

2024 Statewide (83-County) Direct Observation Survey of Seat Belt and Mobile Device Use



FINAL REPORT

**Prepared for:
Michigan Office of Highway Safety Planning
Lansing, MI**

**Prepared by:
Michigan State University
East Lansing, MI**

Date: September 16, 2024



**MICHIGAN STATE
UNIVERSITY**

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The opinions, findings, and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Michigan Office of Highway Safety Planning, the U.S. Department of Transportation, or the National Highway Traffic Safety Administration. This report was prepared in cooperation with the Michigan Office of Highway Safety Planning and the U.S. Department of Transportation, and the National Highway Traffic Safety Administration.

Roadside observations of seat belt use by front seat occupants and driver mobile device use were recorded at 154 unique sites across all 83 counties in Michigan in May, June, and July of 2024. To provide consistency in the sampling methods between the counties, data were only collected on secondary roadways and during weekdays between the hours of 7:00 AM and 8:00 PM. Secondary roads are classified by the MAF/TIGER Feature Class Code (MTFCC) S1200 as arterials that typically fall within the U.S., state, or county highway system. Each of these roadways had one or more lanes of traffic in each direction, were undivided or divided, and had at-grade intersections with other roads and driveways. Limited access freeways, local neighborhood streets, and rural local roadways were not included in the sample. At least one roadway site per county was observed and data were collected for at least 60 minutes and at least 30 observations per site. Multiple approaches were observed at study locations where conditions and human resources allowed, as long as the observed roadways were classified as secondary. Data collected by the research team during the 2024 annual NHTSA seat belt surveys were utilized for the 35 applicable counties as long as the roadway and day-of-week criteria were met. Table 1 presents the results of the statewide sample including county, number of observation sites, number of driver observations, driver percent belt use, number of passenger observations, passenger percent belt use, total observations, total percent belt use, percent driver mobile device use, and percent driver hand-held mobile device use, which was added for the 2024 survey to coincide with the new hands-free device use law that went into effect in Michigan on July 1, 2023. Overall statewide use rates were computed for each statistic, weighted by the total county vehicle miles traveled in 2022 (VMT). Please note that the overall statewide seat belt use rate computed for the 83-county seat belt survey does not represent the official statewide seat belt use rate for the State of Michigan. The official annual seat belt use rate for the State of Michigan is obtained during observational surveys performed according to the federally-approved methodology during the three-week period following Memorial Day each year. Please refer to the *2024 Annual Direct Observation Survey of Seat Belt Use and Mobile Device Use in Michigan – Final Report* for additional details on the methods utilized for the annual surveys of seat belt and mobile device use in Michigan. Appendix I provides the list of the 83-county statewide observation survey locations, including belt use and mobile device observation data. The 2022 county VMT data used in the data weighting process for the statewide use-rate calculations are presented in Appendix II.

Table 1. Statewide (83-County) Survey Results by County and Occupant Type

County	No. of Sites	Number of Driver Obs.	Driver % Belt Use	Number of Psgr. Obs.	Psgr % Belt Use	Number of Total Obs.	Total % Belt Use	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
Alcona	1	44	90.9%	10	90.0%	54	90.7%	0.0%	0.0%
Alger	1	52	86.5%	14	92.9%	66	87.9%	0.0%	0.0%
Allegan	1	125	94.4%	22	90.9%	147	93.9%	8.8%	4.8%
Alpena	1	54	88.9%	19	84.2%	73	87.7%	5.6%	5.6%
Antrim	1	130	93.1%	34	94.1%	164	93.3%	5.4%	4.6%
Arenac	1	120	90.0%	20	95.0%	140	90.7%	10.0%	9.2%
Baraga	1	120	84.2%	23	87.0%	143	84.6%	9.2%	7.5%
Barry	1	126	94.4%	26	92.3%	152	94.1%	3.2%	2.4%

County	No. of Sites	Number of Driver Obs.	Driver % Belt Use	Number of Psgr. Obs.	Psgr % Belt Use	Number of Total Obs.	Total % Belt Use	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
Bay	3	360	92.8%	77	93.5%	437	92.9%	7.2%	4.4%
Benzie	1	130	96.2%	22	95.5%	152	96.1%	3.8%	3.1%
Berrien	1	126	92.1%	28	89.3%	154	91.6%	4.8%	2.4%
Branch	1	86	87.2%	32	81.3%	118	85.6%	11.6%	9.3%
Calhoun	4	480	93.8%	75	97.3%	555	94.2%	6.0%	5.4%
Cass	1	120	85.0%	36	61.1%	156	79.5%	4.2%	3.3%
Charlevoix	1	103	91.3%	16	75.0%	119	89.1%	1.9%	1.9%
Cheboygan	2	247	89.9%	54	81.5%	301	88.4%	2.0%	1.6%
Chippewa	1	72	88.9%	23	95.7%	95	90.5%	4.2%	2.8%
Clare	1	120	91.7%	24	83.3%	144	90.3%	11.7%	6.7%
Clinton	1	128	96.1%	13	92.3%	141	95.7%	4.7%	3.9%
Crawford	1	130	96.2%	19	94.7%	149	96.0%	3.8%	3.1%
Delta	1	131	87.8%	31	80.6%	162	86.4%	8.4%	7.6%
Dickinson	1	130	90.0%	28	92.9%	158	90.5%	5.4%	4.6%
Eaton	2	247	94.7%	51	98.0%	298	95.3%	4.9%	4.0%
Emmet	1	130	93.8%	33	81.8%	163	91.4%	3.8%	3.1%
Genesee	3	350	90.9%	76	92.1%	426	91.1%	7.1%	6.9%
Gladwin	1	120	85.8%	19	84.2%	139	85.6%	12.5%	12.5%
Gogebic	1	78	85.9%	24	91.7%	102	87.3%	6.4%	3.8%
Grand Traverse	4	505	92.1%	98	95.9%	603	92.7%	3.4%	3.2%
Gratiot	1	128	93.8%	26	96.2%	154	94.2%	6.3%	3.9%
Hillsdale	1	105	95.2%	21	95.2%	126	95.2%	3.8%	3.8%
Houghton	1	140	87.1%	17	100.0%	157	88.5%	15.0%	12.1%
Huron	2	240	91.7%	43	95.3%	283	92.2%	5.8%	5.0%
Ingham	8	735	92.0%	101	96.0%	836	92.5%	7.9%	4.8%
Ionia	2	260	92.7%	59	86.4%	319	91.5%	5.8%	5.4%
Iosco	1	85	87.1%	28	89.3%	113	87.6%	1.2%	1.2%
Iron	1	120	79.2%	27	88.9%	147	81.0%	5.0%	1.7%
Isabella	1	130	90.8%	33	100.0%	163	92.6%	5.4%	4.6%
Jackson	2	246	94.3%	35	97.1%	281	94.7%	5.7%	4.9%
Kalamazoo	7	748	92.8%	123	91.9%	871	92.7%	7.0%	4.8%
Kalkaska	1	120	93.3%	31	93.5%	151	93.4%	5.0%	3.3%
Kent	1	123	96.7%	12	100.0%	135	97.0%	8.9%	6.5%
Keweenaw	1	133	88.0%	20	100.0%	153	89.5%	3.8%	3.0%
Lake	1	58	96.6%	20	95.0%	78	96.2%	0.0%	0.0%
Lapeer	1	120	87.5%	26	84.6%	146	87.0%	18.3%	16.7%
Leelanau	1	45	80.0%	17	94.1%	62	83.9%	2.2%	2.2%
Lenawee	2	226	93.8%	39	94.9%	265	94.0%	5.3%	5.3%
Livingston	1	120	94.2%	19	89.5%	139	93.5%	3.3%	3.3%

County	No. of Sites	Number of Driver Obs.	Driver % Belt Use	Number of Psgr. Obs.	Psgr % Belt Use	Number of Total Obs.	Total % Belt Use	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
Luce	1	140	87.1%	39	89.7%	179	87.7%	5.0%	4.3%
Mackinac	1	60	91.7%	17	94.1%	77	92.2%	8.3%	5.0%
Macomb	8	1014	89.3%	152	88.8%	1166	89.3%	10.4%	7.7%
Manistee	1	114	96.5%	20	95.0%	134	96.3%	1.8%	1.8%
Marquette	3	292	93.5%	52	98.1%	344	94.2%	5.5%	4.5%
Mason	1	130	93.8%	31	87.1%	161	92.5%	1.5%	1.5%
Mecosta	2	210	92.4%	37	94.6%	247	92.7%	2.4%	1.9%
Menominee	1	105	85.7%	20	80.0%	125	84.8%	8.6%	5.7%
Midland	1	120	90.0%	19	89.5%	139	89.9%	9.2%	8.3%
Missaukee	1	104	96.2%	34	91.2%	138	94.9%	0.0%	0.0%
Monroe	1	109	98.2%	28	96.4%	137	97.8%	8.3%	8.3%
Montcalm	1	82	92.7%	15	100.0%	97	93.8%	0.0%	0.0%
Montmorency	1	53	79.2%	25	80.0%	78	79.5%	5.7%	5.7%
Muskegon	2	253	94.9%	33	87.9%	286	94.1%	11.1%	9.9%
Newaygo	2	140	87.1%	39	94.9%	179	88.8%	0.7%	0.7%
Oakland	9	1142	93.7%	160	93.8%	1302	93.7%	7.5%	5.5%
Oceana	1	73	93.2%	19	100.0%	92	94.6%	4.1%	4.1%
Ogemaw	1	105	92.4%	23	100.0%	128	93.8%	4.8%	4.8%
Ontonagon	1	105	85.7%	27	88.9%	132	86.4%	5.7%	5.7%
Osceola	1	50	96.0%	20	85.0%	70	92.9%	4.0%	4.0%
Oscoda	1	130	86.2%	31	90.3%	161	87.0%	2.3%	2.3%
Otsego	1	130	95.4%	26	100.0%	156	96.2%	3.1%	2.3%
Ottawa	6	754	94.0%	121	96.7%	875	94.4%	7.8%	5.8%
Presque Isle	1	90	88.9%	20	85.0%	110	88.2%	2.2%	2.2%
Roscommon	1	120	90.0%	40	90.0%	160	90.0%	1.7%	1.7%
Saginaw	1	120	90.8%	27	100.0%	147	92.5%	7.5%	5.8%
Sanilac	1	132	90.9%	37	83.8%	169	89.3%	4.5%	3.8%
Schoolcraft	2	160	88.8%	48	97.9%	208	90.9%	3.1%	2.5%
Shiawassee	1	120	88.3%	16	100.0%	136	89.7%	11.7%	11.7%
St Clair	1	120	92.5%	18	88.9%	138	92.0%	10.0%	10.0%
St Joseph	1	97	83.5%	20	90.0%	117	84.6%	4.1%	4.1%
Tuscola	5	575	89.0%	149	94.0%	724	90.1%	5.6%	4.2%
Van Buren	1	81	93.8%	17	88.2%	98	92.9%	3.7%	2.5%
Washtenaw	3	346	93.1%	70	97.1%	416	93.8%	4.6%	3.8%
Wayne	10	1224	87.5%	164	96.3%	1388	88.5%	13.7%	9.7%
Wexford	2	259	96.9%	88	93.2%	347	96.0%	1.5%	1.5%
Statewide Average (VMT-Weighted)	154	17,305	91.80%	3,346	93.50%	20,651	92.0%	7.9%	6.0%

Table 1 presents several interesting findings. First, the 2024 weighted 83-county seat belt use rate was 92.0 percent, which was equal to the weighted 35-county 2024 Annual NHTSA Survey (which was 92.0 percent). The 2024 weighted 83-county rate was 1.2 percentage points higher than the 90.8 percent observed during the most recent 83-county survey in 2023. Twenty-nine (29) counties had total seat belt use rates that were below 90 percent, which are indicated in boldface in Table 1. The counties with the lowest belt use rates were generally rural counties in northern Michigan and the Upper Peninsula. The 10 counties with the lowest seat belt use rates in 2024 are presented in descending order as follows:

- Ontonagon (86.4%)
- Gladwin (85.6%)
- Branch (85.6%)
- Menominee (84.8%)
- Baraga (84.6%)
- St Joseph (84.6%)
- Leelanau (83.9%)
- Iron (81.0%)
- Cass (79.5%)
- Montmorency (79.5%)

Overall mobile device use by drivers in the 83-county survey was found to be 7.9 percent, which is 0.4 percentage points higher than the weighted 35-county 2024 annual survey (which was 7.5 percent) and 1.3 percentage points lower than the 9.2 percent rate of driver mobile device use observed in the 2023 83-county survey. Hand-held mobile device use by drivers in the 83-county survey was found to be 6.0 percent, which is 0.5 percentage points higher than the weighted 35-county 2024 Annual survey (which was 5.5 percent). Eleven (11) counties showed hand-held mobile device use rates that were at or above 8 percent, which are indicated in boldface in Table 1. The counties with the highest hand-held mobile device use rates did not show a clear regional or demographic pattern, although nearly all were in the southern half of the state. The 10 counties with the highest driver hand-held mobile device use rates in 2024 are as follows, in descending order:

- Lapeer (16.7 %)
- Gladwin (12.5 %)
- Houghton (12.1 %)
- Shiawassee (11.7 %)
- St Clair (10.0 %)
- Muskegon (9.9 %)
- Wayne (9.7 %)
- Branch (9.3 %)
- Arenac (9.2 %)
- Midland (8.3 %)

APPENDIX I

Statewide (83-County) Survey Results by Location

County	Site Location	Driver Total Obs.	Driver % Belted	Psgr Total Obs.	Psgr % Belted	Total Obs.	Total % Belted	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
Alcona	WB M-72 @ M-65	44	90.9%	10	90.0%	54	90.7%	0.0%	0.0%
Alger	NB M-94 @ M-28	52	86.5%	14	92.9%	66	87.9%	0.0%	0.0%
Allegan	WB M-43/Bridge Street @ Sherwood Ave	125	94.4%	22	90.9%	147	93.9%	8.8%	4.8%
Alpena	SB M-65 @ M-32	54	88.9%	19	84.2%	73	87.7%	5.6%	5.6%
Antrim	SB US-131 @ M-88	130	93.1%	34	94.1%	164	93.3%	5.4%	4.6%
Arenac	NB US-23 @ M-61	120	90.0%	20	95.0%	140	90.7%	10.0%	9.2%
Baraga	EB M-38 @ US-41	120	84.2%	23	87.0%	143	84.6%	9.2%	7.5%
Barry	EB State St (M-37) @ Broadway (M-43)	126	94.4%	26	92.3%	152	94.1%	3.2%	2.4%
Bay	EB M-84/E Salzburg Road @ M-13/Euclid Ave	120	93.3%	22	86.4%	142	92.3%	11.7%	9.2%
Bay	SB M-13/Broadway Street @ Fremont Ave	120	89.2%	30	93.3%	150	90.0%	8.3%	2.5%
Bay	SB M-13/Huron Road @ Linwood Road	120	95.8%	25	100.0 %	145	96.6%	1.7%	1.7%
Benzie	SB US-31 @ M-115	130	96.2%	22	95.5%	152	96.1%	3.8%	3.1%
Berrien	SWB M-139/Ferry Street @ M-139/Old 31	126	92.1%	28	89.3%	154	91.6%	4.8%	2.4%
Branch	SB Athens Rd (M-66) @ Mendon Rd (M-60)	86	87.2%	32	81.3%	118	85.6%	11.6%	9.3%
Calhoun	SB M-66/Capital Ave @ Burr Oak Street	118	92.4%	25	96.0%	143	93.0%	5.1%	4.2%
Calhoun	EB Michigan Ave @ Eagle Street	128	95.3%	12	100.0 %	140	95.7%	4.7%	4.7%
Calhoun	NB M-99/Superior Street @ Erie Street	109	91.7%	17	100.0 %	126	92.9%	12.8%	11.9%
Calhoun	NB M-66 @ B Drive S	125	95.2%	21	95.2%	146	95.2%	2.4%	1.6%
Cass	EB M-152 @ M-51	120	85.0%	36	61.1%	156	79.5%	4.2%	3.3%
Charlevoix	NB M-66 @ M-32	103	91.3%	16	75.0%	119	89.1%	1.9%	1.9%
Cheboygan	NB US-23 (State) @ US-23 (Main)	117	91.5%	29	79.3%	146	89.0%	2.6%	1.7%
Cheboygan	WB M-68 @ M-68	130	88.5%	25	84.0%	155	87.7%	1.5%	1.5%
Chippewa	WB M-28 @ M-123	72	88.9%	23	95.7%	95	90.5%	4.2%	2.8%
Clare	EB M-115/5th Street @ McEwan Street	120	91.7%	24	83.3%	144	90.3%	11.7%	6.7%
Clinton	EB BUS I-96/Grand River Ave @ Airport Road	128	96.1%	13	92.3%	141	95.7%	4.7%	3.9%
Crawford	WB M-72 @ I-75 BUS	130	96.2%	19	94.7%	149	96.0%	3.8%	3.1%
Delta	SB US-41 @ M-35	131	87.8%	31	80.6%	162	86.4%	8.4%	7.6%
Dickinson	EB US-2 @ US-141	130	90.0%	28	92.9%	158	90.5%	5.4%	4.6%
Eaton	EB M-79/Lawrence Ave @ Lincoln Street	125	92.8%	32	96.9%	157	93.6%	4.0%	3.2%
Eaton	SB M-50/N Cochran Ave @ Lawrence Ave	122	96.7%	19	100.0 %	141	97.2%	5.7%	4.9%
Emmet	NB US-131 @ M-68	130	93.8%	33	81.8%	163	91.4%	3.8%	3.1%
Genesee	SB M-15 @ Dodge Rd	100	90.0%	19	100.0 %	119	91.6%	9.0%	9.0%
Genesee	NB M-13 @ M-57	130	91.5%	28	89.3%	158	91.1%	4.6%	4.6%

County	Site Location	Driver Total Obs.	Driver % Belted	Psgr Total Obs.	Psgr % Belted	Total Obs.	Total % Belted	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
Genesee	SB M-13 @ M-21	120	90.8%	29	89.7%	149	90.6%	8.3%	7.5%
Gladwin	WB M-61 @ M-18	120	85.8%	19	84.2%	139	85.6%	12.5%	12.5%
Gogebic	WB US-2 @ US-45	78	85.9%	24	91.7%	102	87.3%	6.4%	3.8%
Grand Traverse	SB US-31 @ M-72/Shores Beach Lane	125	92.0%	18	94.4%	143	92.3%	4.0%	4.0%
Grand Traverse	WB US-31/M-72/Munson Ave @ Holiday Road	129	94.6%	24	95.8%	153	94.8%	3.1%	2.3%
Grand Traverse	EB US-31/Beitner Road @ US-31/M-37	126	92.9%	27	96.3%	153	93.5%	4.0%	4.0%
Grand Traverse	WB M-113/Main Street @ Brownson Ave	125	88.8%	29	96.6%	154	90.3%	2.4%	2.4%
Gratiot	EB Washington (M-46) @ Main (US-127 BUS)	128	93.8%	26	96.2%	154	94.2%	6.3%	3.9%
Hillsdale	EB Chicago St (US-12) @ Maumee St (M-99)	105	95.2%	21	95.2%	126	95.2%	3.8%	3.8%
Houghton	EB M-26 @ US-41	140	87.1%	17	100.0 %	157	88.5%	15.0%	12.1%
Huron	NB Huron (M-25) @ State St (M-142)	124	91.1%	20	90.0%	144	91.0%	8.1%	6.5%
Huron	EB Huron (M-53) @ Port Crescent (M-53)	116	92.2%	23	100.0 %	139	93.5%	3.4%	3.4%
Ingham	WB E M-106/Morton Road @ N Clinton Street/M-106	59	93.2%	12	100.0 %	71	94.4%	1.7%	1.7%
Ingham	EB M-52/Main Street/Stockbridge Road @ N Clinton Street/M-106	120	85.8%	25	100.0 %	145	88.3%	2.5%	1.7%
Ingham	WB M-36/Topping Road @ M-52 (Stockbridge Road)	30	93.3%	5	100.0 %	35	94.3%	3.3%	3.3%
Ingham	EB M-36/Dansville Road @ M-52	27	92.6%	5	80.0%	32	90.6%	7.4%	7.4%
Ingham	WB I-96 BUS LOOP/S M-43 Hwy/E Oakland Ave @ N Pennsylvania Ave	120	90.8%	10	90.0%	130	90.8%	6.7%	5.0%
Ingham	WB M-143/Michigan Ave @ N Harrison Road	139	95.0%	15	100.0 %	154	95.5%	4.3%	3.6%
Ingham	SEB M-43/E. Grand River Ave @ Northwind Drive	120	95.0%	14	100.0 %	134	95.5%	13.3%	4.2%
Ingham	WB M-43/Grand River Avenue @ Dobie Road/Central Park Drive	120	91.7%	15	86.7%	135	91.1%	17.5%	10.8%
Ionia	EB Bluewater Hwy (M-21) @ N. State St (M-66)	130	92.3%	28	82.1%	158	90.5%	6.2%	5.4%
Ionia	NB State Rd (M-66) @ Tuttle Rd	130	93.1%	31	90.3%	161	92.5%	5.4%	5.4%
Iosco	NB M-65 @ M-55	85	87.1%	28	89.3%	113	87.6%	1.2%	1.2%
Iron	EB US-2 @ M-189	120	79.2%	27	88.9%	147	81.0%	5.0%	1.7%
Isabella	SB Old US-27 (US-127 BUS) & E Broomfield St	130	90.8%	33	100.0 %	163	92.6%	5.4%	4.6%
Jackson	SB M-50/Main Street @ Constitution Street	130	91.5%	18	94.4%	148	91.9%	3.8%	2.3%
Jackson	EB Spring Arbor Road @ Dearing Road	116	97.4%	17	100.0 %	133	97.7%	7.8%	7.8%
Kalamazoo	SB US-131 @ Lyons Street	102	89.2%	18	100.0 %	120	90.8%	2.0%	0.0%
Kalamazoo	SWB M-96/Battle Creek Street @ Burgess Drive	107	94.4%	12	83.3%	119	93.3%	5.6%	5.6%
Kalamazoo	EB M-96 (E. Michigan Ave) @ S 35th Street	113	92.0%	15	93.3%	128	92.2%	8.8%	7.1%
Kalamazoo	WB BUS US-94/AmVets Mem Parkway @ S Sprinkle Road	98	93.9%	25	88.0%	123	92.7%	8.2%	6.1%

County	Site Location	Driver Total Obs.	Driver % Belted	Psgr Total Obs.	Psgr % Belted	Total Obs.	Total % Belted	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
Kalamazoo	WB M-96/King Highway @ River Street	82	95.1%	21	95.2%	103	95.1%	3.7%	2.4%
Kalamazoo	SWB Gull Road @ N Sprinkle Road	123	91.9%	19	100.0%	142	93.0%	8.1%	4.9%
Kalamazoo	WB BUS US-94/AmVets Mem Parkway @ N Park Street	123	93.5%	13	76.9%	136	91.9%	10.6%	6.5%
Kalkaska	EB M-72 & US-131/M-66	120	93.3%	31	93.5%	151	93.4%	5.0%	3.3%
Kent	EB M-11/28th Street SW @ Ivanreset Ave SW	123	96.7%	12	100.0%	135	97.0%	8.9%	6.5%
Keweenaw	NB US-41 @ Bumbletown Rd	133	88.0%	20	100.0%	153	89.5%	3.8%	3.0%
Lake	WB US-10 @ M-37	58	96.6%	20	95.0%	78	96.2%	0.0%	0.0%
Lapeer	NB M-24/Lapeer Road @ W Dryden Road	120	87.5%	26	84.6%	146	87.0%	18.3%	16.7%
Leelanau	SB M-22 @ M-72	45	80.0%	17	94.1%	62	83.9%	2.2%	2.2%
Lenawee	EB M-34 @ Scott Street/Red River Drive	127	89.8%	15	93.3%	142	90.1%	8.7%	8.7%
Lenawee	EB US-12 @ M-52	99	99.0%	24	95.8%	123	98.4%	1.0%	1.0%
Livingston	WB Grand River Ave @ National Street	120	94.2%	19	89.5%	139	93.5%	3.3%	3.3%
Luce	SB M-123 @ M-28	140	87.1%	39	89.7%	179	87.7%	5.0%	4.3%
Mackinac	SB M-117 @ US-2	60	91.7%	17	94.1%	77	92.2%	8.3%	5.0%
Macomb	EB M-39/Southfield Road @ Lafayette Boulevard	134	88.1%	26	100.0%	160	90.0%	13.4%	9.0%
Macomb	SB M-53/Van Dyke Ave @ 17 Mile Road	130	86.9%	20	80.0%	150	86.0%	8.5%	6.2%
Macomb	EB M-59/Hall Road @ Van Dyke Ave	130	87.7%	18	88.9%	148	87.8%	9.2%	6.9%
Macomb	WB M-59/Hall Road @ Garfield Road	130	95.4%	18	100.0%	148	95.9%	5.4%	3.8%
Macomb	EB M-59/Hall Road @ Romeo Plank Road	130	96.9%	17	94.1%	147	96.6%	10.0%	7.7%
Macomb	SWB M-3/Gratiot Ave @ Martin Road	120	84.2%	17	76.5%	137	83.2%	10.8%	9.2%
Macomb	NEB M-3/Gratiot Ave @ 12 Mile Road	120	84.2%	19	68.4%	139	82.0%	6.7%	6.7%
Macomb	SWB M-97/Groesbeck Highway @ 15 Mile Road	120	90.8%	17	100.0%	137	92.0%	19.2%	12.5%
Manistee	NB M-55 @ E Parkdale Ave (US-31)	114	96.5%	20	95.0%	134	96.3%	1.8%	1.8%
Marquette	NB US-41 @ Cherry Creek Road (M-28)	100	94.0%	14	100.0%	114	94.7%	4.0%	3.0%
Marquette	NB M-553 @ County Road 480	130	93.8%	30	100.0%	160	95.0%	8.5%	6.9%
Marquette	NB State Hwy 35 @ CR-480	62	91.9%	8	87.5%	70	91.4%	1.6%	1.6%
Mason	WB US-10 (Ludington Ave) @ US-10 (James St)	130	93.8%	31	87.1%	161	92.5%	1.5%	1.5%
Mecosta	NB 157th Ave (M-20) & 15 Mile Rd (M-20)	90	91.1%	9	88.9%	99	90.9%	1.1%	1.1%
Mecosta	WB E Wheatland Ave (M-20) at 30th Ave (M-66)	120	93.3%	28	96.4%	148	93.9%	3.3%	2.5%
Menominee	EB US-2 @ US-41	105	85.7%	20	80.0%	125	84.8%	8.6%	5.7%
Midland	EB Buttles (US-10 BUS) @ Jerome (M-20)	120	90.0%	19	89.5%	139	89.9%	9.2%	8.3%
Missaukee	EB M-55 @ M-66 / M-55	104	96.2%	34	91.2%	138	94.9%	0.0%	0.0%
Monroe	EB M-50/Tecumseh Street @ Helle Boulevard/Cabela	109	98.2%	28	96.4%	137	97.8%	8.3%	8.3%

County	Site Location	Driver Total Obs.	Driver % Belted	Psgr Total Obs.	Psgr % Belted	Total Obs.	Total % Belted	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
	Boulevard								
Montcalm	WB M-46/Howard City Edmore @ Federal Road	82	92.7%	15	100.0 %	97	93.8%	0.0%	0.0%
Montmorency	WB M-32 (State) @ M-33 (Main St)	53	79.2%	25	80.0%	78	79.5%	5.7%	5.7%
Muskegon	WB BUS US-31/Seaway Drive @ Hoyt Street	127	95.3%	11	90.9%	138	94.9%	15.7%	14.2%
Muskegon	NB M-37/Maple Street @ State Road	126	94.4%	22	86.4%	148	93.2%	6.3%	5.6%
Newaygo	EB M-82/Curve Street/Croton Drive @ M-37/Evergreen Drive	120	88.3%	29	96.6%	149	89.9%	0.8%	0.8%
Newaygo	WB Monroe Street @ M-37/Evergreen Drive	20	80.0%	10	90.0%	30	83.3%	0.0%	0.0%
Oakland	SB US-24/Telegraph Road @ Voorheis Street	112	93.8%	13	92.3%	125	93.6%	7.1%	3.6%
Oakland	EB M-59/E Huron Street @ Woodward Ave (NB)	124	95.2%	26	88.5%	150	94.0%	4.8%	4.0%
Oakland	SEB BUS US-24/N Cass Ave @ N Johnson Street	127	92.1%	31	93.5%	158	92.4%	7.1%	3.9%
Oakland	SEB M-1/Woodward Ave @ Catalpa Drive	130	92.3%	17	94.1%	147	92.5%	3.8%	3.8%
Oakland	NWB M-1/Woodward Ave @ E Maple Road	140	95.0%	12	100.0 %	152	95.4%	8.6%	7.9%
Oakland	NWB M-1/Woodward Ave @ W Big Beaver Road	130	97.7%	22	90.9%	152	96.7%	6.9%	5.4%
Oakland	EB M-59/Highland Road EB @ N. Milford Road	120	91.7%	23	95.7%	143	92.3%	8.3%	6.7%
Oakland	WB M-59/Highland Road WB @ Duck Lake Road	120	91.7%	7	100.0 %	127	92.1%	19.2%	11.7%
Oakland	SEB M-1/Woodward Ave @ W Nine Mile Road	139	93.5%	9	100.0 %	148	93.9%	2.9%	2.9%
Oceana	WB M-20 @ Oceana Dr	73	93.2%	19	100.0 %	92	94.6%	4.1%	4.1%
Ogemaw	WB M-55 @ M-33	105	92.4%	23	100.0 %	128	93.8%	4.8%	4.8%
Ontonagon	WB M-28 @ US-45	105	85.7%	27	88.9%	132	86.4%	5.7%	5.7%
Osceola	NB M-66 @ US-10	50	96.0%	20	85.0%	70	92.9%	4.0%	4.0%
Oscoda	SB M-33 @ M-72	130	86.2%	31	90.3%	161	87.0%	2.3%	2.3%
Otsego	EB M-32 @ Dickerson Rd	130	95.4%	26	100.0 %	156	96.2%	3.1%	2.3%
Ottawa	NB US-31 NB @ Hayes Street	127	95.3%	3	66.7%	130	94.6%	11.8%	8.7%
Ottawa	SB US-31 SB @ Ferris Street	120	94.2%	19	94.7%	139	94.2%	9.2%	5.8%
Ottawa	EB M-45/Lake Michigan Drive @ 48th Ave	123	91.1%	15	100.0 %	138	92.0%	13.8%	11.4%
Ottawa	SB US-31 SB @ Port Sheldon Street	130	93.8%	31	100.0 %	161	95.0%	0.8%	0.8%
Ottawa	EB 9th Street @ Columbia Ave	124	94.4%	31	93.5%	155	94.2%	7.3%	4.8%
Ottawa	SWB Chicago Drive @ 36th Ave	130	95.4%	22	100.0 %	152	96.1%	4.6%	3.8%
Presque Isle	NB M-33 @ M-68	90	88.9%	20	85.0%	110	88.2%	2.2%	2.2%
Roscommon	SB M-18 @ M-55	120	90.0%	40	90.0%	160	90.0%	1.7%	1.7%
Saginaw	NB M-15/Vassar Road @ M-81/Washington Road	120	90.8%	27	100.0 %	147	92.5%	7.5%	5.8%
Sanilac	NB M-53 @ M-46	132	90.9%	37	83.8%	169	89.3%	4.5%	3.8%
Schoolcraft	SB M-77 @ M-28	50	92.0%	20	100.0 %	70	94.3%	4.0%	2.0%

County	Site Location	Driver Total Obs.	Driver % Belted	Psgr Total Obs.	Psgr % Belted	Total Obs.	Total % Belted	Driver % Mobile Device Use	Driver % Handheld Mobile Device Use
Schoolcraft	SB M-94 @ US-2	110	87.3%	28	96.4%	138	89.1%	2.7%	2.7%
Shiawassee	NB Shiawassee (M-52) @ Main St (M-21)	120	88.3%	16	100.0%	136	89.7%	11.7%	11.7%
St. Clair	NB Kinney Rd (M-19) @ Dunnigan Road	120	92.5%	18	88.9%	138	92.0%	10.0%	10.0%
St. Joseph	EB US-12/Chicago Road @ US-131	97	83.5%	20	90.0%	117	84.6%	4.1%	4.1%
Tuscola	SWB M-81/State Street @ Frank Street	100	92.0%	18	94.4%	118	92.4%	1.0%	1.0%
Tuscola	NB M-24/Mertz Road @ M-46/Sanilac Road	115	88.7%	33	97.0%	148	90.5%	6.1%	6.1%
Tuscola	WB M-46/Sanilac Road @ M-24/Mertz Road	120	85.8%	38	94.7%	158	88.0%	3.3%	3.3%
Tuscola	EB M-81/Cass City Road @ Seeger Street	120	86.7%	25	92.0%	145	87.6%	10.0%	6.7%
Tuscola	NWB M-153/Ford Road @ M-46/Sanilac Road	120	92.5%	35	91.4%	155	92.3%	6.7%	3.3%
Van Buren	WB M-43 @ M-40	81	93.8%	17	88.2%	98	92.9%	3.7%	2.5%
Washtenaw	SB M-52/Ann Arbor Street @ E Main Street	109	90.8%	19	94.7%	128	91.4%	3.7%	2.8%
Washtenaw	SWB US-12/Michigan Avenue @ Munger Road/Cloverlane Drive	112	95.5%	27	100.0%	139	96.4%	6.3%	6.3%
Washtenaw	NB N Huron Street @ W Cross Street	125	92.8%	24	95.8%	149	93.3%	4.0%	2.4%
Wayne	SB US-24/Telegraph Road @ Van Born Road	132	88.6%	14	92.9%	146	89.0%	16.7%	11.4%
Wayne	NWB M-39/Southfield Road @ Toledo Road	128	88.3%	22	90.9%	150	88.7%	9.4%	7.8%
Wayne	SWB M-85/Fort Street @ Outer Drive	126	88.1%	23	95.7%	149	89.3%	11.1%	6.3%
Wayne	NEB US-12/Michigan Ave @ Schlaff Street	134	82.1%	32	100.0%	166	85.5%	6.7%	6.0%
Wayne	EB M-153/Ford Road @ Chase Road	132	83.3%	29	100.0%	161	86.3%	14.4%	9.8%
Wayne	EB US-12/Michigan Ave @ Haggerty Road	123	95.9%	6	83.3%	129	95.3%	13.8%	13.0%
Wayne	WB M-153/Ford Road @ Silvery Lane	125	88.0%	9	100.0%	134	88.8%	17.6%	12.0%
Wayne	WB M-153/Ford Road @ US-24/Telegraph Road	121	87.6%	11	100.0%	132	88.6%	17.4%	11.6%
Wayne	EB M-153/Ford Road @ Outer Drive	123	87.8%	11	90.9%	134	88.1%	23.6%	13.8%
Wayne	NWB M-1/Woodward Ave @ 7 Mile Road	80	85.0%	7	100.0%	87	86.2%	3.8%	3.8%
Wexford	EB M-55 @ M-115/M-55	130	94.6%	46	95.7%	176	94.9%	1.5%	1.5%
Wexford	SB M-115 @ 13th St	129	99.2%	42	90.5%	171	97.1%	1.6%	1.6%

APPENDIX II
2022 Vehicle Miles Traveled in Michigan, by County

County	2022 VMT in THOUSANDS (from MDOT Highway Performance Monitoring System)	Percent of Statewide VMT
Alcona	127,560	0.13%
Alger	144,948	0.15%
Allegan	1,560,109	1.63%
Alpena	272,627	0.28%
Antrim	307,076	0.32%
Arenac	332,581	0.35%
Baraga	123,792	0.13%
Barry	416,246	0.43%
Bay	1,226,304	1.28%
Benzie	208,694	0.22%
Berrien	1,999,539	2.09%
Branch	490,515	0.51%
Calhoun	1,585,927	1.65%
Cass	475,615	0.50%
Charlevoix	272,251	0.28%
Cheboygan	447,485	0.47%
Chippewa	358,522	0.37%
Clare	401,648	0.42%
Clinton	1,074,074	1.12%
Crawford	318,187	0.33%
Delta	408,116	0.43%
Dickinson	228,991	0.24%
Eaton	1,169,291	1.22%
Emmet	381,338	0.40%
Genesee	3,845,938	4.01%
Gladwin	239,818	0.25%
Gogebic	150,863	0.16%
Grand Traverse	978,512	1.02%
Gratiot	532,421	0.56%
Hillsdale	407,331	0.42%
Houghton	261,402	0.27%
Huron	323,275	0.34%
Ingham	2,090,528	2.18%
Ionia	747,936	0.78%
Iosco	266,670	0.28%
Iron	137,327	0.14%

County	2022 VMT in THOUSANDS (from MDOT Highway Performance Monitoring System)	Percent of Statewide VMT
Isabella	697,222	0.73%
Jackson	1,621,291	1.69%
Kalamazoo	2,477,543	2.58%
Kalkaska	267,829	0.28%
Kent	5,923,440	6.18%
Keweenaw	47,059	0.05%
Lake	130,317	0.14%
Lapeer	921,649	0.96%
Leelanau	277,811	0.29%
Lenawee	824,526	0.86%
Livingston	2,267,994	2.37%
Luce	90,874	0.09%
Mackinac	277,032	0.29%
Macomb	6,518,265	6.80%
Manistee	259,661	0.27%
Marquette	636,366	0.66%
Mason	302,272	0.32%
Mecosta	472,716	0.49%
Menominee	260,015	0.27%
Midland	836,070	0.87%
Missaukee	177,536	0.19%
Monroe	1,977,531	2.06%
Montcalm	634,158	0.66%
Montmorency	122,965	0.13%
Muskegon	1,461,259	1.52%
Newaygo	384,330	0.40%
Oakland	11,841,281	12.35%
Oceana	312,813	0.33%
Ogemaw	317,972	0.33%
Ontonagon	117,861	0.12%
Osceola	415,336	0.43%
Oscoda	104,958	0.11%
Otsego	402,214	0.42%
Ottawa	2,441,174	2.55%
Presque Isle	158,054	0.16%
Roscommon	396,852	0.41%
Saginaw	2,017,845	2.10%
Sanilac	406,490	0.42%

County	2022 VMT in THOUSANDS (from MDOT Highway Performance Monitoring System)	Percent of Statewide VMT
Schoolcraft	166,785	0.17%
Shiawassee	782,753	0.82%
St Clair	1,477,940	1.54%
St Joseph	552,882	0.58%
Tuscola	493,333	0.51%
Van Buren	1,027,593	1.07%
Washtenaw	3,639,028	3.80%
Wayne	14,179,583	14.79%
Wexford	453,899	0.47%
STATEWIDE TOTAL	95,887,834	100.00%