                      | % |
| 3 | 16                   | % |
|   | 53                   |   |
|   | 23                   |   |
|   | OT SURE/DON'T KNOW12 |   |





Among cell phone

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

#### [CELLPHONE CALL ONLY]

D1c. Can you please tell me your age? [CODE ACTUAL AGE.]

| 18-29 years | .31%  |
|-------------|-------|
| 30-39 years | .15%  |
| 40-49 years | .20%  |
| 50-64 years | .23%  |
| 65+ years   | . 10% |
| [REFUSED]   |       |

#### [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?

| •   | Among landline |              |
|---|----------------|--------------|
|   | sample on      | ly           |
| Yes, working cell phone                     | 81%            | [SKIP TO D4] |
| No personal phone, but yes someone in house | 6%             | [SKIP TO D4] |
| No, no cell phone in house                  | 11%            | [SKIP TO D5] |
| [NOT SURE]                                  | 2%             | [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?

| sar                                  | nple on | ly           |
|--------------------------------------|---------|--------------|
| Yes, working landline phone in house | .14%    |              |
| No, no landline                      | .86%    | [SKIP TO D5] |
| [NOT SURE]                           | 1%      | [SKIP TO D5] |

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

## Among dual use households

|                             | use mousemora |
|-----------------------------|---------------|
| All/almost all cell phones. | 29%           |
| Some cell phone             | 40%           |
| Few cell phone              | 27%           |
| [DON'T KNOW/REFUSED]        |               |

D5. Do you consider yourself Hispanic, Latino; or of Caribbean, Mexican, Central or South American origin?

| Yes                  | 5%  |
|----------------------|-----|
| No                   | 91% |
| [NOT SURE/REFUSED] . |     |





D6. Could you please tell me your race? [DO NOT READ OPTIONS; ASK REGARDLESS OF RESPONSE ABOVE]

| White/Caucasian        | .72% |
|------------------------|------|
| Black/African-American |      |
| Hispanic/Latino        | 2%   |
| Asian/Pacific Islander | 3%   |
| Native American        |      |
| Other (SPECIFY)        | 1%   |
| IDON'T KNOW/REFUSED1   |      |



