



## **2015 Origin and Destination Study International Bridge**

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## **INTRODUCTION**

The Michigan Department of Transportation (MDOT) Bureau of Transportation Planning was asked by the International Bridge Administration (IBA) to conduct an origin and destination (O&D) study in May 2015 at the International Bridge in Sault Ste. Marie; similar to one they conducted in 2009. The IBA requested this study after they observed a decrease in traffic over the past year and wanted to identify any changes in trip patterns. In addition to helping the IBA, this travel data will enable the Statewide and Urban Travel Analysis (SUTA) section to improve its forecasting models and provide MDOT and its customers with updated travel characteristics and statistics.

This study is an intercept survey of traffic where information is gathered from the driver including trip origin and destination, trip purpose, frequency, vehicle type, and number of passengers. For commercial vehicles, the origin and destination, truck type, commodity carried, and commodity weight are captured. Drivers were also asked two questions pertaining to crossing the International Bridge. The first question was whether the driver possessed a Nexus Card and to explain why if they did not. The Nexus Card is an alternative to a passport which gives pre-approval to United States and Canadian citizens to speed up the border crossing process. The second question asked was whether the driver is crossing the International Bridge the same, more or less than in the past, and what caused the frequency to change if it had.

Including this bridge study, MDOT has completed 37 intercept surveys since 2003, with nine being commercial only. The MDOT Data Collection section manually conducted the surveys and coded the responses for facilitating data entry. The information was then entered into an automated program that formats all data into a spreadsheet file by SUTA who reviewed the file and made corrections and edits on any erroneous records. Both MDOT sections did a great amount of work to collect, clean, and analyze the data.

## **STUDY PERIOD AND EXPANSION**

The interview crew captured as many vehicles as possible to record trip details. The study was conducted on Tuesday, May 12, 2015, for southbound traffic and Wednesday, May 13, 2015, for northbound traffic, surveying from 6:00 a.m. until 8:00 p.m. The southbound traffic was surveyed after passing through the toll booths entering Michigan. The northbound traffic was captured in interview lines immediately after passing through the toll booths, before crossing the bridge. Recording trips on these days offers a more accurate representation of the average daily traffic as weekend traffic often differs in purpose and length. In order to capture the distinct traffic patterns observed at different times of day, the studies were broken up into three time periods – AM Peak (6:00 – 9:00 a.m.), Midday (9:00 a.m. – 3:00 p.m.), and PM Peak (3:00 – 8:00 p.m.).

The goal of the expansion process was to increase the recorded survey data to correspond to the annual average daily traffic (AADT). Classification counts from the bridge authorities were obtained for each hour and direction. During the study hours, records were grouped by time period and direction. Each recorded group was expanded to match the bridge counts for each time period. The combined records for all study hours were used to represent traffic during non-

study hours, as it was deemed reasonable to expect that similar trip types occur during non-study hours. The non-study period expansion factor was obtained for each direction by dividing the total non-study period count by the total number of records. The 24-hour expansion total was obtained by adding the study period expansion factor to the non-study period expansion factor for each record. The study day total traffic is the sum of the 24-hour expansion totals for all records.

To portray the AADT for the study, the percentage difference between the AADT for the International Bridge and the 24-hour volume for the study period was calculated. Monthly bridge classification counts from May 2014 through April 2015 from the Public Border Operators Association (PBOA) were used to develop the latest AADT by taking the passenger and commercial counts from the past 12 months and dividing by 365. The 24-hour counts were multiplied by the percentage difference between the study day and AADT for both passenger and commercial vehicles. The total AADT is the sum of the AADT expansion totals for all records. Because the AADT does not differentiate by direction of traffic, the assumption was made that traffic is evenly split between northbound and southbound. As a result, the total AADT was divided in half for each direction. The tables and maps presented in this report are based on the AADT totals for passenger and commercial vehicles. The expansion table at the end of the report shows the calculation of expansion factors by direction and time period.

## **STUDY RESULTS AND ANALYSIS**

A total of 2,371 vehicles were interviewed (55 percent of overall traffic); 2,203 passenger vehicles (56 percent) and 168 commercial vehicles (47 percent). On the second study day, only one northbound toll booth was consistently open due to booth staffing and a malfunctioning traffic counter in the pavement needing repair. As a result, northbound traffic was restricted to one lane and subject to heavy backups. For this reason, only 41 percent of northbound traffic was interviewed in contrast to 70 percent of southbound traffic on the first study day. The survey records were expanded to an annual average daily traffic of 4,729 passenger vehicles and 366 commercial vehicles, for a combined total of 5,095.

***Passenger Vehicles*** – Of the expanded 4,729 passenger vehicles, 72 percent travel between Sault Ste. Marie, Michigan and Sault Ste. Marie, Ontario. Half of all passenger trips indicated shopping as one or both trip ends. Of these, 96 percent are Canadian residents shopping in the United States due, in part, to lower gas and food prices and a higher population in Sault Ste. Marie, Ontario.

Table 1 shows the top five passenger vehicle trip ends by direction. The majority of both southbound and northbound trips began and/or ended in Sault Ste. Marie. Many southbound trips go through Michigan to get to cities in southwest Ontario such as Sarnia and Windsor, as it takes about half the time and distance to traverse the state of Michigan than to head east around the Georgian Bay through Ontario.

**Table 1: Top Five International Bridge Passenger Vehicle Trip Ends**

NORTHBOUND

Avg Trip Distance 83.29 miles

AADT				AADT			
ORIGINS	SURVEYS	EXPANDED	PERCENT	DESTINATIONS	SURVEYS	EXPANDED	PERCENT
SAULT STE MARIE	710	1,879.42	79.49%	SAULT STE MARIE	732	1,970.03	83.32%
BRIMLEY	21	58.39	2.47%	GOULAIS RIVER	16	42.20	1.78%
TRAVERSE CITY	9	24.18	1.02%	ECHO BAY	15	44.64	1.89%
MACKINAW CITY	7	21.37	0.90%	THESSALON	8	20.47	0.87%
WINDSOR	6	17.66	0.75%	SUDBURY	8	18.65	0.79%

SOUTHBOUND

Avg Trip Distance 87.52 miles

AADT				AADT			
ORIGINS	SURVEYS	EXPANDED	PERCENT	DESTINATIONS	SURVEYS	EXPANDED	PERCENT
SAULT STE MARIE	1,125	2,029.69	85.84%	SAULT STE MARIE	1,086	1,946.42	82.32%
ECHO BAY	17	30.04	1.27%	BRIMLEY	19	34.35	1.45%
SUDBURY	15	26.21	1.11%	GAYLORD	18	36.01	1.52%
BRUCE MINES	13	22.54	0.95%	WINDSOR	16	30.08	1.27%
GOULAIS RIVER	9	16.18	0.68%	PETOSKEY	10	18.71	0.79%

Table 2 shows the destination trip purposes by direction. The majority of northbound trips end at home while nearly half of southbound trips are for shopping. This indicates that most trips are made by Canadians going to the United States for shopping, work and indoor recreation attractions such as casinos then returning home.

**Table 2: Passenger Vehicle Trip Destinations**

NORTHBOUND	AADT			AVG TRIP
	SURVEYS	EXPANDED	PERCENT	LENGTH
Home	697	1,897.75	80.27%	48.20
Work	40	84.69	3.58%	152.67
School	6	15.57	0.66%	92.47
Shopping	22	50.62	2.14%	16.03
Personal Business	24	61.29	2.59%	254.06
Outdoor Recreation	37	86.91	3.68%	331.55
Indoor Recreation	11	31.60	1.34%	275.62
Lodging	16	42.47	1.80%	415.62
Social/Other	29	77.59	3.28%	218.43
No Answer	6	15.84	0.67%	162.51
TOTAL	888	2,364.34	100.00%	83.29

SOUTHBOUND	AADT			TRIP
	SURVEYS	EXPANDED	PERCENT	LENGTH
Home	133	236.57	10.01%	226.17
Work	102	200.57	8.48%	109.06
School	15	26.96	1.14%	89.21
Shopping	660	1,174.90	49.69%	23.69
Personal Business	116	206.52	8.73%	144.13
Outdoor Recreation	42	79.09	3.35%	218.87
Indoor Recreation	92	163.62	6.92%	87.47
Lodging	6	11.05	0.47%	184.11
Social/Other	76	135.19	5.72%	159.15
No Answer	73	129.86	5.49%	126.00
TOTAL	1,315	2,364.35	100.00%	87.52

The following three maps offer different views of the traffic trip flows for passenger vehicles. The statewide model network was used to project the traffic flows and does not include much of the Ontario road network. The line heading northeast from Sault Ste. Marie is a statewide model link that shows flows starting or ending in the rural areas of Algoma and Sudbury Districts in Ontario.

These maps show that passenger trips crossing the International Bridge go to or through every region of the United States, but the majority of traffic flows are primarily concentrated in the localized area.

**Map 1: Passenger Flows (Local)**



Map 2: Passenger Flows (Regional)



Map 3: Passenger Flows (National)



**Passenger Vehicle Comparison** – A similar O&D study of passenger vehicles was completed by MDOT in 2009. The results from this study showed many similarities in travel for passenger vehicles with a few distinct differences. A primary difference was that the 2009 survey was conducted in June when more people take vacations as schools are typically not in session. This is supported by the decrease in recreational trips from 22 percent in 2009 to 13 percent in 2015. Additionally, average trip length decreased for both northbound and southbound trips, which can be partially explained by the higher volume of shorter-length shopping trips and fewer long-distance recreational trips. The number of passengers per vehicle remained largely the same by trip purpose. The overall occupancy rate decreased slightly from 1.64 in 2009 to 1.59 in 2015. This is consistent with the timing of the survey; the abundance of higher occupancy outdoor recreation trips raised the occupancy rate in 2009 while the greater representation of shopping trips lowered the overall average in 2015.

Trip ends remained largely the same; however, there was less trip diversity in 2015 as more trips were made between the U.S. and Canadian Sault Ste. Marie. School and indoor recreation trip purposes remained very similar between 2009 and 2015 for both northbound and southbound trips. In 2009, there were approximately 630 shopping trips crossing the bridge every day, making up 29 percent of all passenger trips. In 2015, this figure increased to 1,226 shopping trips, accounting for 53 percent of all passenger trips. This increase can be explained by the relatively less expensive fuel and food costs in the United States, resulting in an upsurge of southbound shopping trips.

In both 2009 and 2015, a question was asked regarding whether the driver is crossing the International Bridge the same, more, or less than in the past and what caused the frequency to change if it had. There were some differences in how this question was asked and entered: in 2009, this question was not asked to commercial vehicle drivers, vehicles were given the option to not answer, and a distinction was made between *no answer given* and *other*. In both years, about two-thirds of passenger vehicles surveyed declared they traveled about the same as they did in past years. Between 2009 and 2015, the percentage of respondents indicating that they travel less than in previous years increased (from 17 to 19 percent), while the percentage indicating that they traveled more decreased (from 16 to 13 percent). This is supported by annual daily travel records from the IBA. Bridge traffic steadily increased between 2009 and 2013 when it peaked at around 2.1 million vehicles per year. Since then, traffic has been declining with 2015 PBOA records from January through April reporting that trips are down 20 percent from just one year before. Traffic figures from January through May 2009 were down 17 percent from a year prior, supporting the relative decrease in people reporting that they traveled less.

In 2015, 63 percent of people who indicated that they traveled less than in previous years attributed this to the exchange rate compared to only nine percent in 2009. People were much less likely to cite backup and delay in 2015 (two percent compared to 10 percent) or employment/income change (seven percent compared to 15 percent). These responses are supported by the declining unemployment rate in both the U.S. and Canadian Sault Ste. Marie and by IBA reports that an initiative by the IBA, U.S. Customs and Border Protection (CBP), and the Canada Border Services Agency (CBSA) to use webcam surveillance to decrease wait times has done so by 30 percent.<sup>1</sup>

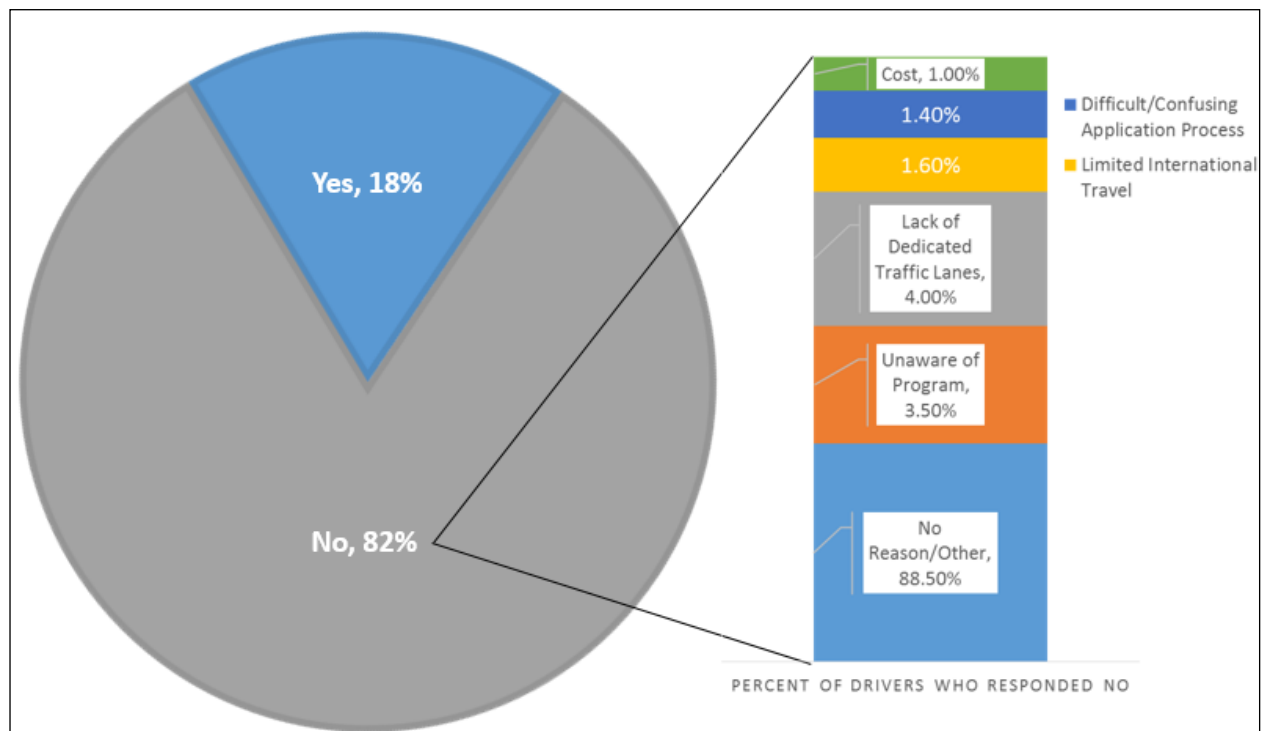
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<sup>1</sup> [http://www.michigan.gov/mdot/0,4616,7-151-9618\\_48384\\_49998-319383--,00.html](http://www.michigan.gov/mdot/0,4616,7-151-9618_48384_49998-319383--,00.html)



**Nexus Card** - In 2015, drivers were asked whether they possessed a Nexus Card and to explain why if they did not. 73 percent of all passengers surveyed responded that they did not possess a Nexus Card<sup>2</sup> and gave their explanation as *no reason* or *other*. Of these, many gave a verbal response to the surveyors that they did not have a card because they already have a passport. More stringent travel requirements led to an increase of over 50 percent<sup>3</sup> of passports issued in the U.S. and over 30 percent<sup>4</sup> of passports issued in Canada in 2007 - 2008 and again in 2009 - 2010 by over 10 percent<sup>5</sup>. Additional reasons offered include: people see no reason to get the card, there are no major backups, and Canadian customs often open the Nexus lane for only a few hours.

**Figure 1: Response to Nexus Question**



<sup>2</sup> The Nexus Card is a travel document that is compliant with the Western Hemisphere Travel Initiative (WHTI); a two phase national security measure passed by Congress which increased travel documentation requirements for travelers entering and departing the US. The first phase, increasing air travel restrictions, went into effect in January 2007. The second phase went into effect in June 2009 and required citizens of the US and Canada to present a passport or other WHTI-compliant document in order to enter or depart the US at a land or sea border.

<sup>3</sup> [U.S. Department of State Passport Statistics](#)

<sup>4</sup> [Passport Canada Annual Report 2007-2008](#)

<sup>5</sup> [Passport Canada Annual Report 2009-2010](#)

**Commercial Vehicles** – Long distance commercial trips are prevalent at the International Bridge; the average trip distance of 591 miles is one of the longest of all O&D studies MDOT has completed due to the remote border location. Common trip ends were Sault Ste. Marie and Quebec for Canadian cities and Sault Ste. Marie and Brimley in the United States. Empty trucks (28 percent) accounted for the greatest number of truck movements, while lumber products (16 percent) and paper products (12 percent) were the top commodities moving across the bridge. More empty trucks (32 percent) travel northbound into Canada than into the United States (25 percent). Primary metal products traveling southbound from the Sault Ste. Marie, Ontario steel manufacturing industry were also prevalent.

Table 3 shows the top five commercial vehicle trip ends by direction for the International Bridge O&D study. Commercial trip ends have greater diversity but as was the case with passenger trips, the largest plurality of both southbound and northbound trips had one or both trip ends in Sault Ste. Marie. Origins and destinations in the U.S. are much more diverse than in Canada. The top five northbound origins and southbound destinations account for around 39 and 28 percent of their respective classifications, while the top five southbound origins and northbound destinations account for 77 and 74 percent of their respective classifications.

**Table 3: Top Five International Bridge Truck Trip Ends**

**NORTHBOUND**

Avg. Trip Distance 617.31 miles

ORIGINS	AADT			DESTINATIONS	AADT		
	SURVEYS	EXPANDED	PERCENT		SURVEYS	EXPANDED	PERCENT
SAULT STE MARIE	10	23.74	12.96%	SAULT STE MARIE	37	89.01	48.59%
BRIMLEY	7	14.81	8.08%	QUEBEC	9	28.57	15.60%
MINNESOTA (MN)	5	13.99	7.64%	TORONTO	2	6.04	3.30%
DAFTER	4	9.58	5.23%	THUNDER BAY	2	6.04	3.30%
ARCADIA, WI	3	8.44	4.61%	OTTAWA	2	6.04	3.30%

**SOUTHBOUND**

Avg. Trip Distance 565.57 miles

ORIGINS	AADT			DESTINATIONS	AADT		
	SURVEYS	EXPANDED	PERCENT		SURVEYS	EXPANDED	PERCENT
SAULT STE MARIE	53	97.63	53.31%	SAULT STE MARIE	12	21.88	11.95%
QUEBEC	15	29.35	16.02%	BRIMLEY	6	11.00	6.00%
DRYDEN	3	6.15	3.36%	PORT HURON	4	8.35	4.56%
SUDBURY	2	4.39	2.40%	DAFTER	3	5.16	2.82%
CORNWALL	2	3.96	2.16%	MANISTIQUE	3	4.95	2.70%

Table 4 shows the distribution of different commodity types for commercial vehicles crossing the International Bridge. Empty trucks and trucks carrying lumber, paper, and primary metal products account for nearly 70 percent of commercial travel.

**Table 4: International Bridge Truck Movement Commodities**

COMMODITY	SURVEYS	AADT EXPANDED	PERCENT	AVG TRIP LENGTH (MILES)	AVG WEIGHT (LBS)	AVG WEIGHT (TONS)
Empty	48	103.87	28.36%	216.72	N/A	N/A
Logs, Lumber or Wood Products	36	71.51	19.52%	517.18	78,825	39.41
Pulp, Paper or Allied Products	18	44.13	12.05%	1,034.30	39,905	19.95
Primary Metal Products	14	26.80	7.32%	509.11	65,527	32.76
Food and Kindred Products	6	15.35	4.19%	1,089.46	50,200	25.10
Furniture or fixtures	5	12.59	3.44%	426.87	7,754	3.88
Transportation Equipment	5	12.10	3.30%	1,063.00	19,956	9.98
Farm Products	4	9.09	2.48%	1,323.29	44,473	22.24
Rubber or Misc Plastics	4	9.07	2.48%	1,211.22	40,347	20.17
Non-metallic Ores, minerals	4	7.80	2.13%	831.76	52,019	26.01
Stone, Clay, and Glass Products	2	6.04	1.65%	331.12	91,621	45.81
Waste and Scrap Materials	3	5.92	1.61%	736.88	26,040	13.02
Machinery	2	5.41	1.48%	1,377.03	58,604	29.30
Hazardous Waste Material	2	4.79	1.31%	637.36	87,500	43.75
Fresh Fish	2	4.39	1.20%	358.79	12,500	6.25
Chemicals or Allied Products	2	3.96	1.08%	1,032.43	40,555	20.28
Metallic Ores	2	3.81	1.04%	248.27	88,250	44.13
Miscellaneous Mfg Products	1	3.65	1.00%	340.66	41,000	20.50
Printed Matter	1	2.40	0.65%	1,084.41	43,000	21.50
Electrical Equipment	1	2.40	0.65%	1,341.33	4,000	2.00
Apparel or Finished Textiles	1	1.76	0.48%	1,301.08	4,000	2.00
Buses	5	9.47	2.59%	61.84	N/A	N/A
Total	168	366.30	100.00%	591.45	54,175	27.09
Commercial Avg Daily Traffic - 366						
Commercial Avg Daily Weight - 14,188,426 lbs (7,094 tons)						

The following three maps offer different views of the traffic trip flows for commercial vehicles. The number of truck trips traveling between Ontario and the U.S., going across the Upper Peninsula to and from Minnesota and Wisconsin, and crossing the Mackinac Bridge to and from the Lower Peninsula are very similar with an average 135 trucks per day.

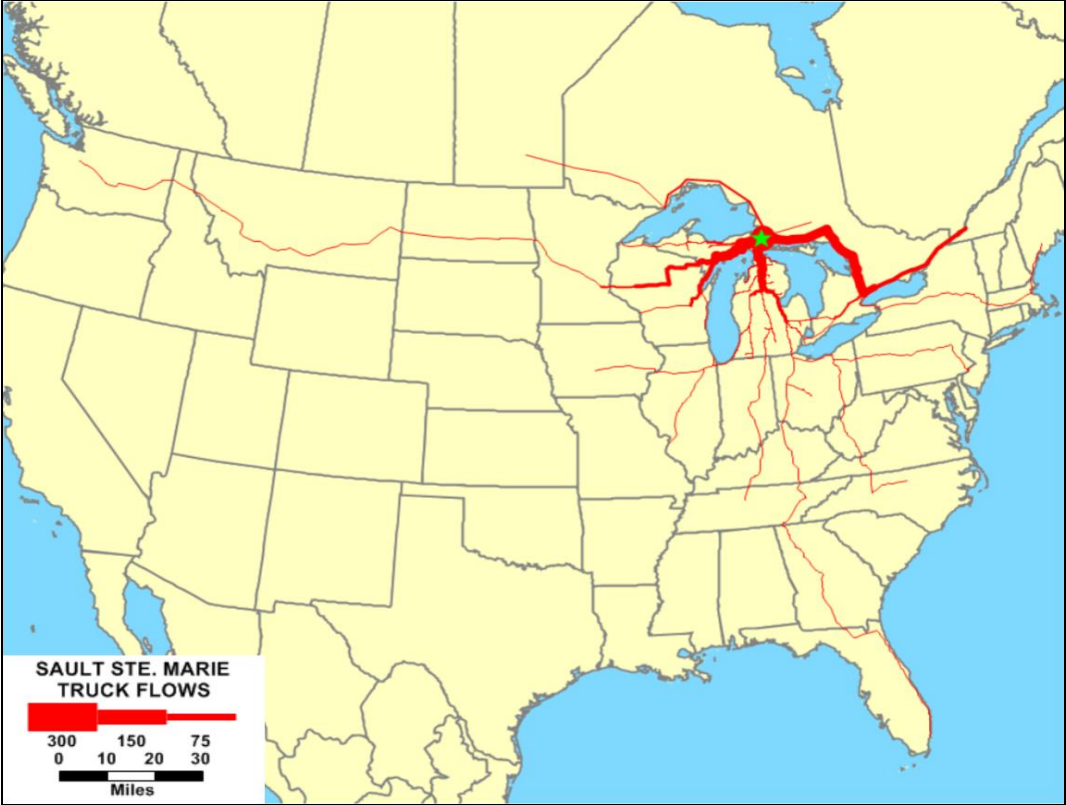
**Map 4: Commercial Flows (Local)**



**Map 5: Commercial Flows (Regional)**



**Map 6: Commercial Flows (National)**



***Commercial Vehicle Comparison*** – Comparing the results of the 2009 and 2015 O&D studies showed many similarities in commercial travel. The AADT for commercial traffic rose from 286 in 2009 to 366 in 2015. This rise was met by a 40 percent increase in commercial weight, much of which can be explained by the more frequent southbound lumber trips.

Commercial trip ends remained largely the same in 2015 with Sault Ste. Marie, Quebec, Minnesota, and Brimley the most common trip ends in both survey years. There were even more trips traveling between the U.S. and Canadian Sault Ste. Marie in 2015 than in 2009, which is reflected in the decrease in average commercial trip length from 653 to 591 miles. This effect was greatest for southbound trips for which average trip length decreased from 732 miles in 2009 to 566 in 2015. Empty trucks and trucks carrying lumber, paper, and primary metal products remained the four most common commodities. In 2009, waste and scrap materials were the fifth most prevalent commodity type, while in 2015 it accounted for less than two percent of commercial travel.

In both 2009 and 2015, the majority of commercial trips were unique in that, there were few common O&D pairs. In both years, many trucks carrying lumber and primary metal products traveled from Sault Ste. Marie to Brimley. Likewise, the most common empty truck trip for both years was from Brimley to Sault Ste. Marie. This suggests that trucks make round trips between the two cities. Most food trips went between Quebec and Wisconsin in both years. In 2009, all food trips had an end in either Wisconsin or Quebec, while in 2015 there was slightly more diversity.

Bus traffic fluctuations are very different from either overall or commercial traffic fluctuations; according to PBOA traffic records, the same amount of buses crossed the International Bridge in 2009 as in 2014. While overall traffic has seen a decrease of around 20 percent from 2014 to 2015, bus traffic has decreased at less than two percent. Much of the bus traffic can be explained by casinos shuttling back and forth across the bridge. While PBOA figures remain largely the same, the study results from 2009 to 2015 show a slight increase in bus traffic, as many casino buses were let through without taking the survey in 2009.

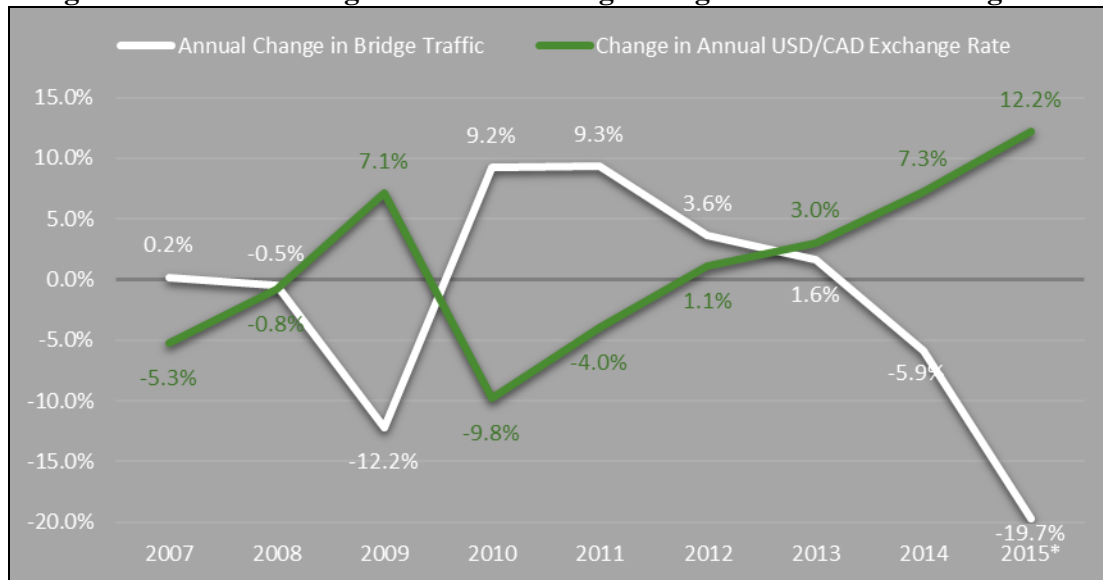
## **SUMMARY**

According to IBA monthly crossing statistics, the International Bridge traffic reached a 25-year low in 2009 with under 1.7 million vehicles crossing the bridge. As the economy improved, more people began traveling and in 2013 the bridge saw its highest figures in over 10 years at around 2.1 million vehicles. Since then, figures are still declining and, if the PBOA reported growth rate from January through April continues for the rest of 2015, annual traffic will fall below 2009 levels.

The decline in bridge traffic in recent years has occurred alongside a reduction in population growth in the source locations of most bridge traffic; both Algoma District in Ontario and Chippewa County in Michigan experienced negative population growth in recent years. Much of the border crossing traffic depends on the exchange rate of the Canadian and United States currencies. The Canadian dollar has experienced a decrease in purchasing power of 12 percent between May 2014 and May 2015.

As seen in Figure 2, the U.S. dollar was strongest relative to the Canadian dollar in 2009 when bridge traffic was at a 25-year low. As the U.S. dollar weakened relative to the Canadian dollar in 2010 and 2011, the bridge experienced positive growth in traffic figures. As the U.S. dollar gained strength against the Canadian dollar, bridge traffic began to grow at a slower rate. In 2014, when the exchange rate went above 2010 levels, bridge traffic experienced negative growth. The huge decrease in bridge traffic from January through April 2015 was met by a large gain in relative strength for the U.S. dollar over the Canadian dollar.

**Figure 2: Percent Change in Annual Average Bridge Traffic and Exchange Rate**



Bridge traffic data from [IBA montly crossing statistics](#), Exchange rate data from [Bank of Canada](#) \*2015 estimate based on January to April

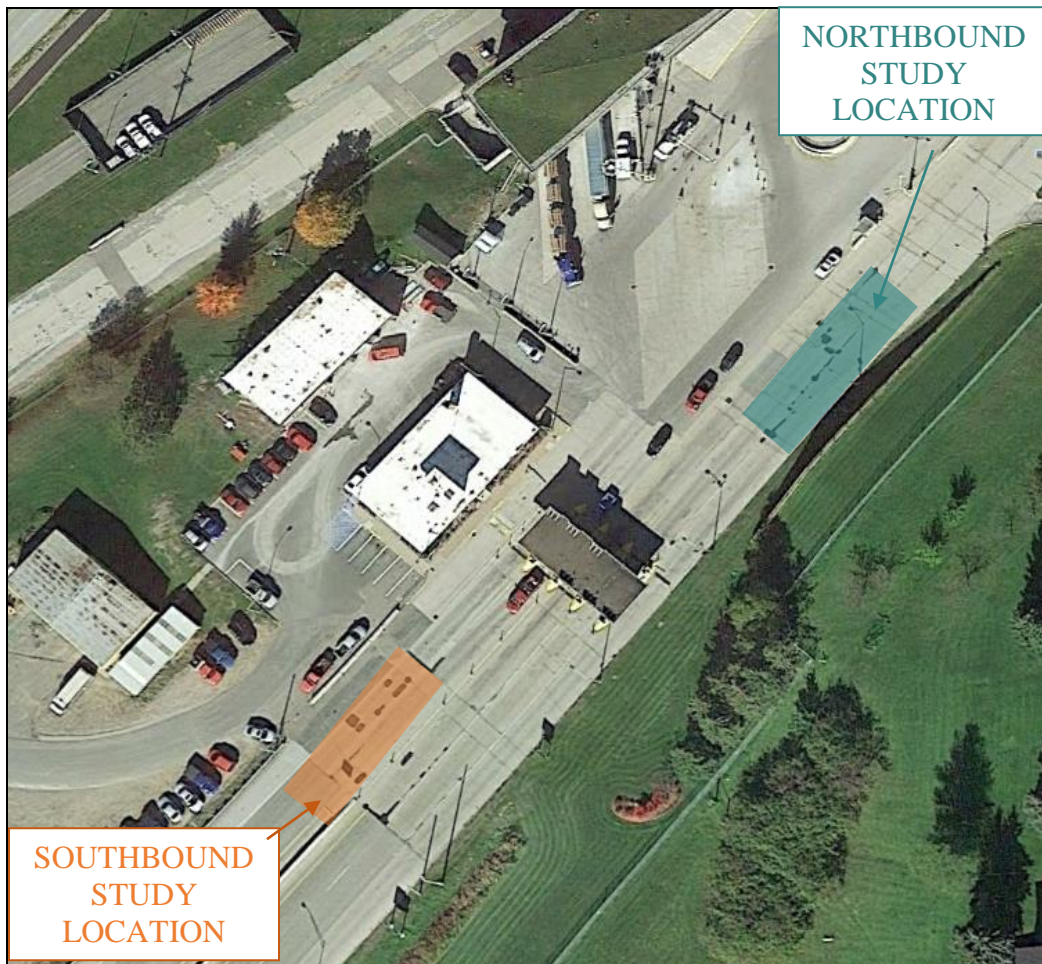
This O&D study seeks to identify travel patterns which can help the IBA determine potential explanations of changes in bridge traffic. The survey responses indicate that passengers crossing the International Bridge are primarily Canadian residents shopping in the United States. Travel behavior of shopping trips is particularly susceptible to changes in the exchange rate. O&D studies provide beneficial travel statistics which enable MDOT transportation planners to discern the types of traffic crossing the border. The figures and maps in this report provide a better understanding of vehicle movement characteristics. Trip records garnered from this study are beneficial to validation of the MDOT travel demand forecasting models, which are used to portray future traffic volumes and provide statistics to transportation planners and the public. MDOT hopes to return to the International Bridge on a more regular basis to analyze seasonal changes in traffic patterns. Conducting surveys on a consistent basis would provide a more accurate explanation for observed changes in traffic flows and would allow for a more definitive relationship between survey responses and observed fluctuations in socioeconomic conditions.

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## **APPENDIX**



## Satellite Image from Google Earth of the International Bridge Study Location



Due to two year Toll Plaza construction project beginning in 2014, actual placement of toll booths was slightly different

## Expansion Calculation

Passenger Vehicles		AM (6am-9am)			MID-DAY (9am-3pm)			PM (3pm-8pm)			Study Hours Bridge Counts	Non- Study Bridge Count	24-Hour Count	Total Interview Counts	Non-Study Hours Expansion Factor
Study	Direction	Interview	Bridge	Expansion Factor	Interview	Bridge	Expansion Factor	Interview	Bridge	Expansion Factor					
Sault Ste Marie	Northbound	94	117	1.245	495	739	1.493	299	861	2.880	1717	415	2132	888	0.467
	Southbound	154	240	1.558	626	767	1.225	535	678	1.267	1685	147	1832	1315	0.112
Commercial Vehicles		AM (6am-9am)			MID-DAY (9am-3pm)			PM (3pm-8pm)			Study Hours Bridge Counts	Non- Study Bridge Count	24-Hour Count	Total Interview Counts	Non-Study Hours Expansion Factor
Study	Direction	Interview	Bridge	Expansion Factor	Interview	Bridge	Expansion Factor	Interview	Bridge	Expansion Factor					
Sault Ste Marie	Northbound	19	27	1.421	37	71	1.919	16	51	3.188	149	37	186	72	0.514
	Southbound	14	18	1.286	46	64	1.391	36	65	1.806	147	27	174	96	0.281

MDOT 1757 (02/15)

**SINGLE STATION O-D STUDY**

COUNTY NUMBER		STATEWIDE NUMBER		HOUR PERIOD ENDING		DIRECTION		DAY OF TRAVEL		MO.		DATE		INTERVIEWER'S NAME	
2 3		4 5 6 7		8 9		10		11		12 13		14 15			

Interview Number	Veh. Type	Occupants	ORIGIN 1. Coming from now 2. Originally			Purpose	DESTINATION 3. Going to now 4. Final location			Purpose	Frequency	VEHICLE LICENSE (State)	HOME IF NOT 1-4	COMMODITY (LOAD) WEIGHT LBS	
			City.	Twp.	County		City.	Twp.	County						
			1)				3)						5)		1 3
			2)				4)								2 4
			1)				3)						5)		1 3
			2)				4)								2 4
			1)				3)						5)		1 3
			2)				4)								2 4
			1)				3)						5)		1 3
			2)				4)								2 4

**VEHICLE TYPE**

1. Auto/Van/Pickup/Sport Utility
2. Auto/Van/Pickup/Sport Utility with Trailer
3. Motorcycle
4. Motorhome/RV
5. Single Unit Trucks
6. Semi Trucks
7. Multiple Trailer
8. Buses
9. Others

**PURPOSE**

1. Home
2. Work-primary
3. Work-related
4. Elem. Sec. school
5. College/University
6. Personal business
7. Shop frequently
8. Shop infrequently
9. Dining out
10. Service passenger
11. Social visit
12. Outdoor recreation
13. Indoor/event recreation
14. Recreational driving
15. Cottage, motel, bed & breakfast

**FREQUENCY**

1. Daily
2. Weekly
3. Monthly
4. 4 X a year
5. 2 X a year
6. Once a year
7. One time only
8. refused

**NEXUS CARD - NO**

1. Cost
2. Difficult/Confusing application process
3. Limited International travel usability
4. Lack of dedicated traffic lanes/Limited available NEXUS booths
5. Unaware of program
6. No reason / other
1. Exchange rate
2. Backup & delay
3. U.S. customs
4. Canada customs
5. New passport
6. Employment/income change
7. Other

**TRAVEL**