

### 2023 MICHIGAN DOT ATTITUDES AND PERCEPTIONS SURVEY: FINAL REPORT



**DECEMBER 2023** 

Prepared for the Michigan Department of Transportation (MDOT)



#### **Report Title:**

2023 Michigan DOT Attitudes and Perceptions Survey: Final Report

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RSG & WestGroup Research

#### **Report Prepared for:**

The Michigan Department of Transportation (MDOT)

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# CONTENTS

Executive Summary	1
1.0 Survey Design and Methodology	3
1.1 Introduction	3
1.2 Questionnaire Development and Programming	3
1.3 Survey Sampling	4
1.4 Survey Administration	5
1.5 Data Preparation and Reporting	6
2.0 Survey Sampling	7
2.1 Online Panel Sampling Methods	7
2.2 Address-Based Sampling Methods	7
<b>2.3</b> Summary	13
3.0 Survey Data Weighting	14
3.1 Initial Expansion	17
3.2 Weighting Dimensions	17
3.3 Final Weights	18
4.0 Survey Results	19
4.1 Survey Results Section Format	21
4.2 Significance Testing	21
4.3 Familiarity with MDOT	21
4.4 Satisfaction with MDOT	24
4.5 Quality of Transportation Compared to Past	27
4.6 Reasons for Quality of Transportation Ratings Overall	
4.7 Information Sources for Michigan Transportation Issues	34
4.8 Perceptions of MDOT	

7.0 Conclusions	93
6.0 Year-Over-Year Summaries	92
5.7 Overview of University Region	90
5.6 Overview of Superior Region	88
5.5 Overview of Southwest Region	86
5.4 Overview of North Region	84
5.3 Overview of Metro Region	82
5.2 Overview of Grand Region	80
5.1 Overview of Bay Region	78
5.0 MDOT Region Summaries	78
4.15 Employment Details	74
4.14 Travel Behavior	62
4.13 Electric Vehicle Perceptions	59
4.12 Perceptions of Self-Driving Vehicles	56
4.11 Perceptions of Self-Driving Vehicles and Electric Vehicles	54
4.10 Willingness to Pay Tolls	53
4.9 Transportation Goals and Funding Options	48

#### List of Figures

Figure 2: Invitation Postcard (Front)   5     Figure 3: Invitation Postcard (Back)   6     Figure 4: Map of Hard-to-Survey Block Groups   11     Figure 5: Map of Detroit-Area Hard-to-Survey Block Groups   12     Figure 6: Map of Detroit-Area Hard-to-Survey Block Groups   12     Figure 7: Map of MDOT Regions and State of Michigan Prosperity Regions   15     Figure 9: Familiarity with MDOT   22     Figure 9: Familiarity with MDOT   23     Figure 10: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Worse" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 20: Top 5 Satisfaction with MDOT Services   39     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   36	Figure 1: MDOT A&P Survey Website	4
Figure 3: Invitation Postcard (Back)   6     Figure 4: Map of Hard-to-Survey Block Groups   11     Figure 5: Map of Bay, Metro, and University Hard-to-Survey Block Groups   11     Figure 6: Map of Detroit-Area Hard-to-Survey Block Groups   12     Figure 7: Map of MDOT Regions and State of Michigan Prosperity Regions   15     Figure 8: Familiarity with MOOT   22     Figure 10: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 20: Top 5 Satisfaction with MDOT Statements   37     Figure 21: Transportation Funding Approach   50     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road swith Self-Driving Vehicles   55     Figure 24: Willing to Pay T	Figure 2: Invitation Postcard (Front)	5
Figure 4: Map of Hard-to-Survey Block Groups   11     Figure 5: Map of Bay, Metro, and University Hard-to-Survey Block Groups   11     Figure 6: Map of Detroit-Area Hard-to-Survey Block Groups   12     Figure 7: Map of MDOT Regions and State of Michigan Prosperity Regions   15     Figure 9: Familiarity with MDOT   22     Figure 9: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Year   76     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Worse" Rating Overall   30     Sigure 16: Reasons for "Worse" Rating Overall   32     Figure 18: Agreement with MDOT Statements   37     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Funding Approach   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceive	Figure 3: Invitation Postcard (Back)	6
Figure 5: Map of Bay, Metro, and University Hard-to-Survey Block Groups   11     Figure 6: Map of Detroit-Area Hard-to-Survey Block Groups   12     Figure 7: Map of MDOT Regions and State of Michigan Prosperity Regions   15     Figure 8: Familiarity with MDOT   22     Figure 9: Familiarity with Transportation Planning Documents   23     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   Year     Year   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   MDOT Region     MDDT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current   48     and Long-Term Future Needs   48     Figure 22: Prefered Transportation Funding Approach   50     Figure 23: Reasons for N	Figure 4: Map of Hard-to-Survey Block Groups	.11
Figure 6: Map of Detroit-Area Hard-to-Survey Block Groups   12     Figure 7: Map of MDOT Regions and State of Michigan Prosperity Regions   15     Figure 8: Familiarity with MDOT   22     Figure 9: Familiarity with Transportation Planning Documents   23     Figure 10: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   Year     Year   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   MDOT Region     MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Precived Safe	Figure 5: Map of Bay, Metro, and University Hard-to-Survey Block Groups	.11
Figure 7: Map of MDOT Regions and State of Michigan Prosperity Regions   15     Figure 8: Familiarity with MDOT   22     Figure 9: Familiarity with Transportation Planning Documents   23     Figure 10: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Year   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Prefered Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Sigure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 27	Figure 6: Map of Detroit-Area Hard-to-Survey Block Groups	.12
Figure 8: Familiarity with MDOT   22     Figure 9: Familiarity with Transportation Planning Documents   23     Figure 10: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   30     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 20: Top 5 Priority Michigan Transportation Issues   39     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles   58     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 30: Additional Travel Modes Used	Figure 7: Map of MDOT Regions and State of Michigan Prosperity Regions	.15
Figure 9: Familiarity with Transportation Planning Documents.   23     Figure 10: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   30     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 20: Top 5 Priority Michigan Transportation Issues   39     Figure 21: Transportation Goals Ranked in Order of Importance for Current   and Long-Term Future Needs     and Long-Term Future Needs   48     Figure 22: Prefered Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Impact of Self-Driving Vehicles   55     Figure 26: Concerns with Electric Vehicle Ownership   61<	Figure 8: Familiarity with MDOT	.22
Figure 10: Satisfaction with MDOT   24     Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current   48     and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Concerns with Electric Vehicle Ownership   61     Figure 27: Travel Modes Used in Past Week   62	Figure 9: Familiarity with Transportation Planning Documents	.23
Figure 11: Reasons for "Dissatisfied" Ratings   25     Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Year   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 20: Top 5 Priority Michigan Transportation Issues   39     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 26: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 27: Specific Impact of Self-Driving Vehicles on Community Overall   56     Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Used in Past Week   62     Figure 32: Frequency of Food Purchases   73     Figure 34: Employment Industry   73     Figure 33: Frequ	Figure 10: Satisfaction with MDOT	.24
Figure 12: Quality of Transportation Compared to Three/Five Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     Figure 13: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 20: Top 5 Priority Michigan Transportation Issues   39     Figure 21: Transportation Goals Ranked in Order of Importance for Current   48     and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   62     Figure 32: Frequency of Food Purchases   72 </td <td>Figure 11: Reasons for "Dissatisfied" Ratings</td> <td>.25</td>	Figure 11: Reasons for "Dissatisfied" Ratings	.25
Year   27     Figure 13: Quality of Transportation Compared to Three Years Ago by   28     MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 20: Top 5 Priority Michigan Transportation Issues   39     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 27: Specific Impact of Self-Driving Vehicles on Community Overall   56     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   62     Figure 31: Travel Modes Not Used But Available   68     Figure 29: Travel Modes Not Used But Available   68     Figure 30: Additional Travel Modes Used   72     Figure 31: Travel Modes Not Used But Available <td< td=""><td>Figure 12: Quality of Transportation Compared to Three/Five Years Ago by</td><td></td></td<>	Figure 12: Quality of Transportation Compared to Three/Five Years Ago by	
Figure 13: Quality of Transportation Compared to Three Years Ago by   28     MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 20: Top 5 Priority Michigan Transportation Issues   39     Figure 21: Transportation Goals Ranked in Order of Importance for Current   and Long-Term Future Needs     and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   62     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Industry   75     Figure 35: Employment Industry   75 </td <td>Year</td> <td>.27</td>	Year	.27
MDOT Region   28     Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 29: Travel Modes Used in Past Week   62     Figure 30: Additional Travel Modes Used   68     Figure 31: Travel Modes Used in Past Week   62     Figure 32: Frequency of Food Purchases   73     Figure 33: Frequency of Food Purchases   73     Figure 33: Frequency of Receiving	Figure 13: Quality of Transportation Compared to Three Years Ago by	
Figure 14: Net Better Score by MDOT Region (Better Minus Worse)   29     Figure 15: Top Reasons for "Better" Rating Overall   30     Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current   48     and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 31: Travel Modes Used in Past Week   62     Figure 32: Frequency of Food Purchases   72     Figure 32: Frequency of Receiving Deliveries   73     Figure 33: Frequen	MDOT Region	.28
Figure 15: Top Reasons for "Better" Rating Overall.   30     Figure 16: Reasons for "Worse" Rating Overall.   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements.   37     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 26: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 27: Specific Impact of Self-Driving Vehicles on Community Overall   56     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used in Past Week   62     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 14: Net Better Score by MDOT Region (Better Minus Worse)	.29
Figure 16: Reasons for "Worse" Rating Overall   32     Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current   44     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 27: Specific Impact of Self-Driving Vehicles on Community Overall   56     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used in Past Week   62     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 15: Top Reasons for "Better" Rating Overall	.30
Figure 17: Information Sources for Michigan Transportation Issues by Year   34     Figure 18: Agreement with MDOT Statements   37     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current   44     and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 27: Specific Impact of Self-Driving Vehicles on Community Overall   56     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   62     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 16: Reasons for "Worse" Rating Overall	.32
Figure 18: Agreement with MDOT Statements   37     Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 29: Travel Modes Used in Past Week   62     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 17: Information Sources for Michigan Transportation Issues by Year	.34
Figure 19: Top 5 Priority Michigan Transportation Issues   39     Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current   44     and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 29: Travel Modes Used in Past Week   62     Figure 30: Additional Travel Modes Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 18: Agreement with MDOT Statements	.37
Figure 20: Top 5 Satisfaction with MDOT Services   44     Figure 21: Transportation Goals Ranked in Order of Importance for Current   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 36: Work Location   76	Figure 19: Top 5 Priority Michigan Transportation Issues	.39
Figure 21: Transportation Goals Ranked in Order of Importance for Current and Long-Term Future Needs   48     Figure 22: Preferred Transportation Funding Approach   50     Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 36: Work Location   76	Figure 20: Top 5 Satisfaction with MDOT Services	.44
and Long-Term Future Needs48Figure 22: Preferred Transportation Funding Approach50Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax52Figure 24: Willing to Pay Tolls53Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles55Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall56Figure 27: Specific Impact of Self-Driving Vehicles58Figure 28: Concerns with Electric Vehicle Ownership61Figure 30: Additional Travel Modes Used65Figure 31: Travel Modes Not Used But Available68Figure 32: Frequency of Food Purchases72Figure 33: Frequency of Receiving Deliveries73Figure 35: Employment Industry75Figure 36: Work Location76	Figure 21: Transportation Goals Ranked in Order of Importance for Current	
Figure 22: Preferred Transportation Funding Approach50Figure 22: Reasons for Not Preferring Road Use Fee or Gas Tax52Figure 24: Willing to Pay Tolls53Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles55Figure 26: Perceived Impact of Self-Driving Vehicles56Figure 27: Specific Impact of Self-Driving Vehicles58Figure 28: Concerns with Electric Vehicle Ownership61Figure 30: Additional Travel Modes Used62Figure 31: Travel Modes Not Used But Available68Figure 32: Frequency of Food Purchases72Figure 33: Frequency of Receiving Deliveries73Figure 34: Employment Status74Figure 35: Employment Industry75Figure 36: Work Location76	and Long-Term Future Needs	.48
Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax   52     Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles   56     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   62     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 22: Preferred Transportation Funding Approach	.50
Figure 24: Willing to Pay Tolls   53     Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 30: Additional Travel Modes Used   62     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 23: Reasons for Not Preferring Road Use Fee or Gas Tax	.52
Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles   55     Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall   56     Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 29: Travel Modes Used in Past Week   62     Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 24: Willing to Pay Tolls	.53
Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall	Figure 25: Perceived Safety When Sharing Roads with Self-Driving Vehicles	.55
Figure 27: Specific Impact of Self-Driving Vehicles   58     Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 29: Travel Modes Used in Past Week   62     Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 26: Perceived Impact of Self-Driving Vehicles on Community Overall	.56
Figure 28: Concerns with Electric Vehicle Ownership   61     Figure 29: Travel Modes Used in Past Week   62     Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 27: Specific Impact of Self-Driving Vehicles	.58
Figure 29: Travel Modes Used in Past Week   62     Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 28: Concerns with Electric Vehicle Ownership	.61
Figure 30: Additional Travel Modes Used   65     Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 29: Travel Modes Used in Past Week	.62
Figure 31: Travel Modes Not Used But Available   68     Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 30: Additional Travel Modes Used	.65
Figure 32: Frequency of Food Purchases   72     Figure 33: Frequency of Receiving Deliveries   73     Figure 34: Employment Status   74     Figure 35: Employment Industry   75     Figure 36: Work Location   76	Figure 31: Travel Modes Not Used But Available	.68
Figure 33: Frequency of Receiving Deliveries	Figure 32: Frequency of Food Purchases	.72
Figure 34: Employment Status	Figure 33: Frequency of Receiving Deliveries	.73
Figure 35: Employment Industry75 Figure 36: Work Location	Figure 34: Employment Status	.74
Figure 36: Work Location76	Figure 35: Employment Industry	.75
	Figure 36: Work Location	.76

#### List of Tables

Table 1: Targeted Sample Size for Online Panel	7
Table 2: Hard-to-Reach Counties	8
Table 3: Hard-to-Reach Block Groups and Invitations	9
Table 4: ABS Invitations and Targets	10
Table 5: Study Targets and Response	13
Table 6: Relation Between County, Region, and PUMA Area Codes	16
Table 7: Dimensions Used in Weighting Data	17
Table 8: Sample Composition	19
Table 9: Significant Difference Example for Region Data	21
Table 10: Familiarity with MDOT by MDOT Region	22
Table 11: Familiarity with Transportation Documents by MDOT Region	23
Table 12: Satisfaction with MDOT by MDOT Region	24
Table 13: Top Five Reasons for Dissatisfaction with MDOT by MDOT	
Region	26
Table 14: Top Five Reasons for "Better" Rating by MDOT Region	31
Table 15: Top Five Reasons for "Worse" Rating by MDOT Region	33
Table 16: 2023 Information Sources for Transportation Issues by MDOT	
Region	35
Table 17: 2023 Information Sources for Michigan Transportation Issues by	
Key Subgroups	36
Table 18: Top-Two Agreement with MDOT Statements by MDOT Region	38
Table 19: Priority Michigan Transportation Issues	40
Table 20: Priority of MI Issues by MDOT Region: Summary of "Very High" +	
	41
Table 21: Priority Issues by Key Subgroups: Summary of "Very High" +	
"High"	42
Table 22: Satisfaction with MDOT Services	45
Table 23: Satisfaction with MDOT Services by MDOT Region Summary of	40
"Very" + "Somewnat"	40
Table 24: Satisfaction with MDOT Services by Key Subgroups: Summary of	47
Table 25. Importance of Transportation Coole by MDOT Design Summery	47
rable 25: Importance of Transportation Goals by MDOT Region: Summary	40
Table 26: Preferred Transportation Funding Approach by MDOT Persion	49 51
Table 20. Freieneu Transportation Funding Approach by MDOT Region	51 54
Table 28: Perceived Safety When Sharing Poads with Self-Driving Vehicles	
by MDOT Pagion	55
Table 29: Perceived Impact of Self-Driving Vehicles on Community by	
Region	57
Table 30: Perceived Impact of Self-Driving Vehicles on Community by	
Region	58
Table 31: Number of Vehicles	50
Table 32: Purchasing Electric Vehicles	60
Table 33: Travel Modes Used in Past Week by Frequency	63
Table 34: Bicycle Trips	64
Table 35: Most Common Travel Modes For Trip Purpose	66
Table 36: Frequency of Public Transportation and Rideshare Use	67
Table 37: Reasons for Not Using Travel Modes	
Table 38: Transportation Limitations Over Past Year	70
Table 39: Experienced Harassment or Discrimination on Travel Modes	71
Table 40: Frequency of Food purchases by Key Subgroups (1 or More	
Days)	72
Table 41: Teleworking	77
Table 42: Bay Region Summary	79
Table 43: Grand Region Summary	81
Table 44: Metro Region Summary	83
Table 45: North Region Summary	85
Table 46: Southwest Region Summary	87
Table 47: Superior Region Summary	89
Table 48: University Region Summary	91

#### List of Abbreviations

A&P	Attitudes and Perceptions
ABS	Addressed-based Sampling
ACS	American Community Survey
IPF	Iterative Proportional Fitting
MDOT	Michigan Department of Transportation
PUMA	Public Use Microdata Area
PUMS	Public Use Microdata Sample

### EXECUTIVE SUMMARY

The **Michigan Attitudes and Perceptions (A&P) Survey** has been conducted on a regular basis since 2006 to provide the Michigan Department of Transportation (MDOT) with current information on residents' opinions about the states' transportation system and support MDOT's statewide long-range transportation plan. Like previous surveys, the 2023 survey focused on topics including the quality of transportation facilities, services, and infrastructure throughout Michigan.

The 2023 Michigan A&P Survey leveraged several key methodology elements:

- **Tailored Questionnaire:** The survey questionnaire included many of the same attitudes and perceptions questions as previous years to maintain analytical consistency.
- **Online Survey Instrument:** The 2023 survey collected data through an online survey instrument to achieve high quality, consistent data within a user-friendly format, which was accessible by desktop, tablet, or mobile device.
- **Dual-Method Sampling Approach:** The survey sampling plan included both probability (address-based sample, or ABS) and non-probability (online panel) sampling methods to optimize sample size and provide flexibility to adjust sample targets while fielding the survey.
- **Demographic and Geographic Survey Weighting:** Following data collection, the survey data was weighted to fit regional and demographic targets, including gender, income, employment status and age. This approach applied current best practices in weighting while aligning with previous years' weighting approach to improve comparability in analysis across survey years.

Through these methods, the survey team was able to collect **1,673** total responses, exceeding the 1,400-response target by twenty percent. Key highlights in the resulting data include:

- The proportion of residents rating the quality of transportation in Michigan as "better" than three years ago increased significantly from 20 percent in 2021 to 26 percent in 2023. This was the highest percentage of residents providing a "better" rating since 2013 (thirty percent of respondents).
- The 26 percent of Michigan residents who rated the quality of transportation as "better" than it was three years ago gave three primary reasons for this positive perception: roads are improving/getting better (thirty percent), roads or highways are being repaired (24 percent), and bus service is improved and/or there are more bus routes (16 percent).
- Conversely, overall satisfaction with MDOT among Michigan residents has decreased since 2017 (60 percent "very" + "somewhat satisfied" vs. 66 percent 2017). This is due to a significant increase in those reporting they are "not sure" how satisfied they are with the job MDOT is doing in 2023 (16 percent, up from 9 percent in 2017).



- In 2023, residents most often reported they rely on their smartphone traffic/map app for information on transportation issues in Michigan (36 percent, up significantly from 31 percent in 2021). This is the first time mentions of using of a mobile app surpassed television as the primary source for residents (33 percent, down significantly from 45 percent in 2021).
- As in 2021 and 2019, the issue with the highest priority for residents was for Michigan to maintain its existing roads (91 percent).
- Approximately one-tenth of all Michigan residents feel their opportunities are limited due to transportation options (11 percent). Among those 11 percent, the primary reasons residents mentioned they felt this way were having limited or no bus routes in their area (27 percent), not having access to a vehicle (22 percent) and destinations being too far away (11 percent).

Highlights by MDOT region are included below in Section 5.0.

### **1.0 SURVEY DESIGN AND METHODOLOGY**

### **1.1 INTRODUCTION**

The **Michigan Attitudes and Perceptions (A&P) Survey** has been conducted on a regular basis since 2006 to provide the Michigan Department of Transportation (MDOT) with current information on residents' opinions about the state's transportation system and support MDOT's statewide long-range transportation plan. Like previous surveys, the 2023 survey focused on topics including the quality of transportation facilities, services, and infrastructure throughout Michigan.

The 2023 Michigan A&P Survey data collection occurred from July 5 – Aug. 21, 2023. The survey collected a total of **1,673** responses from respondents throughout the state of Michigan.

The survey methodology included five primary components:

- Questionnaire development and programming.
- Survey sampling.
- Survey administration.
- Data preparation and reporting.
- MDOT leadership team presentation.

These components are outlined in further detail below.

### 1.2 QUESTIONNAIRE DEVELOPMENT AND PROGRAMMING

Throughout May and June 2023, RSG and WestGroup Research (WGR) coordinated with MDOT to develop the 2023 A&P survey questionnaire, largely based on previous A&P questionnaires. The 2023 questionnaire focused on topics including the quality of transportation facilities, services, and infrastructure throughout Michigan.

Once the survey questionnaire was finalized, WGR programmed the survey in Qualtrics. The survey platform was optimized for desktop computers, laptops, tablets, and mobile phones. The online instrument additionally included built-in data checks to ensure real-time data consistency and minimize respondent burden. The MDOT team was provided with test links/passwords to review the programmed survey and provide approval of the final programmed instrument.

#### FIGURE 1: MDOT A&P SURVEY WEBSITE



Survey respondents entered the survey via direct unique links or by entering a unique password on the survey website (Figure 1). Respondents who were unable to participate online or did not have Internet access were able to participate by phone. The phone number was provided on the survey invitation and website. The website included additional information about the survey, answers to frequently asked questions, survey privacy documentation, and information to contact the survey team. The survey was available in both English and Spanish.

### **1.3 SURVEY SAMPLING**

Respondents were invited to the survey through two methods – Online panels and addressedbased sampling (ABS). This mix of sampling approaches was designed to reduce response bias from either method and allow the study team to efficiently oversample key geographies and demographics while maximizing cost efficiency.

### **Online Panel Sampling**

WGR coordinated with Dynata to invite online panel respondents to complete the survey. Panel respondents were invited in several waves throughout the survey period to allow adjustments toward sample targets and time to review data quality.

### Address-Based Sampling (ABS)

To supplement the online sample, RSG conducted targeted address-based sampling (ABS). Additional information and detail about the survey sampling methodology is included in Section 2.0 of this report.



### **1.4 SURVEY ADMINISTRATION**

The 2023 Michigan A&P survey collected data from July 5 – Aug. 21, 2023. Online panel respondents were invited to the survey via direct links from the panel provider. Upon completing the survey, panel respondents were directed back to the online panel companies' platforms and paid a small incentive (through the provider). ABS respondents were invited to the survey using a mailed invitation postcard with a link to the survey and a unique access code for entry. RSG and MDOT collaboratively developed the invitation postcard to match the survey branding and encourage participation (see Figure 2 and Figure 3). Upon completing the survey, ABS respondents were sent a \$15 Amazon e-card, Walmart Inc. e-card, or physical Visa card as thanks for their participation.

#### FIGURE 2: INVITATION POSTCARD (FRONT)



#### FIGURE 3: INVITATION POSTCARD (BACK)



### **1.5 DATA PREPARATION AND REPORTING**

Following data collection, WGR cleaned the survey data (e.g., removed low quality records, derived additional fields for analysis) and shared the survey data, codebooks, and data frequencies with MDOT. RSG and WGR prepared a lessons-learned memo documenting recommendations for the next A&P survey.

The survey data was weighted at the end of the survey to ensure that the final data was representative of the state of Michigan across key demographic dimensions such as age, gender, household income, and region. This process is described in more detail in Section 3.0.

### 2.0 SURVEY SAMPLING

This section provides the sampling methodology for the 2023 Michigan A&P Survey. As discussed above, survey data collection occurred in summer of 2023. In total, **1,673** individual Michigan residents participated in the survey. The sampling methodology included both online panel sampling and address-based sampling (ABS).

### 2.1 ONLINE PANEL SAMPLING METHODS

RSG and WGR initially targeted a sample size of 1,000 nonprobability online panel respondents for the survey. The sample included Michigan residents across MDOT's seven defined regions. Table 1 provides the sample targets and final response by region. When the address-based sample response exceeded expectations, the project team decided to reduce the non-probability sampling to allow for more probability samples, which accounts for the difference between the original targets and final sample.

MDOT Region	Sample Target	Final Sample
Вау	120	131
Grand	160	48
Metro	240	83
North	125	98
Southwest	85	61
Superior	90	78
University	180	162
Total	1,000	661

TABLE 1:	TARGETED	SAMPLE	SIZE FOR	ONLINE	PANEL

### 2.2 ADDRESS-BASED SAMPLING METHODS

To supplement the online panel sample, RSG conducted targeted address-based sampling (ABS) for the survey. RSG stratified the ABS sample using census block groups from the 2017-2021 American Community Survey (ACS). The sampling frame for the ABS portion of the study was the list of all households in Michigan. The ABS sample included nine sampling segments split into two types – "Hard-to-survey" populations and general population in each region.

### Hard-to-Survey Population

Approximately 38 percent of the ABS sample targeted counties in Michigan with the highest proportion of each of the following:1) non-White persons, 2) Hispanic persons, 3) persons of Arab ancestry, and 4) households with incomes below \$35,000. Race, ethnicity, and income data are available at the Census block group level and are thus analyzed together. Ancestry, which is available at the Census tract level was analyzed separately.



The top five counties in each of the block-group level categories (race, ethnicity, and income) are shown below in Table 2. Note that some counties met multiple criteria, so ten counties in total were selected.

MDOT Region	County	% Non-White Persons <sup>1</sup>	% Hispanic Persons²	% Household Income < \$35,000 <sup>3</sup>
Superior	Chippewa	32.10%	2.02%	35.08%
University	Ingham	27.23%	8.12%	31.05%
Grand	Kent	23.21%	10.97%	22.69%
Metro	Oakland	27.06%	4.43%	19.26%
Grand	Oceana	8.99%	15.24%	29.40%
Grand	Ottawa	12.42%	10.16%	18.58%
Вау	Saginaw	26.87%	8.91%	32.80%
Southwest	Van Buren	15.64%	11.81%	29.22%
University	Washtenaw	27.98%	4.99%	22.62%
Metro	Wayne	48.27%	6.21%	34.56%
% of Michigan Total		70.55%	63.27%	48.30%

**TABLE 2: HARD-TO-REACH COUNTIES** 



<sup>&</sup>lt;sup>1</sup> Based on 2017 – 2021 ACS table B01001A. <sup>2</sup> Based on 2017 – 2021 ACS table B01001I. <sup>3</sup> Based on 2017 – 2021 ACS table B19001.

Within these counties, the ABS sample targeted block groups that met one or more of the following, stricter criteria:

- At least 60 percent of the population is non-White.
- At least 60 percent of the population is Hispanic.
- At least 80 percent of the households have household incomes below \$35,000.

Focusing on block groups with this high concentration improved the likelihood of reaching the intended target population. The final targeted counties and number of qualifying block groups in those counties are shown below in Table 3. Note that one county (Oceana) did not meet the block group thresholds above and therefore was not oversampled.

MDOT Region	County	Block Groups to Sample	% Non-White Persons	% Hispanic Persons	% HH Income < \$35,000
Superior	Chippewa	2	64.14%	3.33%	37.06%
University	Ingham	22	58.08%	10.32%	55.96%
Grand	Kent	35	68.31%	38.11%	39.82%
Metro	Oakland	122	78.28%	4.6%	32.25%
Grand	Ottawa	7	51.46%	54.78%	27.96%
Bay	Saginaw	33	81.81%	11.55%	57.07%
Southwest	Van Buren	1	46.62%	61.64%	21.53%
University	Washtenaw	22	62.51%	5.21%	37.69%
Metro	Wayne	658	87.98%	6.68%	49.24%
% of Michigan Total			36.95%	17.09%	16.92%

#### TABLE 3: HARD-TO-REACH BLOCK GROUPS AND INVITATIONS

RSG identified nine Census tracts in the Metro region in which at least 60 percent of the population reported Arab ancestry.<sup>4</sup> These nine tracts contain 37 block groups, 36 of which are not already included in the criteria above. These remaining 36 block groups were added to the "hard-to-survey" segment.

<sup>&</sup>lt;sup>4</sup> Based on 2017 – 2021 ACS table B04006.

### **General Population**

The remaining ABS sample included all remaining counties in MDOT's seven regions not identified above. RSG randomly sampled block groups from each region.

### **ABS Sampling Summary**

Table 4 shows the final ABS segments, expected invitations, and target completes. Figure 4 through Figure 6 show the location of the hard-to-survey block groups.

Segment	Block Groups	Total Adult Population	Invitations	ABS Target
Hard-to-Survey – Bay, Metro, University	893	729,341	9,330	84
Hard-to-Survey – Superior, Grand, Southwest	45	48,940	5,670	68
Вау	1,245	1,087,508	1,300	30
Grand	1,084	1,194,365	1,500	39
Metro	2,433	2,393,642	4,050	81
North	513	416,143	740	20
Southwest	681	606,363	1,560	39
Superior	305	245,334	620	24
University	1,187	1,152,020	630	15
Total	8,386	7,873,656	25,400	400

#### TABLE 4: ABS INVITATIONS AND TARGETS



FIGURE 4: MAP OF HARD-TO-SURVEY BLOCK GROUPS

FIGURE 5: MAP OF BAY, METRO, AND UNIVERSITY HARD-TO-SURVEY BLOCK GROUPS





#### FIGURE 6: MAP OF DETROIT-AREA HARD-TO-SURVEY BLOCK GROUPS

### 2.3 SUMMARY

In total, RSG reached 661 online panel responses plus an additional 1,012 targeted ABS respondents, exceeding the original project goal of 1,400 total respondents. These total targets will support MDOT's primary analysis priorities of assessing whether attitudes and perceptions of Michigan's adults have changed since the last survey.

The study sample targets and actual responses by region are included in Table 5 below.

MDOT Region	Target	Complete Surveys	% of Target Achieved	ABS Complete Surveys	Online Panel Complete Surveys
Bay	170	194	114%	63	131
Grand	225	319	142%	271	48
Metro	375	519	138%	436	83
North	145	155	107%	57	98
Southwest	150	140	93%	79	61
Superior	130	136	105%	58	78
University	205	210	102%	48	162
Total	1,400	1,673	120%	1,012	661

#### TABLE 5: STUDY TARGETS AND RESPONSE

### 3.0 SURVEY DATA WEIGHTING

This section describes the analysis and methodology used to expand<sup>5</sup> the 2023 Michigan A&P survey data to match the 2021 Census Survey Public Use Microdata Sample (PUMS) data.

The overall weighting process included:

- 1. Calculating an 'initial weight' based on the probability of selection. This essentially 'reversed' the sample plan.
- 2. Performing an iterative proportional fitting (IPF) routine to the surveyed data within seven subregions to ensure the weighted data accurately represent the entire region (and to reduce sampling biases).
- 3. Calculating 'final weight' values.

The following sections describe the process and the results in detail. As in the 2021 A&P survey, the expansion was completed at a regional level based on the Michigan Prosperity Regions (see Figure 7). Table 6 shows the relationship between the regions and Public Use Microdata Areas (PUMAs) used for weighting.

<sup>&</sup>lt;sup>5</sup> For the purposes of this report, the terms "expansion", "expansion factors", and "weights" are used interchangeably and are synonymous. They all represent the concept of an expansion weight.







#### TABLE 6: RELATION BETWEEN COUNTY, REGION, AND PUMA AREA CODES

Geo-bin	Prosperity Region ID	Label	Short Label	County Names	PUMA Areas (Short Codes)
1	1	Upper Peninsula Prosperity Alliance	Upper Peninsula	Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, Schoolcraft	0100, 0200
2	2	Northwest Prosperity Alliance	Northwest	Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, Wexford	0400, 0500
3	3 & 5	Northeast Prosperity Alliance & East Central Michigan Prosperity Alliance	Northeast & East Central	Alcona, Alpena, Cheboygan, Crawford, Iosco, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Arenac, Bay, Clare, Gladwin, Gratiot, Isabella, Midland, Saginaw	0300, 1300, 1200, 1400, 1500
4	4 & 8	West Michigan Prosperity Alliance & Southwest Prosperity Alliance	West & Southwest	Allegan, Barry, Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, Van Buren	0600, 0700, 0801, 0802, 0900, 1001, 1002, 1003, 1004, 1100, 1801, 1802, 1900
5	6	East Michigan Prosperity Alliance	East Michigan	Genesee, Huron, Lapeer, St. Clair, Sanilac, Shiawassee, Tuscola	1600, 1701, 1702, 1703, 1704, 3100
6	7	South Central Prosperity Alliance	South Central	Clinton, Eaton, Ingham	2000, 2101, 2102, 2200, 2300, 2400
7	9	Southeast Michigan Prosperity Alliance	Southeast	Hillsdale, Jackson, Lenawee, Livingston, Monroe, Washtenaw	2500, 2600, 2701, 2702, 2703, 2800, 3300
8	10	Detroit Metro Prosperity Alliance	Detroit Metro	Macomb, Oakland, Wayne	2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 3001, 3002, 3003, 3004, 3005, 3006, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213



### **3.1 INITIAL EXPANSION**

The purpose of the initial expansion was to expand each complete survey record to the population that was eligible to participate in the survey. The initial expansion weights were based on the relative probabilities that each participant had of being in the sample, as a function of the sampling plan. For this dataset, the initial expansion factors were generated for each weighting region by taking the total adult population for each region divided by the survey sample count.

### **3.2 WEIGHTING DIMENSIONS**

Table 7 shows the six survey characteristics used in the weighting process, chosen for their relevance to overall representativeness of survey data. These 6 characteristics and 17 components below were used to fit the PUMS data, which serve as the weighting targets. These targets align with those used in the 2021 weighting process. Education level and race/ethnicity were added in 2023 to ensure better representation.

Household Income	Person Gender					
\$0-\$49,999	Female					
\$50,000-\$74,999	Male					
\$75,000-\$99,999						
\$100,000 or more						
Person Age	Person Employment					
18 – 34 Years Old	Employed: Includes full-time, part-time. self-					
35 – 54 Years Old	employed, volunteer, and internships					
55 – 64 Years Old	Unemployed: Includes retired, stay-at-home parents, and students					
65+ Years Old	······					
Demon Education New in 2022	Demon Deco/Ethnicity Now in 2022					
Person Education – New In 2023	Person Race/Ethnicity – New In 2023					
Some college: Includes some college, associate	White Non-Hispanic					
graduate degree	Black Non-Hispanic					
No college: Includes less than high school, high school graduate, vocational/technical training	Other race or Hispanic					

#### TABLE 7: DIMENSIONS USED IN WEIGHTING DATA

### Income, Gender, and Race/Ethnicity Imputation

Certain survey questions allow users to respond with "prefer not to answer". However, RSG imputed these missing values to facilitate the weighting algorithm. These variables include income, gender, race, and ethnicity. Two types of imputation methods were utilized. The first method used to impute gender, race, and ethnicity was a simple probabilistic sampling from the variable's distribution from ACS data in that block group. The second imputation method used to impute household income was an ordinal logistic regression model, which was estimated using age, employment, education, household size, and household vehicles as independent variables in the model.

### **3.3 FINAL WEIGHTS**

The final dataset included two sets of weights:

- **weight:** The resulting weights from expanding the sample to the PUMS data. The sum of the weights in this column reflects the total adult population living in the study area.
- **weight\_adj:** The resulting weights converted to a proportional format, aligned with the format of the 2017-2019 survey weights. The sum of the weights in this column represents the total sample size.

Readers can view the full weighting memo (delivered separately) for additional information about the weighting methodology and validation.

### 4.0 SURVEY RESULTS

The following sections include key results and findings from the 2023 A&P survey data analysis. Unless otherwise noted, all figures are weighted. Table 8 shows the unweighted and weighted sample composition. In most cases, the unweighted sample is comparable to the weighted sample.

	Unweighted Sample	Weighted Sample
Age		
18-24	6%	8%
25-34	16%	19%
35-44	12%	14%
45-54	15%	17%
55-64	21%	18%
65 or older	30%	23%
Education		
Less than high school	2%	3%
High school graduate	17%	27%
Some college	23%	17%
Vocational/technical training	5%	8%
Associate degree	10%	7%
Bachelor's degree	24%	21%
Graduate/post-graduate degree	19%	17%
Gender		
Female	54%	49%
Male	43%	48%
Non-binary	1%	1%
Transgender	<1%	<1%
Prefer not to answer	2%	2%
Identify as LGBTQ+		
Yes	7%	8%
No	89%	88%
Prefer not to answer	3%	4%

#### TABLE 8: SAMPLE COMPOSITION



	Unweighted Sample	Weighted Sample
Ethnicity		
White/ Caucasian	74%	76%
Black/ African American	16%	14%
Asian/ Pacific Islander	2%	4%
American Indian/ Alaska Native	3%	3%
Hispanic, Latino, or Spanish origin	3%	3%
Middle Eastern	1%	1%
Prefer not to answer	5%	5%
Disabilities		
Vision impairment	16%	17%
Mental health condition	10%	10%
Physical impairment limiting physical activity	10%	8%
Hearing impairment	8%	7%
Other	3%	2%
No known chronic conditions or ability issues	65%	68%
Income		
Under \$50,000	36%	28%
\$50,000-\$99,999	32%	32%
\$100,000+	22%	31%
Prefer not to answer	10%	9%
# of people in HH		
1 (live alone)	24%	18%
2	38%	38%
3-4	26%	30%
5-6	9%	11%
7+	3%	3%

### 4.1 SURVEY RESULTS SECTION FORMAT

This section of the report focuses on overall statewide results, tracking results by year where applicable, results by MDOT region, and results by demographic groups and other key subgroups. In some cases, MDOT region names are abbreviated to accommodate format requirements. Thus, throughout the report, the reader will occasionally see the following three MDOT region abbreviations: "Super" for Superior, "SW" for Southwest, and "Univ" for University.

### 4.2 SIGNIFICANCE TESTING

Throughout the remainder of this report, superscript letters (<sup>ABC</sup>) indicate that a number is significantly different at the 95 percent confidence interval than either the prior study period figure or the corresponding subgroup figure. When making comparisons to historical data, an asterisk indicates a significant shift from the previous year to 2023.

Table 9 contains an example with superscript letters to indicate differences between multiple subgroups, in this case MDOT regions. Underneath the Superior Region column, marked by the letter A, the superscript letter "C" that follows 26 percent indicate that residents in the Superior Region were significantly more likely than those in the Grand (C) Region to report purchasing online items *weekly* (i.e., 26 percent is significantly higher than 14 percent). As the footnote explains, the superscript letter always indicates which column the figure is significantly higher than. This method is used for all tables comparing regions and key subgroups. Note that sample size influences significance, so categories with the same share of responses may have different significance levels.

Frequency	Total	Superior (A)	North (B)	Grand (C)	Bay (D)	Southwest (E)	University (F)	Metro (G)
Weekly	19%	26% <sup>c</sup>	21%	14%	17%	16%	20%	21%

ABCDEFG Indicates significantly higher percentage than corresponding region(s) at 95% level of confidence.

### 4.3 FAMILIARITY WITH MDOT

### Familiarity with MDOT Overall by Year

Overall familiarity with MDOT has decreased slightly over the past six years. In 2023, Michigan residents were most likely to report being "somewhat familiar" with the Michigan Department of Transportation (43 percent) while two in ten were "very familiar" (21 percent). A larger portion of residents in 2023 reported they were "not at all familiar" with MDOT compared to 2017 residents (9 percent vs. 6 percent 2017) (Figure 8).



Males were more likely than female residents to indicate they are at least somewhat familiar with MDOT (69 percent vs. 60 percent). Residents under age 35 were less likely to indicate high familiarity with MDOT than their older counterparts (56 percent 18 to 34 vs. 61 percent to 74 percent of those age 35+).





Q2.2: How familiar are you with the Michigan Department of Transportation (MDOT)? \*Indicated significantly different than 2017 at 95% confidence level.

### Familiarity with MDOT by Region

Residents living in the North and Metro regions were most likely to be "very" or "somewhat" familiar with MDOT (71 percent and 69 percent, respectively). University region residents were most likely to be "not sure" of their familiarity with MDOT (4 percent vs. <1 percent - 2 percent other regions) (Table 10).

Familiarity	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Very + Somewhat Familiar	64%	59%	71% <sup>ef</sup>	67%	60%	57%	57%	69% <sup>ef</sup>
Very familiar	21%	17%	24% <sup>F</sup>	23% <sup>F</sup>	21%	15%	13%	24% <sup>ef</sup>
Somewhat familiar	43%	42%	47%	45%	39%	41%	44%	44%
A little familiar	26%	28%	21%	27%	32% <sup>G</sup>	30%	28%	21%
Not at all familiar	9%	13%	8%	5%	7%	12%	12%	10%
Not sure	1%	-	<1%	1%	2%	1%	4% <sup>ABG</sup>	<1%

#### TABLE 10: FAMILIARITY WITH MDOT BY MDOT REGION

Q2.2: How familiar are you with the Michigan Department of Transportation (MDOT)?

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.

### Familiarity with Transportation Planning Documents

Fewer than one in three residents indicated some familiarity with one or more of the three transportation planning documents with two-thirds reporting they were "not at all familiar" with each program (59 percent – 70 percent). The State Transportation Improvement Program attained the highest familiarity among Michigan residents (16 percent "very" + "somewhat familiar") (Figure 9).



#### FIGURE 9: FAMILIARITY WITH TRANSPORTATION PLANNING DOCUMENTS

Q2.3: How familiar are you with the following?

### Familiarity with Transportation Documents by Region

Residents of the Bay region were more familiar with the State Long-Range Transportation Plan (known as Michigan Mobility 2045) compared to residents in other regions (15 percent vs. 6 percent - 13 percent). Familiarity for the other two documents remained statistically similar among all Michigan residents (Table 11).

Documents	Top-Two Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
State Transportation Improvement Program	16%	17%	17%	16%	18%	12%	13%	17%
State Long-Range Transportation Plan (Michigan Mobility 2045)	11%	10%	13%	10%	15% <sup>E</sup>	6%	9%	11%
Five-Year Transportation Program	10%	11%	12%	10%	14%	8%	9%	10%

#### TABLE 11: FAMILIARITY WITH TRANSPORTATION DOCUMENTS BY MDOT REGION

Q2.3: How familiar are you with the following?

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.



### 4.4 SATISFACTION WITH MDOT

### Satisfaction with MDOT by Year

Overall satisfaction with MDOT among Michigan residents has decreased since 2017 (60 percent "very" + "somewhat satisfied" vs. 66 percent 2017). This is due to a significant increase in those reporting they are "not sure" how satisfied they are with the job MDOT is doing in 2023 (16 percent, up from 9 percent in 2017) (Figure 10).

Older residents were more likely than younger residents to be somewhat satisfied with MDOT (64 percent for ages 45+ vs. 54 percent for those under age 45).



#### FIGURE 10: SATISFACTION WITH MDOT

Q2.4: Overall, how satisfied are you with the job MDOT is doing? \*Indicated significantly different than 2017 at 95% confidence level.

### Satisfaction with MDOT by Region

Residents in the Bay and Metro regions were most likely to report being "very satisfied" with the job MDOT is doing (12 percent vs. 3 percent – 9 percent other regions). North region residents were most likely to be "somewhat satisfied" compared to the other regions (62 percent vs. 45 percent – 56 percent other regions) (Table 12).

Satisfaction	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Very + Somewhat Satisfied	60%	64%	64%	59%	64%	57%	55%	60%
Very satisfied	10%	9%	3%	8%	12% <sup>B</sup>	9%	9% <sup>B</sup>	12% <sup>B</sup>
Somewhat satisfied	50%	56%	62% <sup>EFG</sup>	51%	52%	48%	45%	48%
Somewhat dissatisfied	17%	17%	19%	20% <sup>D</sup>	10%	17%	24% <sup>D</sup>	16%
Very dissatisfied	7%	5%	8%	11%	6%	9%	7%	6%
Not sure	16%	14%	8%	10%	20% <sup>BC</sup>	17% <sup>B</sup>	15%	18% <sup>BC</sup>

#### TABLE 12: SATISFACTION WITH MDOT BY MDOT REGION

Q2.4: Overall, how satisfied are you with the job MDOT is doing?

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.

### **Reasons for Dissatisfied MDOT Ratings Overall**

Michigan residents who reported being "somewhat" or "very dissatisfied" with the job MDOT is doing were most dissatisfied with Michigan's poor road conditions and the quality of road repairs (44 percent poor road conditions, 21 percent poor construction, 13 percent slow repairs, and 10 percent short-term repairs). Others were dissatisfied with public transportation services (7 percent bus service/routes, 4 percent better public transportation, and 3 percent more frequent schedules) (Figure 11).



#### FIGURE 11: REASONS FOR "DISSATISFIED" RATINGS

Q2.5: What about MDOT or the job it is doing leads you to be dissatisfied? n=374 All responses 2% or higher included in graph. \*Open-ended question, coded response percentages will not add up to 100%.



### Reasons for Dissatisfaction with MDOT by Region

More than half of the residents living in Superior, North, Grand, and University regions listed poor road conditions as their reason for dissatisfaction with MDOT (53 percent to 68 percent vs. 26 percent – 39 percent mentioned the same in Bay, Southwest, and Metro regions) (Table 13).

Bay and Metro Region residents were most likely to mention poor construction and unnecessary road closures (42 percent and 27 percent, respectively vs. 5 percent – 18 percent other regions).

Satisfaction	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Poor road conditions/ maintenance	44%	68% <sup>EG</sup>	53% <sup>G</sup>	63% <sup>EG</sup>	39%	35%	61% <sup>EG</sup>	26%
Poor construction/ unnecessary road closures	21%	5%	11%	18%	42% <sup>ABF</sup>	17%	11%	27% <sup>ABF</sup>
Slow to do repairs	13%	5%	18%	11%	3%	8%	13%	16% <sup>D</sup>
Repairs don't last long	10%	2%	15%	10%	4%	10%	5%	14%
Improved bus service / more bus routes	7%	-	-	1%	7%	13%	-	13% <sup>c</sup>
MDOT does not use money wisely	6%	17%	6%	3%	1%	11%	7%	5%
Better public transportation/ more funding	4%	-	8%	-	-	7%	9%	3%
Bridges need repair	3%	-	4%	8%	2%	-	1%	3%
Cars are damaged by roads	3%	3%	-	<1%	6%	7%	5%	2%
Better communication from MDOT	2%	4%	-	3%	2%	-	-	2%
Infrastructure needs updating	1%	9%	-	1%	-	-	-	1%
Don't know/Did not answer	4%	-	4%	4%	7%	2%	5%	-

TABLE 13: TOP FIVE REASONS FOR DISSATISFACTION WITH MDOT BY MDOT REGION

Q2.5: What about MDOT or the job it is doing leads you to be dissatisfied?

<sup>ABCDEFG</sup> Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level. Reasons with five highest percentages marked in **bold** for each region.

# 4.5 QUALITY OF TRANSPORTATION COMPARED TO PAST

### **Quality of Transportation Compared to Past by Year**

The proportion of residents rating the quality of transportation as "better" than three years ago increased significantly in 2023 to 26 percent (up from 20 percent in 2021); this was the highest percent of residents providing a "better" rating since 30 percent gave this rating in 2013. Conversely, there was a significant decrease in those rating it as "worse" than three years ago (18 percent, down from 25 percent) (Figure 12).



#### FIGURE 12: QUALITY OF TRANSPORTATION COMPARED TO THREE/FIVE YEARS AGO BY YEAR

Q2.6: Is the quality of transportation in Michigan better, the same, or worse than it was three years ago? \*Percentage is significantly different from 2021

\*\*Prior to 2017, the question was asked to compare the quality of transportation to five years ago.

## Quality of Transportation Compared to Three Years Ago by MDOT Region

Residents living in the Metro region were most likely to rate the quality of transportation as "better" compared to three years ago (31 percent vs. 20 percent – 27 percent other regions). University and Grand region residents had the largest proportions rating it as "worse" than three years ago compared to all other regions (22 percent – 23 percent vs. 13 percent – 20 percent other regions) (Figure 13).



### FIGURE 13: QUALITY OF TRANSPORTATION COMPARED TO THREE YEARS AGO BY MDOT REGION

Q2.6: Is the quality of transportation in Michigan better, the same, or worse than it was three years ago? ABCDEFG Indicates significantly higher percentage than the corresponding region(s).

### **Net Better Score**

Another way to analyze the perception of the quality of transportation in Michigan compared to three years ago is to calculate a "Net Better Score" for each region. As shown in Figure 14, when the percentage of "worse" ratings is subtracted from the "better" percentage, Michigan as a whole had a Net Better Score of positive eight (+8). This is a notable improvement compared to the overall Net Better Score of "-5" in 2021.

The Metro region ranked the highest with a positive sixteen (+16) Net Better Score (better rating of 31 percent minus the worse rating of 15 percent). Bay ranked second with a Net Better Score of +13, followed by Superior with +7. Southwest and University regions had the lowest Net Better Scores with -0.3 and -3, respectively.




## 4.6 REASONS FOR QUALITY OF TRANSPORTATION RATINGS OVERALL

### Reasons Quality of Transportation is "Better than Three Years Ago"

The 26 percent of Michigan residents who rated the quality of transportation as "better" than it was three years ago gave three primary reasons for this positive perception: roads are improving/getting better (30 percent), roads or highways are being repaired (24 percent), and bus service is improved and/or there are more bus routes (16 percent) (Figure 15).

Younger residents (ages 18-34) and non-white residents were more likely than their comparative groups to indicate that the quality of transportation in the state has gotten better because of improved bus service (24 percent under age 45 vs. 11 percent age 45+; 33 percent non-white vs. 10 percent white) and generally more public transportation options available to residents (8 percent under age 45 vs. 2 percent age 45+; 9 percent non-white vs. 2 percent white). Residents in the comparative groups were more likely to cite general improvements to road conditions.



#### FIGURE 15: TOP REASONS FOR "BETTER" RATING OVERALL

Q 2.7: Please explain the reason for your answer.

Based to those who answered and rated transportation quality as "better" n=479. 43 respondents provided no additional text response.

All responses 2% or higher are included in graph excluding "Other" and "Don't know".

\*Open-ended question, coded response percentages will not add up to 100%.



## Reasons for "Better Than Three Years Ago" Rating by MDOT Region

Southwest and North region residents were most likely to report fixed roads and highways as the reason for rating the quality of transportation in Michigan as being better than it was three years ago (53 percent and 46 percent vs. 13 percent – 31 percent for other regions). Residents in the Metro region were more likely to report improved bus service as their reason for a "better" rating compared to other regions (22 percent vs. 5 percent – 19 percent) (Table 14).

Reasons	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Roads are getting better/ improving	30%	26%	31%	38%	38%	30%	39%	24%
Roads/ highways are fixed	24%	31%	46% <sup>FG</sup>	29%	28%	53% <sup>FG</sup>	13%	15%
Improved bus service / more bus routes	16%	14%	5%	10%	6%	11%	19%	22% <sup>BD</sup>
Traffic flow is good/ no problems	7%	13%	2%	9%	2%	5%	7%	9%
More options are now available	4%	2%	4%	2%	8%	2%	-	5%
Like the new signage	1%	-	6%	<1%	-	-	-	1%
Don't know/ Did not answer	11%	18%	7%	9%	6%	8%	17%	12%

TABLE 14: TOP	P FIVE REASONS FOR	"BETTER" RATING	BY MDOT REGION
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Q 2.7: Please explain the reason for your answer. <sup>ABCDEFG</sup> Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level. \*Open-ended question, coded response percentages will not add up to 100%.

Reasons with five highest percentages marked in **bold** for each region.

## Reasons Quality of Transportation "Worse than Three Years Ago"

Most residents who rated the quality of transportation as "worse" than it was three years ago indicated they did so because of poor road conditions (42 percent). Other reasons for providing a "worse" rating were due to perceptions of poor construction (17 percent) and worsening traffic congestion (13 percent) (Figure 16). Note: 18 percent of all residents gave a rating of "worse".



#### FIGURE 16: REASONS FOR "WORSE" RATING OVERALL

Q2.7: Please explain the reason for your answer.

Based to those who answered and rated transportation quality as "worse" overall n=269. 21 respondents provided no additional text response.

All responses 2% or higher are included in the graph excluding "Other" and "Don't know".

\*Open-ended question, coded response percentages will not add up to 100%.

## Reasons for "Worse Than Three Years Ago" Rating by MDOT Region

The University region had the largest proportion of residents reporting poor road conditions as their reason for providing a "worse" rating (56 percent vs. 29 percent – 50 percent other regions). Residents of the Metro region were most likely to provide a "worse" rating due to poor construction/road closures (38 percent vs. 0 percent – 11 percent other regions). North region residents emphasized road repairs and maintenance as their primary reasons (Table 15).

Reasons	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Poor road conditions/ maintenance	42%	45%	29%	42%	45%	50%	<b>56%</b> <sup>G</sup>	30%
Poor construction/ unnecessary road closures	17%	-	11%	8%	2%	11%	5%	38% <sup>bcdef</sup>
Traffic congestion has gotten worse	13%	3%	19%	5%	9%	4%	21%	<b>19%</b> ^
Slow to do repairs/ takes years	7%	-	24% <sup>DEFG</sup>	9%	2%	<1%	7%	8%
Repairs don't last long	7%	-	24% <sup>G</sup>	12%	17% <sup>G</sup>	-	5%	2%
Better public transportation/ more funding	5%	-	3%	-	5%	9%	7%	7%
Need to improve bus service/ need more routes	4%	-	-	3%	1%	-	2%	10%
Bridges need repair/ overpasses	3%	-	6%	3%	-	11%	5%	-
COVID-19 has affected transportation	3%	9%	5%	-	3%	-	6%	3%
Politics/ Bureaucrats making poor decisions	2%	8%	-	9%	2%	3%	1%	-
Cars damaged by roads/ wear and tear	2%	3%	5%	<1%	-	11%	1%	1%
Roads in other states are better	2%	2%	-	9%	-	-	-	-
There is always room for improvement	1%	6%	-	-	-	-	4%	1%
Don't know/ Did not answer	9%	12%	9%	12%	5%	5%	8%	10%

TABLE 10. TOT THE REAGOND FOR MOROE RATING DI MEDOT REGION
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Q2.7: Please explain the reason for your answer.

<sup>ABCDEFG</sup> Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level. \*Open-ended question, coded response percentages will not add up to 100%.

Reasons with five highest percentages marked in **bold** for each region.



# 4.7 INFORMATION SOURCES FOR MICHIGAN TRANSPORTATION ISSUES

## Information Sources by Year

In 2023, residents most often reported they rely on their smartphone traffic/map app for information on transportation issues in Michigan (36 percent, up significantly from 31 percent in 2021). This is the first time mentions of using of a mobile app surpassed television as the primary source for residents (33 percent, down significantly from 45 percent in 2021).

The MDOT website (29 percent) and newspaper (28 percent) increased significantly in mentions compared to 2021 while social media mentions remained stable at 29 percent in 2023 compared to 30 percent in 2021 (Figure 17).



#### FIGURE 17: INFORMATION SOURCES FOR MICHIGAN TRANSPORTATION ISSUES BY YEAR

Q2.8: Where do you go to obtain information on transportation issues in Michigan? Select all that apply. \*Percentage is significantly different from 2021

\*\*Multiple responses allowed, response percentages will not add up to 100%.

## 2023 Information Sources by MDOT Region

University and Metro regions had the largest proportions of residents citing a smartphone traffic/map app as their information source for Michigan transportation issues (39 percent -40 percent vs. 24 percent -37 percent other regions). North region residents were more likely to cite television and the radio as their primary sources of information compared to those in all other regions (Table 16).

Reasons	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Smartphone Traffic/Map App	36%	24%	32%	37%	33%	27%	39% <sup>A</sup>	40% <sup>AE</sup>
Television	33%	33%	44% <sup>efg</sup>	33%	39%	25%	31%	32%
Social Media (Facebook/Twitter)	29%	31%	20%	34% <sup>B</sup>	32% <sup>B</sup>	35% <sup>B</sup>	29%	26%
MDOT Website	29%	36%	27%	32%	29%	31%	29%	28%
Newspaper	28%	33%	31%	24%	29%	29%	27%	29%
Radio	26%	20%	34% <sup>aef</sup>	26%	29%	18%	22%	27%
Mi Drive Website	10%	12%	9%	10%	13%	16% <sup>G</sup>	9%	7%
Online forums	10%	17% <sup>CD</sup>	11%	6%	7%	14% <sup>c</sup>	10%	10%
Industry/ Advocacy Publication	2%	-	5%	2%	2%	<1%	2%	2%
Word of Mouth	1%	1%	1%	<1%	1%	-	-	1%
Other	4%	2%	5%	7%	3%	2%	6%	3%
None/Don't look for information	13%	12%	15%	14%	14%	17%	13%	11%

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Q2.8: Where do you go to obtain information on transportation issues in Michigan? Select all that apply. <sup>ABCDEFG</sup> Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level. The top two information sources by region are in **bold**.

\*Multiple responses allowed; response percentages will not add up to 100%.

## Information Sources by Key Subgroups

While men were significantly more likely to obtain information on Michigan transportation issues from the TV, radio or newspaper, social media was significantly more popular among women (37 percent vs. 21 percent).

Older residents were more likely to report turning to television, radio, and newspapers for information while younger residents were more likely to say they rely on social media (39 percent vs. 22 percent or online forums (18 percent vs. 5 percent) (Table 17).



Reasons	Total	Male (A)	Female (B)	<45 (C)	45+ (D)
Smartphone Traffic/Map App	36%	34%	37%	36%	36%
Television	33%	37% <sup>B</sup>	30%	21%	41% <sup>c</sup>
Social Media (Facebook/Twitter)	29%	21%	37% <sup>A</sup>	39% <sup>D</sup>	22%
MDOT Website	29%	32%	27%	30%	29%
Newspaper	28%	33% <sup>B</sup>	24%	23%	32% <sup>c</sup>
Radio	26%	31% <sup>B</sup>	21%	20%	30% <sup>C</sup>
Mi Drive Website	10%	11%	9%	9%	10%
Online forums	10%	10%	11%	18% <sup>D</sup>	5%
Industry/ Advocacy Publication	2%	2%	2%	2%	2%
Word of Mouth	1%	1%	1%	1%	1%
Other	4%	4%	4%	3%	5%
None/Don't look for information	13%	11%	15%	15%	12%

## TABLE 17: 2023 INFORMATION SOURCES FOR MICHIGAN TRANSPORTATION ISSUES BY KEY SUBGROUPS

Q2.8: Where do you go to obtain information on transportation issues in Michigan? Select all that apply. <sup>ABCD</sup> Indicates significantly higher percentage compared to corresponding subgroup(s) at 95% confidence level. Multiple responses allowed; response percentages will not add up to 100%.

## 4.8 PERCEPTIONS OF MDOT

## Agreement with MDOT Statements Overall

Residents were provided a list of six statements about MDOT and asked to indicate their agreement with each statement. The top three statements, agreed to by slightly less than half of the residents, were "MDOT is moving in the right direction," "MDOT does a good job prioritizing highway improvements," and "I trust MDOT to make good decisions about the state's future transportation system" (48 percent, 47 percent, 46 percent respectively). Fewer than one in 10 residents strongly disagree with any of the statements (Figure 18).

#### FIGURE 18: AGREEMENT WITH MDOT STATEMENTS



Q2.9: Please indicate your level of agreement with each statement about MDOT.

## **Top-Two Agreement with MDOT Statements by MDOT Region**

Residents living in the Metro region were most likely to agree that MDOT is moving in the right direction (52 percent vs. 39 percent – 50 percent other regions). Grand region had the largest proportion of residents to agree MDOT does a good job prioritizing highway improvements in Michigan (54 percent vs. 41 percent – 50 percent). Bay region residents were more likely than others to believe MDOT is taking care of the local communities – MDOT adequately supports local transportation projects and MDOT is responsive to concerns of the local communities (50 percent and 45 percent, respectively vs. 27 - 44 percent) (Table 18).

Statements	Top- Two Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
I think MDOT is moving in the right direction	48%	41%	45%	48%	50%	39%	41%	52% <sup>EF</sup>
I think MDOT does a good job prioritizing highway improvements in Michigan	47%	42%	50%	54% <sup>F</sup>	46%	41%	41%	48%
I trust MDOT officials to make good decisions about the state's future transportation system	46%	46%	46%	47%	51%	44%	42%	46%
I think MDOT adequately supports local transportation projects for city and county governments	42%	42%	41%	44%	50% <sup>ef</sup>	33%	35%	43%
I think MDOT is responsive to the concerns of local communities	39%	27%	34%	40%	45% <sup>A</sup>	36%	38%	41% <sup>A</sup>
I have more confidence in MDOT today than I did three years ago	35%	29%	31%	35%	40%	31%	29%	38%

#### TABLE 18: TOP-TWO AGREEMENT WITH MDOT STATEMENTS BY MDOT REGION

Q2.9: Please indicate your level of agreement with each statement about MDOT.

<sup>ABCDEFG</sup> Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level. The top two agreement statements by region are in **bold**.

## 2023 Priority of Michigan Transportation Issues Overall

Residents were provided a list of 16 transportation issues and asked to indicate the priority the state of Michigan should place on each item. As in 2019, the issue with the highest priority for residents was for Michigan to maintain its existing roads (91 percent "very high" + "high priority").

Rounding out the top five priority issues are reducing traffic congestion (69 percent), expanding transportation services for seniors and persons with disabilities (61 percent), adding sidewalks and paths to make it easier and safer to walk (59 percent), and reducing air pollution caused by vehicles (51 percent).

Preparing Michigan for self-driving cars received the lowest priority rankings with only 19 percent rating it as a "high" or "very high priority" and one-half (54 percent) stating it should be a "low" or "very low priority". The complete list is shown in Figure 19 and Table 19.



#### FIGURE 19: TOP 5 PRIORITY MICHIGAN TRANSPORTATION ISSUES

Q2.10: What type of priority should Michigan place on each of the following issues?

Priorities	Very high + High	Very High Priority	High Priority	Somewhat of a priority	Low Priority	Very Iow Priority	Don't know
Maintain existing roads	91%	59%	32%	6%	1%	1%	1%
Reduce traffic congestion	69%	30%	39%	26%	3%	1%	1%
Expand transportation services for seniors and persons with disabilities	61%	29%	32%	28%	6%	3%	2%
Add sidewalks and paths to make it easier and safer to walk	59%	27%	32%	26%	11%	4%	<1%
Reduce air pollution caused by vehicles	51%	24%	27%	22%	16%	9%	2%
Expand public transportation/bus service	51%	23%	28%	28%	13%	6%	2%
Make it easier for businesses to move goods and materials	50%	19%	31%	36%	9%	1%	4%
Add lanes to increase capacity on state highways	48%	18%	30%	29%	15%	6%	2%
Improve passenger bus service between cities	45%	19%	26%	31%	14%	6%	4%
Add facilities to make bicycle travel easier and safer	45%	18%	27%	27%	17%	9%	2%
Improve passenger rail service	41%	16%	25%	31%	18%	5%	5%
Add highway turning and passing lanes	40%	15%	25%	36%	16%	4%	4%
Improve freight rail service to support local industries	40%	13%	27%	38%	12%	2%	8%
Improve air travel by upgrading airport facilities	35%	13%	22%	37%	18%	5%	5%
Prepare for electric vehicles	34%	15%	19%	28%	18%	18%	2%
Prepare Michigan for self- driving cars	19%	7%	12%	23%	27%	27%	4%

#### TABLE 19: PRIORITY MICHIGAN TRANSPORTATION ISSUES

Q2.10: What type of priority should Michigan place on each of the following issues?

## 2023 Priority Michigan Transportation Issues by Region

Six of the seven MDOT regions indicated "maintaining existing roads" and "reducing traffic congestion" were the two highest priorities. A large proportion of Superior region residents believe MDOT should place a high priority on adding highway turning and passing lanes (54 percent vs. 37 percent – 48 percent other regions). Metro region had the largest proportion of residents indicating MDOT should place a high priority on 12 of the 16 transportation issues (Table 20).

Issues	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Maintain existing roads	91%	91%	92%	94%	92%	93%	91%	90%
Reduce traffic congestion	69%	46%	63% <sup>A</sup>	64% <sup>A</sup>	67% <sup>A</sup>	61%	69% <sup>A</sup>	76% <sup>ABCE</sup>
Expand transportation services for seniors and persons with disabilities	61%	51%	53%	50%	60%	55%	60%	68% <sup>ABCE</sup>
Add sidewalks and paths to make it easier and safer to walk	59%	49%	52%	51%	57%	54%	60%	65% <sup>ABCE</sup>
Reduce air pollution caused by vehicles	51%	35%	36%	42%	47%	46%	52% <sup>AB</sup>	60% <sup>ABCDE</sup>
Expand public transportation/bus service	51%	51% <sup>C</sup>	36%	36%	45%	47%	52% <sup>BC</sup>	62% <sup>BCDE</sup>
Make it easier for businesses to move goods and materials	50%	49%	52%	57%	50%	50%	47%	49%
Add lanes to increase capacity on state highways	48%	40%	45%	44%	51%	48%	46%	50%
Improve passenger bus service between cities	45%	34%	36%	28%	39%	45% <sup>C</sup>	44% <sup>C</sup>	55% <sup>ABCDF</sup>
Add facilities to make bicycle travel easier and safer	45%	39%	36%	48%	45%	37%	41%	49% <sup>B</sup>
Improve passenger rail service	41%	41%	36%	36%	31%	39%	43%	46% <sup>D</sup>

#### TABLE 20: PRIORITY OF MI ISSUES BY MDOT REGION: SUMMARY OF "VERY HIGH" + "HIGH"



Issues	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Add highway turning and passing lanes	40%	54% <sup>CEFG</sup>	48%	38%	43%	37%	39%	39%
Improve freight rail service to support local industries	40%	31%	40%	41%	41%	36%	37%	43%
Improve air travel by upgrading airport facilities	35%	35%	38%	29%	32%	27%	32%	42% <sup>CE</sup>
Prepare for electric vehicles	34%	17%	28%	32% <sup>A</sup>	29%	26%	35% <sup>A</sup>	40% <sup>ABDE</sup>
Prepare Michigan for self-driving cars	19%	10%	16%	16%	13%	20%	20%	24% <sup>AD</sup>

 $\overline{Q2.10}$ : What type of priority should Michigan place on each of the following issues?

Top two "priorities" by region shown in **bold** text.

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.

## 2023 Priority Michigan Transportation Issues by Key Subgroups

Non-White residents were significantly more likely to place a high priority for 11 of the 16 transportation issues compared to White residents.

Residents over the age of 45 were most likely to prioritize current road conditions such as maintaining existing roads (94 percent vs. 87 percent <45) and reducing traffic congestion (72 percent vs. 64 percent <45). Conversely, younger residents were more likely to place a high priority on expanding transportation services, adding sidewalks and bike paths, reducing air pollution, and preparing for electric vehicles compared to those over the age of 45 (Table 21).

Issues	Total	White (A)	Non-White (B)	<45 (C)	45+ (D)
Maintain existing roads	91%	92%	90%	87%	94% <sup>C</sup>
Reduce traffic congestion	69%	68%	71%	64%	72% <sup>C</sup>
Expand transportation services for seniors and persons with disabilities	61%	56%	74% <sup>A</sup>	66% <sup>D</sup>	56%
Add sidewalks and paths to make it easier and safer to walk	59%	55%	72% <sup>A</sup>	67% <sup>D</sup>	53%
Reduce air pollution caused by vehicles	51%	47%	65% <sup>A</sup>	58% <sup>D</sup>	46%
Expand public transportation/bus service	51%	45%	70% <sup>A</sup>	62% <sup>D</sup>	43%
Make it easier for businesses to move goods and materials	50%	48%	56%	47%	52%

#### TABLE 21: PRIORITY ISSUES BY KEY SUBGROUPS: SUMMARY OF "VERY HIGH" + "HIGH"



Issues	Total	White (A)	Non-White (B)	<45 (C)	45+ (D)
Add lanes to increase capacity on state highways	48%	47%	53%	47%	49%
Improve passenger bus service between cities	45%	38%	65% <sup>A</sup>	53% <sup>D</sup>	39%
Add facilities to make bicycle travel easier and safer	45%	42%	55% <sup>A</sup>	51% <sup>D</sup>	40%
Improve passenger rail service	41%	38%	50% <sup>A</sup>	42%	40%
Add highway turning and passing lanes	40%	38%	46%	37%	42%
Improve freight rail service to support local industries	40%	38%	47% <sup>A</sup>	38%	41%
Improve air travel by upgrading airport facilities	35%	31%	50% <sup>A</sup>	38%	33%
Prepare for electric vehicles	34%	31%	42% <sup>A</sup>	<b>39%</b> <sup>D</sup>	30%
Prepare Michigan for self-driving cars	19%	15%	34% <sup>A</sup>	28% <sup>D</sup>	14%

Q2.10: What type of priority should Michigan place on each of the following issues?

ABCD Indicates significantly higher percentage compared to corresponding region(s) at 95% confidence level.

## Satisfaction with MDOT Services Overall

Residents were asked to rate their satisfaction with a list of 11 MDOT services. The two MDOT services with the highest satisfaction ratings among residents were "quickly and efficiently removing snow and ice from Michigan state highways" (69 percent "very" + "somewhat satisfied") and "making Michigan state highways as safe as possible, and with clear markings and signage" (66 percent).

Rounding out the top five services with the highest satisfaction were "making sure bridges along Michigan state highways are in good condition" (52 percent), "providing clear information or warnings to the public on road closures, work zones, and traffic delays through Facebook or Twitter" (49 percent), and "making sure traffic flows as efficiently and smoothly as possible" (39 percent) (Figure 20 and Table 22).



#### FIGURE 20: TOP 5 SATISFACTION WITH MDOT SERVICES

Q2.11: Please indicate how satisfied you are with each of the following MDOT services.

Services	Very + Smwht Satisfied	Very Satisfied	Smwht Satisfied	Neutral	Smwht Dis- satisfied	Very Dis- satisfied	Don't know
Quickly and efficiently removing snow and ice from state highways	69%	27%	42%	13%	12%	4%	2%
Making state highways as safe as possible, and with clear markings and signage	66%	22%	44%	19%	10%	4%	1%
Making sure bridges along state highways are in good condition	52%	15%	37%	24%	14%	6%	4%
Providing clear information and warnings to the public on road closures, work zones, and potential traffic delays	49%	18%	31%	23%	10%	5%	13%
Making sure traffic flows as efficiently and smoothly as possible during rush hour, highway construction, and after crashes	39%	9%	30%	26%	25%	8%	2%
Quickly and efficiently completing state highway construction projects	37%	11%	26%	23%	22%	16%	2%
Providing bike lanes and pathways for bicycles	36%	8%	28%	38%	13%	6%	7%
Maintaining the pavement on state highways to keep them smooth	31%	8%	23%	18%	28%	22%	1%
Facilitating public transportation services for the elderly and persons with disabilities	30%	8%	22%	33%	15%	6%	17%
Facilitating public transportation services for local trips, such as public bus or "Dial-A-Ride"	25%	6%	19%	39%	10%	5%	21%
Facilitating alternatives to driving for long distance trips	20%	6%	14%	39%	16%	10%	15%

#### TABLE 22: SATISFACTION WITH MDOT SERVICES

Q2.11: Please indicate how satisfied you are with each of the following MDOT services.



## 2023 Satisfaction with MDOT Services by Region

Residents in all regions were most satisfied with quickly and efficiently removing snow and ice from state highways and making state highways as safe as possible. However, Grand and Bay region residents were more likely to be satisfied with removing snow and ice from highways (each 74 percent vs. 59 percent – 71 percent other regions) while North region residents were more likely to be satisfied with making highways as safe as possible (71 percent vs. 56 percent - 69 percent other regions) (Table 23).

Services	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Quickly and efficiently removing snow and ice from state highways	69%	69%	63%	74% <sup>E</sup>	74% <sup>E</sup>	59%	67%	71% <sup>E</sup>
Making state highways as safe as possible, and with clear markings and signage	66%	56%	71% <sup>A</sup>	68%	60%	65%	61%	69% <sup>A</sup>
Making sure bridges along state highways are in good condition	52%	48%	51%	47%	56%	49%	50%	54%
Providing clear information and warnings to the public on road closures, work zones, and potential traffic delays	49%	46%	46%	47%	55% <sup>F</sup>	47%	41%	51%
Making sure traffic flows as efficiently and smoothly as possible during rush hour, highway construction, and after crashes	39%	36%	45%	37%	42%	39%	33%	41%
Quickly and efficiently completing state highway construction projects	37%	37%	46% <sup>E</sup>	44% <sup>E</sup>	35%	28%	33%	38%
Providing bike lanes and pathways for bicycles	36%	23%	31%	42% <sup>A</sup>	39% <sup>A</sup>	33%	32%	37% <sup>A</sup>
Maintaining the pavement on state highways to keep them smooth	31%	30%	26%	30%	32%	32%	26%	33%
Facilitating public transportation services for the elderly and persons with disabilities	30%	19%	33% <sup>A</sup>	28%	34% <sup>A</sup>	23%	30%	31% <sup>A</sup>
Facilitating public transportation services for local trips, such as public bus or "Dial-A-Ride"	25%	18%	32% <sup>A</sup>	24%	34% <sup>A</sup>	23%	24%	24%
Facilitating alternatives to driving for long distance trips, such as intercity passenger rail or intercity bus services	20%	17%	18%	12%	21%	21%	17%	23% <sup>C</sup>

## TABLE 23: SATISFACTION WITH MDOT SERVICES BY MDOT REGION SUMMARY OF "VERY" + "SOMEWHAT"

Q2.11: Please indicate how satisfied you are with each of the following MDOT services.

Top two "satisfaction" by region shown in **bold** text.

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.

## Satisfaction with MDOT Services by Subgroup

Non-white residents were more likely than White residents to report being satisfied with public transportation services such as bike paths, transportation services for the elderly or those with disabilities, and transportation services for local or long-distance trips. Those over the age of 45 were more likely to be satisfied with current road projects and services such as quickly removing snow and ice from highways, making highways as safe as possible, and quickly completing highway construction projects.

## TABLE 24: SATISFACTION WITH MDOT SERVICES BY KEY SUBGROUPS: SUMMARY OF "VERY" + "SOMEWHAT"

Services	Total	White (A)	Non- White (B)	<45 (C)	45+ (D)
Quickly and efficiently removing snow and ice from state highways	69%	71% <sup>B</sup>	63%	61%	75% <sup>c</sup>
Making state highways as safe as possible, and with clear markings and signage	66%	67%	63%	61%	69% <sup>c</sup>
Making sure bridges along state highways are in good condition	52%	51%	55%	53%	51%
Providing clear information and warnings to the public on road closures, work zones, and potential traffic delays	49%	47%	53%	51%	47%
Making sure traffic flows as efficiently and smoothly as possible during rush hour, highway construction, and after crashes	39%	38%	44%	37%	41%
Quickly and efficiently completing state highway construction projects	37%	35%	43%	31%	41% <sup>c</sup>
Providing bike lanes and pathways for bicycles	36%	33%	46% <sup>A</sup>	36%	36%
Maintaining the pavement on state highways to keep them smooth	31%	29%	36%	30%	32%
Facilitating public transportation services for the elderly and persons with disabilities	30%	27%	37% <sup>A</sup>	29%	30%
Facilitating public transportation services for local trips, such as public bus or "Dial-A-Ride"	25%	22%	35% <sup>A</sup>	25%	25%
Facilitating alternatives to driving for long distance trips, such as intercity passenger rail or intercity bus services	20%	15%	34% <sup>A</sup>	24% <sup>D</sup>	17%

Q2.11: Please indicate how satisfied you are with each of the following MDOT services.

ABCD Indicates significantly higher percentage compared to corresponding region(s) at 95% confidence level.



# 4.9 TRANSPORTATION GOALS AND FUNDING OPTIONS

## Importance of Transportation Goals Overall

Residents were asked to rank eight transportation goals from "1 – most important" to "8 – least important". The largest proportion of Michigan residents ranked enhancing the safety and ensuring the security of the transportation network and preserving and improving the condition of Michigan's network through investment strategies and innovation as the issues with the highest importance. (23 and 20 percent, respectively, ranked need as "1, most important").

## FIGURE 21: TRANSPORTATION GOALS RANKED IN ORDER OF IMPORTANCE FOR CURRENT AND LONG-TERM FUTURE NEEDS



Q2.12: Please rank the following eight goals in order of importance for your transportation needs both currently and into the long-term future.



## Importance of Transportation Goals by Region

University Region residents were more likely to rank preserving and improving the condition of Michigan's transportation network through investment strategies and innovation as most important compared to other regions (28 percent vs. 17 percent – 26 percent). Residents living in Superior Region were most likely to report enhancing the quality of life for all communities and users for the transportation network as most important (26 percent vs. 8 percent – 16 percent other regions).

Transportation Needs	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Enhance the safety and ensure the security of the transportation network for all users and workers.	23%	19%	26%	16%	27% <sup>c</sup>	25%	28% <sup>c</sup>	22%
Through investment strategies and innovation, preserve and improve the condition of Michigan's transportation network so that all modes are reliable, resilient, and adaptable.	20%	18%	18%	26%	17%	23%	28% <sup>DG</sup>	17%
Enhance the quality of life for all communities and users of the transportation network.	13%	26% <sup>BCEFG</sup>	12%	11%	16%	12%	8%	14%
Improve Michigan's economic vitality through investment in the transportation system.	12%	7%	10%	15% <sup>E</sup>	15% <sup>E</sup>	7%	8%	13% <sup>E</sup>
Improve the movement of people and goods to attract and sustain diverse economic opportunities while investing resources responsibly.	10%	9%	8%	11%	7%	11%	9%	11%
Enhance mobility choices for all users of the transportation network through efficient and effective operations and	9%	9%	13% <sup>D</sup>	7%	5%	12%	7%	9%

#### TABLE 25: IMPORTANCE OF TRANSPORTATION GOALS BY MDOT REGION: SUMMARY OF "1"



Transportation Needs	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
reliable multimodal opportunities.								
Evaluate and prepare for new transportation technology.	8%	5%	9%	7%	7%	5%	6%	10%
Strengthen, expand, and promote collaboration with all users through effective public and private partnerships.	5%	8%	5%	6%	5%	4%	6%	3%

Q2.12: Please rank the following eight goals in order of importance for your transportation needs both currently and into the long-term future.

Top two "Importance" by region shown in **bold** text.

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.

## Preferred Transportation Funding Approach Overall

In both 2021 and 2023, respondents were asked, "Considering the expected rise in electric vehicles on the road over the next few years, which transportation funding approach do you think is most fair?" Similar to 2021, in 2023, the largest proportion of residents prefer to have neither a road use charge or a gas tax (29 percent). This year, Michigan residents were significantly less likely to prefer a gas tax where they would pay by the gallon of gas compared to 2021 (8 percent, down from 15 percent). This may be expected as gas prices in general have increased since 2021, reducing the appeal of anything that would push gas prices even higher (Figure 22).



FIGURE 22: PREFERRED TRANSPORTATION FUNDING APPROACH

Q5.9: Considering the expected rise in electric vehicles on the road in the next few years, which transportation funding approach do you think is most fair?



## Preferred Transportation Funding Approach by Region

Superior and Grand region residents were more likely to find a road use charge and a gas tax as equally fair options compared to all other regions (25 and 23 percent, respectively vs. 11 percent – 21 percent in other regions) (Table 26).

Approach	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Neither a road use charge nor a gas tax is fair	29%	24%	26%	31%	33%	32%	28%	28%
A road use charge where you pay by the mile	19%	16%	21%	19%	20%	18%	23%	18%
A road use charge and a gas tax are equally fair	17%	25% <sup>de</sup>	21%	23% <sup>de</sup>	12%	11%	19%	18%
A gas tax where you pay by the gallon of gas	8%	7%	8%	7%	4%	10%	7%	10% <sup>D</sup>
I don't know	26%	29%	24%	21%	31%	29%	24%	26%

#### TABLE 26: PREFERRED TRANSPORTATION FUNDING APPROACH BY MDOT REGION

Q5.9: Considering the expected rise in electric vehicles on the road in the next few years, which transportation funding approach do you think is most fair?

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.

## **Reasons for Not Preferring Road Use Fee or Gas Tax**

Among the 29 percent who view both the road use fee and gas tax as unfair, the strong majority primarily believe they are already paying high taxes (53 percent). Approximately one in ten indicated they don't agree with using electrical vehicles (12 percent) or feel everything else is already too expensive (9 percent) as their reasons for not preferring the road use fee or gas tax (Figure 23).

#### FIGURE 23: REASONS FOR NOT PREFERRING ROAD USE FEE OR GAS TAX



Q5.10: You selected "Neither a road use charge nor a gas tax is fair." Please explain the reason for your answer. n=450

All responses 1% or higher included in graph.

## 4.10 WILLINGNESS TO PAY TOLLS

## Willingness to Pay Tolls by Year

In 2023, Michigan residents were less willing to pay some sort of toll for any type of improved travel experience compared to 2019 and 2017 (49 percent willing to pay any toll vs. 59 percent 2019 and 55 percent 2017).

Roughly one-third reported they would pay a toll for access to high-quality, better maintained roads (37 percent) while just 27 percent would pay a toll for access to highway lanes with less traffic (down significantly from 32 percent in 2019 and 2017) (Figure 24).

Residents under the age of 45 were more likely to pay a toll for access to highway lanes with less traffic compared to older residents (31 percent vs. 24 percent).



#### FIGURE 24: WILLING TO PAY TOLLS

Q4: For which of the following, if any, would you be willing to pay a fee for an improved travel experience? Select all that apply.

\*Percentage is significantly different from 2019

\*\*Wording in 2017-2019: "Access an alternative roadway with faster travel times."

Note: Multiple selections allowed; percentages will not add to 100%.

## Willingness to Pay Tolls by MDOT Region

Residents living in the Superior region were least likely willing to pay any sort of toll (66 percent none vs. 47 percent – 59 percent other regions). University and Metro regions had the largest proportion of residents willing to pay a toll for access to high-quality, better maintained roads (40 and 42 percent vs. 24 percent – 38 percent). Grand region residents were more likely to indicate they would pay for access to highway lanes with less traffic compared to other residents (31 percent vs. 16 percent – 30 percent of other regions) (Table 27).

Toll Road Scenarios	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Paying a toll to access to high-quality, better maintained roads	37%	24%	35%	38% <sup>ad</sup>	26%	33%	40% <sup>AD</sup>	42% <sup>AD</sup>
Access to highway lanes with less traffic	27%	16%	30% <sup>ad</sup>	31% <sup>ad</sup>	19%	27% <sup>AD</sup>	26%	30% <sup>ad</sup>
Other	2%	1%	<1%	3%	$5\%^{ABEG}$	1%	2%	1%
None	51%	$66\%^{\text{BFG}}$	49%	51%	59% <sup>G</sup>	52%	49%	47%

#### TABLE 27: WILLINGNESS TO PAY TOLLS BY MDOT REGION

Q4: For which of the following, if any, would you be willing to pay a toll? Select all that apply.

<sup>ABCDEFG</sup> Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level. \*\*Wording in 2017-2019: "Access an alternative roadway with faster travel times."

Note: Multiple selections allowed; percentages will not add to 100%.

## 4.11 PERCEPTIONS OF SELF-DRIVING VEHICLES AND ELECTRIC VEHICLES

## Perceived Safety When Sharing Roads with Self-Driving Vehicles

Only 27 percent of Michigan residents reported they would feel safe sharing roadways in their community with self-driving vehicles (6 percent "very safe" + 21 percent "somewhat safe"), which is significantly less safe than the 38 percent who reported the same in 2019. Conversely, over one-third would feel "very unsafe" sharing the roads with self-driving vehicles (36 percent) (Figure 25).

Men, Non-White residents, and those under the age of 45 were significantly more likely to report they would feel safe ("very" + "somewhat safe") compared to women, White residents, and those ages 45 and older:

- 34 percent men vs. 20 percent women
- 38 percent Non-White vs. 23 percent White
- 36 percent under age 45 vs. 20 percent ages 45+



#### FIGURE 25: PERCEIVED SAFETY WHEN SHARING ROADS WITH SELF-DRIVING VEHICLES



Q2.13: How safe do you think you will feel sharing the roadways in your community with self-driving vehicles? Would you say you would feel.

\*Percentage is significantly different from 2019

## Perceived Safety When Sharing Roads with Self-Driving Vehicles by **MDOT Region**

Residents living in the Metro region were most likely to report feeling safe sharing the roadways with self-driving vehicles while Superior Region residents were least likely to report the same (31 percent Metro vs. 13 percent Superior, for comparison 19 percent – 28 percent all other regions) (Table 28).

Reasons	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Very + Somewhat safe	27%	13%	19%	28% <sup>A</sup>	26% <sup>A</sup>	26%	22%	31% <sup>abf</sup>
Very safe	6%	5%	1%	3%	5%	4%	5%	$9\%^{BCE}$
Somewhat safe	21%	9%	18%	25% <sup>A</sup>	21% <sup>A</sup>	22% <sup>A</sup>	17%	23% <sup>A</sup>
Somewhat unsafe	29%	31%	30%	27%	21%	27%	29%	32% <sup>D</sup>
Very unsafe	36%	49% <sup>G</sup>	41% <sup>G</sup>	38%	44% <sup>G</sup>	40%	37%	29%
Don't know	8%	7%	10%	6%	9%	7%	12%	8%

#### TABLE 28: PERCEIVED SAFETY WHEN SHARING ROADS WITH SELF-DRIVING VEHICLES BY **MDOT REGION**

Q2.13: How safe do you think you will feel sharing the roadways in your community with self-driving vehicles? Would you say you would feel. ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.



## 4.12 PERCEPTIONS OF SELF-DRIVING VEHICLES

## Perceived Impact of Self-Driving Vehicles on Community

Michigan residents were more likely to indicate they believe self-driving vehicles will have a negative impact on their community (55 percent "somewhat" + "very negative") rather than a positive impact (27 percent "very" + "somewhat positive"). This is a significant shift in perceptions compared to 2019. In addition, a larger proportion were unsure this year regarding their perception of self-driving vehicles (18 percent, up from 10 percent) (Figure 26).

Similar to the perceived safety with self-driving vehicles, men, Non-White residents, and those under the age of 45 were significantly more likely to expect a positive impact ("somewhat + "very positive") compared to women, White residents, and those ages 45 and older:

- 35 percent men vs. 20 percent women
- 38 percent Non-White vs. 24 percent White
- 34 percent under age 45 vs. 22 percent ages 45+

#### FIGURE 26: PERCEIVED IMPACT OF SELF-DRIVING VEHICLES ON COMMUNITY OVERALL



Q2.14: In general, what type of impact do you think self-driving vehicles will have on your community? Would you say the impact would be:

\*Percentage is significantly different from 2019

## Perceived Impact of Self-Driving Vehicles on Community by MDOT Region

Similar to perceived safety with self-driving vehicles, residents living in Metro Region were most likely to expect a positive impact on their community while Superior Region residents were least likely to report the same (32 percent Metro vs. 12 percent Superior, for comparison 16 percent - 29 percent all other regions) (Table 29).

Perceived Impact	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
Very + Somewhat positive	27%	12%	16%	29% <sup>AB</sup>	21%	30% <sup>ab</sup>	25% <sup>A</sup>	32% <sup>ABD</sup>
Very positive	7%	2%	1%	6% <sup>B</sup>	4%	6% <sup>B</sup>	5%	10% <sup>ABD</sup>
Somewhat positive	20%	9%	15%	23% <sup>A</sup>	17%	23% <sup>A</sup>	20% <sup>A</sup>	22% <sup>A</sup>
Somewhat negative	29%	32%	31%	25%	29%	23%	31%	30%
Very negative	26%	34% <sup>G</sup>	34% <sup>G</sup>	28%	32% <sup>G</sup>	30%	25%	21%
Don't know	18%	22%	19%	18%	19%	17%	19%	17%

TABLE 29: PERCEIVED IMPACT OF SELF-DRIVING VEHICLES ON COMMUNITY BY REGION

Q2.14: In general, what type of impact do you think self-driving vehicles will have on your community? Would you say the impact would be:

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.

## **Specific Impact of Self-Driving Vehicles**

Michigan residents maintain relatively negative perceptions regarding the potential impact of self-driving vehicles on safety, traffic, insurance rates, and fuel economy. Specifically, over one-half of residents would expect an increase in the number of crashes and insurance rates (each 56 percent). Another four in ten expect the severity of crashes and traffic congestion would increase as well (41 and 36 percent respectively).

However, one-third of residents would expect fuel economy to increase (a positive perception) with self-driving vehicles (34 percent, for comparison 20 percent expect a decrease) (Figure 27).

Again, men and residents under the age of 45 were most likely to expect positive impacts from self-driving vehicles regarding crashes, traffic congestion, insurance rates, and fuel economy compared to women and older residents:

- 21 percent 38 percent men vs. 10 percent 30 percent women
- 19 percent 39 percent ages <45 vs.13 percent 31 percent ages 45+



#### FIGURE 27: SPECIFIC IMPACT OF SELF-DRIVING VEHICLES

Q2.15: Please indicate if you think self-driving vehicles will increase, decrease, or have no impact on each of the following items.

# Specific Impact of Self-Driving Vehicles on Community by MDOT Region

The Metro region had the largest proportion of residents expecting a positive impact on the community from self-driving vehicles regarding four of the five items. Grand, Southwest and Metro region residents were most likely to expect insurance rates would decrease due to self-driving vehicles (17 percent – 18 percent vs. 9 percent – 15 percent other regions).

Perceived Impact	Total	Super (A)	North (B)	Grand (C)	Bay (D)	SW (E)	Univ (F)	Metro (G)
			Impact –	Decrease				
The severity of crashes	27%	16%	21%	26%	23%	23%	23%	33% <sup>ABDEF</sup>
The number of crashes	23%	14%	16%	22%	17%	21%	22%	27% <sup>ABD</sup>
Traffic congestion and travel times	21%	16%	14%	20%	20%	17%	22%	24% <sup>B</sup>
Insurance rates	16%	10%	9%	18% <sup>B</sup>	13%	18% <sup>B</sup>	15%	17% <sup>B</sup>
			Impact –	Increase				
Fuel economy	34%	20%	25%	34% <sup>A</sup>	35% <sup>A</sup>	36% <sup>A</sup>	32%	36% <sup>AB</sup>

#### TABLE 30: PERCEIVED IMPACT OF SELF-DRIVING VEHICLES ON COMMUNITY BY REGION

Q2.15: Please indicate if you think self-driving vehicles will increase, decrease or have no impact on each of the following items.

ABCDEFG Indicates a significantly higher percentage compared to corresponding region(s) at 95% confidence level.



## 4.13 ELECTRIC VEHICLE PERCEPTIONS

### Number of Vehicles in Household

Virtually all (96 percent) of all Michigan residents reported to have at least one motor vehicle in their household with the largest proportion owning two vehicles (41 percent). One-tenth plan to own more vehicles in the next six months (11 percent) while the strong majority expect to maintain the same number of vehicles (85 percent) (Table 31).

Non-White and younger residents were more likely to report planning to own more vehicles in the next six months compared to White and residents over the age of 45 (22 percent Non-White vs. 7 percent White; 19 percent <45 vs. 5 percent 45+).

ТА	BLE	31:	NUMBER	OF	VEHICL	.ES
				-		_

#### Current Number of Vehicles

0 (no vehicles in household)	4%			
1	29%			
2	41%			
3	17%			
4	6%			
5	2%			
6	<1%			
7	<1%			
8 or more	<1%			
Change in Number of Vehicles				
No, plan to keep the same number of vehicles	85%			
Yes, plan to own more vehicles	11%			
Yes, plan to own fewer vehicles	4%			

Q5.4: How many registered motor vehicles are in your household?

Q5.5: In the next six months, do you plan to change the number of vehicles in your household?

## Interest in Purchasing Electric Vehicles

Nearly one-quarter of Michigan residents were interested in purchasing or leasing a fully electric vehicle within the next five years (21 percent) while one-half reported no interest (52 percent). Of those interested, the majority would purchase the electric vehicle to replace their primary vehicle (63 percent) (Table 32).

Remaining consistent with earlier findings in this report, men, non-white, and younger residents were most likely to be interested in purchasing or leasing a fully electric vehicle within the next five years.

- 27 percent men vs. 15 percent women
- 27 percent Non-White vs. 20 percent White
- 27 percent under age 45 vs. 18 percent ages 45+

	TABLE 3	32: PURCH/	ASING ELE	CTRIC VE	HICLES
--	---------	------------	-----------	----------	--------

Interest in Purchasing Electric Vehicles	Total
No	52%
Unsure	27%
Yes	21%
Purpose of Purchased Electric Vehicle	Total
Purpose of Purchased Electric VehicleReplace primary vehicle (driven the most)	<b>Total</b> 63%
Purpose of Purchased Electric VehicleReplace primary vehicle (driven the most)Replace secondary vehicle (driven less)	<b>Total</b> 63% 18%

Q5.6: Would you be interested in purchasing or leasing a fully electric vehicle within the next five years? Q5.7: If you purchase or lease an electric vehicle in the next five years, would this new electric vehicle:

## **Concerns with Electric Vehicle Ownership**

Regarding electric vehicle ownership, Michigan residents would be most concerned with the charging availability for long distance trips (75 percent), and charging time (68 percent, up significantly from 63 percent in 2021). Concerns over costs to purchase or lease an electric vehicle decreased significantly from 2021 (60 percent, down from 65 percent). As was true in 2021, residents were least concerned with passenger and cargo capacity (29 percent) (Figure 28).

Residents over the age of 45 were most concerned with charging availability and time compared to younger residents (79 percent vs. 69 and 75 percent vs. 59 percent respectively).





#### FIGURE 28: CONCERNS WITH ELECTRIC VEHICLE OWNERSHIP

Q5.8: How concerned are you with the following aspects of electric vehicle ownership? \*Percentage is significantly different from 2021



## 4.14 TRAVEL BEHAVIOR

## **Travel Modes Used in Past Week**

Most Michigan residents traveled in their own household vehicle or motorcycle in the past seven days (92 percent). The next most common travel mode among residents in the past seven days was walking, jogging, or using a mobility device, mentioned by 60 percent. One-quarter reported using a non-household vehicle or a bicycle in the past week or driving in a non-household vehicle (24 and 23 percent respectively) (Figure 29 and Table 33).

#### FIGURE 29: TRAVEL MODES USED IN PAST WEEK



Q3.2: In the past 7 days, on how many days did you travel using the following methods of transportation for trips outside your home?

				-				
Modes	0 days	1 day	2 days	3 days	4 days	5 days	6 days	7 days
In a household vehicle (or motorcycle)	8%	5%	6%	6%	8%	10%	10%	47%
Walked, jogged, or used a mobility device such as a wheelchair	40%	11%	13%	10%	8%	5%	3%	10%
In another vehicle (e.g., rental, carshare, friend's vehicle, work vehicle)	76%	8%	6%	3%	2%	2%	1%	2%
Any taxi or ride service (e.g., Uber/Lyft)	92%	4%	2%	1%	1%	<1%	-	<1%
Any other bus or shuttle (e.g., Indian Trails, Greyhound, local bus, vanpool)	94%	2%	1%	1%	1%	1%	<1%	1%
Airplane	94%	3%	2%	1%	<1%	<1%	-	<1%
Scooter, moped, or similar	96%	2%	1%	1%	1%	-	<1%	<1%
Ferry/boat	96%	3%	<1%	<1%	<1%	<1%	-	-
Bicycle/E-Bike	77%	8%	7%	4%	1%	1%	1%	1%
School bus	98%	1%	1%	<1%	<1%	1%	<1%	<1%
Any rail (e.g., Amtrak, light rail)	98%	1%	<1%	<1%	<1%	<1%	<1%	-

#### TABLE 33: TRAVEL MODES USED IN PAST WEEK BY FREQUENCY

Q3.2: In the past 7 days, on how many days did you travel using the following methods of transportation for trips outside your home?

## **Bicycle Usage**

Among the 23 percent of residents who used a bicycle in the past seven days, most did so for exercise or recreation purposes (94 percent). Another two in ten rode a bicycle to visit the grocery store (22 percent) or to see family and friends (20 percent). Nearly all residents used a bicycle they owned (93 percent). Residents under age 45 were more likely to report using a bicycle for everyday trips such as work, grocery stores, and medical appointments.

Residents' comfort level with riding bicycles was evenly split between preferences for one of the three types of road and bike paths presented (20 percent to 27 percent), while 19 percent of all Michigan residents have zero interest in riding bicycles (Table 34).

Purpose of Bicycle Trip	Total n=369
For exercise or recreation	94%
To go to/from grocery/food shopping	22%
To visit friends or relatives	20%
To go to/from other shopping (e.g., pharmacy)	11%
To go to/from work	10%
For other work-related reason	4%
To go to/from medical appointment	3%
Other reason for biking in the past 7 days	1%
Type of Bicycle Used	Total
Bicycle owned by my household	93%
Borrowed bicycle (e.g., from friend)	6%
Bike-share bicycle (e.g., Mogo, Lime Bikes)	4%
Other bicycle	1%
Comfort and Interest in Bicycles	Total
I am only comfortable riding on roads with bicycle lanes, neighborhood streets with low traffic speeds and volumes, and on bicycle paths.	27%
I am only comfortable on bicycle paths away from motor vehicles.	22%
I am comfortable riding on certain roads with wide shoulders, bicycle lanes, and easy-to-navigate intersections.	20%
I have no interest in riding bicycles.	19%

#### **TABLE 34: BICYCLE TRIPS**

Q3.3: In the past 7 days, for what reasons have you used a bicycle? Q3.4: In the past 7 days, what type of bicycle have you used? Q3.5: Which of the following best describes your comfort and interest in riding a bicycle in the area where you live?

## **Additional Travel Modes Used**

When asked what additional travel modes are typically used, even though they were not used in the past seven days, residents were most likely to mention airplane travel (23 percent), non-household vehicles (21 percent), and bicycles (17 percent). Nearly half did not have any other regular travel modes to offer (44 percent) (Figure 30).

#### FIGURE 30: ADDITIONAL TRAVEL MODES USED



Q3.6: Which, if any, additional modes of transportation do you typically use, even if you have not used them in the past 7 days?
### Most Common Travel Modes for Trip Purpose

Residents were most likely to report using their household vehicle or motorcycle for all eight trip purposes presented (Table 35).

Modes	Food Shop	Other Shop	Med Appt	Visit Friends/Family	Primary Work	Other Work	School	Child's School
In a household vehicle (or motorcycle)	88%	87%	88%	85%	73%	66%	42%	38%
In another vehicle (e.g., rental, carshare, friend's vehicle, work vehicle)	3%	3%	3%	3%	2%	4%	1%	1%
Any taxi or ride service (e.g., Uber/Lyft)	1%	1%	2%	1%	1%	2%	<1%	1%
School bus	<1%	-	<1%	-	<1%	<1%	1%	<1%
Any other bus or shuttle (e.g., Indian Trails, Greyhound, local bus, vanpool)	1%	1%	2%	1%	2%	1%	1%	<1%
Any rail (e.g., Amtrak, light rail)	-	<1%	-	<1%	<1%	<1%	-	-
Bicycle/E-Bike	1%	2%	<1%	2%	1%	<1%	<1%	-
Walked, jogged, or used a mobility device such as a wheelchair	3%	3%	2%	3%	1%	1%	2%	1%
Ferry/boat	<1%	-	<1%	-	-	-	-	-
Scooter, moped, or similar	<1%	<1%	<1%	<1%	<1%	<1%	<1%	-
Airplane	-	<1%	-	1%	<1%	1%	-	-
None of the above	4%	3%	3%	4%	20%	25%	52%	58%

#### TABLE 35: MOST COMMON TRAVEL MODES FOR TRIP PURPOSE

Q3.7: Which mode of transportation do you use most often for the following purposes?

### Frequency of Public Transportation Usage

Two-thirds of all Michigan residents use public transportation less than once per week (66 percent). The remaining one-third were evenly split between using public transportation 1-2 days per week, 3-4 days per week, and 5 or more days per week (each 11 percent – 12 percent). One-half of residents reported they have "never" traveled by ridesharing modes (50 percent). Less than one-tenth use ridesharing modes at least once per month (8 percent) (Table 36).

Non-White residents were significantly more likely to frequently use public transportation and ridesharing modes compared to White residents:

- 10 percent Non-White using public transportation 3+ days per week vs. 2 percent White
- 21 percent Non-White using ridesharing modes 1+ times per month vs. 5 percent White

#### TABLE 36: FREQUENCY OF PUBLIC TRANSPORTATION AND RIDESHARE USE

Frequency of Public Transportation Usage	Total
Less than once per week	66%
1-2 days per week	12%
3-4 days per week	11%
5 or more days per week	11%
Frequency of Rideshare Usage	Total
Never	50%
Less than yearly	20%
1-11 times per year	22%
1-2 times per month	5%
3 or more times per month	3%

Q3.8: How often do you use public transportation?

Q3.9: How often do you travel by ridesharing modes such as Uber, Lyft, or taxi?

### **Travel Modes Not Used but Available**

Among the travel modes residents do not typically use, taxi, or ride service (41 percent), a bus or shuttle (26 percent), or a non-household vehicle (20 percent) were the modes most often available but not used. One-third of all Michigan residents do not have access to any additional travel modes (34 percent) (Figure 31).



FIGURE 31: TRAVEL MODES NOT USED BUT AVAILABLE

Q3.10: Even though you do not typically use these modes of transportation, which of the following are available for you to use for daily travel, such as going to work/school, grocery shopping, or social/recreational activities?

### **Reasons for Not Using Travel Modes**

Among the residents who have access to several travel modes but choose not to use them, most reported it was because they "don't want to use the mode" (45 percent – 82 percent for 10 of the 11 modes). For those who do not typically use a household vehicle, half gave the reason if it "not being cost effective" (49 percent) (Table 37).

Modes	Don't want to use this mode	Inefficient way of travel	Does not work with my schedule	Not cost effective	Don't have enough info
In a household vehicle (or motorcycle)	17%	-	5%	49%	29%
In another vehicle (e.g., rental, carshare, friend's vehicle, work vehicle)	75%	2%	8%	13%	5%
Any taxi or ride service (e.g., Uber/Lyft)	71%	4%	3%	28%	6%
School bus	82%	4%	15%	1%	4%
Any other bus or shuttle (e.g., Indian Trails, Greyhound, local bus, vanpool)	68%	17%	14%	5%	8%
Any rail (e.g., Amtrak, light rail)	44%	29%	15%	8%	19%
Bicycle/E-Bike	61%	25%	15%	3%	2%
Walked, jogged, or used a mobility device such as a wheelchair	67%	20%	13%	3%	5%
Ferry/boat	61%	10%	11%	8%	12%
Scooter, moped, or similar	64%	19%	5%	12%	6%
Airplane	45%	12%	-	38%	3%

#### TABLE 37: REASONS FOR NOT USING TRAVEL MODES

Q3.11: Please select the reason you do not currently use each transportation mode.

### Limited Opportunities Due to Transportation Options

One-tenth of all Michigan residents felt their opportunities were limited due to transportation options (11 percent). The primary reasons residents mentioned they felt this way were having limited or no bus routes in their area (27 percent), not having access to a vehicle (22 percent) and destinations being too far away (11 percent) (Table 38).

Younger and Non-White residents were much more likely to report limited opportunities due to transportation options (19 percent ages <45 vs. 5 percent ages 45+; 18 percent Non-White vs. 9 percent White).

Limited Opportunities Due to Transportation Options	Total
No	84%
Yes	11%
Unsure	5%
Reasons for Limited Opportunities*	Total n=180
Public transportation is limited in my area/ no routes	27%
Don't have a vehicle	22%
Destinations are too far away	11%
Public transportation is not dependable	9%
Gas prices are too high	6%
Schedules are not convenient	5%
Lack of transportation/ not easy to get around	4%
Too much traffic congestion	4%
Have health issues/ disability	4%
Unsafe driving conditions/ not safe to ride a bike	3%
Everything is expensive	3%
Unable to get to medical appointments	2%
Would like high speed rail for faster travel	2%
Fearful/ scared of traveling alone	1%
Other	4%
Don't know	3%

#### TABLE 38: TRANSPORTATION LIMITATIONS OVER PAST YEAR

Q3.12: In the past year, have you felt that your opportunities have been limited by your transportation options (e.g., unable to take a job because you were unable to reach the job location)? Q3.12specify: Please specify how opportunities have been limited by transportation options.

\*Open-ended question, coded response percentages will not add up to 100%.



### **Experienced Harassment or Discrimination on Travel Modes**

Most residents have not experienced harassment or discrimination while traveling in Michigan (80 percent). Those who reported harassment or discrimination experienced it while driving (8 percent), walking (7 percent), biking (4 percent) and on public transportation (2 percent) (Table 39).

Non-white and younger residents were significantly more likely to report they had experienced any harassment or discrimination while traveling in Michigan (17 percent White vs. 28 percent Non-White; 13 percent ages 45+ vs. 29 percent <45).

Modes	Total
Driving	8%
Walking	7%
Biking	4%
Public transportation	2%
Rideshare (taxi, Uber/Lyft)	<1%
Other	-
I have not experienced harassment or discrimination while traveling in Michigan	80%
Prefer not to answer	5%

	TABLE 39: EXPERIENCED	HARASSMENT OF	DISCRIMINATION	ON TRAVEL MODES
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Q3.13: In the past year, have you experienced harassment or discrimination while traveling in Michigan using any of the modes of transportation listed below?

### **Frequency of Food Purchases**

In the past seven days, Michigan residents were highly likely to shop for groceries (95 percent at least once) or eat or drink at a restaurant (71 percent at least once). At least three-quarters of all residents had not ordered food or groceries for delivery either through a food delivery service, from a store, or from a restaurant in the past seven days (79 percent – 84 percent 0 days) (Figure 32).

Younger residents were significantly more likely to order food for pick up or delivery in the past week while those over the age of 45 were more likely to report shopping or eating at a restaurant in person (Table 40).

#### FIGURE 32: FREQUENCY OF FOOD PURCHASES



Q3.14: In the past 7 days, on how many days did you:

#### TABLE 40: FREQUENCY OF FOOD PURCHASES BY KEY SUBGROUPS (1 OR MORE DAYS)

Shopping	Total	<45 (A)	45+ (B)
Shop for groceries (food or drink) in a store	95%	92%	96% <sup>A</sup>
Eat or drink at a restaurant/cafe	71%	67%	74% <sup>A</sup>
Order food or drink from a restaurant/cafe for pick up	46%	52% <sup>B</sup>	42%
Order groceries (food or drink) from a store for pick up (in-store or curbside)	25%	32% <sup>B</sup>	20%
Order food or drink for delivery <i>directly</i> from a restaurant/cafe	21%	26% <sup>B</sup>	17%
Order groceries (food or drink) from a store for delivery	17%	25% <sup>B</sup>	11%
Order food or drink for delivery <u>using a food delivery service</u> (e.g., Grubhub, Seamless, UberEats) from a restaurant/cafe	16%	27% <sup>B</sup>	9%

Q3.14: In the past 7 days, on how many days did you:

<sup>AB</sup> Indicates significantly higher percentage compared to corresponding region(s) at 95% confidence level.

### **Frequency of Receiving Deliveries**

In the past seven days, Michigan residents were most likely to receive packages at home (75 percent at least once) or order online from a major retailer (74 percent at least once). Residents were least likely to receive packages at work or another location outside the home in the past week (88 percent – 93 percent 0 days) (Figure 33). Interestingly, delivery frequencies in 2023 are still well-aligned with observations in 2021, suggesting that delivery behaviors have not dramatically changed since the height of the COVID-19 pandemic.

Residents under the age of 45 were more likely to report ordering from a local and/or small retailer in the past week compared to older residents (46 percent vs. 28 percent ages 45+).

#### FIGURE 33: FREQUENCY OF RECEIVING DELIVERIES



Q3.15: In the past 7 days, on how many days did you:

## 4.15 EMPLOYMENT DETAILS

### **Employment Status**

Approximately one-half of all Michigan residents were employed either full-time or part-time (52 percent). One-third self-reported as unemployed and not looking for work (34 percent) while another 7 percent were unemployed and looking for work (Figure 34).

#### FIGURE 34: EMPLOYMENT STATUS



Q6.2: As of today, what is your employment status?

### **Employment Industry**

The top employment industries represented by employed residents were manufacturing (14 percent), health care (12 percent), education and retail (each 9 percent) (Figure 35).

### FIGURE 35: EMPLOYMENT INDUSTRY



Q6.3: Which of the following best describes the type of industry you work in currently?

### **Work Location**

One-half of all employed residents reported they only work at one location outside of the home while one-quarter of residents reported they telework at least some of the time (28 percent) (Figure 36).

#### FIGURE 36: WORK LOCATION



Q6.4: As of today, which of the following best describes your current work location?

### Telework

Among employed residents who do not bike or drive for work, one-third were allowed to telework by their employer (31 percent). The largest proportion were allowed to telework 4+ days per week (43 percent) and another third were allowed to telework 2-3 days per week (38 percent). Among those allowed to telework, three-quarters teleworked at least once in the past week (77 percent). The majority of those with the availability to telework expect their teleworking frequency to stay the same (67 percent) while 14 percent expect it to decrease in the next six months (Table 41).

Telework Allowed	Total
Y	240/
Yes	31%
Number of Days Allowed to Telework	Total
6-7 days a week	22%
4-5 days a week	21%
2-3 days a week	38%
1 day a week	7%
1 day every 2 weeks	3%
1-3 days a month or less	9%
Frequency of Teleworking in Past Week	Total
0 days	23%
1-2 days	29%
3-4 days	26%
5-6 days	15%
7 days	7%
Expect Future Telework to Change	Total
No, I expect it to stay the same	67%
Yes, I expect it to decrease	14%
Yes, I expect it to increase	5%
Don't know	14%

#### **TABLE 41: TELEWORKING**

Q6.5: Currently, does your employer allow you to work from home/telework (even if you choose to travel to a work location outside the home)?

Q6.6: Currently, how often does your employer permit you to work from home?

Q6.7: In the past 7 days, how many days have you worked from home (instead of traveling to work)?

Q6.8: Do you expect your telework frequency to change in the next 3-6 months?



# **5.0 MDOT REGION SUMMARIES**

## **5.1 OVERVIEW OF BAY REGION**

Residents in the Bay Region had the second highest Net Better score of +13. They get most of their information regarding transportation via television or smartphone apps. Residents trust MDOT officials in making good decisions and agree with the direction MDOT is heading. They were satisfied with snow removal and overall highway safety. They wanted to highly prioritize maintaining existing roads and reducing traffic congestion and felt increasing safety and reliability of transportation networks were most important. Additionally, they were less likely to be willing to pay additional fees to access high quality, better maintained roads.



TABLE	42:	BAY	REGION	SUMMARY
				•••••••

Key Metrics	Вау
Perception of Quality of Transportation (Better)	27%
Quality of Transportation Net Better Score*	+13
Top 2 Areas to Obtain Transportation Information	
Television	39%
Smartphone Traffic/Map App	33%
Top 2 Statements with Highest Top-Two Agreement	
I trust MDOT officials to make good decisions about transportation system	51%
I think MDOT is moving in the right direction	50%
Top 2 Issues with High Priority	
Maintain existing roads	92%
Reduce traffic congestion	67%
Top 2 Services with High Satisfaction	
Quickly and efficiently removing snow and ice from highways	74%
Making MI state highways as safe as possible	60%
Top 2 Transportation Goals with High Importance	
Enhance the safety/security of transportation network for all users and workers	27%
Preserve and improve the condition of MI transportation network so all modes are reliable, resilient, and adaptable	17%
Top Positive Impact from Self-Driving Vehicles	
Fuel economy (Increase)	35%
Willingness to Pay Tolls	41%

## **5.2 OVERVIEW OF GRAND REGION**

Residents in the Grand Region were most concerned with maintaining current roads, reducing overall traffic congestion, and increasing reliability and safety of the transportation network. Although still a positive score, these residents had one of the lower Net Better Scores across the seven regions (+4). Residents in this region agreed that MDOT does a good job prioritizing highway improvements. They were most satisfied with highway safety and MDOT's snow and ice removal service. Grand Region residents expect fuel economy to increase with self-driving vehicles and would be somewhat likely to pay a toll for access to better roads.



### TABLE 43: GRAND REGION SUMMARY

Key Metrics	Grand
Perception of Quality of Transportation (Better)	25%
Quality of Transportation Net Better Score*	+4
Top 2 Areas to Obtain Transportation Information	
Smartphone Traffic/Map App	37%
Social Media (Facebook/Twitter)	34%
Top 2 Statements with Highest Top-Two Agreement	
I think MDOT does a good job prioritizing highway improvements in MI	54%
I think MDOT is moving in the right direction	48%
Top 2 Issues with High Priority	
Maintain existing roads	94%
Reduce traffic congestion	64%
Top 2 Services with High Satisfaction	
Quickly and efficiently removing snow and ice from highways	74%
Making MI state highways as safe as possible	68%
Top 2 Transportation Goals with High Importance	
Preserve and improve the condition of MI transportation network so all modes are reliable, resilient, and adaptable	26%
Enhance the safety/security of transportation network for all users and workers	16%
Top Positive Impact from Self-Driving Vehicles	
Fuel economy (Increase)	34%
Willingness to Pay Tolls	49%

## **5.3 OVERVIEW OF METRO REGION**

Residents in the Metro Region had the highest Net Better Score of the seven regions due to perceived improvement of roads and bus services. Residents were most likely to obtain their transportation information through a smartphone traffic or map app or by television. Metro Region thinks MDOT is moving in the right direction and does a good job prioritizing highway improvements and were satisfied with removing ice from highways and overall highway safety. However, they maintain MDOT should continue to prioritize maintaining existing roads and reducing traffic congestion. Lastly, they were most likely of residents across all seven regions to be willing to pay any sort of toll for travel advantages.



### TABLE 44: METRO REGION SUMMARY

Key Metrics	Metro
Perception of Quality of Transportation (Better)	31%
Quality of Transportation Net Better Score*	+16
Top 2 Areas to Obtain Transportation Information	
Smartphone Traffic/Map App	40%
Television	32%
Top 2 Statements with Highest Top-Two Agreement	
I think MDOT is moving in the right direction	52%
I think MDOT does a good job prioritizing highway improvements in MI	48%
Top 2 Issues with High Priority	
Maintain existing roads	90%
Reduce traffic congestion	76%
Top 2 Services with High Satisfaction	
Quickly and efficiently removing snow and ice from highways	71%
Making MI state highways as safe as possible	69%
Top 2 Transportation Goals with High Importance	
Enhance the safety/security of transportation network for all users and workers	22%
Preserve and improve the condition of MI transportation network so all modes are reliable, resilient, and adaptable	17%
Top Positive Impact from Self-Driving Vehicles	
Fuel economy (Increase)	36%
Willingness to Pay Tolls	53%

## **5.4 OVERVIEW OF NORTH REGION**

Residents in the North Region had a Net Better Score of +6. Along with television, they were more likely to obtain transportation information via radio than all other regions. Similar to other regions, residents would like to highly prioritize road maintenance and traffic congestion along with improving the overall transportation network. North Region residents were highly satisfied with MDOT's snow and ice removal on highways and agreed that MDOT prioritizes highway improvements. They trust MDOT to make good decisions about future transportation.



### TABLE 45: NORTH REGION SUMMARY

Key Metrics	North
Perception of Quality of Transportation (Better)	23%
Quality of Transportation Net Better Score*	+6
Top 2 Areas to Obtain Transportation Information	
Television	44%
Radio	34%
Top 2 Statements with Highest Top-Two Agreement	
I think MDOT does a good job prioritizing highway improvements in MI	50%
I trust MDOT to make good decisions about the future transportation system	46%
Top 2 Issues with High Priority	
Maintain existing roads	92%
Reduce traffic congestion	63%
Top 2 Services with High Satisfaction	
Making MI state highways as safe as possible	71%
Quickly and efficiently removing snow and ice from highways	63%
Top 2 Transportation Goals with High Importance	
Enhance the safety/security of transportation network for all users and workers	26%
Preserve and improve the condition of MI transportation network so all modes are reliable, resilient, and adaptable	18%
Top Positive Impact from Self-Driving Vehicles	
Fuel economy (Increase)	25%
Willingness to Pay Tolls	51%

## **5.5 OVERVIEW OF SOUTHWEST REGION**

Residents in the Southwest Region believed the state needs to focus on improving the roads and maintaining the existing transportation system. In fact, this region had the second lowest Net Better Score of -0.3. Residents were most likely to use social media as their primary transportation information source. They trust MDOT to make good decisions and felt it prioritizes highway improvements well. Additionally, the Southwest Region tied with the Metro Region for having the largest proportion of residents expecting an increase in fuel economy due to selfdriving vehicles. Residents were satisfied with highway safety and were somewhat willing to pay tolls for better-maintained roads.



### TABLE 46: SOUTHWEST REGION SUMMARY

Key Metrics	Southwest
Perception of Quality of Transportation (Better)	20%
Quality of Transportation Net Better Score*	-0.3
Top 2 Areas to Obtain Transportation Information	
Social Media	35%
MDOT Website	31%
Top 2 Statements with Highest Top-Two Agreement	
I trust MDOT to make good decisions about the future transportation system	44%
I think MDOT does a good job prioritizing highway improvements in Michigan	41%
Top 2 Issues with High Priority	
Maintain existing roads	93%
Reduce traffic congestion	61%
Top 2 Services with High Satisfaction	
Making MI state highways as safe as possible	65%
Quickly and efficiently removing snow and ice from highways	59%
Top 2 Transportation Goals with High Importance	
Enhance the safety/security of transportation network for all users and workers	25%
Preserve and improve the condition of MI transportation network so all modes are reliable, resilient, and adaptable	23%
Top Positive Impact from Self-Driving Vehicles	
Fuel economy (Increase)	36%
Willingness to Pay Tolls	48%

## **5.6 OVERVIEW OF SUPERIOR REGION**

The Superior Region had a Net Better Score of +7 in 2021. Along with the MDOT website, residents primarily obtained their transportation information from the newspaper. As with residents in the other regions, most residents in the Superior Region trust MDOT in making future transportation decisions and prioritizing highway services including snow and ice removal. Along with road maintenance, a notable proportion of these residents felt that making highway turning and passing lanes should be a high priority issue for the state. Unique to this region, residents place their highest importance on enhancing the quality of life for all communities of the transportation network. Finally, Superior Region residents were the least willing to pay tolls.



TABLE 4/: SUPERIOR REGION SUMIMARY
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Key Metrics	Superior
Perception of Quality of Transportation (Better)	22%
Quality of Transportation Net Better Score*	+7
Top 2 Areas to Obtain Transportation Information	
MDOT Website	36%
Newspaper	33%
Top 2 Statements with Highest Top-Two Agreement	
I trust MDOT to make good decisions about the future transportation system	46%
I think MDOT does a good job prioritizing highway improvements in MI	42%
Top 2 Issues with High Priority	
Maintain existing roads	91%
Add highway turning and passing lanes	54%
Top 2 Services with High Satisfaction	
Quickly and efficiently removing snow and ice from highways	69%
Making MI state highways as safe as possible	56%
Top 2 Transportation Goals with High Importance	
Enhance the quality of life for all communities of the transportation network	26%
Enhance the safety/security of transportation network for all users and workers	19%
Top Positive Impact from Self-Driving Vehicles	
Fuel economy (Increase)	20%
Willingness to Pay Tolls	34%

## **5.7 OVERVIEW OF UNIVERSITY REGION**

The Net Better score for the University Region was the lowest among all MDOT regions (-3). Reducing traffic congestion and road maintenance were their top priorities and safety, security and reliability were their most important needs regarding transportation. Similar to residents living in the other regions, they felt MDOT makes good decisions about the future and is moving in the right direction. They also gave high satisfaction for highway safety and ice removal. University Region residents expect fuel economy to increase with self-driving vehicles and half would be willing to pay some sort of toll for better-maintained roads.



### TABLE 48: UNIVERSITY REGION SUMMARY

Key Metrics	University
Perception of Quality of Transportation (Better)	20%
Quality of Transportation Net Better Score*	-3
Top 2 Areas to Obtain Transportation Information	
Smartphone Traffic/Map App	39%
Television	31%
Top 2 Statements with Highest Top-Two Agreement	
I trust MDOT to make good decisions about the future transportation system	42%
I think MDOT is moving in the right direction	41%
Top 2 Issues with High Priority	
Maintain existing roads	91%
Reduce traffic congestion	69%
Top 2 Services with High Satisfaction	
Quickly and efficiently removing snow and ice from highways	67%
Making MI state highways as safe as possible	61%
Top 2 Transportation Goals with High Importance	
Enhance the safety/security of transportation network for all users and workers	28%
Preserve and improve the condition of MI transportation network so all modes are reliable, resilient, and adaptable	28%
Top Positive Impact from Self-Driving Vehicles	
Fuel economy (Increase)	32%
Willingness to Pay Tolls	51%

# 6.0 YEAR-OVER-YEAR SUMMARIES

This section includes a brief summary of key topics asked in the Attitudes & Perceptions survey since 2017. Note that not all questions were asked all years (marked as "N/A"). Subtopics shown were selected based on their high ranking in all years the question was asked.

Key Metrics	2017	2019	2021	2023
Survey Responses (Unweighted)	3,010	1,501	5,074	1,673
Perception of Quality of Transportation (Better)	22%	24%	20%	26%
Quality of Transportation Net Better Score	0	-3	-5	+9
Areas to Obtain Transportation Information				
Smartphone Traffic/Map App	40%	38%	31%	36%
Television	48%	47%	45%	33%
Radio	41%	39%	24%	26%
Statements with Highest Agreement				
I think MDOT is moving in the right direction	46%	N/A	46%	48%
I think MDOT does a good job prioritizing highway improvements in Michigan	38%	N/A	43%	47%
I trust MDOT officials to make good decisions about the future transportation system	49%	N/A	46%	46%
Issues with High Priority				
Maintain existing roads	N/A	92%	89%	91%
Reduce traffic congestion	N/A	69%	65%	69%
Services with High Satisfaction				
Quickly and efficiently removing snow and ice from highways	57%	N/A	64%	69%
Making MI state highways as safe as possible	64%	N/A	64%	66%
Positive Impact from Self-Driving Vehicles				
Fuel economy (Increase)	33%	35%	N/A	34%
Willingness to Pay Tolls	55%	54%	N/A	50%

# 7.0 CONCLUSIONS

All regions demonstrated a higher "net better" score in 2023 compared to 2021. Though some of these differences may be explained by differing survey methodologies between the years, the difference suggests an overall improvement in the quality of transportation in Michigan. Similarly, all regions included the statements "I trust MDOT officials to make good decisions about the state's future transportation system" and/or "I think MDOT is moving in the right direction" in the top two statements with which they most strongly agreed.

Compared to the 2021 survey, during which more than half of employed residents reported teleworking, teleworking has decreased in 2023. Only 31 percent of employed residents who do not bike or drive for work report that their employer allows them to telework. Among those who have the option to telework, 43 percent telework four or more days per week. About two-thirds (67 percent) of employed respondents expect their telework frequency to stay the same over the next 3-6 months.

Looking to future transportation technologies, most residents are not interested in purchasing or leasing an electric vehicle in the next five years. This aligns with the findings in 2021 as well. When asked about future transportation funding options in light of the expected increase in electric vehicles, the largest share of respondents (29 percent) did not perceive a gas tax or road use charge as "fair," though responses were varied across answer options (i.e., either, both, neither, don't know).

The 2023 survey added several new questions about barriers to travel. Approximately one-tenth of all Michigan residents feel their opportunities are limited due to transportation options (11 percent). Among those 11 percent, the primary reasons residents mentioned they felt this way were having limited or no routes in their area (27 percent), not having access to a vehicle (22 percent) and destinations being too far away (11 percent).

In total, this survey revealed interesting trends both in current and changing perceptions about Michigan transportation and key priorities for the state.