

License Plate Study for Wisconsin Department of Transportation

Greg Geib, Chamberlain Research Consultants Inc.

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NOTICE:

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16. Abstract From July to November 2008, randomly sampled vehicle license pl Ozaukee, Racine, Sheboygan, Washington, and Waukesha counties truck plates and also displaying stickers were surveyed in the study plates, the vehicle license plate and VIN were matched with a datat In total, 16,923 vehicle records were included in the analysis. In the based on the following criteria: the sticker on the vehicle had been collection, the license plate sticker displayed a date that was more r WisDOT vehicle registration database, and for trucks, the bottom p category was higher than the registered vehicle weight class. Overall, 2.3% of vehicles surveyed were categorized as having a st least 30 days at the time of data collection. Also, 1.5% of vehicles s sticker displayed on the vehicle during data collection with a date the date in the WisDOT vehicle registration database. A comparison w Rating (GVWR) category for trucks to the registered vehicle weigh having a bottom point of the GVWR category that was higher than provided in WisDOT registration data.			ehicles in Dane, Keno ded. Vehicles with W the in-field data colle cle registrations provi- h vehicle surveyed wa more than 30 days at the registration expirat Gross Vehicle Weight yed which appeared to the recategorized as havi- re recent than the regist e between the Gross V 6 of trucks surveyed c ed vehicle weight, fro	sha, Milwaukee, isconsin auto or oction of license ded by WisDOT. is categorized the time of data tion date in the Rating (GVWR) be expired for at ing a license plate stration expiration Vehicle Weight ategorized as m information
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Executive Summary

In 2008, Chamberlain Research Consultants Inc. (Chamberlain) was commissioned by the Wisconsin Department of Transportation, Bureau of Vehicle Services (WisDOT) to conduct a vehicle license plate study in selected Wisconsin counties. WisDOT had conducted similar studies in 1984, 1995, and 2000. The objective of this snap-shot-in-time License Plate Study was to randomly sample vehicle license plates and determine the degree to which vehicle license plates met specified criteria.

From July to November 2008, Chamberlain randomly sampled vehicle license plates from vehicles in Dane, Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha counties. Vehicles with Wisconsin auto or truck plates and also displaying stickers were surveyed in the study. Following the in-field data collection of license plates, the vehicle license plate and VIN were matched with a database of vehicle registrations provided by WisDOT. In total, 16,923 vehicle records were included in the analysis.

In the study, each vehicle surveyed was potentially categorized based on the following criteria: the sticker on the vehicle had been expired for more than 30 days at the time of data collection, the license plate sticker displayed a date that was more recent than the registration expiration date in the WisDOT vehicle registration database, and for trucks, the bottom point of the Gross Vehicle Weight Rating (GVWR) category was higher than the registered vehicle weight class.

Overall, 2.3% of vehicles surveyed were categorized as having a sticker displayed which appeared to be expired for at least 30 days at the time of data collection. Also, 1.5% of vehicles surveyed were categorized as having a license plate sticker displayed on the vehicle during data collection with a date that was more recent than the registration expiration date in the WisDOT vehicle registration database.

Across the counties surveyed, Milwaukee County had the highest percent of vehicles surveyed where the sticker on the vehicle had been expired for more than 30 days at the time of data collection at 2.9%, followed by Dane County (2.8%), and Racine County (2.5%). Kenosha County had the highest percentage of vehicles surveyed where the sticker displayed was more recent than the WisDOT registration data at 1.9%, followed by Ozaukee County (1.8%), and Dane County (1.7%).

A comparison was also made between the Gross Vehicle Weight Rating (GVWR) category for trucks to the registered vehicle weight, with 7.3% of trucks surveyed categorized as having a bottom point of the GVWR category that was higher than the registered vehicle weight, from





information provided in WisDOT registration data. It is important to note, however, that according to Wisconsin state statute, trucks are not required to be registered by GVWR, but, based on the vehicle operating weight. It is also important to note that GVWR is stated as a range, and the particular vehicle's GVWR is somewhere within that range.

In addition, vehicles with model years of 1994 or earlier had a higher percentage of license plates categorized where the stickers had been expired for more than 30 days at the time of data collection, than that of newer vehicles. Vehicles with model years of 1994 or earlier also had a higher percentage of license plates categorized where the date displayed on the license plate sticker during data collection was more recent than the registration expiration date in the WisDOT vehicle registration database, when compared to newer vehicles.

Background

In 2008, Chamberlain Research Consultants Inc. (Chamberlain) was commissioned by the Wisconsin Department of Transportation, Bureau of Vehicle Services (WisDOT) to conduct a vehicle license plate study in selected Wisconsin counties. WisDOT had conducted similar studies in 1984, 1995, and 2000. The objective of this snap-shot-in-time License Plate Study was to randomly sample vehicle license plates and determine the degree to which vehicle license plates met specified criteria.

Research Approach

Data Collection

Field interviewers from Chamberlain were sent to parking lots throughout eight counties in southeast Wisconsin. This snap-shot-in-time study was in the field for data collection from July 3, 2008 to November 10, 2008. Chamberlain field interviewers were trained for the study (see *Appendix A – WisDOT License Plate Study Employee Training* for training materials), and also were provided an authorization letter (see *Appendix B – Authorization Letter*) in the event questions arose from the public during the fielding of the study (see *Appendix C – Concerns Encountered in the Field* for public concerns encountered during the fielding of the study). Vehicles with Wisconsin auto or truck license plates, which displayed stickers, were surveyed in the study. Vehicles with non-Wisconsin plates, personalized plates, special-issue plates, temporary plates, without license plates, or without stickers were not surveyed.

The following information was collected for each vehicle:

- Vehicle Identification Number (VIN)
- Wisconsin license plate number
- Wisconsin license plate sticker date

Approximately 128 parking lots were surveyed across the following eight counties in Wisconsin (Please see *Appendix D – Parking Lots by County* for list of parking lots surveyed):

- Dane
- Kenosha
- Milwaukee
- Ozaukee
- Racine
- Sheboygan
- Washington
- Waukesha

Following data collection in the field, the information collected was data entered by Chamberlain, using a double-entry verification to ensure proper recording of the vehicle information from the field.

WisDOT Database Cross-Reference

WisDOT supplied Chamberlain with a database of registered vehicles in the state of Wisconsin in September 2008. This database contained vehicle registration information including: VIN, license plate number, Gross Vehicle Weight Rating (GVWR) for trucks – in categories of: 6,000 lbs. or less, 6,001 - 10,000 lbs., or 10,001 - 14,000 lbs., registered weight (for trucks), the county where the vehicle is customarily kept, and the registration expiration date. Information in the Division of Motor Vehicle data base for a vehicle is referred to as the "vehicle record".

The GWVR of a particular vehicle falls within one of the following ranges, provided in the WisDOT database:

- 6,000 lbs. or less
- 6,001 to 10,000 lbs.
- 10,001 to 14,000 lbs.
- Over 14,000 lbs.
- Unknown

The study compares the vehicle registration category top point (4,500, 6,000, or 8,000 lbs.) with the bottom point of the GVWR range. If the bottom point of the GVWR range is greater than the registration weight category, the vehicle is categorized as "bottom point of GVWR range higher than registered weight class."

Chamberlain staff compared the vehicle record in the WisDOT database with the vehicle information collected in-field, when data collection was completed in November 2008. The collected in-field information was compared with the WisDOT registration database based on the VIN or license plate number. The data comparison process also incorporated a verification step, to reduce error in matching between the in-field data and WisDOT registration database. The total number of vehicle license plates analyzed in the study, following data collection and matching with vehicle records in the WisDOT registration database, was 16,923.

It is important to note that 4.8% of vehicle license plates surveyed during data collection had one, but not both, of the VIN or license plate match the information in the WisDOT vehicle registration database. There are many factors which could cause this non-matching, and the study does not attempt to discern what the factors may be.



Sample of Vehicles Surveyed

The 16,923 vehicle license plates surveyed represent an approximate margin of error of 0.75% for the total population of vehicle registrations across the eight counties, at a 95% confidence interval. In Table 1, the final sample of vehicle surveyed is illustrated by the county in which the vehicle was surveyed, compared to the vehicle registrations for the county (1).

	Vehicle	Surveyed License Plate	% of Total
County	Registrations(1)	Records	(Selected Counties)
Dane	466,357	3,186	19%
Kenosha	160,901	1,122	7%
Milwaukee	928,928	6,360	38%
Ozaukee	86,570	729	4%
Racine	195,530	1,284	8%
Sheboygan	115,908	824	5%
Washington	128,420	884	5%
Waukesha	380,791	2,534	15%
TOTAL	2,463,405	16,923	100%

 Table 1 – Total Sample of License Plate Records by County

 Please note: Due to rounding, the sum of the percentages does not equal 100%.

Analysis

Using the final sample of license plates surveyed in the study, each vehicle surveyed was analyzed and potentially categorized, based on the following criteria:

- The sticker on the vehicle had been expired for more than 30 days at the time of data collection
- The license plate sticker displayed a date that was more recent than the registration expiration date in the WisDOT vehicle registration database
- For trucks, the bottom point of the Gross Vehicle Weight Rating (GVWR) category was higher than the registered vehicle weight class, from information provided in the WisDOT vehicle registration database

The analysis illustrates vehicle license plates in aggregate, across each county surveyed, by vehicle class (auto or truck), the county in which the vehicle is customarily kept, and by the age of the vehicle (based on the model year).





Findings Overall Vehicles

Overall, 2.3% of vehicles surveyed were categorized as having a sticker displayed which had been expired for at least 30 days at the time of data collection. Also, 1.5% of vehicles surveyed were categorized as having a license plate sticker displayed on the vehicle during data collection that had a date that was more recent than the registration expiration date in the WisDOT vehicle registration database.

Type of Vehicle

For both auto and truck license plates, similar percentages of categorizations were illustrated in cases where the sticker on the vehicle had been expired for more than 30 days at the time of data collection at 2.2% and 2.4%, respectively (see Table 2). Trucks and autos also were similar in terms of categorization where the date displayed on the license plate sticker was more recent than the registration expiration date in the WisDOT vehicle registration database, with trucks at 1.7% and autos at 1.3%.

		Vehicles with expired	Sticker displayed was more recent than WisDOT	Bottom point of GVWR category higher than registered weight
Vehicle	Sample	stickers ¹	registration data ²	(trucks) ³
Autos	10,627	2.2%	1.3%	N/A
Trucks	6,296	2.4%	1.7%	7.3%

Table 2 – Vehicle License Plates & Registration by Vehicle Type

Notes for Table 2:

- 1. The sticker on the vehicle had been expired for more than 30 days at the time of data collection.
- 2. The license plate sticker date displayed on the vehicle during data collection was more recent than the registration expiration date in the WisDOT vehicle registration database.
- 3. For trucks, the bottom point of the Gross Vehicle Weight Rating (GVWR) category was higher than the registered vehicle weight class, based on the information provided in the WisDOT vehicle registration database. According to Wisconsin state statute, trucks are not required to be registered by GVWR, but based on the vehicle operating weight.

Trucks also were compared based on the weight the vehicle was registered for and the Gross Vehicle Weight Rating (GVWR) category. The WisDOT database provided both the GVWR category and the registered vehicle weight for trucks. Of all trucks surveyed, 7.3% were categorized as having a bottom point of the Gross Vehicle Weight Rating (GVWR) category that was higher than the registered vehicle weight class. With this comparison, it is important to





consider that according to Wisconsin state statute, trucks are not required to be registered by GVWR, but based on the vehicle operating weight.

County Surveyed

Vehicles in parking lots in eight counties in Wisconsin were surveyed during the study. Considering the county where the vehicle was surveyed during data collection (see Table 3 for detailed information), Milwaukee County had the highest percent of vehicles surveyed where the sticker on the vehicle had been expired for more than 30 days at the time of data collection (2.9%), followed by Dane County (2.8%), and Racine County (2.5%). Kenosha County had the highest percentage of vehicles surveyed where the date displayed on the sticker was more recent than that of the WisDOT registration data at 1.9%, followed by Ozaukee County (1.8%), and Dane County (1.7%).

		Vehicles with expired	Sticker displayed was more recent than WisDOT
County	Sample	stickers	registration data
Dane	3,186	2.8%	1.7%
Kenosha	1,122	1.4%	1.9%
Milwaukee	6,360	2.9%	1.4%
Ozaukee	729	1.1%	1.8%
Racine	1,284	2.5%	1.6%
Sheboygan	824	1.0%	0.7%
Washington	884	1.1%	0.9%
Waukesha	2,534	1.6%	1.6%

Table 3 – Overall Vehicle License Plates & Registration by County Surveyed

(Percents based on license plates surveyed within each county.)

Table 4 illustrates auto vehicles surveyed by county. Vehicles surveyed in Milwaukee County had the highest percentage of categorizations where stickers on the vehicle had been expired for more than 30 days at the time of data collection (3.0%), followed by Racine and Dane counties (both at 2.5%).

County	Sample	Vehicles with expired stickers	Sticker displayed was more recent than WisDOT registration data
Dane	2,135	2.5%	1.6%
Kenosha	617	0.8%	1.3%
Milwaukee	4,103	3.0%	1.5%
Ozaukee	394	1.5%	1.0%
Racine	653	2.5%	0.9%
Sheboygan	478	1.0%	0.4%
Washington	583	1.2%	1.0%
Waukesha	1,664	1.3%	1.1%

 Table 4 – Auto License Plates & Registration by County Surveyed
 (Percents based on license plates surveyed within each county.)
 (Percents based on license plates surveyed within each county.)

Truck licenses surveyed by county are shown in Table 5. Ozaukee County has the highest percentage of trucks surveyed where the bottom point of the GVWR category was higher than the registered weight class, with 11.9% of truck license plates surveyed in the county, followed by Washington County at 11.0%. Again, with this comparison, it is important to consider that according to Wisconsin state statute, trucks are not required to be registered by GVWR, but based on the vehicle operating weight. For trucks, Dane County had the highest percentage of trucks surveyed where stickers on the vehicle were expired for more than 30 days at the time of data collection (3.2%), followed by Milwaukee and Racine counties (2.7% and 2.5%, respectively).

County	Sample	Vehicles with expired stickers	Sticker displayed was more recent than WisDOT registration data	Bottom point of GVWR category higher than registered weight (trucks)
Dane	1,051	3.2%	1.8%	7.3%
Kenosha	505	2.2%	2.6%	9.5%
Milwaukee	2,257	2.7%	1.2%	4.5%
Ozaukee	335	0.6%	2.7%	11.9%
Racine	631	2.5%	2.2%	9.0%
Sheboygan	346	0.9%	1.2%	8.1%
Washington	301	1.0%	0.7%	11.0%
Waukesha	870	2.2%	2.5%	8.4%

Table 5 – Truck License Plates & Registration by County Surveyed

(Percents based on vehicles surveyed within each county.)

County Where Vehicle Customarily Kept

The county where the vehicle was customarily kept, according to WisDOT registration records, was also illustrated for vehicles surveyed. *Appendix* E – *County Where Vehicle Customarily Kept* illustrates the percentage of license plates surveyed in a county that also were customarily kept in the same county, as well as vehicles surveyed in Inspection Maintenance (IM) counties that are not customarily kept in IM counties. It is important to note that the parking lots surveyed during the study were public lots, and there could be numerous reasons as to why vehicles were parked in the lots at any given time.

Based on where the vehicle is customarily kept (see Table 6), according to the WisDOT registration data, of the eight counties surveyed in the study, Milwaukee County had the highest percent of vehicles customarily kept in Milwaukee County where stickers on the vehicle that had been expired for more than 30 days at the time of data collection, at 3.2%, followed by Dane County with 2.5%. Milwaukee and Dane counties also had the highest percentage of vehicles kept in those counties where the date displayed on the license plate sticker during data collection was more recent than the registration expiration date in the WisDOT vehicle registration database, with 1.8% and 1.7%, respectively.

County Where Vehicle Customarily Kept	Sample	Vehicles with expired stickers	Sticker displayed was more recent than WisDOT registration data
Dane	2,675	2.5%	1.7%
Kenosha	1,043	1.2%	1.2%
Milwaukee	4,034	3.2%	1.8%
Ozaukee	746	1.2%	0.9%
Racine	1,148	2.4%	0.9%
Sheboygan	717	1.4%	0.3%
Washington	1,003	1.4%	1.0%
Waukesha	3,181	1.8%	0.8%

Table 6 – Vehicle License Plates & Registration by

WisDOT Registration County Where Vehicle Customarily Kept (Percents based on vehicles surveyed within each county.)

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Model Year of Vehicle

The Vehicle Identification Number was used to determine the model year of vehicles surveyed. The tenth (10^{th}) digit of the VIN denotes the model year of the vehicle (2). Table 7 illustrates that older vehicles, specifically those with model years of 1994 or earlier, have a higher percentage of categorizations where the sticker on the vehicle had been expired for more than 30 days at the time of data collection, with 3.2%. Also, older vehicles had a higher percentage of categorizations where the date displayed on the license plate sticker during data collection was more recent than the registration expiration date in the WisDOT vehicle registration database, with 6.6%, compared to newer vehicles.

Model Year	Sample	Vehicles with expired stickers	Sticker displayed was more recent than WisDOT registration data
2005-2009	4,936	2.0%	0.4%
2000-2004	6,875	2.1%	1.2%
1995-1999	3,854	2.8%	1.8%
1994 or earlier	1,257	3.2%	6.6%

Table 7 – Vehicle License Plates \circlearrowright Registration by Model Year (Percents based on vehicles surveyed within each model year category.)

Summary

Overall, 2.3% of vehicles surveyed were categorized as having a sticker displayed which had been expired for at least 30 days at the time of data collection. Also, 1.5% of vehicles surveyed were categorized as having a license plate sticker displayed on the vehicle during data collection that had a date that was more recent than the registration expiration date in the WisDOT vehicle registration database.

For truck owners, a percentage of trucks surveyed were categorized as having a registered vehicle weight that was less than the bottom point of the Gross Vehicle Weight Rating category. It is important to consider, according to Wisconsin state statute, trucks are not required to be registered by GVWR, but based on the vehicle operating weight. Of truck licenses surveyed, 7.3% were categorized as having a bottom point of the Gross Vehicle Weight Rating (GVWR) category that was higher than the registered vehicle weight class.

Older model year vehicles had a higher percentage of license plates categorized where stickers may have been expired, or stickers displayed that appeared to be more recent than WisDOT registration, than those of newer vehicles. Specifically, vehicles with model years of 1994 or earlier had a higher percentage of license plates categorized where stickers that had been expired for more than 30 days at the time of data collection, and a higher percentage of categorizations where the date displayed on the license plate sticker during data collection was more recent than the registration expiration date in the WisDOT vehicle registration database, than that of newer vehicles.

References

- (1) "Vehicles Registered by County", Facts & Figures 2006, Wisconsin Department of Transportation, <u>http://www.dot.wisconsin.gov/drivers/docs/2006ff.pdf pp. 110-111</u>.
- (2) "How to Decode VIN Numbers", <u>http://www.carspace.com/guides/How-to-Decode-VIN-Numbers</u>.



Appendix A – WisDOT License Plate Study Employee Training

Agenda - WisDOT 3863 Employee Training and Overview - July 17, 2008

1) Overview:

WisDOT's Goal –Chamberlain Research Consultants has been hired to collect data by selecting a sample of the license plate population from eight counties in Wisconsin. After Chamberlain Research Consultants is finished collecting data, our Analytical Team will provide the client with a report.

Quota for each employee: During pre-testing, we determined the "gathering rate" is one surveyed vehicle per minute.

- 2) Preparation for the field
 - Reflective vest
 - Name badge
 - Authorization letter
 - Proper/comfortable clothes and shoes
 - Supervisor's business card/Cell phone number
 - WisDOT VIN Form
 - Clipboard
 - Pens or pencils
 - Map/directions
 - Chamberlain bag (if needed)
- 3) WisDOT Interviewer Lookup Form Please see attachment: Employees will be collecting the following information on the WisDOT Interviewer Lookup Form:
- License plate
- VIN number
- Sticker Month
- Sticker Year
- County
- Employee Name
- Parking Lot Description
- Date

There are twenty-five spaces for vehicle information on each page. Please take enough pages to complete the needed sample for your shift. Most shifts are a sample size of 600 with 2 employees in the field together.

- 4) Schedule: Week to Week There will be a schedule posted in Data Collections that will show the upcoming field dates, locations and sample plan. Field Interviewers are encouraged to sign up for shifts they are interested in.
- 5) Data Gathering
- What not to get: delivery vehicles, out of state, collector cars, state owned, large trucks.
- "Other" parking lots: As you collect all the data in the scheduled parking lots, you are free to sample data in the surrounding areas as long as it's within the sampled county.
- 6) Field Service and Tracking Sheet/Hours These are items we need to track for this study. Please list the following as needed on the Field Services and Tracking Sheet.
- Name
- Project number
- Project name
- Mileage
- Per diem
- Drive time
- Project time
- Briefing time
- Misc. time

Appendix B – Authorization Letter

Governo



Wisconsin Department of Transportation www.dot.wisconsin.gov

Jim Doyle

Frank J. Busalacchi Secretary

Division of Motor Vehicles 4802 Sheboygan Ave. P O Box 7911 Madison, WI 53707-7911

Telephone: 608-266-1113 FAX: 608-261-0136 E-mail: administrator.dmv@dot.state.wi.us

June 5, 2008

To whom it may concern:

The bearer of this letter is an employee of Chamberlain Research Consultants, Inc., and is conducting a research study under contract with the Division of Motor Vehicles, Wisconsin Department of Transportation. The research will estimate the overall level of registration compliance in Wisconsin.

The research study requires surveys of vehicles in many parking lots in various locations around Wisconsin. The field researcher will be observing vehicle license plate number, VIN number, and registration decal for a random selection of vehicles in the parking lot, which will be used to determine registration compliance using DMV's vehicle records. The results will allow DMV to estimate overall registration compliance, statewide.

The results of the study will be aggregated, and no vehicle-specific information will be used. No individual vehicle registration status will be enforced as a result of this study.

If you have any questions about this research study, please feel free to contact Mr. Tom Martinelli of CTC Associates, which is acting as project manager for the DMV research study. Mr. Martinelli may be reached at cell phone (608) 333-7563.

Thank you very much for your cooperation.

Sincerely, ynne B. Judd Administrator







Appendix C – Concerns Encountered in the Field

It is no surprise that Wisconsin residents had concerns about Chamberlain gathering their vehicle information. In most cases, we were able to explain an overview of the project and continue collecting data. Field Staff used three tactics to mitigate legitimacy concerns while in the field:

- 1) Each employee wore a WisDOT orange and yellow vest. These vests were provided by the WisDOT which helped legitimize data collection.
- 2) Each employee had a WisDOT authorization letter (see *Appendix B*). This letter stated why we were collecting data and who to contact for further information.
- 3) Employees carried with them cellular phones, business cards of the supervisor on-duty, and contact information at the WisDOT.

These tactics were not always effective because "concerned citizens" and area police officers routinely stopped and questioned the Chamberlain Field Staff. For example, in some parking lots, employees were asked to leave the premises due to "No Solicitation" policies. But in most cases, field employees would let the parking lot attendant know the background of the project (why we were there) and then got permission to began data collection.

Many times citizens would call the phone numbers found on the authorization letter. The WisDOT would follow up with the citizen and clear up any concerns. Over all the concerns from the field were minimal. What helped resolve many issues were the three approaches used before entering the field.

Appendix D – Parking Lots by County

Dane County ALLIANT ENERGY CENTER ART FAIR ON THE SQUARE-DOWNTOWN PUBLIC STREET PARKING BEST BUY EAST DANE CO AIRPORT DAYTON/CARROLL ST RAMP DOWNTOWN PARKING RAMP (MADISON) DUTCHMILL PARK N RIDE EAST TOWNE MALL, MADISON ELVER PARK GOVT EAST RAMP - DOTY ST KOHL'S EAST LAW PARK PUBLIC LOT MALL EAST MATC MATC-TRUAX MATC-WRIGHT ST.-FREE PARKING MENARDS EAST MONONA GOLF COURSE MONONA TERRACE **OLBRICH GARDENS** PARK AND RIDE PETSMART EAST SHOPKO EAST TARGET EAST VILAS ZOO WARNER PARK YAHARA HILLS GOLF COURSE ZOO MADISON

Kenosha County

DOG PARK DOG RACE TRACK DOWNTOWN KENOSHA PUBLIC PARKING HARBOR MARKET-PUBLIC PARKING KENOSHA COUNTY FAIR GROUNDS KENOSHA HARBOR KENOSHA LAKE FRONT KENOSHA MUSEUM LAKEVIEW PARK-PLEASANT PRAIRIE MARINA PARKING/NEAR PUBLIC MUSEUM PLEASANT PRAIRIE LAKEVIEW REC PLEX PRIME OUTLET MALL PUBLIC MUSEUM WAL-MART

Milwaukee County 6TH & HIGHLAND 6TH & STATE ALVERNO COLLEGE AMTRAK LOTS AUDUBON NATURE CENTER BALLY FITNESS-CORNER OF VAN BUREN AND E JUNEAU BRADLEY CENTER PARKING CHICAGO & BROADWAY 3RD WARD COLLEGE AVE. PARK 'N RIDE DOWNTOWN MILWAUKEE PUBLIC LOTS/RAMPS DOWNTOWN PUBLIC PARKING - NEAR MARQUETTE & LIBRARY EXIT 83B - BROWN DEER RD. EAST FOX POINT P & R GOOD HOPE ROAD PARK 'N RIDE HALE'S CORNERS HOLT AVE. PARK 'N RIDE LOOMIS RD PARK N RIDE LOT 8 LOT 9 MAYFAIR MALL METRO MARKET N JACKSON ST AND E JUNEAU AVE MILLER PARK MILWAUKEE COUNTY PARK N RIDE 40-55 STATE FAIR MILWAUKEE COUNTY PARK N RIDE 42-55 STATE FAIR MILWAUKEE PUBLIC MARKET PARKING MILWAUKEE STATE FAIR GROUNDS MILWAUKEE ZOO



NORTH SHORE PARK 'N RIDE PUBLIC PARKING / DOWNTOWN MILWAUKEE RYAN ROAD PARK 'N RIDE SCHLITZ AUDUBON NATURE CENTER SILVER SPRING GARAGE SUMMERFEST LOT G SUMMERFEST LOT M SUMMERFEST LOT P SUMMERFEST/IRISH FEST-VENDOR PARKING TICKET TRACK PUBLIC PARKING / NEAR AMTRACK TIMMERMAN PARK 'N RIDE WATERTOWN PLANK P & R WAUWATOSA PARK N RIDE WISCONSIN AVE - DOWNTOWN PUBLIC PARKING WISCONSIN STATE FAIR PARK N RIDE

Ozaukee County

FISH DAY PARKING PARK & RIDE AT I-43 EXIT #100 PORT WASHINGTON STREET PARKING

Racine County

7 MILE FAIR 7 MILE FAIR EMPLOYEE AND VENDOR PARKING DOWNTOWN RACINE PARKING RAMP DOWNTOWN RACINE, CLOSE TO THE RADISSON DOWNTOWN RACINE, LAKEFRONT PUBLIC PARKING IVES GROVE PARK & RIDE NORTH BEACH PARK RACINE COUNTY FAIR RACINE HARBOR RACINE PARKING RAMP ZOO PARKING

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Sheboygan County

DOWNTOWN SHEBOYGAN ART FAIR SHEBOYGAN MARINA/DELAND PARK

Washington County

ALLENTON-PARK AND RIDE GERMANTOWN PARK N-RIDE UW-WASHINGTON COUNTY WASHINGTON CO. GOVERNMENT CENTER WEST BEND DOWNTOWN PUBLIC PARKING WEST BEND PARK N-RIDE

Waukesha County

CARROLL UNIVERSITY - LOT 9 CARROLL UNIVERSITY/CAMPUS CENTER COUNTY FAIR DOWNTOWN WAUKESHA PUBLIC PARKING GOERKE'S CORNERS PARK N RIDE MEADOWBROOK P&R NAGAWAUKEE P&R PABST FARMS PARK & RIDE WAUKESHA PEWAUKEE P&R PUBLIC PARKING / WAUKESHA / MAPLE LOT SILVERNAIL SHOPPING CENTER STRIP MALL UW - WAUKESHA - LOT 4 UW-WAUKESHA/STREET WAUKESHA COUNTY FAIRGROUNDS WAUKESHA COUNTY TECHNICAL COLLEGE - WAUKESHA CAMPUS WAUKESHA COUNTY TECHNICAL COLLEGE (PEWAUKEE) 5 WAUKESHA COUNTY TECHNICAL COLLEGE (PEWAUKEE) 6 WAUKESHA PUBLIC PARKING/CLINTON LOT & OTHER DOWNTOWN PARKING WESTWOOD FITNESS CENTER YMCA





Appendix E – County Where Vehicle Customarily Kept

The following tables illustrate comparisons between where vehicles were surveyed and where they are customarily kept (according to WisDOT registration data):

- Table 8 illustrates vehicles surveyed in each of the eight counties that, according to the WisDOT registration database, are also customarily kept in the same county.
- Table 9 illustrates the percent of vehicles that were sampled in Inspection Maintenance (IM) counties that are not customarily kept in IM counties (according to WisDOT registration).

It is important to note that the parking lots surveyed were public lots, and therefore, there could be numerous reasons as to why a vehicle was parked at any given time during the study. This study does not attempt to identify the reasons as to why vehicles may or may not have been surveyed in the county where it is customarily kept.

County	Sample	Percentage of Vehicle Records sampled in the county that are also customarily kept in that county (WisDOT data)
Dane	3,186	74.8%
Kenosha	1,122	71.2%
Milwaukee	6,360	49.9%
Ozaukee	729	52.0%
Racine	1,284	52.6%
Sheboygan	824	69.4%
Washington	884	67.8%
Waukesha	2,534	69.3%

Table 8 – Vehicles Sampled in the Same County as

Customarily Kept

County	Sample	Percentage of Vehicle Records sampled in the county that are <u>not</u> customarily kept in other IM counties (WisDOT data)
Kenosha	1,122	8.5%
Milwaukee	6,360	15.3%
Ozaukee	729	14.4%
Racine	1,284	12.4%
Sheboygan	824	16.3%
Washington	884	14.9%
Waukesha	2,534	14.1%

Table 9 – Vehicles Sampled in Inspection Maintenance Counties That are Not Customarily Kept in Other IM Counties





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