2022 Statewide Direct Observation Survey of Safety Belt and Mobile Device Use



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

Prepared by:
Michigan State University
East Lansing, MI

Date: August 26, 2022





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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.

2022 Michigan Statewide Safety Belt and Driver Cell Phone Use Survey Results

For the Michigan Statewide Safety Belt and Driver Cell Phone Use Survey, observations were recorded at 152 intersection sites across all 83 counties in Michigan. All data were collected between May 09 and June 20, 2022. Data were only collected on secondary roadways (MTFCC S1200 designation) and during weekdays between the hours of 7:00 AM and 8:00 PM. At least one roadway per county was observed and data were collected for at least 60 minutes and at least 30 total belt use observations per county. 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 during the 2022 Annual safety belt observations 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, and percent driver mobile device use. Overall statewide use rates were computed for each statistic, weighted by the total county vehicle miles traveled (VMT). Appendix I presents a list of the 83-County Statewide Observation Survey Locations by County, Including Belt Use Observation Data. The county VMT data used for the data weighting process are presented in the Appendix II. Note that 2019 VMT data were utilized as this represented the most recently-available VMT data that would be unaffected by the COVID-19 pandemic.

Table 1. Statewide Survey Results by County and Occupant Type

	No. of	Number of Driver	Driver % Belt	Number of Passenger	Passenger % Belt	Number of Total	Total % Belt	Driver % Mobile Device
County	Sites	Obs.	Use	Obs.	Use	Obs.	Use	Use
Alcona	1	30	96.7%	10	80.0%	40	92.5%	6.7%
Alger	1	30	86.7%	14	78.6%	44	84.1%	10.0%
Allegan	1	128	95.3%	30	100.0%	158	96.2%	4.7%
Alpena	1	75	88.0%	14	92.9%	89	88.8%	12.0%
Antrim	1	126	89.7%	38	94.7%	164	90.9%	4.8%
Arenac	1	156	88.5%	47	87.2%	203	88.2%	1.3%
Baraga	1	90	75.6%	21	85.7%	111	77.5%	3.3%
Barry	1	122	92.6%	23	100.0%	145	93.8%	7.4%
Bay	2	156	92.9%	26	96.2%	182	93.4%	8.3%
Benzie	1	122	93.4%	29	89.7%	151	92.7%	4.9%
Berrien	1	102	95.1%	9	100.0%	111	95.5%	9.8%
Branch	1	89	95.5%	26	96.2%	115	95.7%	3.4%
Calhoun	1	122	77.9%	17	82.4%	139	78.4%	4.9%
Cass	1	86	89.5%	20	85.0%	106	88.7%	1.2%
Charlevoix	1	97	89.7%	25	80.0%	122	87.7%	4.1%
Cheboygan	2	218	86.7%	60	95.0%	278	88.5%	6.4%
Chippewa	1	36	83.3%	11	100.0%	47	87.2%	0.0%
Clare	1	122	88.5%	41	85.4%	163	87.7%	1.6%
Clinton	3	207	93.2%	35	91.4%	242	93.0%	3.9%

County	No. of Sites	Number of Driver Obs.	Driver % Belt Use	Number of Passenger Obs.	Passenger % Belt Use	Number of Total Obs.	Total % Belt Use	Driver % Mobile Device Use
Crawford	1	112	90.2%	27	96.3%	139	91.4%	2.7%
Delta	1	120	91.7%	29	93.1%	149	91.9%	4.2%
Dickinson	1	135	89.6%	25	100.0%	160	91.3%	6.7%
Eaton	3	389	94.6%	60	100.0%	449	95.3%	7.7%
Emmet	1	149	86.6%	26	100.0%	175	88.6%	7.4%
Genesee	3	305	90.5%	67	91.0%	372	90.6%	6.6%
Gladwin	1	148	89.2%	27	85.2%	175	88.6%	2.0%
Gogebic	1	29	86.2%	10	90.0%	39	87.2%	6.9%
Gr. Traverse	2	248	92.3%	59	93.2%	307	92.5%	7.3%
Gratiot	1	110	90.0%	24	91.7%	134	90.3%	5.5%
Hillsdale	2	240	90.4%	46	93.5%	286	90.9%	4.2%
Houghton	1	147	89.8%	28	96.4%	175	90.9%	3.4%
Huron	2	213	85.4%	40	85.0%	253	85.4%	3.8%
Ingham	7	664	92.8%	114	93.0%	778	92.8%	5.0%
Ionia	2	228	86.4%	29	93.1%	257	87.2%	5.3%
Iosco	1	102	87.3%	44	90.9%	146	88.4%	3.9%
Iron	1	118	87.3%	13	69.2%	131	85.5%	0.8%
Isabella	1	130	90.8%	27	100.0%	157	92.4%	7.7%
Jackson	1	100	87.0%	21	95.2%	121	88.4%	5.0%
Kalamazoo	5	461	95.2%	88	98.9%	549	95.8%	5.9%
Kalkaska	1	128	89.8%	27	92.6%	155	90.3%	7.0%
Kent	4	487	95.7%	109	96.3%	596	95.8%	8.4%
Keweenaw	1	72	76.4%	14	92.9%	86	79.1%	2.8%
Lake	1	55	94.5%	13	100.0%	68	95.6%	1.8%
Lapeer	1	56	83.9%	13	76.9%	69	82.6%	7.1%
Leelanau	1	67	91.0%	27	100.0%	94	93.6%	1.5%
Lenawee	2	185	92.4%	41	90.2%	226	92.0%	6.5%
Livingston	1	118	96.6%	15	100.0%	133	97.0%	7.6%
Luce	1	97	88.7%	30	80.0%	127	86.6%	3.1%
Mackinac	1	44	95.5%	17	94.1%	61	95.1%	2.3%
Macomb	14	1814	92.8%	253	95.7%	2067	93.2%	6.6%
Manistee	1	124	97.6%	24	95.8%	148	97.3%	4.8%
Marquette	3	291	92.8%	89	97.8%	380	93.9%	4.1%
Mason	1	98	93.9%	11	100.0%	109	94.5%	3.1%
Mecosta	2	141	93.6%	32	96.9%	173	94.2%	8.5%
Menominee	1	56	78.6%	16	100.0%	72	83.3%	3.6%
Midland	3	301	91.4%	55	90.9%	356	91.3%	3.0%
Missaukee	1	125	94.4%	14	100.0%	139	95.0%	17.6%

County	No. of Sites	Number of Driver Obs.	Driver % Belt Use	Number of Passenger Obs.	Passenger % Belt Use	Number of Total Obs.	Total % Belt Use	Driver % Mobile Device Use
Monroe	2	249	91.6%	41	95.1%	290	92.1%	6.0%
Montcalm	1	102	98.0%	27	100.0%	129	98.4%	10.8%
Montmorency	1	67	97.0%	16	100.0%	83	97.6%	3.0%
Muskegon	1	122	94.3%	22	100.0%	144	95.1%	4.9%
Newaygo	1	116	95.7%	20	95.0%	136	95.6%	10.3%
Oakland	7	855	92.7%	124	91.9%	979	92.6%	7.8%
Oceana	1	72	97.2%	18	100.0%	90	97.8%	4.2%
Ogemaw	1	108	94.4%	33	93.9%	141	94.3%	6.5%
Ontonagon	1	29	79.3%	11	100.0%	40	85.0%	3.4%
Osceola	1	60	95.0%	20	95.0%	80	95.0%	5.0%
Oscoda	1	123	90.2%	22	100.0%	145	91.7%	1.6%
Otsego	1	145	92.4%	28	96.4%	173	93.1%	9.7%
Ottawa	1	79	96.2%	19	100.0%	98	96.9%	7.6%
Presque Isle	1	84	79.8%	17	82.4%	101	80.2%	1.2%
Roscommon	1	122	89.3%	34	97.1%	156	91.0%	3.3%
Saginaw	1	123	88.6%	24	91.7%	147	89.1%	12.2%
St Clair	1	80	91.3%	20	90.0%	100	91.0%	10.0%
St Joseph	2	147	93.9%	32	90.6%	179	93.3%	4.1%
Sanilac	1	103	91.3%	33	90.9%	136	91.2%	4.9%
Schoolcraft	1	38	84.2%	11	90.9%	49	85.7%	5.3%
Shiawassee	1	140	89.3%	34	88.2%	174	89.1%	7.1%
Tuscola	2	231	88.7%	86	95.3%	317	90.5%	6.5%
Van Buren	1	83	94.0%	19	94.7%	102	94.1%	12.0%
Washtenaw	6	618	94.5%	133	92.5%	751	94.1%	9.4%
Wayne	10	1161	89.1%	173	89.0%	1334	89.1%	10.1%
Wexford	3	271	91.5%	71	93.0%	342	91.8%	5.9%
Overall Statewide Average (VMT-Weighted)	152	15849	91.7%	3188	93.2%	19037	92.0%	7.4%

Table 1 presents several interesting findings. First, the weighted 83-county safety belt use rate was 92.0 percent, which was 0.9 percentage points lower than the weighted 35-county 2022 Annual survey (which was 92.9%). This decrease from the Annual survey rate is likely due to the predominantly rural counties that comprise the balance of the counties in the 83-county survey. Rural counties have historically shown the lowest belt use rates, particularly by young males in pick-up trucks, which are prevalent in these areas. The weighted 83-county rate was 0.8 percentage points higher than the 91.2 percent observed during the most recent 83-county survey in 2021. Twenty-eight (28) counties showed total safety 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 the upper peninsula and northern lower peninsula.

Driver mobile device use in the 83-county survey was found to be 7.4 percent, which is 1.3 percentage points higher than the weighted 35-county 2022 Annual survey (which was 6.1%). Nine (9) counties showed driver mobile device use rates that were at or above 10 percent, which are also indicated in boldface in Table 1. The counties with the highest mobile device use rates included both rural and urban/suburban counties and did not show a clear regional or demographic pattern.

APPENDIX I

List of 83-County Statewide Observation Survey Locations by County, Including Belt Use Observation Data

County	Site Location	Driver Total Obs.	Driver % Belted	Passenger Total Obs.	Passenger % Belted	Total Obs.	Total % Belted
Alcona	WB M-72 @ M-65	30	96.7%	10	80.0%	40	92.5%
Alger	NB M-94 @ M-28	30	86.7%	14	78.6%	44	84.1%
Allegan	EB Cuter St (M-40) @ Cedar St (M-40/M-89)	128	95.3%	30	100.0%	158	96.2%
Alpena	SB M-65 @ M-32	75	88.0%	14	92.9%	89	88.8%
Antrim	SB US-131 @ M-88	126	89.7%	38	94.7%	164	90.9%
Arenac	NB US-23 at M-61	156	88.5%	47	87.2%	203	88.2%
Baraga	EB M-38 @ US-41	90	75.6%	21	85.7%	111	77.5%
Barry	EB State St (M-37) @ Broadway (M-43)	122	92.6%	23	100.0%	145	93.8%
Bay	WB M-25 @ M-13	125	92.8%	23	95.7%	148	93.2%
Bay	NB M-47 @ W. Salzburg Road	31	93.5%	3	100.0%	34	94.1%
Benzie	SB US-31 @ M-115	122	93.4%	29	89.7%	151	92.7%
Berrien	SB 5th Steet (M-51) @ Main (M-51)	102	95.1%	9	100.0%	111	95.5%
Branch	SB Athens Rd (M-66) @ Mendon Rd (M-60)	89	95.5%	26	96.2%	115	95.7%
Calhoun	SB Superior St @ Michigan Ave (M-99)	122	77.9%	17	82.4%	139	78.4%
Cass	EB M-60 @ M-40	86	89.5%	20	85.0%	106	88.7%
Charlevoix	NB M-66 @ M-32	97	89.7%	25	80.0%	122	87.7%
Cheboygan	NB US-23 (State St) @ US-23 (Main)	124	88.7%	29	100.0%	153	90.8%
Cheboygan	WB M-68 @ M-68	94	84.0%	31	90.3%	125	85.6%
Chippewa	WB M-28 @ M-123	36	83.3%	11	100.0%	47	87.2%
Clare	EB 5th St (M115/US10) & Bus 127	122	88.5%	41	85.4%	163	87.7%
Clinton	NB US-127 @ Old US-27	15	93.3%	1	100.0%	16	93.8%
Clinton	EB W. M-21 @ S. Main St	66	90.9%	10	90.0%	76	90.8%
Clinton	NB Old 27 at State St (M-21)	126	94.4%	24	91.7%	150	94.0%
Crawford	M-72 @ I-75 BUS	112	90.2%	27	96.3%	139	91.4%
Delta	SB US-41 @ M-35	120	91.7%	29	93.1%	149	91.9%
Dickinson	EB US-2 @ US-141	135	89.6%	25	100.0%	160	91.3%
Eaton	EB Cochran Ave @ W.Shepherd St	150	92.0%	32	100.0%	182	93.4%
Eaton	EB W. Saginaw Hwy @ I-69 North Ramp	122	96.7%	8	100.0%	130	96.9%
Eaton	EB M-43 (W. Saginaw Hwy) @ Jenne Street	117	95.7%	20	100.0%	137	96.4%
Emmet	NB US-131 @ M-68	149	86.6%	26	100.0%	175	88.6%
Genesee	SB M-15 at E Dodge	105	86.7%	25	88.0%	130	86.9%
Genesee	NB M-13 at M-57	120	91.7%	23	87.0%	143	90.9%
Genesee	SB M-13 at M-21	80	93.8%	19	100.0%	99	94.9%
Gladwin	WB M-61 at M-18	148	89.2%	27	85.2%	175	88.6%
Gogebic	WB US-2 @ US-45	29	86.2%	10	90.0%	39	87.2%
Grand Traverse	WB US-31 @ South Long Lake (M-137)	123	91.9%	16	93.8%	139	92.1%
Grand Traverse	WB E Traverse Hwy (M-72) @ Gray Rd	125	92.8%	43	93.0%	168	92.9%
Gratiot	EB Washington (M-46) at Main St.	110	90.0%	24	91.7%	134	90.3%
Hillsdale	NB US-127 @ Main Street/ Hudson Road	120	85.8%	24	95.8%	144	87.5%

County	Site Location	Driver Total Obs.	Driver % Belted	Passenger Total Obs.	Passenger % Belted	Total Obs.	Total % Belted
Hillsdale	EB Chicago St (US-12) @ Maumee St (M-99)	120	95.0%	22	90.9%	142	94.4%
Houghton	EB M-26 @ US-41	147	89.8%	28	96.4%	175	90.9%
Huron	NB Huron (M-25) at State St (M-142)	79	78.5%	15	80.0%	94	78.7%
Huron	EB Huron (M-53) at Port Crescent (M-53)	134	89.6%	25	88.0%	159	89.3%
Ingham	EB E. Saginaw St (M-43) @ Marshall Street	126	92.9%	7	85.7%	133	92.5%
Ingham	NB Old U.S. 27 (N. Larch St) @ Lake Lansing Rd/Douglas Rd	127	92.9%	13	100.0%	140	93.6%
Ingham	US-127 @ Holt Rd	61	96.7%	10	90.0%	71	95.8%
Ingham	US-127 @ Cedar St (M-36)	69	92.8%	20	90.0%	89	92.1%
Ingham	US-127 @ Barnes Rd	40	82.5%	10	90.0%	50	84.0%
Ingham	SB Perry Rd (M-52) @ E Grand River Ave (M-43)	118	91.5%	26	92.3%	144	91.7%
Ingham	NB Stockbridge Rd (M-43) @ E grand River Ave (M-43)	123	95.1%	28	96.4%	151	95.4%
Ionia	EB Bluewater Hwy @ N. State St (M-66)	108	88.0%	15	93.3%	123	88.6%
Ionia	NB State Rd (M-66) @ Tuttle Rd	120	85.0%	14	92.9%	134	85.8%
Iosco	M-65 @ M-55	102	87.3%	44	90.9%	146	88.4%
Iron	EB US-2 @ M-189	118	87.3%	13	69.2%	131	85.5%
Isabella	SB Old US-27 (US-127 BUS) & E Broomfield St	130	90.8%	27	100.0%	157	92.4%
Jackson	WB Wamplers Lake Rd. (M-124) @ S. Main Street (M-50)	100	87.0%	21	95.2%	121	88.4%
Kalamazoo	EB Michigan Ave (M-96) @ 35th Street	122	94.3%	18	100.0%	140	95.0%
Kalamazoo	SB BUS US-131 @ Douglas Ave	25	96.0%	6	100.0%	31	96.8%
Kalamazoo	SB US-131 @ W. U Avenue	64	93.8%	14	100.0%	78	94.9%
Kalamazoo	EB E. D Ave @ N. 32nd Street (M-89)	130	96.9%	24	100.0%	154	97.4%
Kalamazoo	WB M-89 @ N. 34th Street	120	95.0%	26	96.2%	146	95.2%
Kalkaska	EB M-72 & US-131/M-66	128	89.8%	27	92.6%	155	90.3%
Kent	Belding Rd NE (M-44)	120	95.8%	20	90.0%	140	95.0%
Kent	Alpine Ave	140	96.4%	36	100.0%	176	97.2%
Kent	US-131	100	91.0%	28	92.9%	128	91.4%
Kent	Paul B. Henry Fwy (M-6)	127	98.4%	25	100.0%	152	98.7%
Keweenaw	US-41 @ Bumbletown Rd	72	76.4%	14	92.9%	86	79.1%
Lake	EB US-10 @ M-37	55	94.5%	13	100.0%	68	95.6%
Lapeer	WB E Burnside Rd (M-90) @ N Van Dyke Rd (M-53)	56	83.9%	13	76.9%	69	82.6%
Leelanau	SB M-22 @ M-72	67	91.0%	27	100.0%	94	93.6%
Lenawee	EB US-12 @ M-50	61	98.4%	16	100.0%	77	98.7%
Lenawee	EB US-223 at Monroe	124	89.5%	25	84.0%	149	88.6%
Livingston	WB Highland Rd (M-59) at Grand River (I-96 BUS)	118	96.6%	15	100.0%	133	97.0%
Luce	SB M-123 @ M-28	97	88.7%	30	80.0%	127	86.6%
Mackinac	SB M-117 @ US-2	44	95.5%	17	94.1%	61	95.1%
Macomb	EB 23 Mile at Jefferson	120	95.0%	13	100.0%	133	95.5%
Macomb	NB Gratiot (M-19) at 31 Mile	120	90.0%	18	94.4%	138	90.6%

County	Site Location	Driver Total Obs.	Driver % Belted	Passenger Total Obs.	Passenger % Belted	Total Obs.	Total % Belted
Macomb	SB Van Dyke @ 28 Mile Rd	123	91.1%	20	90.0%	143	90.9%
Macomb	NB M-53 (Van Dyke Fwy) @ Van Dyke Rd	127	94.5%	13	100.0%	140	95.0%
Macomb	WB 23 Mile at I-94 East Ramp	134	89.6%	17	100.0%	151	90.7%
Macomb	NB M-53 at 23 Mile	140	92.9%	14	78.6%	154	91.6%
Macomb	EB Dobry at Mound	120	89.2%	15	93.3%	135	89.6%
Macomb	NB M-53 at M-59	120	93.3%	15	100.0%	135	94.1%
Macomb	EB M-59 at Schoenherr	120	92.5%	15	100.0%	135	93.3%
Macomb	EB M-59 at Westbrook	120	95.8%	16	93.8%	136	95.6%
Macomb	EB M-3 at Market	120	95.0%	18	88.9%	138	94.2%
Macomb	EB Gratiot Ave (M-3) @ Utica Rd	150	92.0%	20	100.0%	170	92.9%
Macomb	NB Van Dyke (M-53) @ Chicago Rd	150	95.3%	29	100.0%	179	96.1%
Macomb	SB Van Dyke (M-53) @ 15 Mile Rd	150	93.3%	30	96.7%	180	93.9%
Manistee	NB M-55 @ E Parkdale Ave (US-31)	124	97.6%	24	95.8%	148	97.3%
Marquette	NB US-41 @ Cherry Creek Road (M-28)	118	89.8%	41	95.1%	159	91.2%
Marquette	NB M-553 @ County Road 480	124	96.0%	36	100.0%	160	96.9%
Marquette	NB State Hwy 35 @ CR-480	49	91.8%	12	100.0%	61	93.4%
Mason	WB US-10 (Ludington Ave) @ US-10 (James St)	98	93.9%	11	100.0%	109	94.5%
Mecosta	SB 157th Ave (M-20) @ 15 Mile Rd (M-20)	29	79.3%	9	88.9%	38	81.6%
Mecosta	WB E Wheatland Ave (M-120) @ Holton Rd (M-120)	112	97.3%	23	100.0%	135	97.8%
Menominee	EB US-2 @ US-41	56	78.6%	16	100.0%	72	83.3%
Midland	WB US-10 @ N. Stark Road	43	97.7%	9	100.0%	52	98.1%
Midland	EB US-10 @ Waldo Ave	121	91.7%	22	90.9%	143	91.6%
Midland	EB Buttles (US-10 BUS) at Jerome (M-20)	137	89.1%	24	87.5%	161	88.8%
Missaukee	EB M-55 @ M-66 / M-55	125	94.4%	14	100.0%	139	95.0%
Monroe	SB M-125 at Stewart	129	87.6%	24	91.7%	153	88.2%
Monroe	SB US-24 at Albain	120	95.8%	17	100.0%	137	96.4%
Montcalm	EB Howard City - Edmore Rd (M-46) @ 6 Lakes Rd (M-66)	102	98.0%	27	100.0%	129	98.4%
Montmorency	WB M-32 (State) @ M-33 (Main St)	67	97.0%	16	100.0%	83	97.6%
Muskegon	EB M Causeway (M-120) @ Holton Rd (M-120)	122	94.3%	22	100.0%	144	95.1%
Newaygo	EB Main St (M-82) @ S Stewart Ave (M-82)	116	95.7%	20	95.0%	136	95.6%
Oakland	SB Lapeer (M-24) at Drahner	120	93.3%	16	93.8%	136	93.4%
Oakland	WB E 8 Mile Rd (M-102) @ John R Rd	122	91.8%	19	94.7%	141	92.2%
Oakland	NB Telegraph (US-24) @ Quarton Rd	120	97.5%	19	94.7%	139	97.1%
Oakland	WB Highland Rd (M-59) @ Airport Rd	123	92.7%	22	81.8%	145	91.0%
Oakland	SB Bus I-75 (N Perry St) @ Glenwood Ave	128	86.7%	17	94.1%	145	87.6%
Oakland	WB W Square Lake Rd (Bus US-24) @ Franklin Rd	118	94.1%	18	94.4%	136	94.1%
Oakland	NB Woodward Ave (M-1) @ E-Long Lake Rd	124	93.5%	13	92.3%	137	93.4%
Oceana	WB M-20 @ Oceana Dr	72	97.2%	18	100.0%	90	97.8%

County	Site Location	Driver Total Obs.	Driver % Belted	Passenger Total Obs.	Passenger % Belted	Total Obs.	Total % Belted
Ogemaw	M-55 @ M-33	108	94.4%	33	93.9%	141	94.3%
Ontonagon	WB M-28 @ US-45	29	79.3%	11	100.0%	40	85.0%
Osceola	NB M-66 @ US-10	60	95.0%	20	95.0%	80	95.0%
Oscoda	SB M-33 @ M-72	123	90.2%	22	100.0%	145	91.7%
Otsego	UM-32 @ Dickerson Rd	145	92.4%	28	96.4%	173	93.1%
Ottawa	SB 120th Ave (M-231) @ Cleveland St (M-104)	79	96.2%	19	100.0%	98	96.9%
Presque Isle	NB M-33 @ M-68	84	79.8%	17	82.4%	101	80.2%
Roscommon	M-18 @ M-55	122	89.3%	34	97.1%	156	91.0%
Saginaw	EB Grabiob Rd (M-46) @ Center Rd	123	88.6%	24	91.7%	147	89.1%
Sanilac	NB M-53 at M-46	103	91.3%	33	90.9%	136	91.2%
Schoolcraft	SB M-94 @ US-2	38	84.2%	11	90.9%	49	85.7%
Shiawassee	NB Shiawassee (M-52) at Main St (M-21)	140	89.3%	34	88.2%	174	89.1%
St Clair	NB Kinney Rd (M-19) at EB I-69 Ramp	80	91.3%	20	90.0%	100	91.0%
St Joseph	SB M-77 @ M-28	26	92.3%	10	80.0%	36	88.9%
St Joseph	SB US-131 @ Broadway St	121	94.2%	22	95.5%	143	94.4%
Tuscola	EB Bay Street (M-25) @ Center Street (M-24)	110	85.5%	35	94.3%	145	87.6%
Tuscola	WB Sanilac Rd (M-46) @ Saginaw Rd (M-150)	121	91.7%	51	96.1%	172	93.0%
Van Buren	NB M-40 @ M-43	83	94.0%	19	94.7%	102	94.1%
Washtenaw	SB M-52 (Ann Arbor St.) @ E. Main Street	39	87.2%	7	85.7%	46	87.0%
Washtenaw	EB Ecorse Rd (M-17) @ S. Ford Rd Blvd	121	95.9%	21	76.2%	142	93.0%
Washtenaw	NB US-23 @ W Mich Ave	118	98.3%	53	100.0%	171	98.8%
Washtenaw	NB US-23 @ E Willis Rd	79	94.9%	33	90.9%	112	93.8%
Washtenaw	WB M-14 @ Godfredson Rd	135	92.6%	12	100.0%	147	93.2%
Washtenaw	EB M-153 @ Plymouth Rd	126	93.7%	7	85.7%	133	93.2%
Wayne	SB Telegraph @ Goddard Rd	110	92.7%	19	89.5%	129	92.2%
Wayne	WB Grand River Ave @ Lodge Fwy service Dr	99	86.9%	21	90.5%	120	87.5%
Wayne	SB John C Lodge Fwy service Dr @ Grand River Ave	124	91.9%	11	100.0%	135	92.6%
Wayne	EB Michigan Ave @ Rosa Park Blvd	121	88.4%	35	97.1%	156	90.4%
Wayne	WB Michigan Ave (US-12) @ 14th Street/Vernor Hwy/Fisher Svc Dr	85	77.6%	12	75.0%	97	77.3%
Wayne	EB Michigan Ave (US-12) & Haggerty Rd	126	99.2%	10	90.0%	136	98.5%
Wayne	EB MI-153 @ N. Canton Center Rd	124	96.0%	10	100.0%	134	96.3%
Wayne	EB Grand River Ave @ Outer Drive West	120	80.0%	18	77.8%	138	79.7%
Wayne	NB Telegraph Rd @ Grand River Ave (M-5)	125	88.8%	18	83.3%	143	88.1%
Wayne	SB Telegraph Rd @ Six Mile Rd	127	85.8%	19	84.2%	146	85.6%
Wexford	NB US-131 @ W-16 (BUS US-131/M-42)	30	86.7%	9	77.8%	39	84.6%
Wexford	SB M-115 @ 13th St	120	94.2%	49	95.9%	169	94.7%
Wexford	EB M-55 @ M-115/M-55	121	90.1%	13	92.3%	134	90.3%

APPENDIX II 2019 Vehicle Miles Traveled in Michigan, by County

County	2019 VMT in THOUSANDS (from MDOT Highway Performance Monitoring System)	Percent of Statewide VMT
Alcona	122,088	0.12%
Alger	160,641	0.16%
Allegan	1,501,560	1.47%
Alpena	288,501	0.28%
Antrim	308,974	0.30%
Arenac	328,787	0.32%
Baraga	117,930	0.12%
Barry	424,066	0.42%
Bay	1,281,967	1.25%
Benzie	217,142	0.21%
Berrien	2,096,355	2.05%
Branch	512,407	0.50%
Calhoun	1,755,556	1.72%
Cass	491,180	0.48%
Charlevoix	278,451	0.27%
Cheboygan	470,878	0.46%
Chippewa	380,188	0.37%
Clare	394,744	0.39%
Clinton	1,166,799	1.14%
Crawford	321,990	0.32%
Delta	417,811	0.41%
Dickinson	222,780	0.22%
Eaton	1,304,463	1.28%
Emmet	389,844	0.38%
Genesee	4,142,587	4.05%
Gladwin	244,217	0.24%
Gogebic	155,847	0.15%
Gr. Traverse	1,025,122	1.00%
Gratiot	536,453	0.53%
Hillsdale	410,021	0.40%
Houghton	252,080	0.25%
Huron	323,593	0.32%
Ingham	2,362,344	2.31%
Ionia	818,830	0.80%
Iosco	291,305	0.29%
Iron	143,224	0.14%

County	2019 VMT in THOUSANDS (from MDOT Highway Performance Monitoring System)	Percent of Statewide VMT
Isabella	735,768	0.72%
Jackson	1,736,516	1.70%
Kalamazoo	2,617,160	2.56%
Kalkaska	259,897	0.25%
Kent	6,112,475	5.98%
Keweenaw	47,632	0.05%
Lake	119,264	0.12%
Lapeer	1,000,792	0.98%
Leelanau	271,557	0.27%
Lenawee	869,842	0.85%
Livingston	2,430,280	2.38%
Luce	82,202	0.08%
Mackinac	268,212	0.26%
Macomb	6,784,653	6.64%
Manistee	270,362	0.26%
Marquette	588,908	0.58%
Mason	329,734	0.32%
Mecosta	495,653	0.49%
Menominee	256,558	0.25%
Midland	917,511	0.90%
Missaukee	167,331	0.16%
Monroe	2,036,500	1.99%
Montcalm	651,326	0.64%
Montmorency	112,514	0.11%
Muskegon	1,541,098	1.51%
Newaygo	379,730	0.37%
Oakland	13,083,863	12.81%
Oceana	364,108	0.36%
Ogemaw	311,388	0.30%
Ontonagon	115,132	0.11%
Osceola	409,427	0.40%
Oscoda	91,315	0.09%
Otsego	397,855	0.39%
Ottawa	2,532,887	2.48%
Presque Isle	156,475	0.15%
Roscommon	420,600	0.41%
Saginaw	2,153,758	2.11%

County	2019 VMT in THOUSANDS (from MDOT Highway Performance Monitoring System)	Percent of Statewide VMT
Sanilac	462,353	0.45%
Schoolcraft	197,064	0.19%
Shiawassee	850,800	0.83%
St Clair	1,518,162	1.49%
St Joseph	495,492	0.48%
Tuscola	532,972	0.52%
Van Buren	1,089,468	1.07%
Washtenaw	3,953,349	3.87%
Wayne	15,829,408	15.49%
Wexford	463,897	0.45%
TOTAL	102,173,974	100%