

Intercity Bus and Passenger Rail Study



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Prepared for the Michigan Department of Transportation

July 2009
(Revised December 2009)

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This report was prepared under the sponsorship of the Michigan Department of Transportation (Contract Number 2007-0315). It represents results of research carried out by the author and does not necessarily represent the views of the sponsoring agency or the University of Michigan.

Acknowledgements

This work was performed under the sponsorship of the Michigan Department of Transportation (MDOT), Bureau of Transportation Planning, Intermodal Policy Division. The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the data analysis. The author thanks Kathy Hundt for much assistance in her role as project manager, and also Regina Johnson for administering the data collection. Thanks to research assistants Chuang-Chung Hu and Mari Weitz for their contributions to this work.

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1 Introduction and Summary

Seeking a more comprehensive understanding of issues involving the use of intercity bus and rail passengers, the Michigan Department of Transportation (MDOT) conducts surveys of travelers at approximately five year intervals. The aim is to better define factors such as trip origin and destination, purpose and quality, as well as perceptions of these issues. The surveys include rail passengers from all three Amtrak corridors (Figure 1) and most routes served by Greyhound and Indian Trails (Figure 2).

Using information on passenger demographics and use patterns, as well as service characteristics, this study evaluates survey responses to better:

- Identify patterns in travel behavior.
- Identify trends by comparison to previous surveys.
- Compare and contrast the use of the intercity bus and rail modes.

The goal of this study is to provide high quality information so that MDOT and its governmental agency partners can work with service providers and communities to maximize the benefits of intercity passenger service to Michigan citizens, businesses, and visitors.

Amtrak Thruway Motorcoach Connections (Thruway) services are provided by commercial operators under contract to the National Rail Passenger Corporation. In Michigan these services are provided by multiple operators. Thruway respondents were provided a survey questionnaire designed for bus passengers, and they were included with bus passengers in the analysis. This may skew the profile of bus passengers and the results should be interpreted with this in mind.

A Sample of Findings

Bus passengers are more captive to the service while rail passengers tend to have more discretion in their decision to use intercity public transportation, a distinction that is reflected in the way passengers used services:

- Cost was the most important factor cited by bus respondents in the decision to use intercity bus services, and nearly one in four respondents indicated that they had no transportation options other than intercity bus.
- Among rail respondents, having a train that meets one's scheduling needs and experiencing comfort while traveling were rated higher than cost in the decision to use rail services.
- Rail respondents were more likely to travel for vacation than bus respondents.

- Responding rail passengers were less likely to have made repeat use of intercity services than bus respondents.
- Rail respondents were somewhat more likely to choose driving or flying as an alternative mode of transportation.
- When considering alternative services, rail respondents did not rate intercity bus highly as a possible option if rail services were not available, while bus respondents rated intercity passenger rail much more favorably as an alternative to bus services.

The most important service improvements expressed by survey respondents include:

- Rail respondents indicated a strong desire for improved on-time arrivals, which emerged as the single most important factor identified by the survey questions and by written comments.
- For bus respondents, the most important service improvement was to shorten the duration and reduce the frequency of layovers, a finding supported by both the survey questions and written comments.



Figure 1. Amtrak Routes and Stations in Michigan



Figure 2. Bus Routes and Stations in Michigan

2 Method

This section provides a summary of the method used by the Michigan Department of Transportation (MDOT) used to carry out the intercity rail and bus passenger surveys this study analyzes.

2.1 Rail Passenger Survey Method

Passengers on all Michigan rail services were surveyed. Those using the Blue Water and Pere Marquette (Trains 364, 365, 370 and 371) were surveyed Thursday, April 12 and Friday, April 13, 2007. Those using the Wolverine (Trains 350, 351, 352, 353, 354 and 355) were surveyed Thursday, March 22, Friday, March 23, Thursday, April 12 and Friday, April 13, 2007. Fridays were considered a weekend day for purposes of this survey. This led to a disproportionate number of surveys from the Wolverine service. Each adult passenger received a survey after they were settled in their seat. All 2,513 surveys collected were used in the analysis.

The method used for a survey in 2000 varied from this effort in the following ways:

- It was done in December instead of March and April.
- All services were surveyed over a four day period, though passengers on Blue Water and Pere Marquette trains were surveyed once in each direction over two days.
- It yielded 237 fewer responses.

2.2 Bus Passenger Survey Method

Passengers on all Michigan bus services were surveyed. Those using Indian Trails were surveyed Thursday, March 29 through Saturday, March 31, 2007, Wednesday, April 4, Thursday April 5 and Wednesday April 11 through Friday April 13, 2007. Those using the Greyhound were surveyed Wednesday, April 4, Thursday April 5, and Wednesday April 11 through Friday April 13, 2007. Those using Metrocars were surveyed Wednesday, April 4 and Thursday April 5, 2007. Each adult passenger received a survey after they were settled in their seat.

Of 693 surveys collected, four were deemed unusable for lack of reliable information. Of the 689 surveys, 455 came from Indian Trails passengers, 194 from Greyhound and 40 from those using Metrocars.

Amtrak Thruway Motorcoach Connections (Thruway) respondents were given a survey designed for bus passengers and they were considered as bus passengers in the analysis.

Amtrak contracts with a company called Metrocars to provide bus service between East Lansing and Toledo, with stops at Ann Arbor, Dearborn, and Detroit. These passengers were provided surveys designed for bus passengers and were therefore analyzed as bus passengers.

The method used for a survey in 2000 varied from this effort in the following ways:

- It was done in June and July instead of March and April.
- A substantially larger number of questions were asked.
- It yielded 671 more responses.

2.3 Trip Terminology

In order to consistently identify different aspects of a passenger's bus or rail journey, the following terms were used:

- **Origin:** The city or county location at which the person began the trip for which they are being surveyed.
- **Boarding Station:** The bus or rail station at which a respondent first boarded their bus or rail service.
- **Alighting Station:** The bus or rail station at which a respondent will leave their bus or rail service.
- **Destination:** The city or county location at which the person will end the trip for which they are being surveyed.
- **Trip Purpose:** The reason the person made the trip from their home to another location.

3 Rail Passenger Analysis

This chapter analyzes the survey data collected from rail passengers using Amtrak's Blue Water, Pere Marquette, and Wolverine services. The chapter is divided into sections that detail demographics, usage, and service characteristic patterns. The analysis also contrasts the results of the 2007 survey to that conducted in 2000 where data items in the two surveys are comparable.¹

3.1 Rail Passenger Demographics

Household Income

Rail passenger respondents reported household incomes at the higher end of the range. As shown in Figure 3, 27 percent of responding rail passengers had household incomes over \$100,000. About three out of five respondents came from households with incomes over \$50,000. Despite this, over eleven percent of respondents came from households with an income below \$10,000.

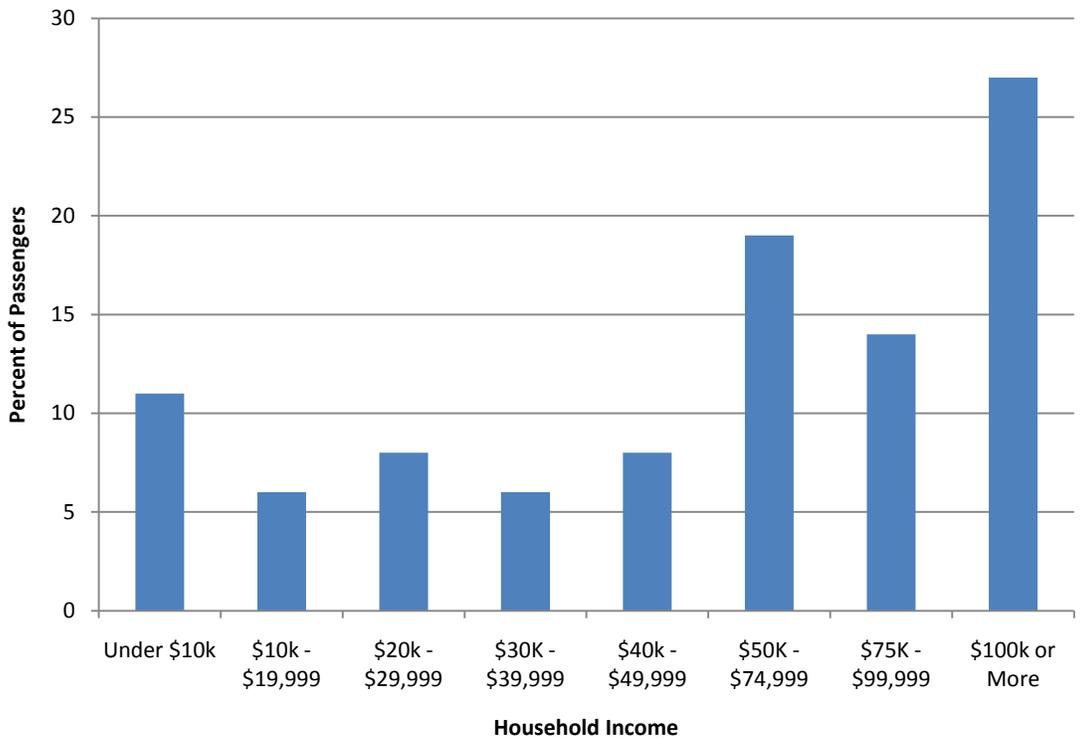


Figure 3. Household Income Distribution, Rail Passengers

¹ The 2000 survey was conducted while international service was in place. Between 2000 and 2007, the Chicago-Toronto International service was replaced with the Chicago-Port Huron Blue Water service.

Figure 4 indicates that rail survey respondents tend to come from households with high incomes across all three rail lines. The Wolverine line has the highest share of passengers in the highest income level: over 30 percent of Wolverine passengers report incomes of \$100,000 or more. The Blue Water line has the highest share of passengers with household incomes less than \$10,000, with 17 percent of passengers reporting this income level.

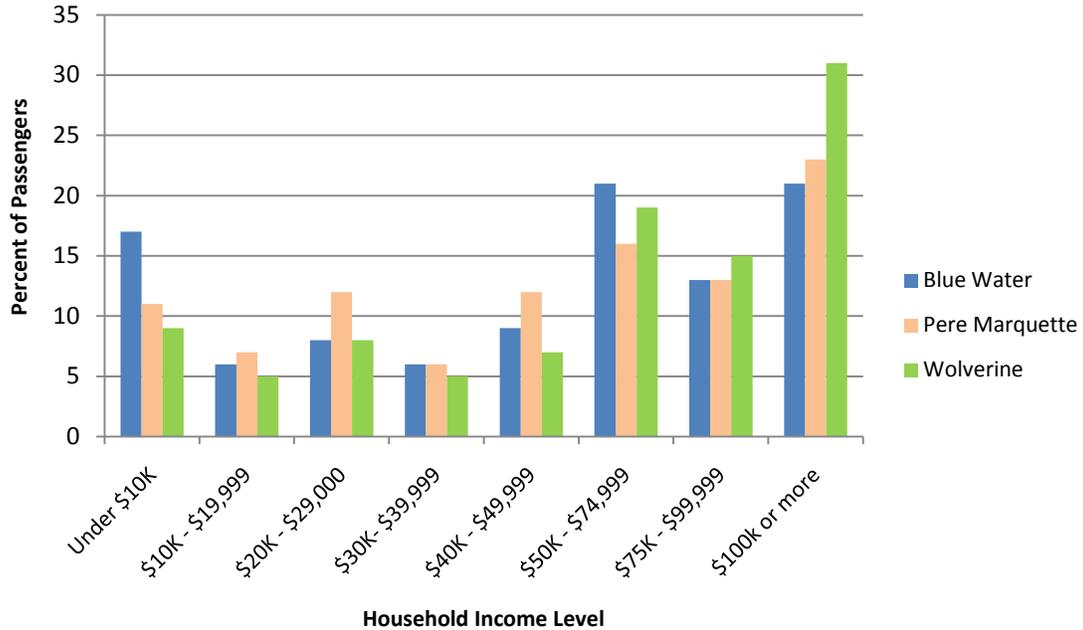


Figure 4. Household Income by Rail Service, Rail Passengers

The household income distribution among rail passengers has remained largely the same since the last passenger survey was conducted. In 2000, about 57 percent of rail passengers came from households with incomes over \$50,000, compared to 61 percent of passengers in 2007. Despite the general similarities over time in rail passengers' household income distribution, a slightly larger share of rail passengers came from low-income households in 2007. In 2000, eight percent of passengers were from households with incomes under \$10,000, while in 2007, more than 11 percent of passengers came from such households.

Vehicle Ownership

As Figure 5 shows, 27 percent of responding rail passengers came from a household with three or more cars, and 13 percent came from a household with no cars. To put this in perspective, 20 percent of all households in Michigan had three or more cars, and only 6.8 percent had no cars in 2007.² So rail respondents show a higher share than the statewide population at both ends of the distribution shown in the figure: they are more likely to come from a household with three or more cars, but also more likely to come from a household with no car.

Because a substantial share of passengers surveyed come from Chicago, where car ownership rates tend to be lower than for Michigan residents, we examined vehicle ownership among those passengers who reside in Michigan. Figure 6 reveals that when non-Michigan residents are taken out of the sample, the share of respondents with no vehicle in the household drops to about nine percent.

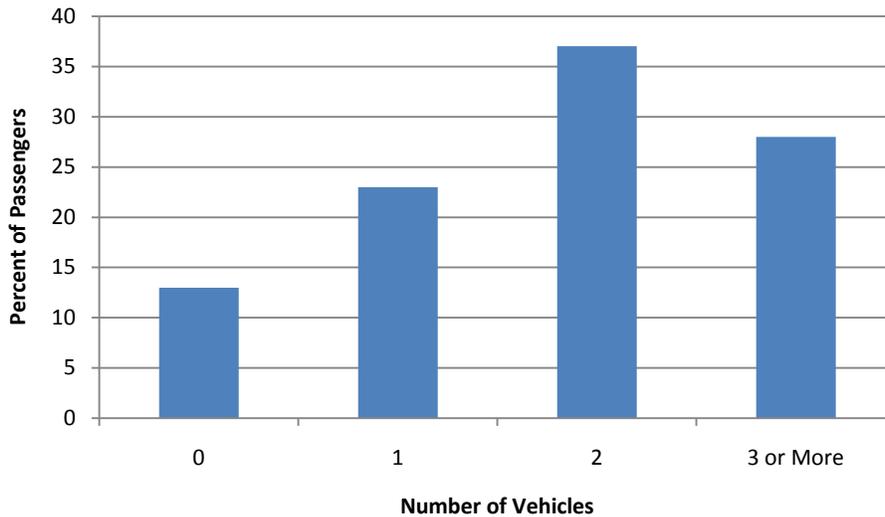


Figure 5. Number of Vehicles per Household, Rail Passengers

² U.S. Bureau of the Census. (2009). 2007 American Community Survey 1-Year Estimates, Michigan, from American FactFinder at <http://factfinder.census.gov/home/saff/main.html?_lang=en>.

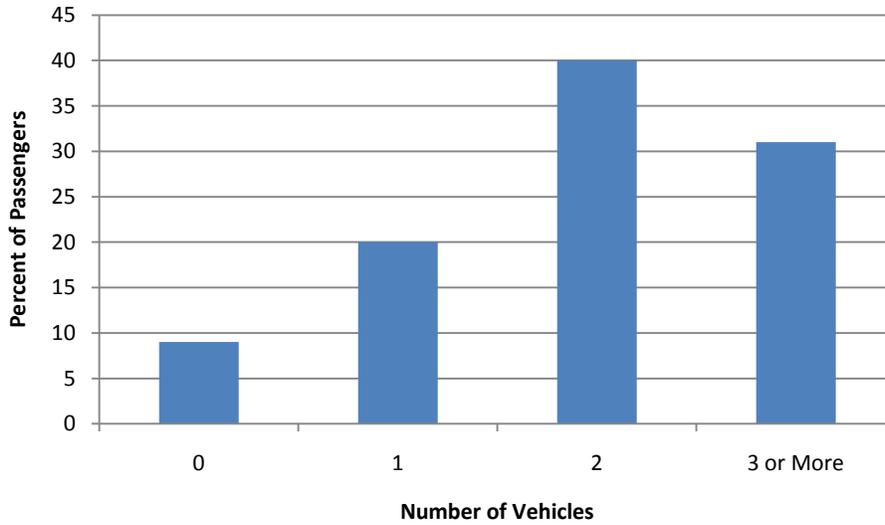


Figure 6. Number of Vehicles per Household in Michigan, Rail Passengers

In comparing how vehicle ownership has changed among rail passengers since the last survey was conducted, the data indicate virtually no change between 2000 and 2007. In 2000, about 25 percent of passengers were from households with one vehicle (compared to 23 in 2007), and about 68 percent of passengers were from households with more than one vehicle (compared to 65 percent in 2007).

Passengers by Gender ³

On all rail lines the majority of passengers are women, with women making up 61 percent of the responding rail passengers. Figure 7 demonstrates that women make up a larger share of rail passengers than men across all age groups. The relative share of women and men is fairly consistent across age groups, with the exception of the youngest category: Between ages 12 and 17 years, rail passengers are nearly twice as likely to be female.

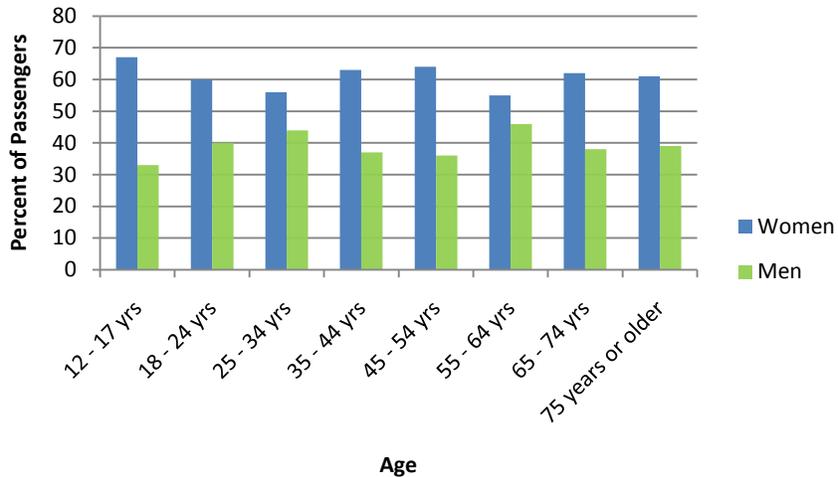


Figure 7. Gender by Age Group, Rail Passengers

The data indicate no change between the surveys conducted in 2000 and 2007. Like in 2007, women passengers were the majority of rail passengers in 2000, constituting 63 percent of responding rail passengers. The distribution of women across age groups in 2000 was also similar to the distribution in 2007.

³ The report uses the term “gender” in place of “sex” to be consistent with MDOT surveys.

Place of Residence

Because the surveys were conducted in Michigan, it is not surprising that the vast majority of respondents reported residing within the state. As reported in Table 1, about 78 percent of responding passengers reported a Michigan residence. However, rail routes cross state lines and about 18 percent of survey respondents reported an Illinois residence. As Michigan rail services are centered on Chicago and the connections it provides throughout the Midwest, this is not surprising. Figure 8 provides a visual depiction of the geographic spread of residences among rail passengers, showing wide dispersion across the region, but a clustering around major urban centers.

Table 1. States of Residence, Rail Passengers

State of Residence	Percent of Passengers
Michigan	77.5
Illinois	18.2
Rest of US/Outside of US	5.3
Wisconsin	1.3
Indiana	1.2

Note: Based on observed data during the survey time frame.

Table 2 shows that of respondents reporting a Michigan residence, slightly more than thirty percent reside in five communities: Ann Arbor (11.9 percent), Kalamazoo (8.2 percent), Grand Rapids (4.3 percent), East Lansing (3.4 percent) and Detroit (3.1 percent).

Table 2. Passengers Residing in Michigan Cities, Rail Passengers

City of Residence	Percent of Passengers
Ann Arbor	11.9
Kalamazoo	8.2
Grand Rapids	4.3
East Lansing	3.4
Detroit	3.1
Remaining Michigan Cities	69.1

Note: Based on observed data during the survey time frame.

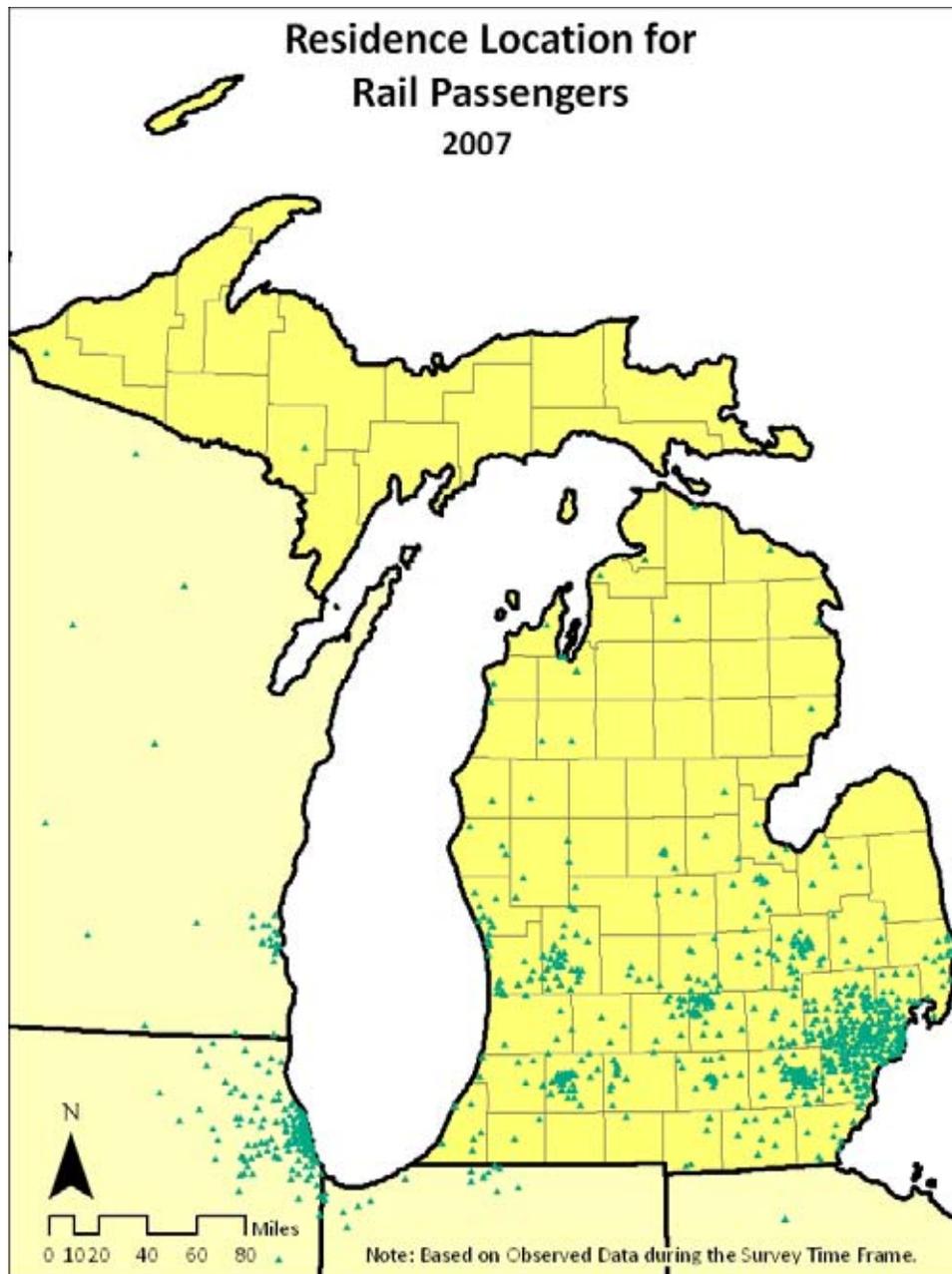


Figure 8. Location of Residence, Rail Passengers

Comparing the results to the previous survey of 2000, the data show little variation over time. In 2000, 74 percent of passengers resided in Michigan (compared to 77 percent in 2007) and 13 percent resided in Illinois (compared to 18 percent in 2007). The share of passengers living in Canada changed between 2000 and 2007: Four percent of riders in 2000 lived in Ontario, while only one half of one percent of passengers in 2007 lived in Ontario. This may be explained by the replacement of the Chicago-Toronto International service with the Chicago-Port Huron Blue Water service.

Age

Younger passengers are slightly more likely to ride passenger trains than older passengers. As shown in Figure 9, one out of three responding passengers was under the age of 25, and a little more than half of all passengers were under the age of 35. Older passengers are disproportionately underrepresented: Only about seven percent of responding passengers were 65 years or older.

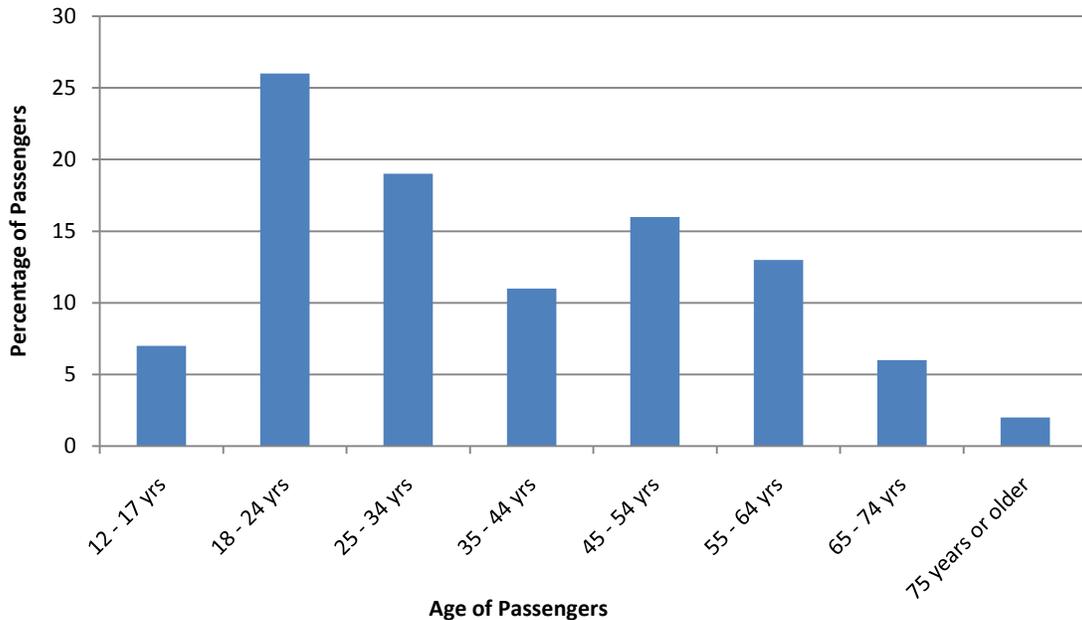


Figure 9. Age Distribution, Rail Passengers

Employment Status

The survey questionnaire asked about employment status using the categories listed in Figure 10. Only four percent of responding passengers reported being unemployed, while 11 percent reported being retired. A substantial share of respondents identified themselves as students, with 14 percent as college students and nine percent as students that are not in college.

To further investigate employment status, we cross-tabulated it with age, as shown in Table 3. The table shows that, as expected, the majority of people under the age of 25 were students, and the overwhelming majority of people over 65 were retired.

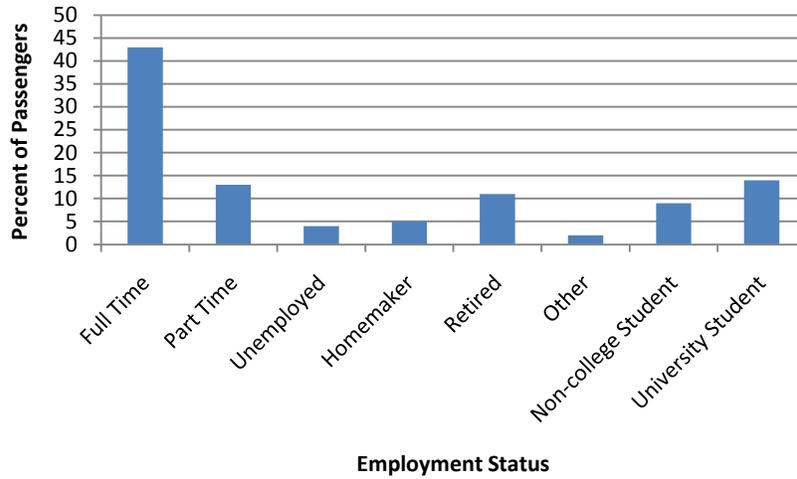


Figure 10. Employment Status, Rail Passengers

Table 3. Employment Status of Rail Passengers by Age

Employment Status	Age (Years)							
	12-17 (%)	18-24 (%)	25-34 (%)	35-44 (%)	45-54 (%)	55-64 (%)	65-74 (%)	75 and over (%)
Full Time	2.4	18.0	71.1	65.2	66.1	48.1	11.6	1.7
Part Time	11.4	20.7	6.7	10.4	15.0	10.7	8.0	1.7
Unemployed	6.0	4.3	3.0	4.3	3.7	2.3	0.7	1.7
Homemaker	0.6	0.8	3.3	14.7	7.0	6.5	7.2	8.6
Retired	1.8	0.0	0.4	0.4	4.2	29.5	71.7	81.0
Other	1.8	1.2	1.5	3.6	2.7	2.6	0.0	3.4
Student	74.7	9.2	5.2	0.4	0.7	0.0	0.0	1.7
University/College	1.2	45.8	8.7	1.1	0.5	0.3	0.7	0.0
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Household Size

The average household size of responding rail passengers was 2.9 people per household. Figure 11 illustrates the distribution of household size among rail passengers, showing that by far the most passengers come from two-person households, at about 32 percent of rail passengers.

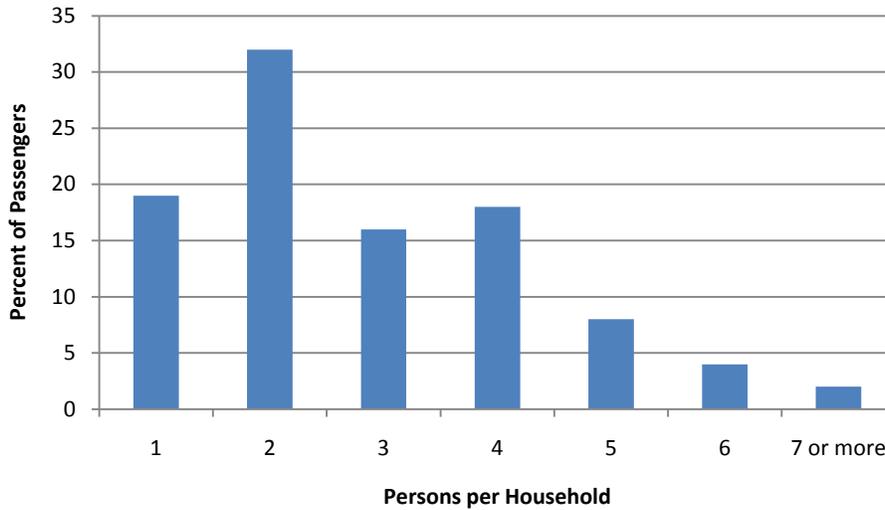


Figure 11. Household Size, Rail Passengers

Location Prior to Boarding Station

As Table 4 shows, 54 percent of survey respondents arrived at the station to board their train from their home. Other significant points of origin were vacation locations, educational institutions, and the homes of friends and relatives.

Table 4. Location before Coming to Train Station, Rail Passengers

Location	Percent of Passengers
Home	54.0
Vacation	10.5
University/College	10.3
Visit Friends/Relatives	8.8
Place of Work	6.7
Work-related Activity	4.4
Personal Business	1.4
School (Other than College)	1.3
Other	1.2
Shopping	0.9
Entertainment	0.4

3.2 Rail Service Use

Counties of Trip Origin

Figure 12 illustrates the geographic distribution of responding passengers based on their county of origin. The top five counties in the number of originating trips are: Cook (IL), Washtenaw, Oakland, Wayne, and Kalamazoo.

Between 2000 and 2007, rail trip origins shifted slightly. In 2000, the top five counties of origin in order of most trips produced were Cook (IL), Wayne, Kalamazoo, Kent and Washtenaw (compared in 2007 to Cook (IL), Washtenaw, Oakland, Wayne, and Kalamazoo). In 2000, 15 percent of rail passengers originated from Cook County, but by 2007, just 11 percent of trips originated in Cook.

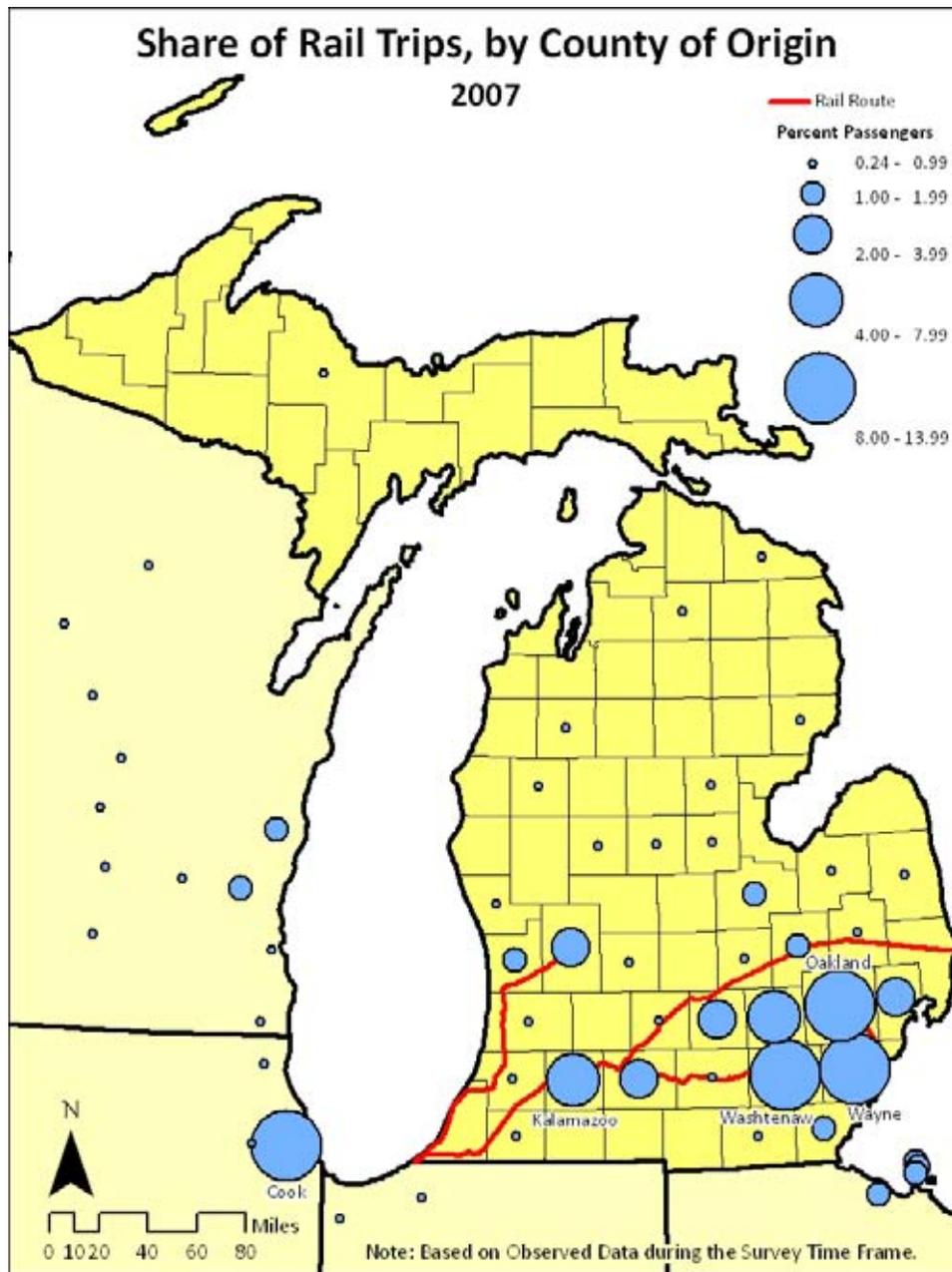


Figure 12. Counties of Rail Trip Origin

Counties of Trip Destination

Figure 13 shows that the majority of responding passengers were traveling from points in Michigan to Illinois, with 55 percent of respondents ending their trip in Cook County. The top destinations in Michigan include Oakland, Washtenaw, Ingham and Wayne Counties.

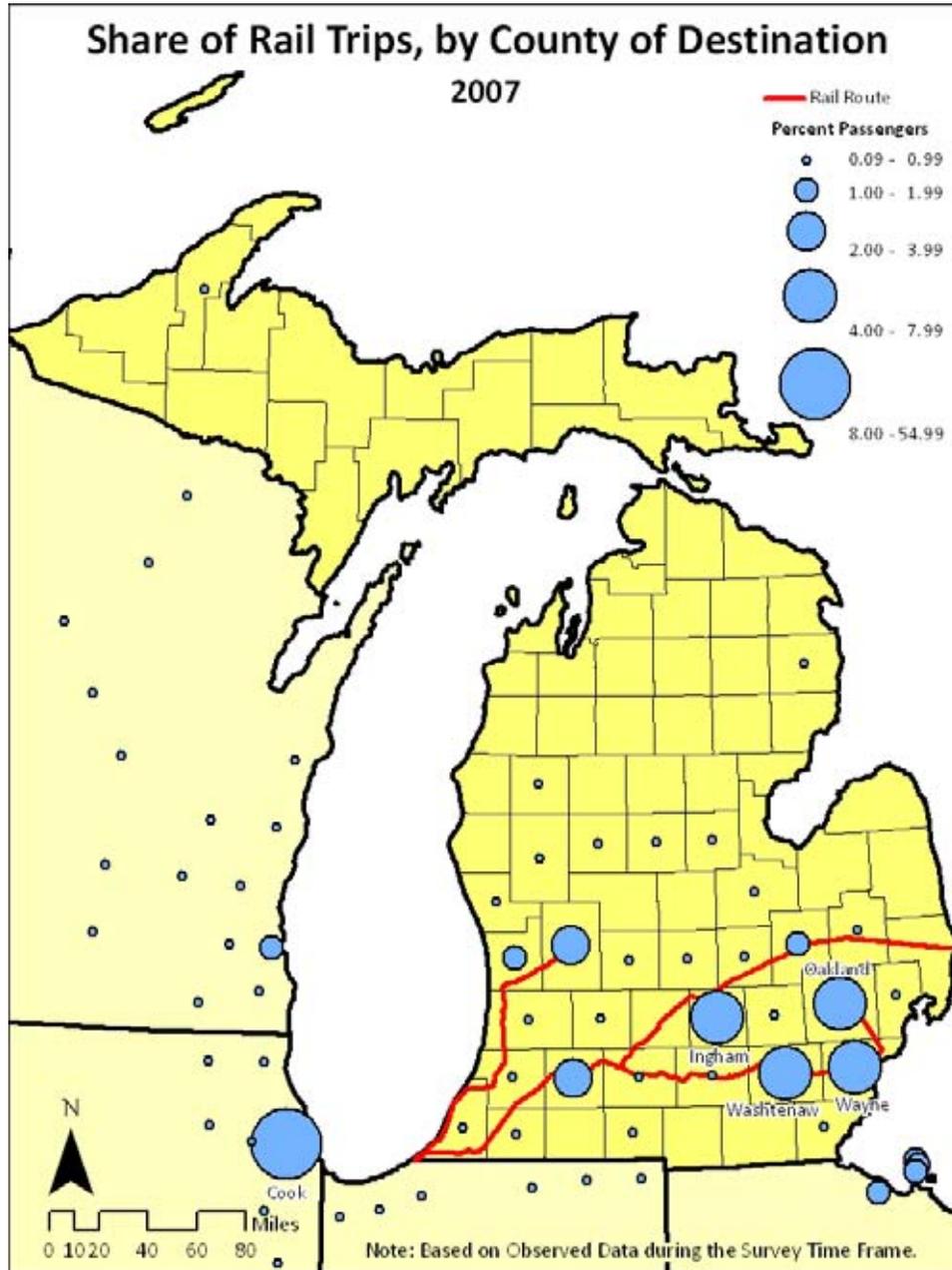


Figure 13. Counties of Rail Trip Destination

Cook County has remained the most common destination for passengers over time. In 2000, 60 percent of passengers were traveling to Cook County; in 2007, this number decreased only slightly to 55 percent. Over this time period, the percent of passengers traveling to Oakland County increased from two percent to six percent of responding rail passengers. Kalamazoo County decreased in its share of respondent destinations from 2000 to 2007, dropping from the second to the seventh most common destination county among responding rail passengers.

Distribution of Trip Origin Counties

Figures 14 through 18 display the origins of trips to the five top destination counties: Cook, IL, Oakland, Washtenaw, Wayne and Ingham. For example, Figure 14 shows the share of responding passengers who traveled to Cook County by their county of origin. The map shows that the vast majority of passengers who traveled to Cook County originated in the counties of Southeast Michigan. Other counties with large shares of trips to Cook County included Ingham, Genesee, and Kent. Figure 15 shows that responding passengers who traveled to Oakland County came primarily from Cook and Kalamazoo counties. Passengers who traveled to Washtenaw and Wayne (Figure 16 and Figure 17), by contrast, came primarily from origins along the Wolverine route, an expected result because Washtenaw and Wayne are situated at the end of the route. Responding passengers who traveled to Ingham (Figure 18) came primarily from Cook and Kalamazoo counties.

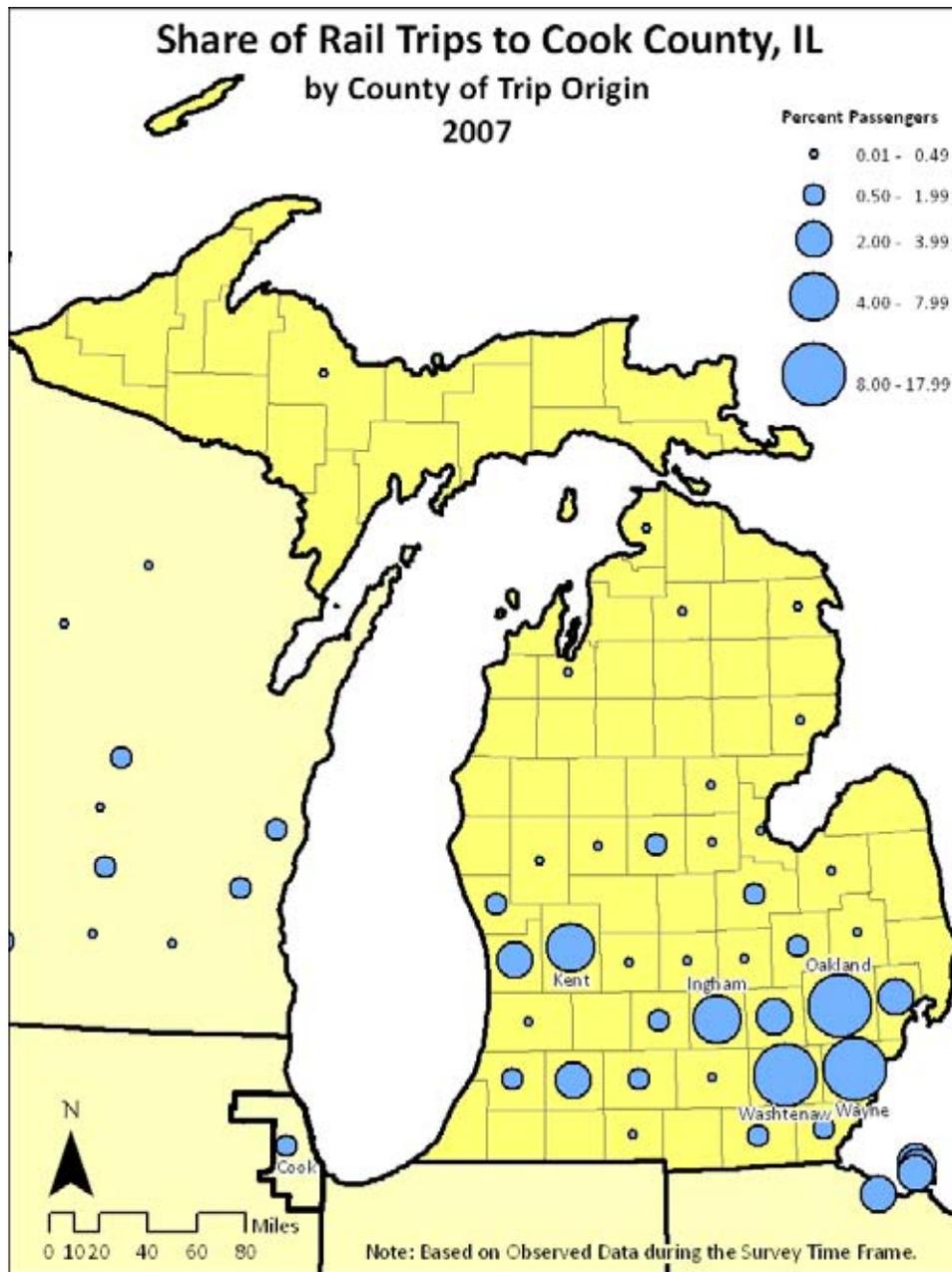


Figure 14. Rail Trip Distribution of Cook County

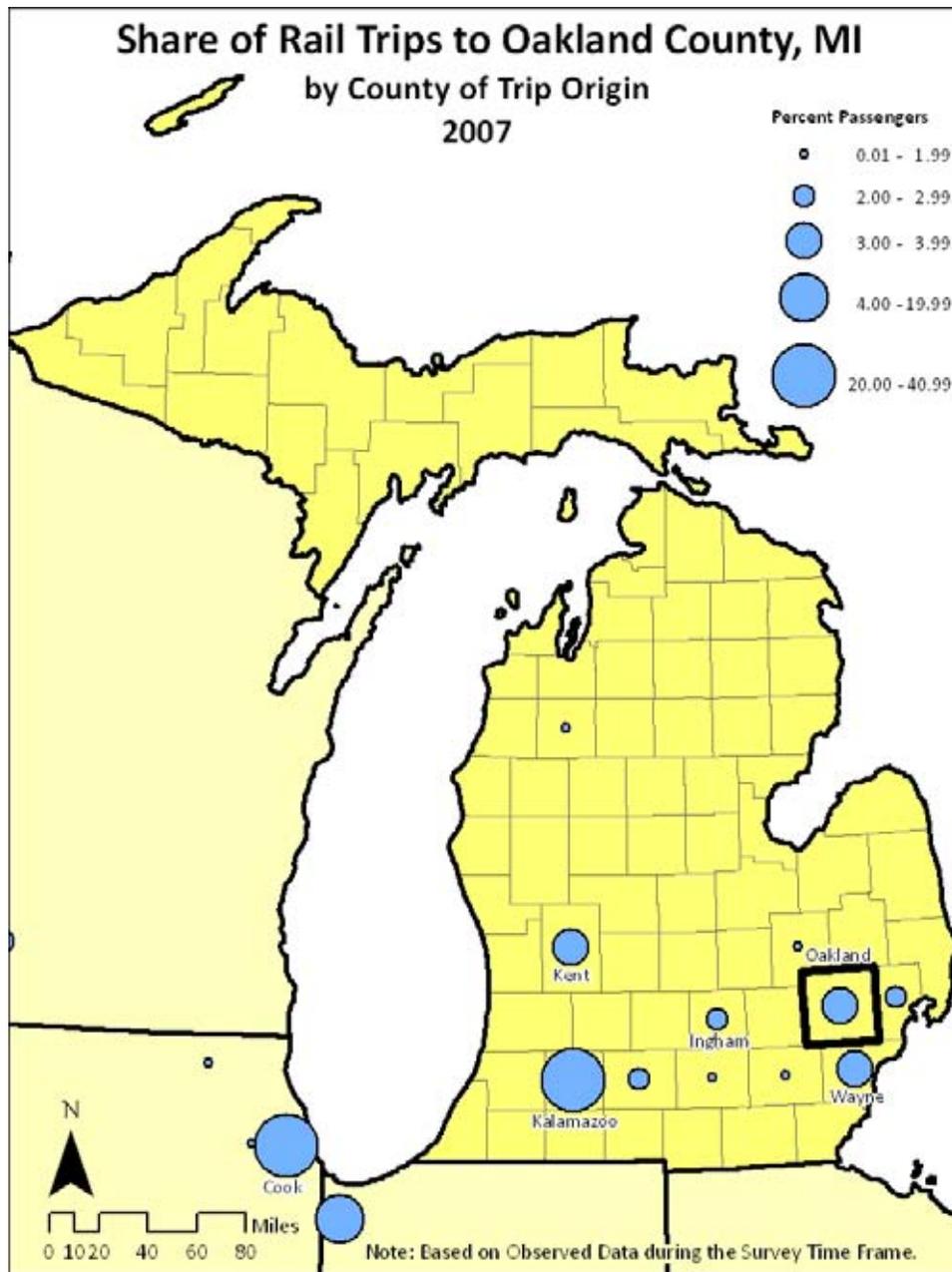


Figure 15. Rail Trip Distribution of Oakland County

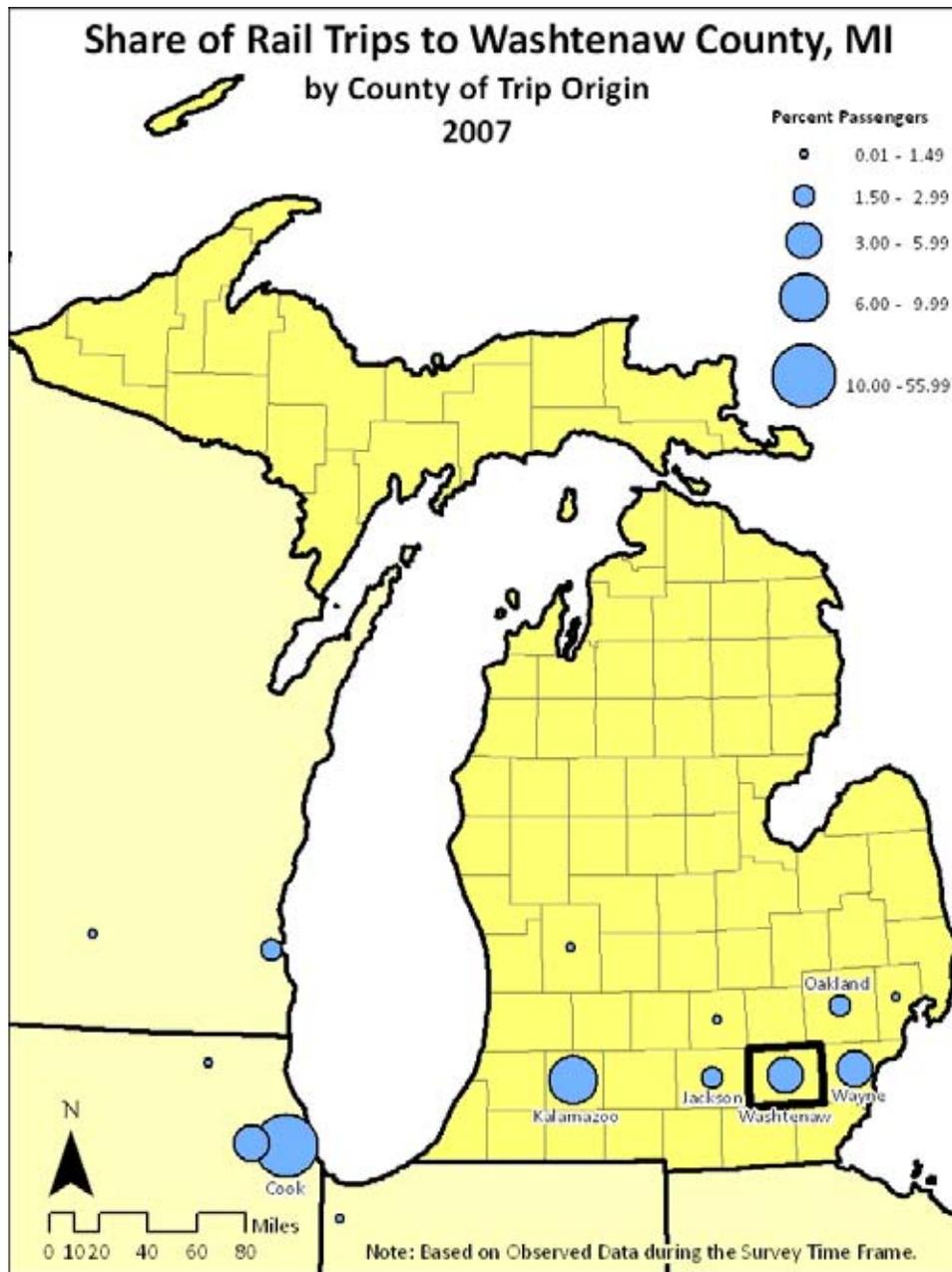


Figure 16. Rail Trip Distribution of Washtenaw County

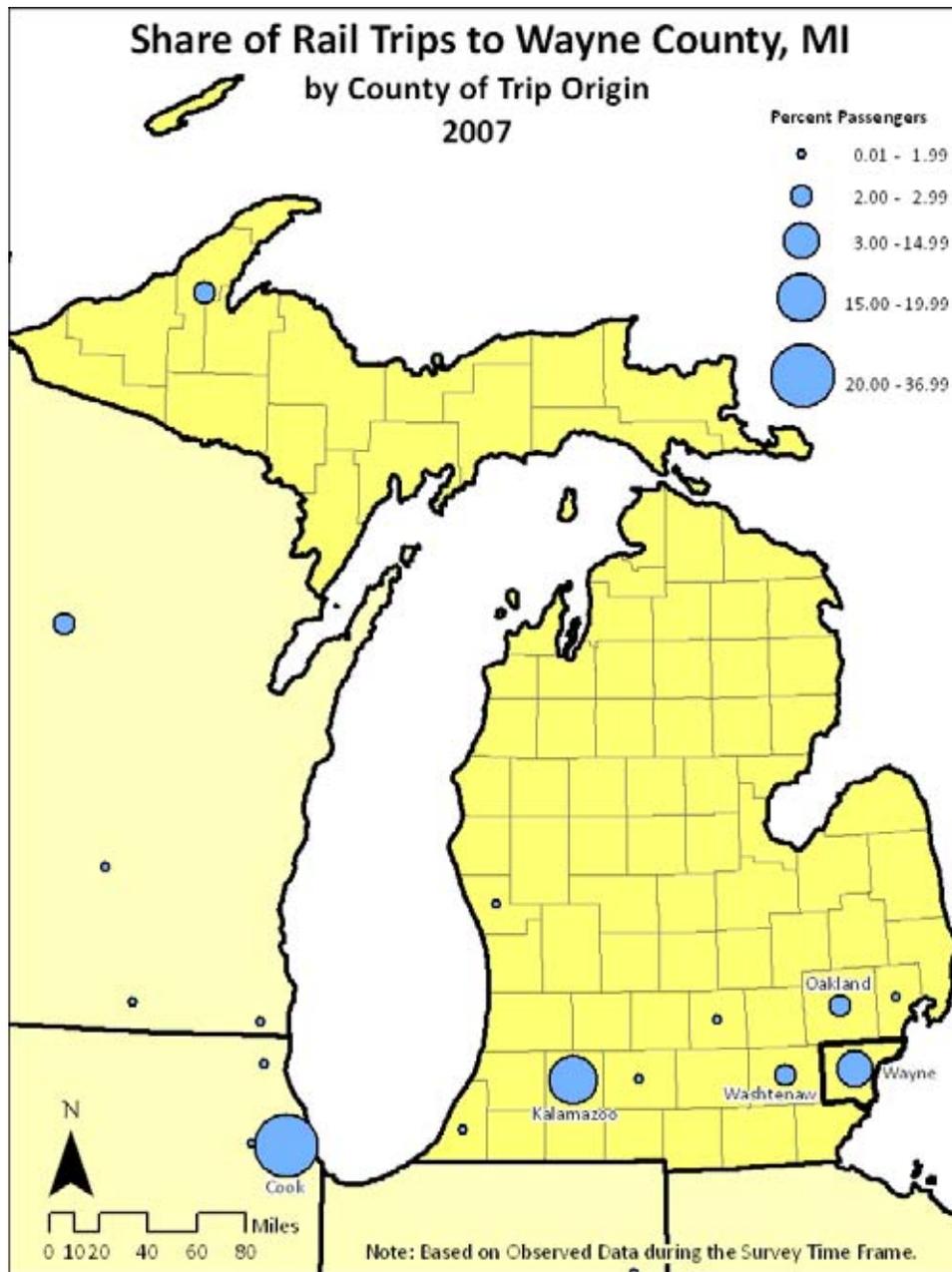


Figure 17. Rail Trip Distribution of Wayne County

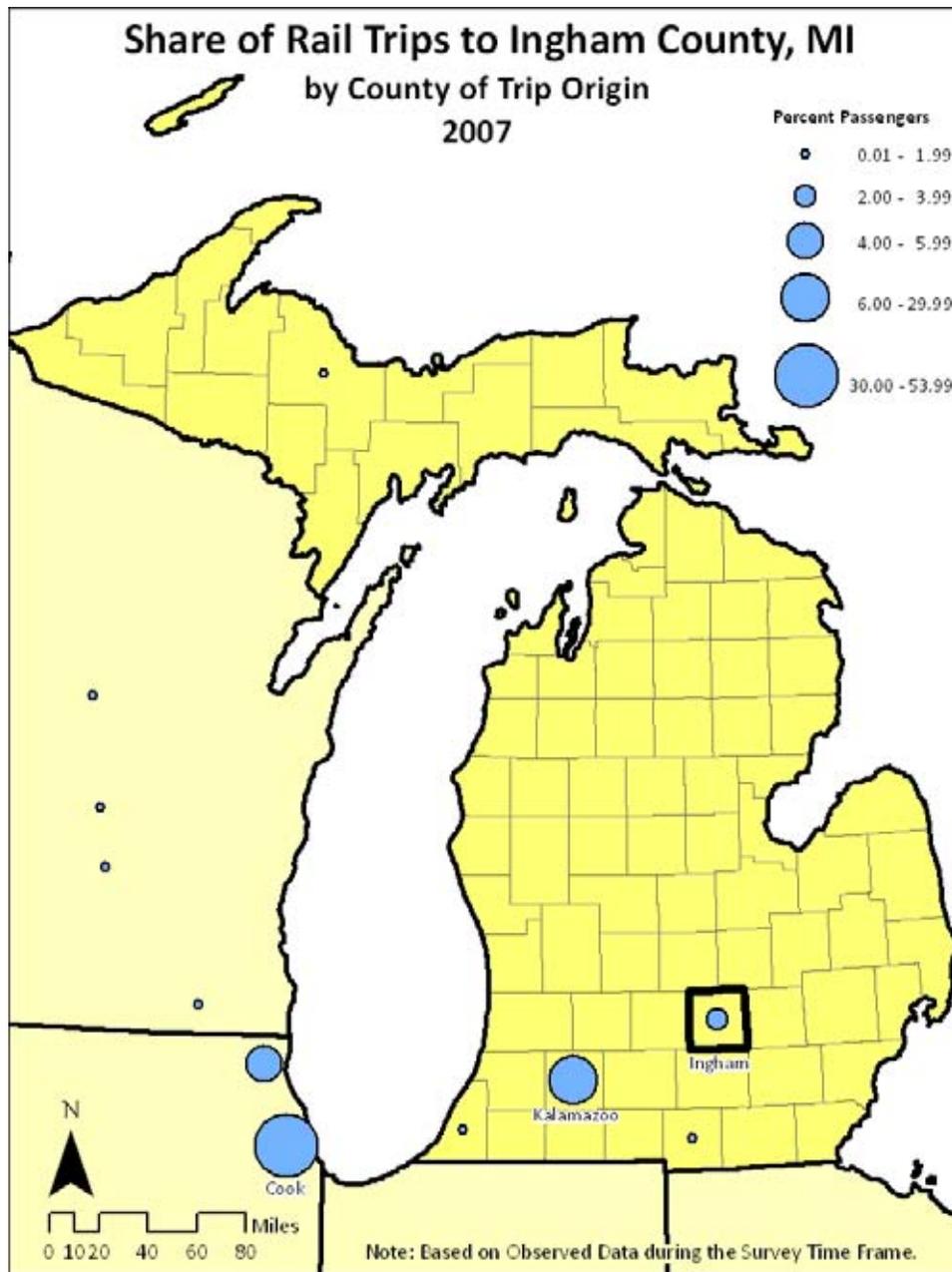


Figure 18. Rail Trip Distribution of Ingham County

Purpose of Trip

As seen in Figure 19, almost 40 percent of responding passengers reported the reason for their trip was to visit friends and family, making this the most commonly cited reason. Vacation was the second most frequent response given by passengers, at 26 percent.

Comparing the three rail routes reveals little difference in the cited reasons for travel. Table 5 shows that on each rail route, visiting friends and family is the most common response, and vacation is the second most common.

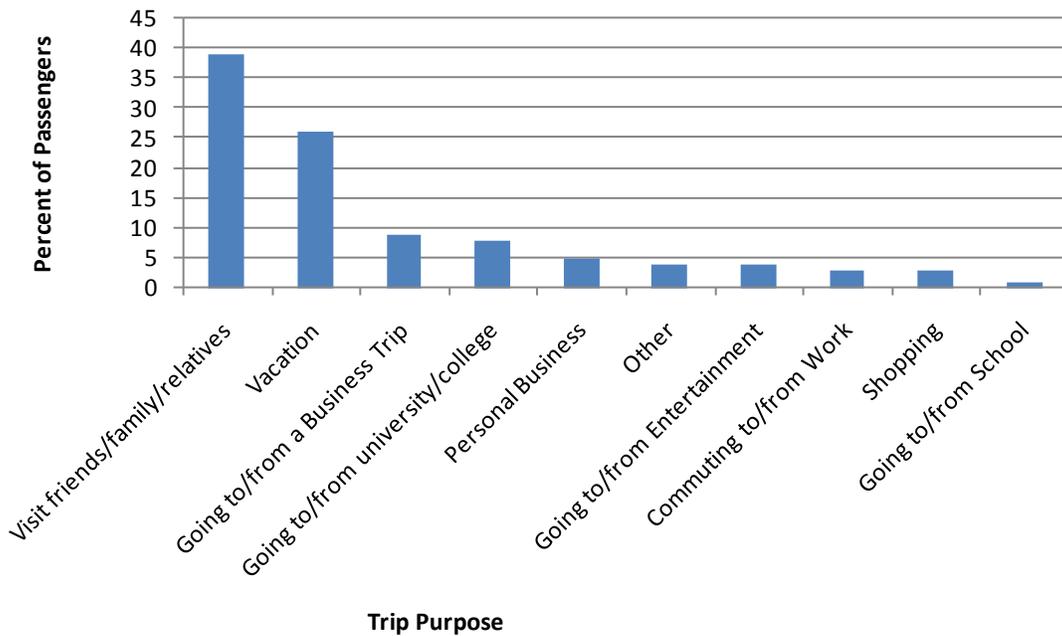


Figure 19. Reason for Taking Trip, Rail Passengers

Table 5. Rail Passengers Purpose by Trip, Three Rail Lines

Purpose of Trip	Rail Line		
	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Commuting to/from Work	2.4	3.2	3.2
Going to/from University/College	8.9	6.7	7.3
Visit friends/family/relatives	43.0	44.4	36.3
Vacation	17.3	18.4	29.9
Shopping	2.8	3.2	2.6
Personal Business	7.1	5.0	5.0
Other	5.0	5.0	3.0
Going to/from a business trip	9.5	9.1	8.4
Going to/from entertainment	3.7	4.4	3.2
Going to/from school	0.2	0.6	1.1
All	100.0	100.0	100.0

Trip Purpose by Destination Counties

For a closer investigation of the reasons for taking rail trips, Table 6 reports the breakdown of trip purposes for the top five destination counties. Visiting friends and family remains the dominant reason for travel by rail, with over half of all responding passengers reporting this trip purpose for travel to Oakland, Washtenaw, Wayne, and Ingham counties. Although visiting friends and family was the most common purpose in these four counties, Cook County is an exception to the pattern. The most commonly cited purpose for travel to Cook was vacation (39 percent of passengers), with visiting friends and family as the second-most commonly reported purpose (23 percent).

Traveling to attend college or university was a commonly cited reason in four of the five top destination counties. Indeed, this was the second most common reason for trips ending in Oakland and Ingham counties, and the third most common reason in Washtenaw and Wayne. Washtenaw attracted a high share of commutes (12 percent), and Cook attracted a large share of business trips (13 percent).

Table 6. Trip Purpose by Top Five Destination Counties, Rail Passengers

Purpose of Trip	Top Five Destination Counties				
	Cook, IL (%)	Oakland (%)	Wash-tenaw (%)	Wayne (%)	Ingham (%)
Commuting	2.3	6.1	12.0	3.1	5.6
College/Univ.	3.6	18.3	10.7	13.8	14.8
Visit	23.2	61.0	53.3	52.3	63.0
Vacation	39.3	4.9	10.7	15.4	9.3
Shopping	4.6	0.0	0.0	0.0	1.9
Personal Business	3.6	4.9	2.7	9.2	1.9
Other	3.4	1.2	0.0	0.0	1.9
Business Trip	13.4	1.2	9.3	4.6	1.9
Entertainment	5.3	1.2	1.3	1.5	0.0
School	1.3	1.2	0.0	0.0	0.0
All	100.0	100.0	100.0	100.0	100.0

Note: Based on observed data during the survey time frame.

In comparing the results of the 2000 and 2007 surveys, two notable differences are observed in trips to Cook County (where Chicago is located). The first difference is in the share of trips made for shopping to Cook County, with a substantial drop between the survey years. In 2000, shopping was by far the most common reason cited for traveling to Cook County, at 31 percent of respondents. By 2007, shopping was among the least commonly cited reasons for trips to Cook County, at just five percent of trips. The second difference is in the share of trips made for vacation, with a dramatic increase between the survey years. In 2000, vacation was just 0.2 percent. In 2007, 39 percent of travelers to Cook County reported vacation as their purpose of travel.

These substantial differences between the surveys of 2000 and 2007 are a result of the season during which data were collected. In 2000, surveys were distributed in December, during the peak period of holiday shopping, while in 2007, surveys were distributed in the spring. The relative prominence between shopping and vacation were essentially reversed, likely as a result of the difference in seasons.

Catchment Area of Rail Stations

A comparison of per capita rail boardings provides a basis for understanding in relative terms how much a community uses rail service. Rail stations that are located in dense population settlements are expected to attract more riders than stations that are located in less densely populated places, all else being equal. To control for the differences in drawing power among stations, we created a “catchment area” around each station to investigate the relationship between boardings and local population. A catchment area is defined as the area surrounding a station within the median travel distance of trips from origin to rail station among all rail respondents. Figure 20 illustrates the case of the Detroit rail station. The dark shading is the

“catchment area,” which extends up to seven miles (the median travel distance to rail boarding stations among all rail respondents) along all roads in the vicinity of the station. The “catchment area population” is then defined as the population that lives within the boundary, based on block-level population from the 2000 Census of Population and Housing, Summary File 1.⁴

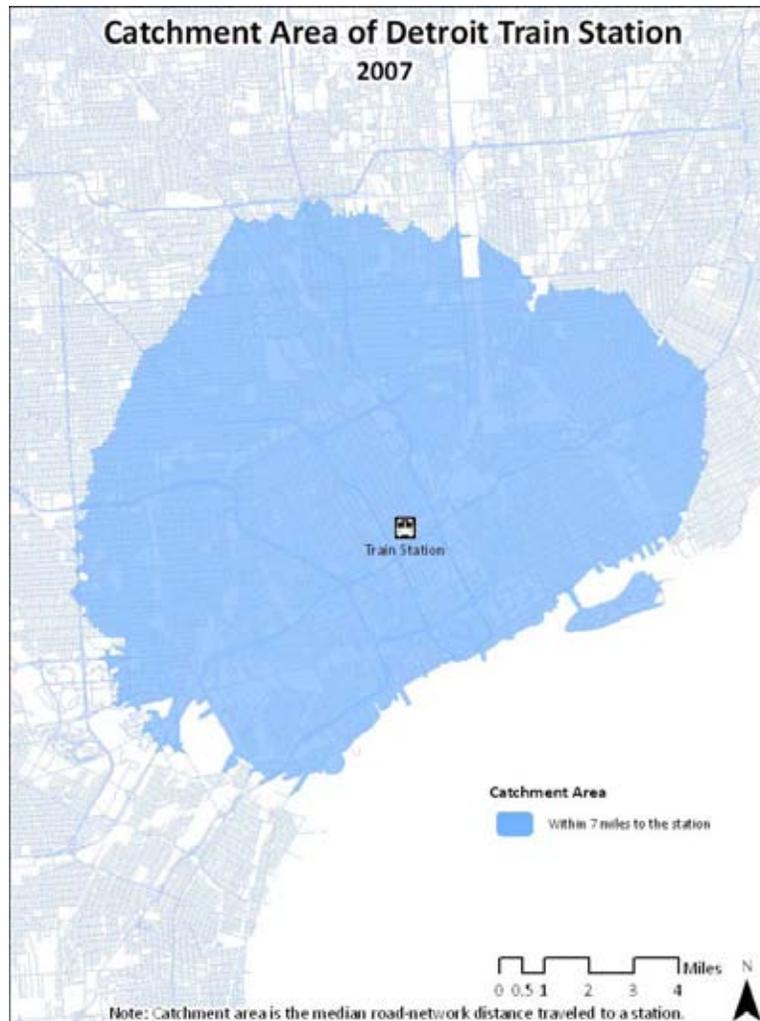


Figure 20. An Illustration of a Catchment Area: The Detroit Amtrak Station

Boardings Per Capita

Using the concept of the “catchment area,” Figure 21 and Table 7 show the number of boardings per catchment area population at rail stations. They reveal several notable findings:

- Even though Wayne County had the fourth highest level of boardings, the Detroit station had the second smallest number of boardings per catchment area population.

⁴ U.S. Bureau of the Census. (2002). *2000 Census of Population and Housing, Summary File 1, United States, Technical Documentation*. Washington, DC: U.S. Government Printing Office.

- Washtenaw County had the third highest level of boardings and Ann Arbor had the highest number of boardings per catchment area population by a considerable margin.
- Considering the small population base upon which it draws, Durand attracts a disproportionately high number of riders.

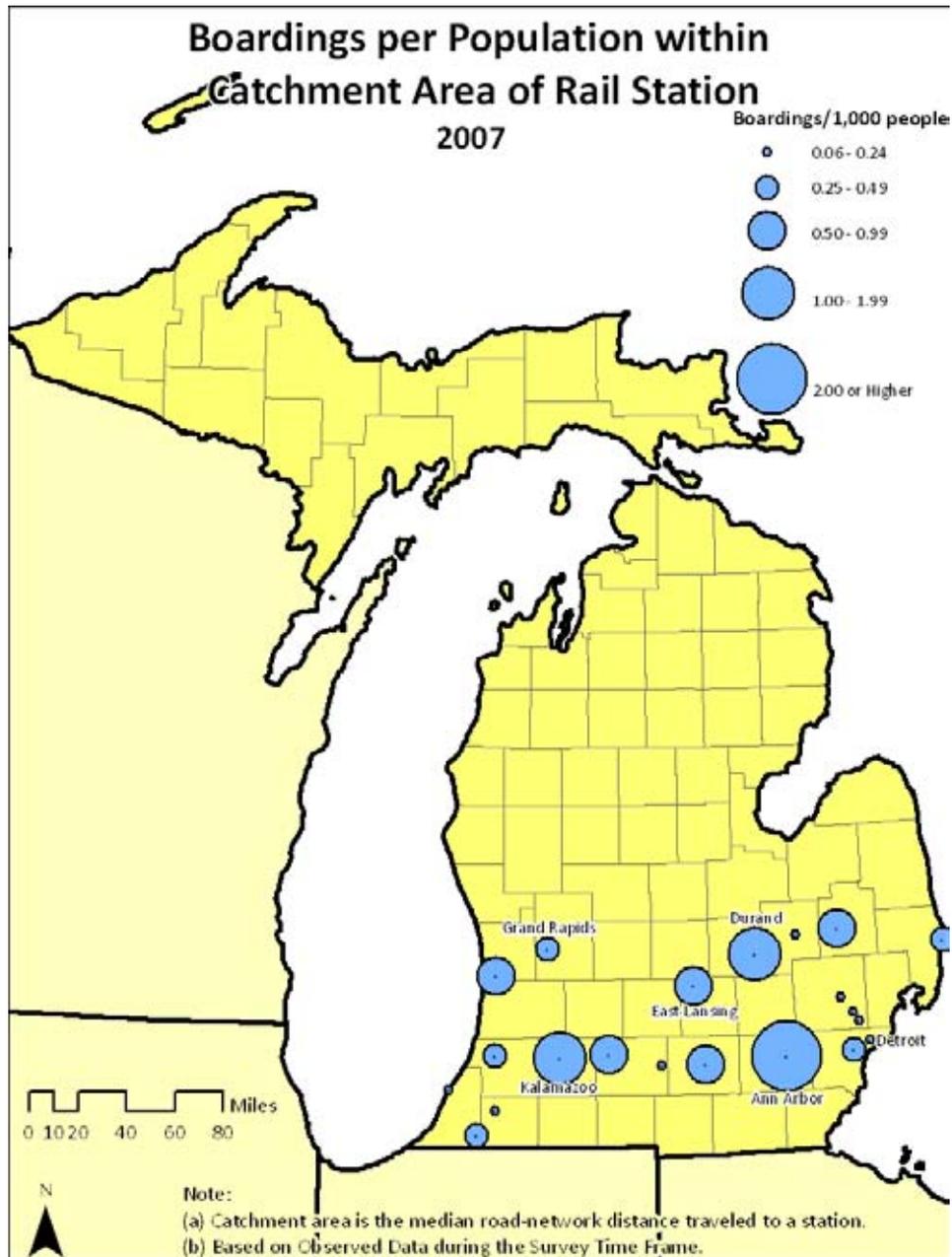


Figure 21. Rail Boardings per Capita at Rail Stations

Table 7. Rail Boardings per Capita at Rail Stations

Station	Boardings	Catchment Area Population (2000)	Boardings per Catchment Area Population (per 1,000)
Ann Arbor	387	154,772	2.50
Durand	19	13,851	1.37
Kalamazoo	195	149,295	1.31
Battle Creek	73	84,397	0.86
Holland	63	87,001	0.72
East Lansing	143	201,627	0.71
Lapeer	13	20,935	0.62
Jackson	51	83,335	0.61
Niles	16	33,525	0.48
Port Huron	28	59,813	0.47
Bangor	3	7,498	0.40
Grand Rapids	110	326,231	0.34
Dearborn	146	578,247	0.25
Dowagiac	3	12,540	0.24
Flint	48	203,947	0.24
St. Joseph/ Benton Harbor	11	54,735	0.20
Pontiac	34	203,148	0.17
Birmingham	49	326,748	0.15
Royal Oak	47	516,497	0.09
Detroit	45	645,328	0.07
Albion	1	15,398	0.06

Mode of Travel to Boarding Station

Private vehicles were by far the most common way for responding rail passengers to arrive at a rail boarding station. Figure 22 shows that over half of responding rail passengers arrived at a station in some form of a private vehicle, either by driving themselves or being dropped off by others. Of these, 35 percent of passengers were dropped off by private vehicle, and 23 percent drove and parked at the station themselves. Taking a taxi is the third most common mode of travel, at 17 percent of passengers.

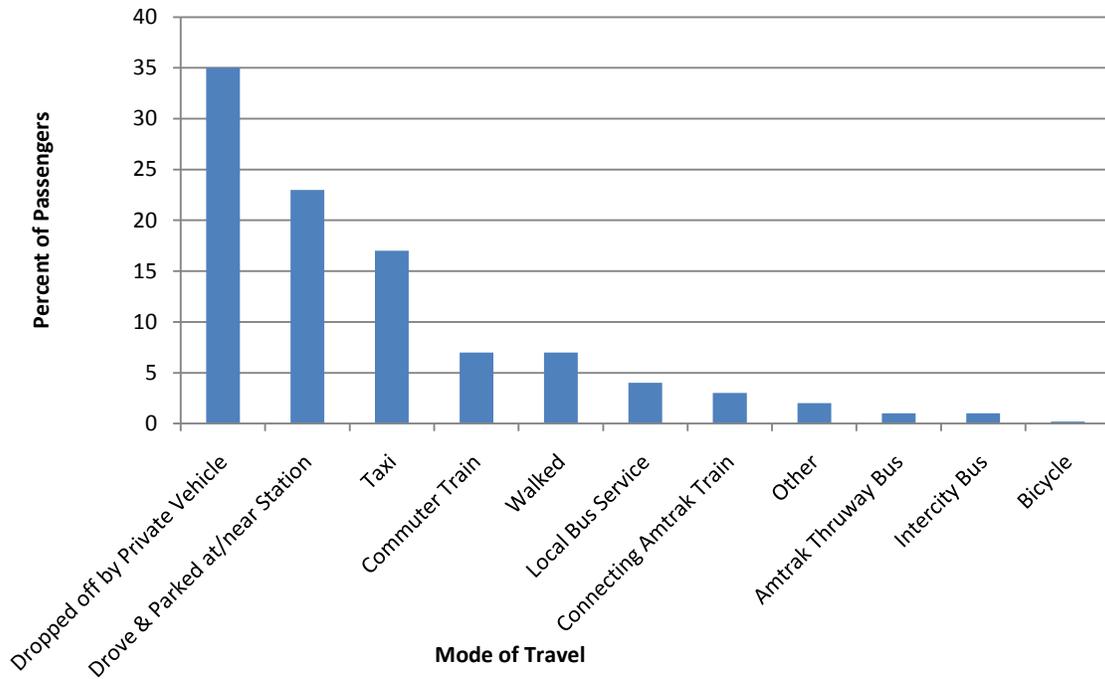


Figure 22. Mode of Travel to Boarding Station, Rail Passengers

Table 8 illustrates how the mode of travel to a station varied by the location of the trip origin. It shows that Cook County was an atypical location, likely because the City of Chicago offers a wide array of travel options to a rail station. For example, even though 35 percent of all respondents were dropped off at a station, among passengers boarding in Cook County, this figure is only 14 percent. This is likely a reflection of the high cost of driving a private vehicle in downtown Chicago – in terms of both parking and traffic congestion. Instead, passengers boarding trains in Cook County were far more likely than their counterparts in other counties to take a taxi, take a commuter train, or walk to the station.

Table 8. Travel Mode to Boarding Station, Rail Passengers

Travel Mode	Top Five Origin Counties				
	Cook, IL (%)	Washtenaw (%)	Oakland (%)	Wayne (%)	Kalamazoo (%)
Dropped Off	14.2	42.8	61.7	39.8	48.7
Drove	2.5	40.7	32.8	51.3	16.9
Amtrak Thruway	1.0	0.0	0.0	0.0	0.5
Commuter Train	17.3	0.3	0.0	0.5	0.0
Taxi	36.2	6.0	4.7	3.7	5.1
Bicycle	0.0	0.3	0.0	0.0	0.0
Local Bus	5.5	1.0	0.0	1.6	20.5
Other	4.3	0.8	0.0	0.5	0.5
Walked	10.1	8.0	0.8	2.6	5.1
Intercity Bus	0.8	0.3	0.0	0.0	2.0
Connecting Amtrak	8.1	0.0	0.0	0.0	0.5
Total	100.0	100.0	100.0	100.0	100.0

Note: Based on observed data during the survey time frame.

Mode of Travel Away From Alighting Station

At the alighting station, where rail passengers leave the train at their destination, several differences are noted compared to the mode of travel to boarding stations. As shown in Figure 23, the way respondents left the alighting station differed from the way they arrived at the boarding station. First, respondents were more likely to be picked up by private vehicle at the alighting station (45 percent) than to be dropped off at the boarding station (35 percent). Second, as expected, respondents were less likely to drive themselves by private vehicle after leaving the alighting station (11 percent) than they were to arrive at a boarding station by driving (23 percent). Third, taxi was the second-most common mode at the alighting station (23 percent) but third-most common at the boarding station (17 percent).

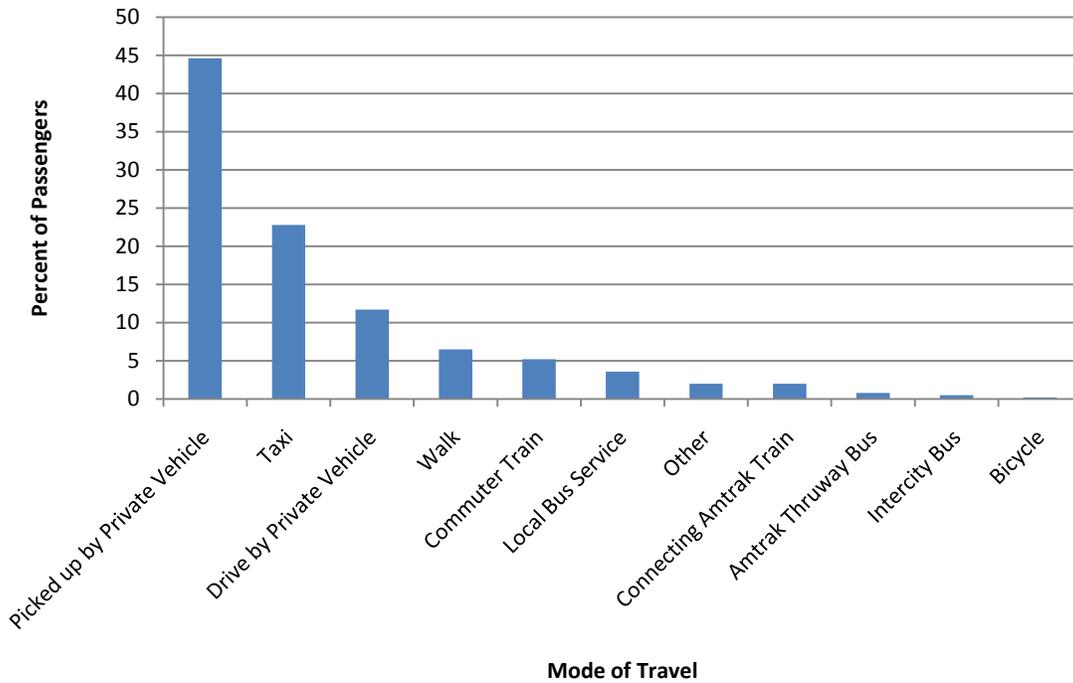


Figure 23. Mode of Travel from Alighting Station, Rail Passengers

Table 9 shows that, as with boarding stations, the method of travel from alighting station varied by location. And again, probably reflecting the high cost of driving in Chicago, Cook County is atypical in the low share of passengers being picked up by private vehicle. The most common mode of travel in Cook County was by taxi, with about half of all responding passengers reporting this option. Among Michigan counties, Wayne County was unusual in the large share of passengers who drove themselves away from the station, with 30 percent of respondents taking this option.

Table 9. Travel Mode from Alighting Stations, Rail Passengers

Travel Mode	Top Five Destination Counties				
	Cook, IL (%)	Oakland (%)	Washtenaw (%)	Wayne (%)	Ingham (%)
Picked Up	19.8	73.3	70.9	54.7	63.2
Drove	1.1	19.1	11.2	30.0	14.9
Amtrak Thruway	0.3	0.8	0.7	0.0	1.1
Commuter Train	8.6	0.0	0.0	0.7	1.1
Taxi	50.7	5.3	8.2	11.3	5.7
Bicycle	0.1	0.0	0.0	0.0	0.0
Local Bus	6.1	0.0	0.0	2.0	0.0
Other	1.8	0.8	1.5	1.3	0.0
Walked	10.8	0.8	7.5	0.0	12.6
Intercity Bus	0.5	0.0	0.0	0.0	1.1
Connecting Amtrak	0.3	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Note: Based on observed data during the survey time frame.

Cross-Tabulation of Travel Modes

To investigate further how people travel to and from rail stations, we cross-tabulated the mode of travel in Table 10. As an illustration of how to read the table, the first row shows that of the passengers who took a taxi to the boarding station, 8.2 percent of them took another taxi and 1.2 percent of them walked when leaving the alighting station at the end of their rail trip. The most notable finding from the table is for passengers who drove a private vehicle to the boarding station. These passengers were far more likely to take a taxi at the other end of their rail trip than any other kind of passenger, with nearly half of them taking a taxi from the alighting station. This result may be explained by differences among travelers in how they value time. Driving is the most temporally flexible mode of travel to a station and typically the most expensive. People who drive to a boarding station tend to be the kind of travelers who are willing to pay additional out-of-pocket costs for the savings in time that a taxi provides. Similarly, among passengers who took a taxi to a boarding station, 35.7 percent of them drove a private vehicle away from the alighting station.

Table 10. Comparing Modes of Travel To and From Station

Method to Boarding Station	Method from Alighting Station (%)											
	Taxi	Walked	Amtrak Train	Commuter Train	Bicycle	Local Bus	Other	Picked Up	Drove	Intercity Bus	Thruway Bus	All
Taxi	8.2	1.2	1.0	1.4	0.0	1.2	1.7	49.5	35.7	0.0	0.0	100.0
Walked	7.4	8.6	0.0	4.9	0.0	4.9	1.8	59.5	12.3	0.6	0.0	100.0
Amtrak Train	7.6	2.5	1.3	0.0	0.0	0.0	1.3	58.2	19.0	1.3	8.9	100.0
Commuter Train	4.6	4.0	0.0	0.6	0.0	1.7	0.6	78.0	10.4	0.0	0.0	100.0
Bicycle ¹	0.0	25.0	0.0	25.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	100.0
Local Bus	2.8	6.5	0.0	0.9	0.0	5.6	0.0	73.8	9.3	0.9	0.0	100.0
Other	10.4	4.2	2.1	0.0	0.0	0.0	8.3	62.5	12.5	0.0	0.0	100.0
Dropped off	23.8	8.0	3.8	8.1	0.1	4.0	2.6	43.0	5.0	0.8	0.7	100.0
Drove	48.7	8.7	1.5	6.9	0.3	5.5	1.5	20.6	5.0	0.5	0.7	100.0
Intercity Bus	18.2	13.6	0.0	4.5	0.0	0.0	4.5	50.0	4.5	0.0	4.5	100.0
Thruway Bus	27.3	0.0	4.5	9.1	0.0	0.0	4.5	45.5	0.0	0.0	9.1	100.0

Note: (1) The observed occurrences of bicycles are too few to be reliable.

Travel Time To and From Boarding and Alighting Stations

Figure 24 suggests that rail passengers tend to arrive at the boarding station from locations near the station. Nearly half of survey respondents (45 percent) reported arriving at their boarding station in 15 minutes or less. And nearly three out of four reported traveling for no more than 30 minutes.

At the other end of the trip, respondents reported slightly longer journeys. As shown in Figure 25, only 37 percent of survey respondents reported arriving at their final destination in 15 minutes or less. Only 66 percent reported traveling for no more than 30 minutes.

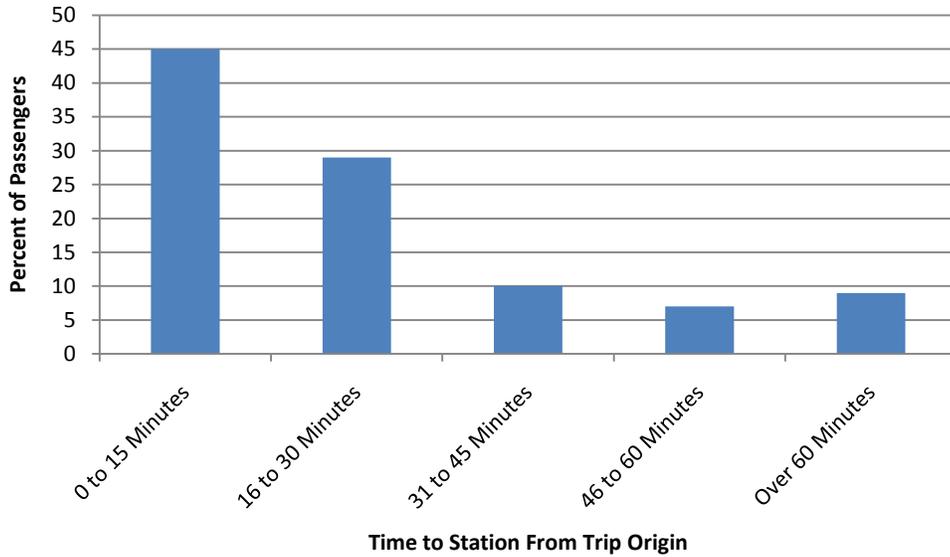


Figure 24. Travel Time to Boarding Station, Rail Passengers

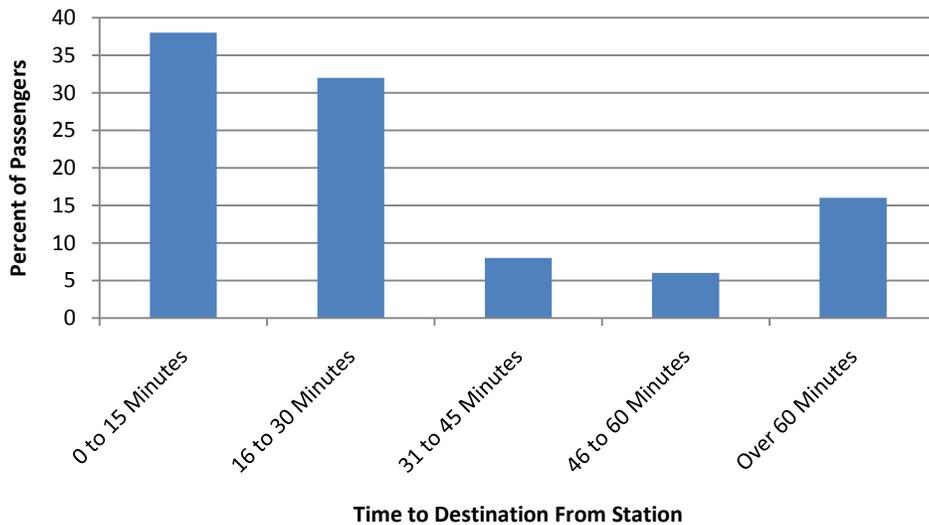


Figure 25. Travel Time from Alighting Station, Rail Passenger

To see whether the travel time distribution varies by location, Table 11 and Table 12 list the breakdown by station, one for boarding stations and the other for alighting stations. Table 11 shows that trips originating at Kalamazoo are unusually short in duration, with over 62 percent of travelers arriving at the station in 15 minutes or less. Other stations with fairly short trips include Ann Arbor, Birmingham, and East Lansing, where about half of all trips to the boarding

station are within 15 minutes. Proximity to universities in Ann Arbor, East Lansing, and Kalamazoo may explain this result.

Other stations show unusually long trips to the boarding station. Battle Creek is a clear outlier in this case, with over half (51.4 percent) of all responding passengers reporting trips of more than 45 minutes to the station. No other Michigan station comes close to this high share of long-duration trips. The high travel time findings for arriving at Battle Creek are not due to a disproportionate share of respondents connecting at the station by Thruway services. Of the 11 respondents who reported travel to the Battle Creek boarding station of over 60 minutes, only one reported having arrived by Thruway, a share that is not significantly different than for other stations. Aside from Chicago – where 22 percent of trips are over 45 minutes – the next highest share is at the East Lansing station, where 15 percent of passengers report trips over 45 minutes to the boarding station. East Lansing, then, is a station that appears to attract rail passengers from either very near or very far, with little in between.

Table 12 reports the travel time breakdown for trips leaving an alighting station. In general, passengers report longer trips away from an alighting station than trips to a boarding station. The table shows that a substantially greater share of passengers must travel further to reach their final destinations. Seven out of the ten stations listed (those stations with the highest observed passengers) showed that over ten percent of passengers traveled over an hour to their final destination. The stations where trips tend to be among the shortest include East Lansing (49 percent of trips within 15 minutes) and Kalamazoo (44 percent). These data are consistent with the findings on trip duration to the boarding station presented in Table 11. For example, both East Lansing and Kalamazoo are stations where passengers report short trips both to and from the station. The data on alighting stations are also consistent with those found at boarding stations with regard to unusually long trips.

Battle Creek is again an outlier in terms of unusually long trips away from the alighting station after passengers deboard the train, with 46 percent of all responding passengers reporting trips of more than 45 minutes. The high travel time findings for leaving the Battle Creek station is likely due to a disproportionate share of respondents connecting at the station by Thruway services. Of the 17 respondents who reported travel away from the Battle Creek station of over 60 minutes, six reported having left the station by Thruway (and two others reported leaving by intercity bus). East Lansing and Grand Rapids are also stations with a high share of long trips, with nearly one out of four respondents reporting trips over 45 minutes. As with the case of boarding stations, East Lansing is a station where respondents reported trips away from the alighting station that are either near or far, with few trips in the medium range.

Table 11. Travel Time to Boarding Stations, Rail Passengers

	Percentage Travelling 0 -15 Minutes (%)	Percentage Travelling 16 – 30 Minutes (%)	Percentage Travelling 31 – 45 Minutes (%)	Percentage Travelling 46 – 60 Minutes (%)	Percentage Travelling Over 60 Minutes (%)	All (%)
1. Chicago	45.3	21.8	11.0	7.6	14.2	100.0
2. Ann Arbor	48.8	31.0	11.3	7.6	1.3	100.0
3. Kalamazoo	62.4	22.2	2.1	5.2	8.2	100.0
4. Dearborn	33.6	52.4	9.1	2.8	2.1	100.0
5. East Lansing	50.4	29.8	5.0	8.5	6.4	100.0
6. Grand Rapids	42.7	39.1	5.5	3.6	9.1	100.0
7. Battle Creek	30.6	12.5	5.6	23.6	27.8	100.0
8. Holland	37.1	32.3	22.6	3.2	4.8	100.0
9. Jackson	29.4	41.2	21.6	5.9	2.0	100.0
10. Birmingham	52.1	41.7	4.2	2.1	0.0	100.0

Table 12. Travel Time from Alighting Stations, Rail Passengers

	Percentage Travelling 0 -15 Minutes (%)	Percentage Travelling 16 – 30 Minutes (%)	Percentage Travelling 31 – 45 Minutes (%)	Percentage Travelling 46 – 60 Minutes (%)	Percentage Travelling Over 60 Minutes (%)	All (%)
1. Chicago	39.6	28.6	6.0	5.9	19.9	100.0
2. Ann Arbor	37.1	41.4	10.4	3.2	7.9	100.0
3. Kalamazoo	44.2	24.8	7.8	10.1	13.2	100.0
4. Dearborn	26.1	47.9	11.8	5.9	8.4	100.0
5. East Lansing	49.0	25.0	2.1	6.3	17.7	100.0
6. Grand Rapids	39.7	28.2	7.7	3.8	20.5	100.0
7. Detroit	33.3	33.3	11.1	7.9	14.3	100.0
8. Battle Creek	29.2	15.4	9.2	20.0	26.2	100.0
9. Birmingham	38.0	42.0	10.0	0.0	10.0	100.0
10. Royal Oak	32.7	49.0	10.2	2.0	6.1	100.0

In comparing the data on travel time to and from stations between 2000 and 2007, the data are not directly comparable. In 2000, travel times to stations were estimated by assuming automobile travel times along the road network. In 2007, travel times were reported by passengers. On the whole, the data indicate that passengers traveled for longer durations to and from stations in 2007 compared to 2000. But this result is likely due to a tendency of self-reported times to be longer than those calculated by network analysis.

Alternative Mode of Travel

Passengers were asked to indicate the likelihood of choosing among a set of alternative modes of travel if a train were not available. The results are reported in Figure 26. The figure indicates that driving a private vehicle was by far the most commonly cited alternative to the train, with 60 percent of passengers reporting that they would be “very likely” to drive if a train were not available (and fully 81 percent of passengers reported either “very likely” or “likely” to drive). Among rail passengers, taking a bus was not a likely alternative option. Over half of passengers reported that they would be “very unlikely” to take a bus if a train were not available (and three out of four passengers indicated that they would be either “very unlikely” or “unlikely” to take a bus as an alternative).

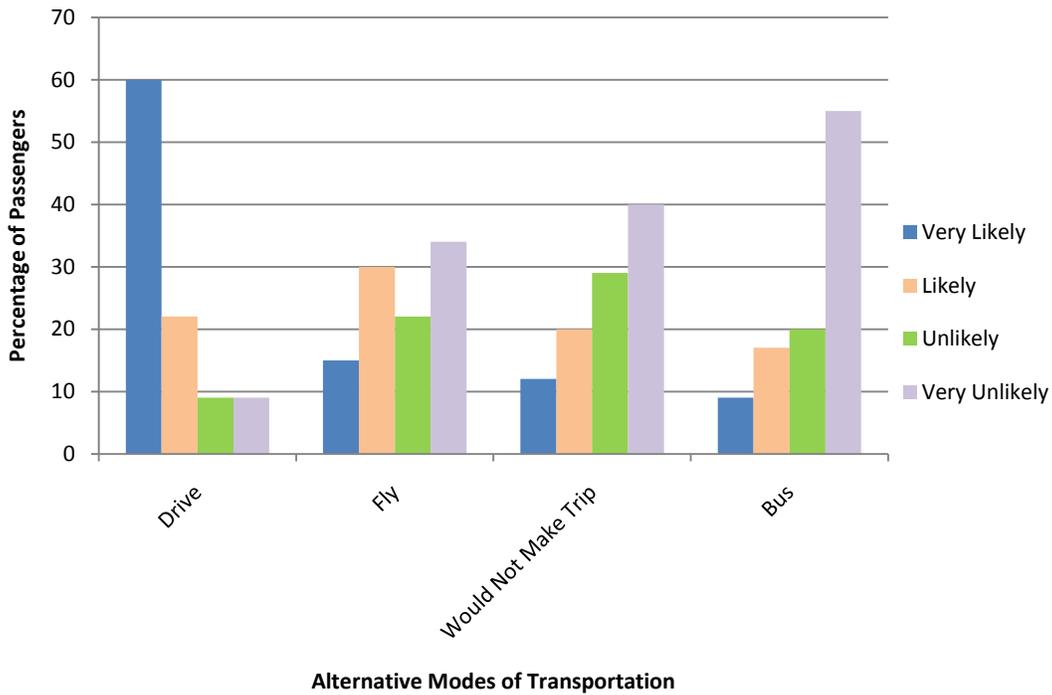


Figure 26. Likelihood of Choosing Alternative Mode of Travel, Rail Passengers

Figure 27 presents the data on likelihood of selecting an alternative method of travel by household income. The figure shows that as income increases respondents become more likely to drive and less likely to either not make the trip or to take the bus in the absence of a rail alternative. By contrast, it also shows that the lower the income, the more likely a passenger would choose to take a bus if a train were not available. This finding is not surprising because driving is the most costly (including all associated costs of owning and operating a vehicle) among the alternatives. It is also consistent with the data on household income among bus passengers indicated later in the report: the household income of rail passengers is higher than the household income of bus passengers.

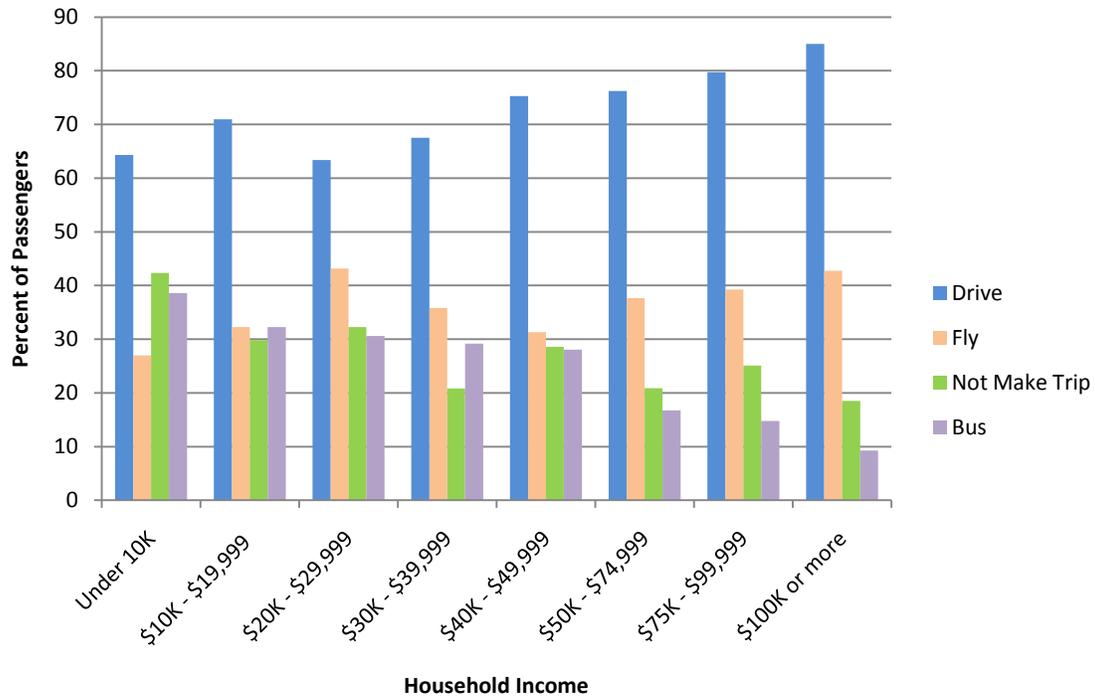


Figure 27. Alternative Method of Transportation Based on Income, Rail Passengers

The survey questions regarding alternative method of transportation differed slightly in the 2000 and 2007 surveys. In 2000, the survey asked which alternative option a respondent would choose. In 2007, the survey asked for a *likelihood* of using an alternative method of transportation. In spite of this difference, some comparisons can be made. In both 2000 and 2007, the most commonly chosen option if a train were not available was to drive (40 percent chose this option in 2000, while in 2007, 81 percent of passengers indicated either “very likely” or “likely” to drive). And in both 2000 and 2007, those in the highest income categories indicated they would prefer to drive or fly, while those in the lowest income categories would either take the bus or not make the trip.

Trips in the Past Year

Rail passengers tend to ride a train infrequently, as suggested by Figure 28. The figure shows that over 40 percent of responding passengers reported that they had taken no other rail trip during the past year. While the majority of rail passengers took no more than one other trip during the previous year, 11 percent of passengers took over five round trips in a year.

This trip-making behavior is consistent with the findings in 2000: in both 2000 and 2007, about 40 percent of rail passengers reported no other train trips in the previous year.

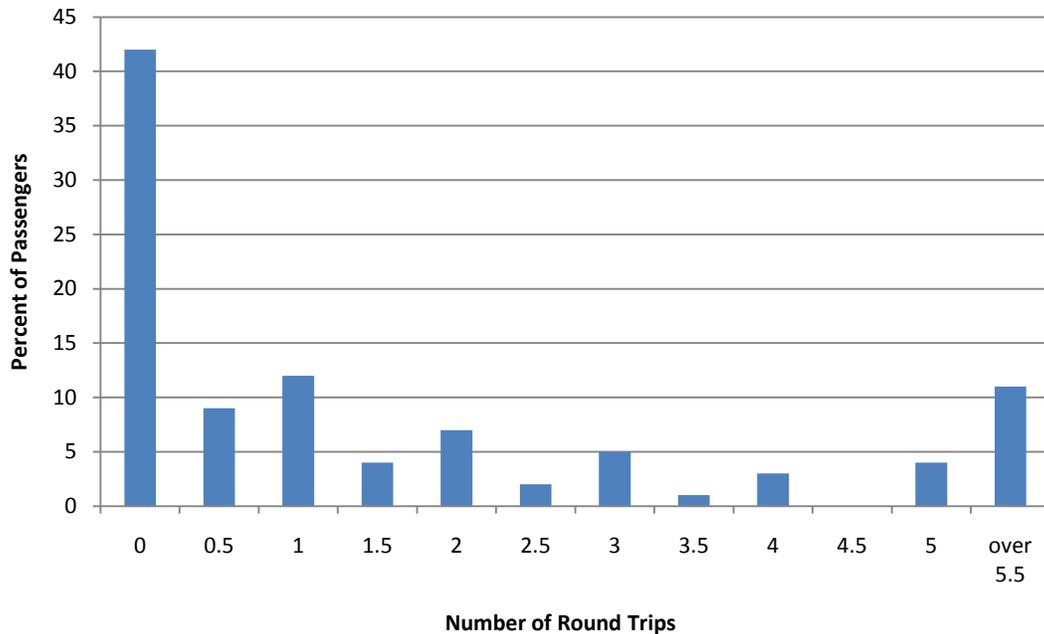


Figure 28. Number of Trips in the Past Year, Rail Passengers

Reasons for Increasing Use of Rail

Surveyed passengers were asked to rate the likelihood of using rail services more frequently, by rating several factors on a scale of 0 (least likely) to 10 (most likely). As shown in Table 13, the most highly rated reasons were: improved on-time arrivals (average rating of 7.84); more frequent train service (7.63); and rising gas prices (6.86). The lowest-rated factor, and by a wide margin, was providing more connections to intercity buses (such as Greyhound or Indian Trails).

Table 13. Likelihood of Increasing Rail Usage, Average Rating, Rail Passengers

Use Factor	Average
Improved On-Time Arrivals	7.84
More Frequent Train Service	7.63
Rising Gas Prices	6.86
More Connections to Other Trains	5.96
A Train Station Closer to Home	5.67
Easier to Purchase Tickets	5.66
Improved Personal Security at Stations	5.59
Improved Public Transit Service to Train Stations	5.56
More Connections to Intercity Buses	4.28

Important Factors for Choosing Rail

Rail passengers were asked about which considerations most influenced their decision to use rail over alternatives such as automobile, airline, or bus. The most important consideration, as shown in Table 14, was that the train schedule matched the traveler’s needs. Over half (54.9 percent) of responding passengers reported that this was “very important” in choosing rail over other options. Most respondents appear not to choose rail because of a dependency on the service: Two out of three respondents rated the No Other Option reason as either “unimportant” or “very unimportant”.

Table 14. Reason for Choosing Rail, Rail Passengers

Reason	Importance				
	Very Important (%)	Important (%)	Unimportant (%)	Very Unimportant (%)	All (%)
Train Schedule Met Schedule Needs	54.9	37.2	6.5	1.4	100.0
Fast Overall Travel Time	38.3	45.5	14.0	2.2	100.0
Comfort While Traveling	50.5	42.4	5.7	1.3	100.0
High Cost of Gasoline	31.5	32.8	27.9	7.7	100.0
Total Cost of the Trip	46.8	39.7	10.4	3.1	100.0
Safety While Traveling	45.8	36.7	13.6	3.9	100.0
No Other Options	16.0	18.2	31.6	34.2	100.0

3.3 Rail Service Characteristics

Rating Importance of Rail Amenities at Stations

Rail passengers were asked to rate the importance of amenities and services at rail stations. The list of amenities and services is shown in Figure 29 below, along with the survey responses. At least eight out of ten passengers identified the following five amenities as either “very important” or “important”: a clean facility; lighting and security; signs to navigate through the station; comfort of seating; and parking availability. As Figure 29 shows, the most important station amenity identified is a clean facility, with nearly every responding passenger indicating either “very important” or “important.”

Rail passengers indicated little interest in several amenities. Services identified as the least important included car rental services, the availability of public telephones, and a newspaper or magazine stand. Over half of respondents identified car rental services as either “very unimportant” or “unimportant.”

A substantial share of respondents – ranging from about 60 to 90 percent of passengers – indicated that services that they experience at their seats in the station were very important, including the comfort of seating, the availability of power outlets, and access to the internet.

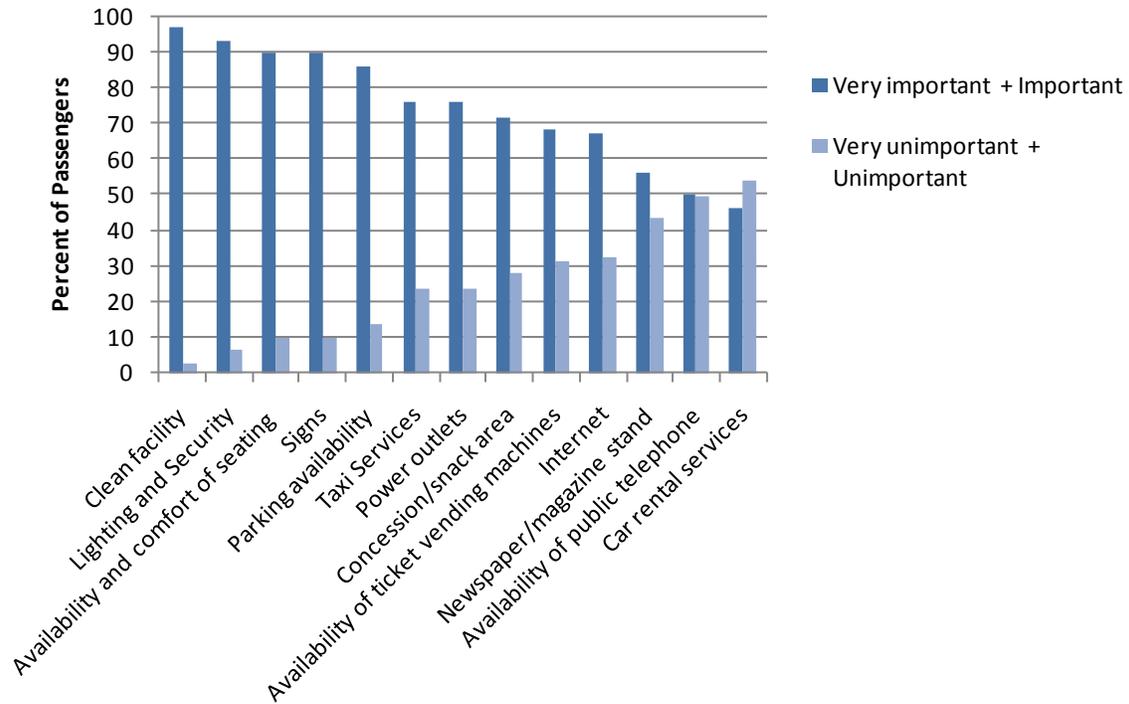


Figure 29. Importance of Rail Station Amenities, Rail Passengers

Importance of Activities on the Train

To evaluate what rail passengers value most while riding the train, respondents were asked to rate the importance of several activities. As illustrated in Figure 30, reading was the most important activity to passengers while on the train, with 92 percent of respondents providing a rating of “very important” or “important.” Passengers were least interested in playing cards or other games on the train. Almost 50 percent of respondents rated this activity to be either “unimportant” or “very unimportant.”

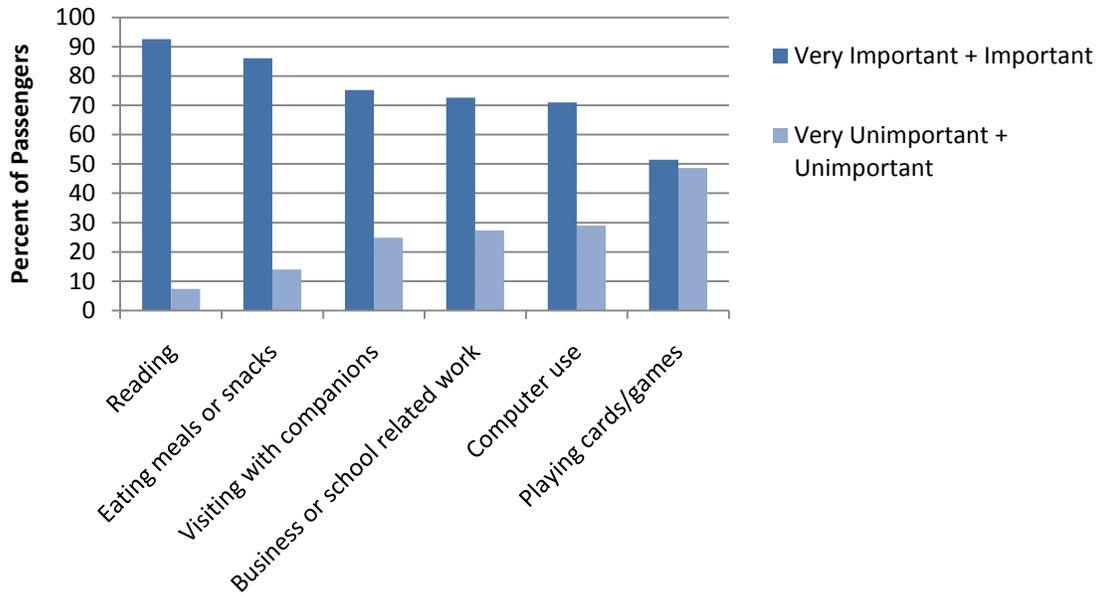


Figure 30. Importance of Specific Activities While on the Train

Denied an Amtrak Reservation

To assess whether passengers experience difficulty in obtaining tickets, respondents were asked if they had ever been denied a reservation because seats were sold out. The vast majority of respondents – 80 percent – had never been denied a reservation, but the remaining 20 percent indicated that they had experienced a reservation denial because seats were sold out. Among those responding passengers that had been denied a reservation, 56 percent reported that Amtrak provided alternative schedule options.

Rail Schedules

About one-quarter of responding rail passengers were not Michigan residents. Many of these respondents expressed an interest in spending more time in Michigan if the schedules were more flexible. About half of the non-Michigan respondents reported an interest in spending an additional night in Michigan if an earlier train was available.

4 Bus Passenger Analysis

Chapter 4 examines survey data from passengers on intercity bus lines in Michigan. The survey included passengers riding Indian Trails, Greyhound, and Metrocars lines. This chapter is divided into three sections: passenger demographics, service use, and service characteristics.

4.1 Bus Passenger Demographics

This section summarizes the characteristics of bus passengers, by analyzing characteristics such as household income, age, gender, and place of residence. The analysis also compares characteristics of bus passengers between 2001 and 2007 for data items that are comparable between the surveys conducted in those years.

Household Income

Bus passengers tend to be disproportionately from lower-income households. As shown in Figure 31, the most common income category among respondents was also the lowest category: 22 percent of responding bus riders came from households with an annual income of less than \$10,000. Two out of every three respondents reported an annual household income of less than \$40,000. For comparison, the median household income for the state of Michigan in 2007 was \$47,950.⁵ So while about half of all Michigan residents came from households with incomes over \$50,000, only about one in four responding bus passengers came from such households.

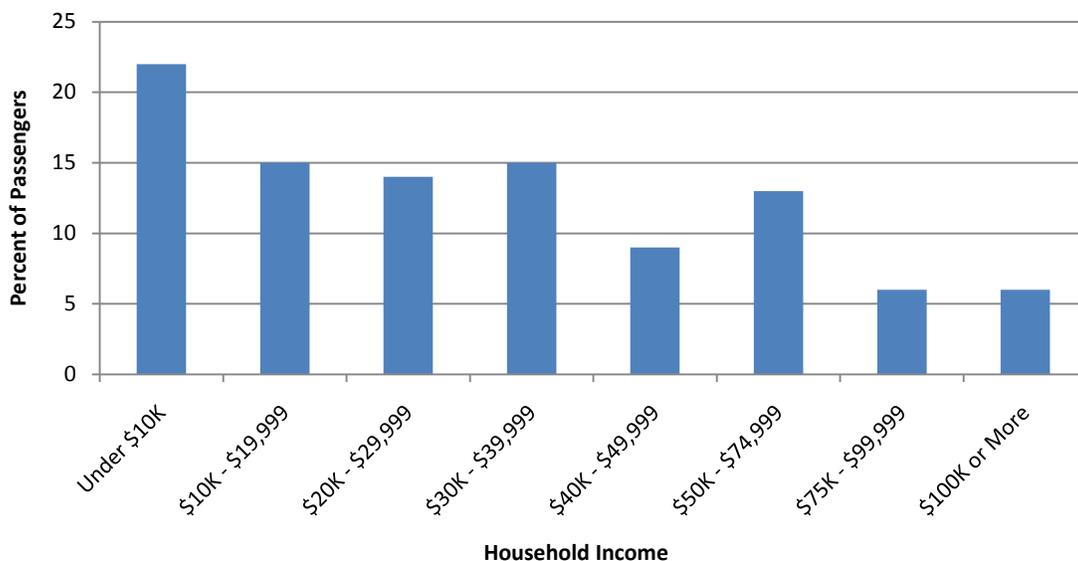


Figure 31. Household Income Distribution, Bus Passengers

⁵ U.S. Bureau of the Census (2008). *Income, Earnings, and Poverty Data From the 2007 American Community Survey*. Washington, DC: Government Printing Office.

In comparing the household income of bus passengers to the survey conducted in 2001, little change is observed in the income distribution over time. In both 2001 and 2007, the largest share of passengers came from the lowest income category, with approximately 22 percent of passengers reporting household incomes of less than \$10,000 in both years.

Vehicle Ownership

As Figure 32 shows, one in five responding bus passengers reported having no car in the household, a figure that makes bus respondents substantially different than the typical Michigan resident: only 6.8 percent of households statewide had no vehicle in the household in 2007.⁶

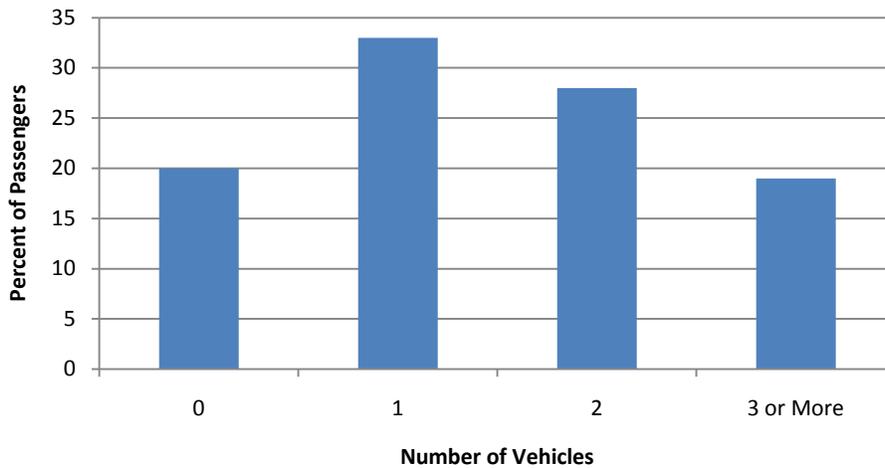


Figure 32. Number of Vehicles per Household, Bus Passengers

Bus passengers in 2007 tend to come from households with more private automobiles than in 2001. In 2001, a substantial share of bus passengers did not own a car, about 33 percent. But the share of bus passengers without a car in 2007 decreased to 20 percent. The share of passengers with two or more cars increased during this period, from around 39 percent in 2001 to 47 percent in 2007.

Passengers by Gender

Overall, the distribution of men and women among bus passengers is nearly even, with men making up slightly more than half of all passengers at 52 percent. However, as seen in Figure 33, the relative share of women and men varies by age. Between the ages of 25 and 44, men outnumbered women substantially among respondents. But, over the age of 45, women outnumbered men.

⁶ U.S. Bureau of the Census. (2009). 2007 American Community Survey 1-Year Estimates, Michigan, from American FactFinder at <http://factfinder.census.gov/home/saff/main.html?_lang=en>.

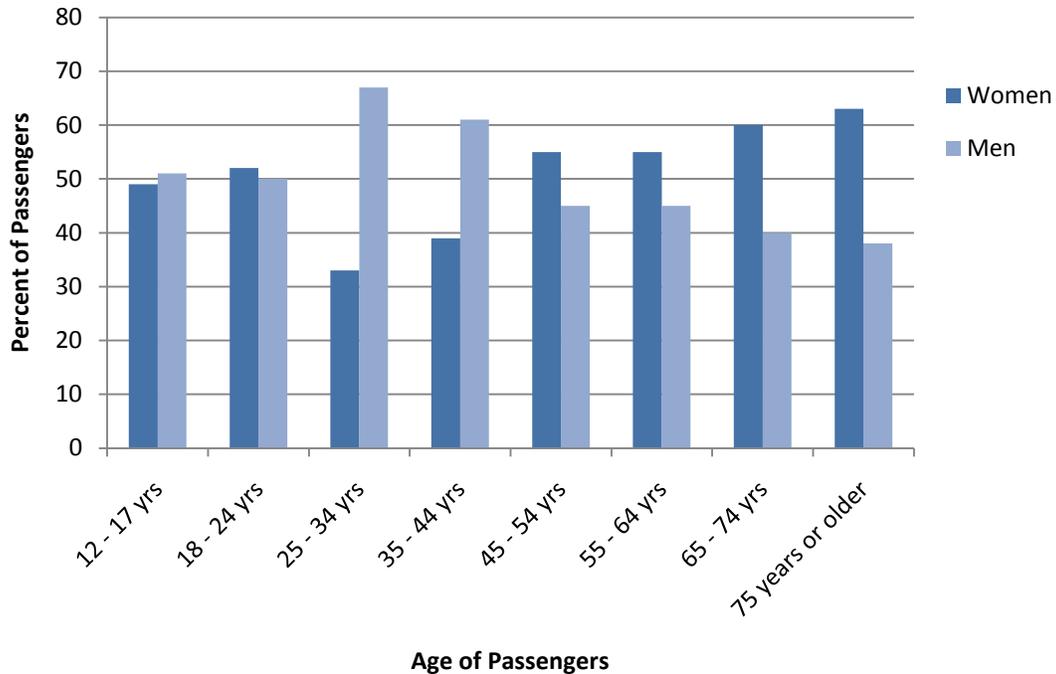


Figure 33. Gender by Age Group, Bus Passengers

In comparing to the previous study, little difference exists in the distribution of women and men in the years between 2001 and 2007. One notable difference is the share of women over the age of 74: In 2001, over 85 percent of bus passengers over 74 years were women, but by 2007, this figure dropped to about 60 percent.

Place of Residence

It is not surprising that the vast majority of bus riders reside within the state, since the surveys were conducted in Michigan. As reported in Table 15, about 78 percent of responding passengers reported a Michigan residence. Illinois is the most common residence among places outside of Michigan, at about four percent of bus passengers. Figure 34 provides a visual depiction of the geographic spread of residences among bus passengers, showing a wide dispersion across the state, but with some clustering around major urban centers.

Table 15. State of Residence, Bus Passengers

State of Residence	Percent of Passengers
Michigan	77.8
Rest of U.S.*/ Outside of U.S.	12.4
Illinois	3.9
Wisconsin	2.4
New York	1.8
Texas	1.8

Note: Based on observed data during the survey time frame.

* States not included in the table.

A larger share of bus passengers resided in Michigan in 2007 than in 2001. In 2001, only 60 percent of bus passengers reported a residence in Michigan while, in 2007, nearly 80 percent resided in Michigan.

Table 16 lists the place of residence among Michigan cities, showing that Detroit is home to the largest share of bus passengers, at nearly 10 percent. Grand Rapids, at about nine percent, is the second-most common city of residence among rail passengers.

Table 16. Passengers Residing in Michigan Cities, Bus Passengers

City of Residence	Percent of Passengers
Detroit	9.6
Grand Rapids	8.6
East Lansing	7.8
Flint	5.6
Kalamazoo	5.6
Remaining Michigan Cities	62.9

Note: Based on observed data during the survey time frame.

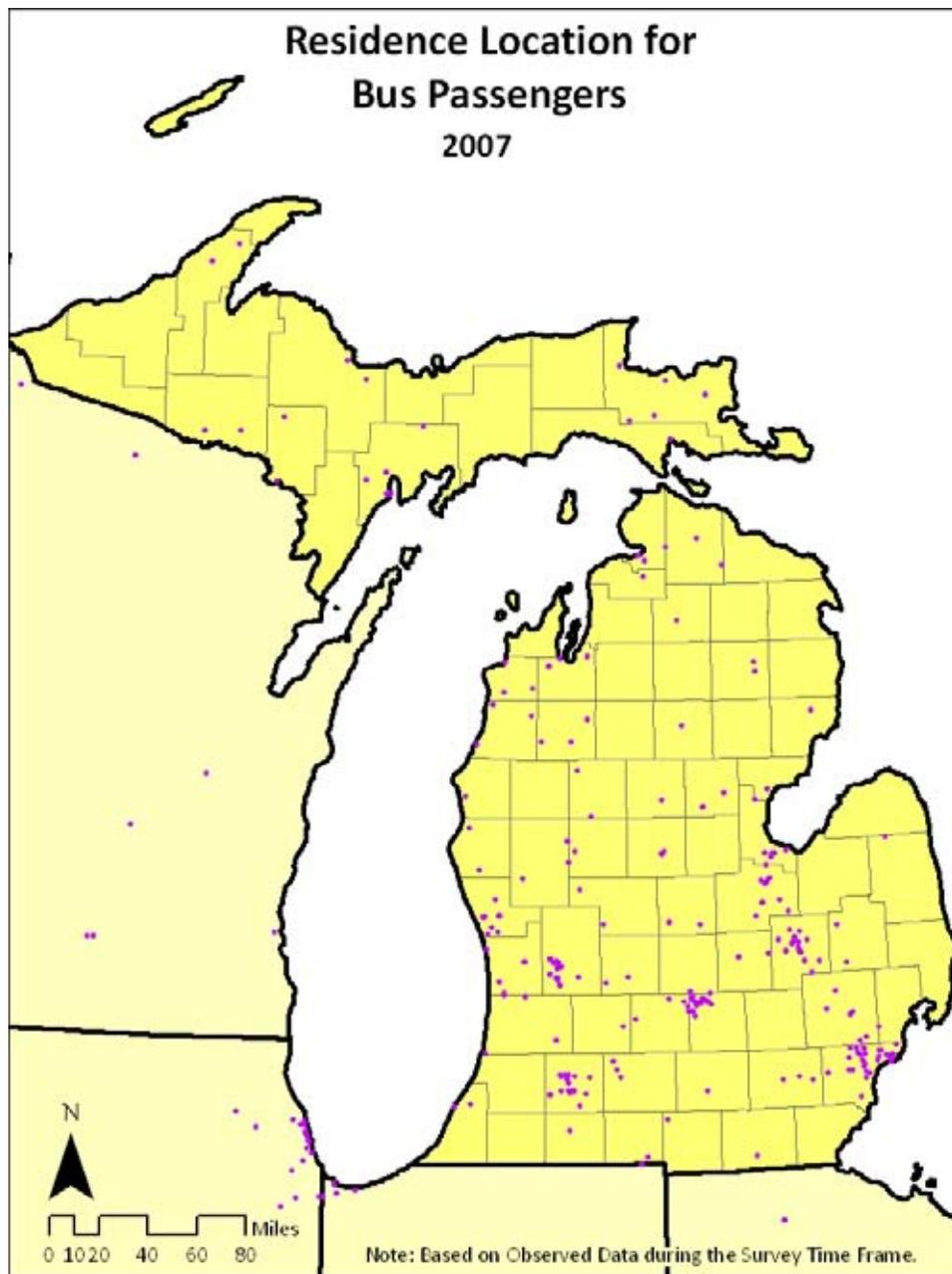


Figure 34. Residence Location for Bus Passengers

Age

Younger passengers are more likely to travel by bus than older passengers. As shown in Figure 35, nearly two out of five (39 percent) responding bus passengers were under the age of 25, and more than half (58 percent) were under the age of 35. Older passengers are considerably underrepresented among respondents, with only about three percent of responding passengers reporting an age of 65 years or older.

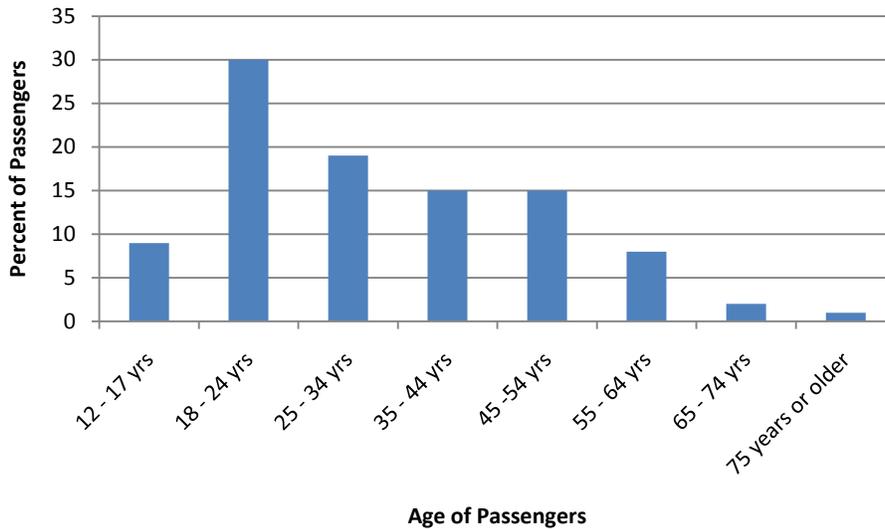


Figure 35. Age Distribution, Bus Passengers

Traveling Companions

Bus passengers are far more likely to travel alone than with companions. Table 17 shows that 79 percent of respondents were traveling alone, and another 16 percent were traveling with one companion. Traveling with more than one companion is rare by bus, constituting only a little more than five percent of respondents.

The number of traveling companions varies little by age. As Figure 36 demonstrates, the average number of traveling companions was between 1 and 1.5 for all age groups below 75 years. Passengers over 65 years of age appear to be slightly more likely to be traveling with a companion, although a very small number of responding passengers exist in these age categories, making it difficult to draw conclusive findings on older passengers from these data.

Table 17. Number of Traveling Companions, Bus Passengers

Number of Traveling Companions	Percent of Passengers
Alone	79.0
1	15.7
2	0.9
3 or More	4.4

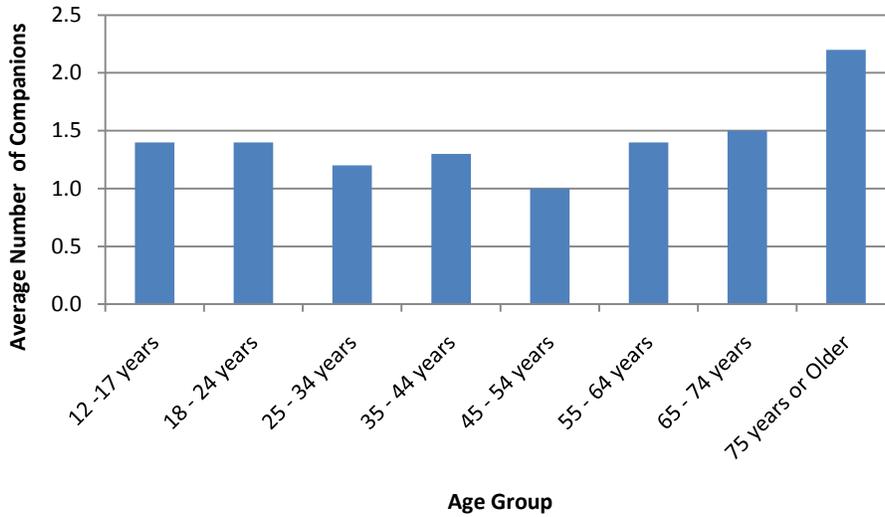


Figure 36. Average Number of Traveling Companions by Age Group, Bus Passengers

Employment Status

As shown in Figure 37, 18 percent of responding bus passengers reported being unemployed, while about eight percent reported being retired. A substantial share of respondents identified themselves as students, with about 10 percent as college students and eight percent as students that are not in college. To further investigate employment status, we cross-tabulated it with age, as shown in Table 18. The table confirms that, as expected, many respondents under the age of 18 were students (39 percent), and the majority of respondents over 65 were retired.

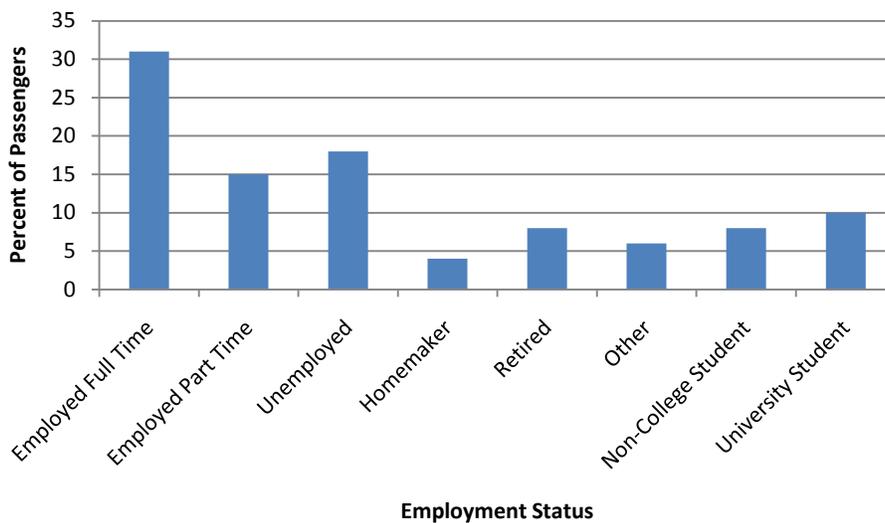


Figure 37. Employment Status, Bus Passengers

Table 18. Employment Status by Age, Bus Passengers

Employment Status	Age (Years)							
	12-17 (%)	18-24 (%)	25-34 (%)	35-44 (%)	45-54 (%)	55-64 (%)	65-74 (%)	75 and over (%)
Full Time	0.0	15.8	45.0	46.2	49.4	26.7	8.3	14.3
Part Time	16.1	21.7	11.7	15.1	10.1	8.9	16.7	0.0
Unemployed	37.5	21.7	20.8	20.4	14.6	4.4	0.0	0.0
Homemaker	0.0	2.7	3.3	7.5	7.9	4.4	16.7	14.3
Retired	3.6	0.5	2.5	2.2	6.7	48.9	50.0	57.1
Other	1.8	3.8	7.5	6.5	6.7	4.4	8.3	14.3
Student	39.3	7.6	3.3	2.2	3.4	0.0	0.0	0.0
University/College	1.8	26.1	5.8	0.0	1.1	2.2	0.0	0.0
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Nights Away From Home

Figure 38 shows that over 60 percent of respondents spent between one and five nights away from home. Extended stays of more than two weeks away from home appear to be rare among bus passengers: Fewer than 10 percent of respondents spent more than 14 nights away from home.

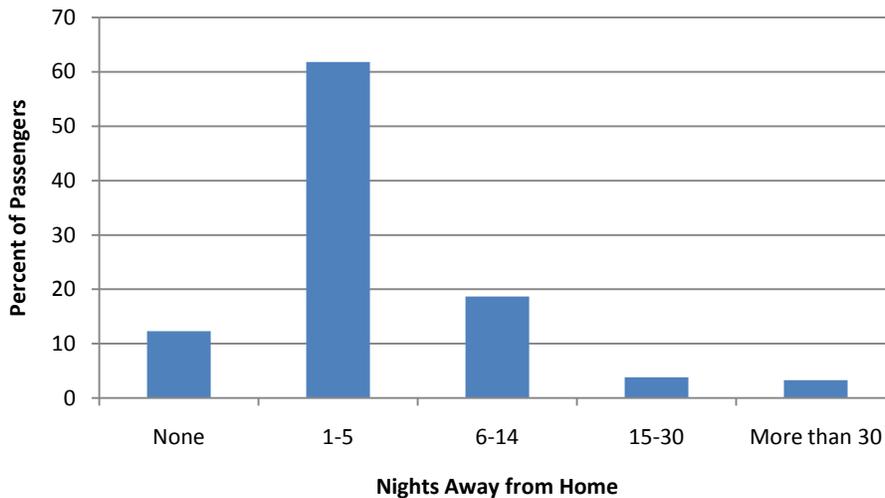


Figure 38. Nights Away from Home, Bus Passengers

A slightly higher share of bus passengers spent between one and five nights away from home in 2007 compared to 2001: While 61 percent of passengers were away for one to five nights in 2007, this figure was 50 percent of passengers in 2001.

Level of Education

Figure 39 shows that only about one in five responding bus passengers are college graduates, and that 15 percent of bus respondents have not completed high school.

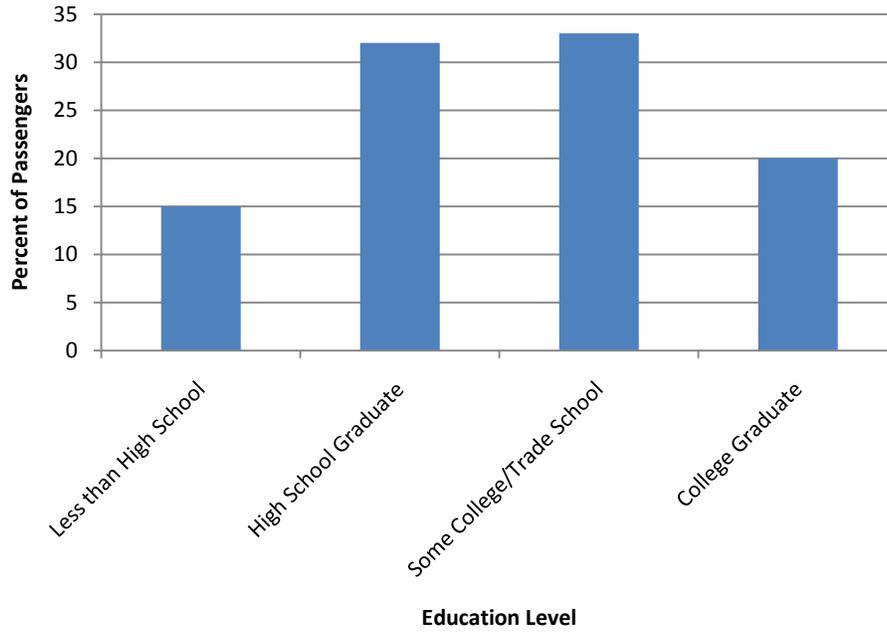


Figure 39. Highest Level of Education, Bus Passengers

Household Size

The average household size of bus passengers was 3.1 people per household. Figure 40 demonstrates the most frequent response for household size was two, with a response rate of 24 percent.

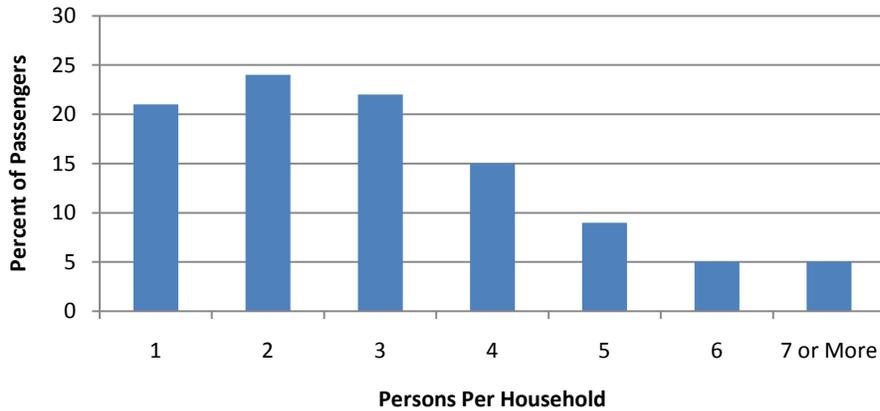


Figure 40. Household Size, Bus Passengers

Location Prior to Bus Station

A majority of responding passengers arrived at the bus boarding station from home. As Table 19 shows, 50 percent of respondents reported coming from home when arriving at the station. The second-most common location was a place of friends or relatives, with 18 percent of bus passengers reporting this location. Other significant origins include vacation places and college.

Table 19. Location Prior to Bus Station

Location	Percent of Passengers
Home	49.8
Visit Friends/Relatives	18.1
University/College	7.4
Vacation	6.1
Work-related Activity	4.7
Personal Business	4.4
Other	3.5
Place of Work	2.8
School (other than college)	2.6
Shopping	0.3
Entertainment	0.3

4.2 Bus Service Use

Counties of Trip Origin

Figure 41 shows the geographic distribution of the origins of responding bus passengers by county. Most respondents originated their trips in the southern half of the Lower Peninsula, with Kent, Ingham, Saginaw, Genesee, and Wayne being the top five counties of origin. Although few in number, the map shows that some responding passengers originated in the Upper Peninsula, including the counties of Marquette, Houghton, Iron, Delta, and Keweenaw.

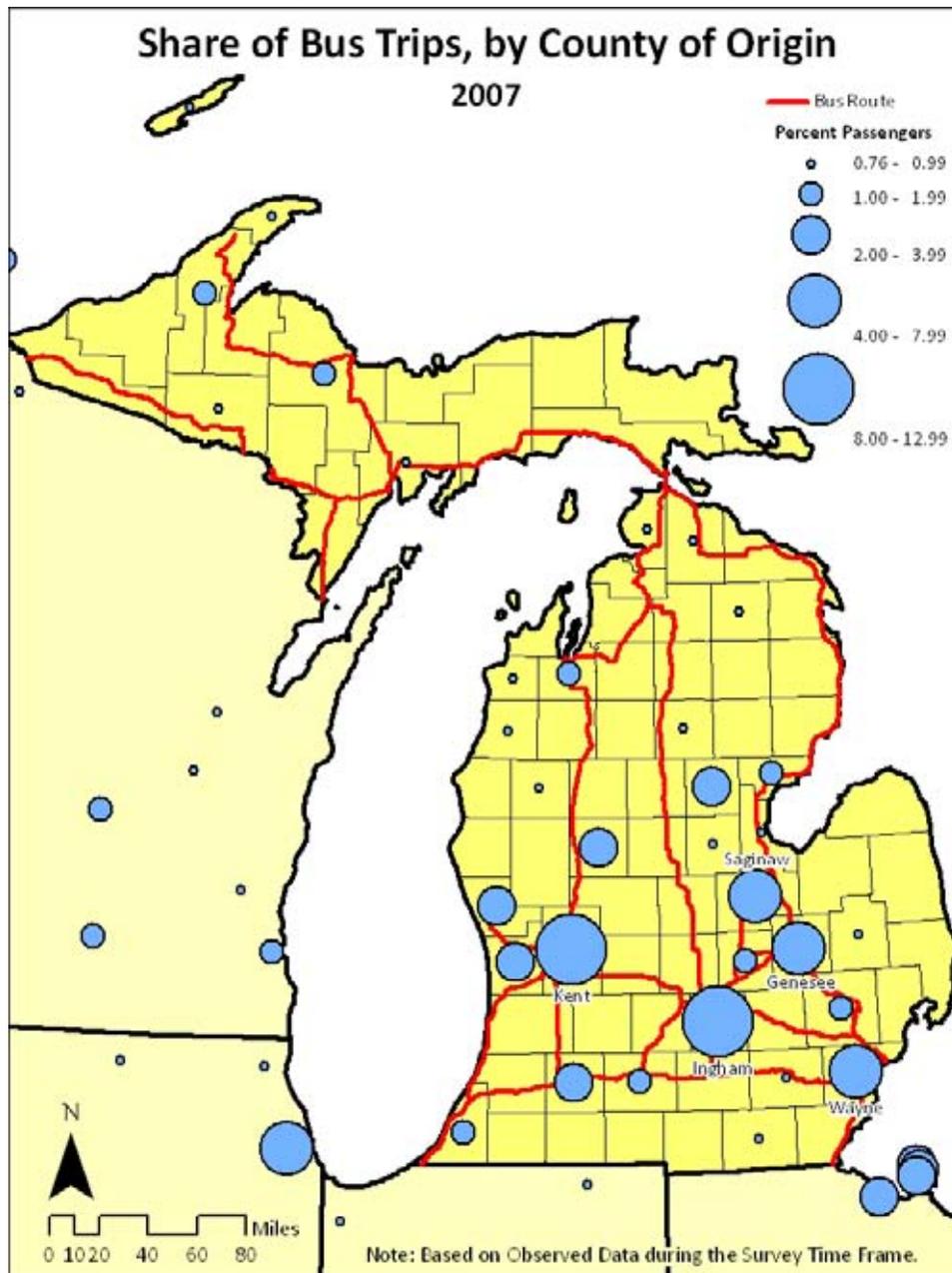


Figure 41. Counties of Bus Trip Origin

In 2001, the top five counties of origin were Wayne, Kent, Genesee, Ingham, and Oakland. This shifted slightly between 2001 and 2007: by 2007, the top five counties of origin were Ingham, Cook, Wayne, Genesee, and Kent.

Counties of Trip Destination

Figure 42 shows the geographic distribution of final destinations for responding bus passengers. Cook County was the final destination for 13 percent of bus respondents. The top destinations for Michigan travelers were Cook, Wayne, Ingham, and Genesee.

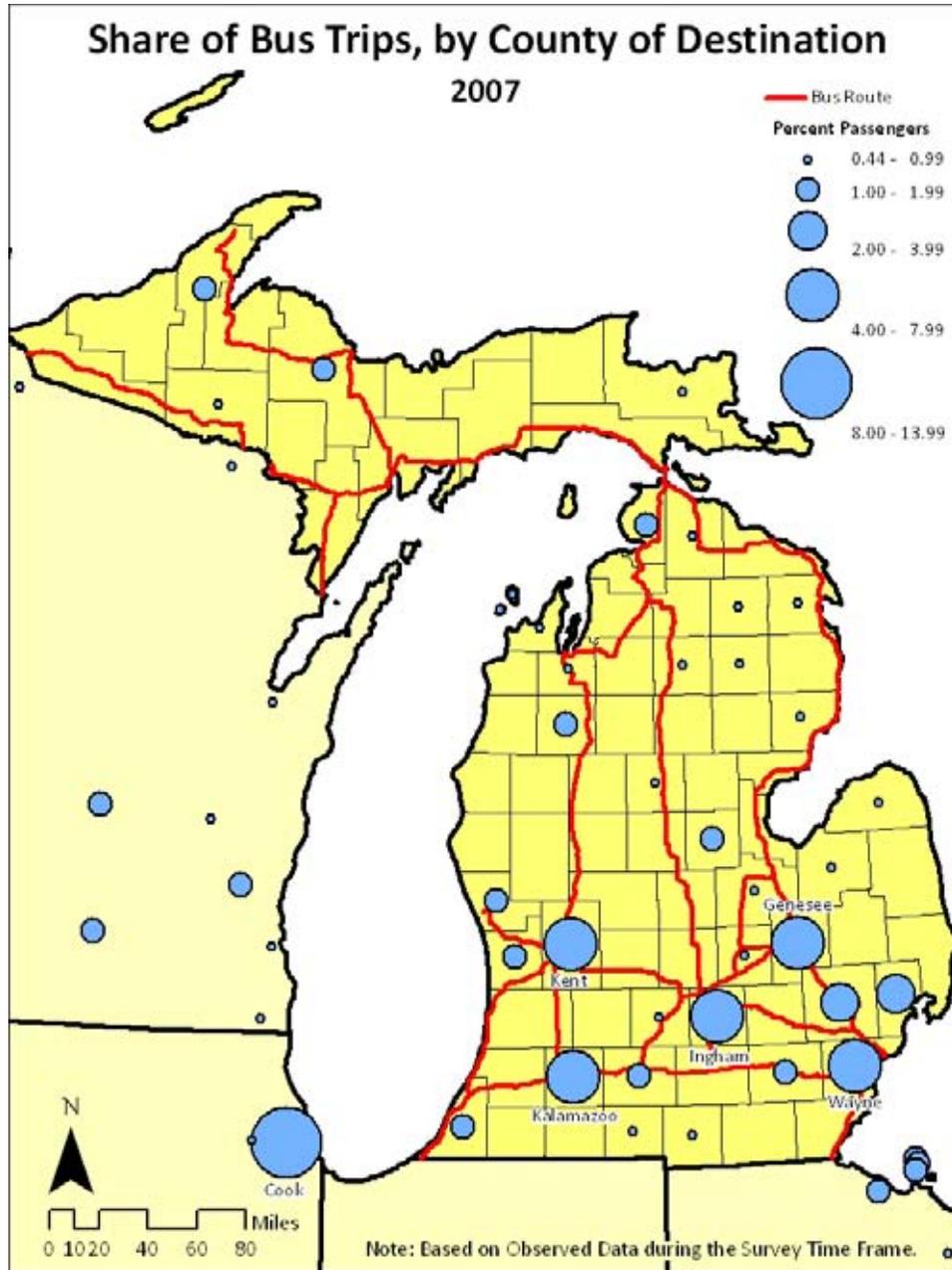


Figure 42. Counties of Bus Trip Destination

Distribution of Trip Origin Counties

Figure 43 through Figure 47 show the origin counties reported for the top five destinations by responding bus passengers: Cook, Wayne, Ingham, Genesee and Kent Counties. For example, Figure 43 shows the share of trips traveling to Cook County by the county of origin. The map shows that most trips to Cook County originated in the counties of mid-Michigan, primarily Ingham and Kent counties.

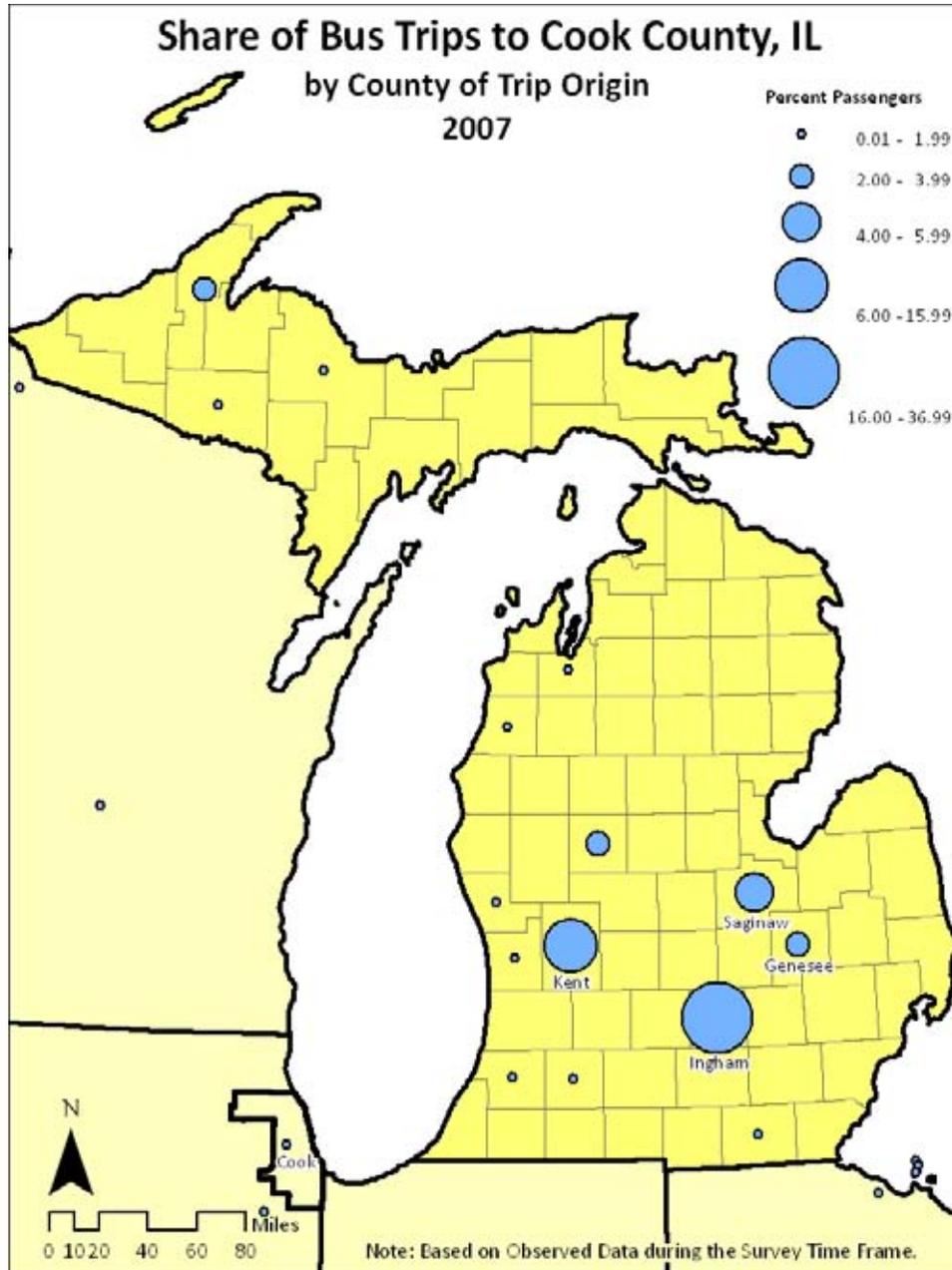


Figure 43. Bus Trip Distribution of Cook County

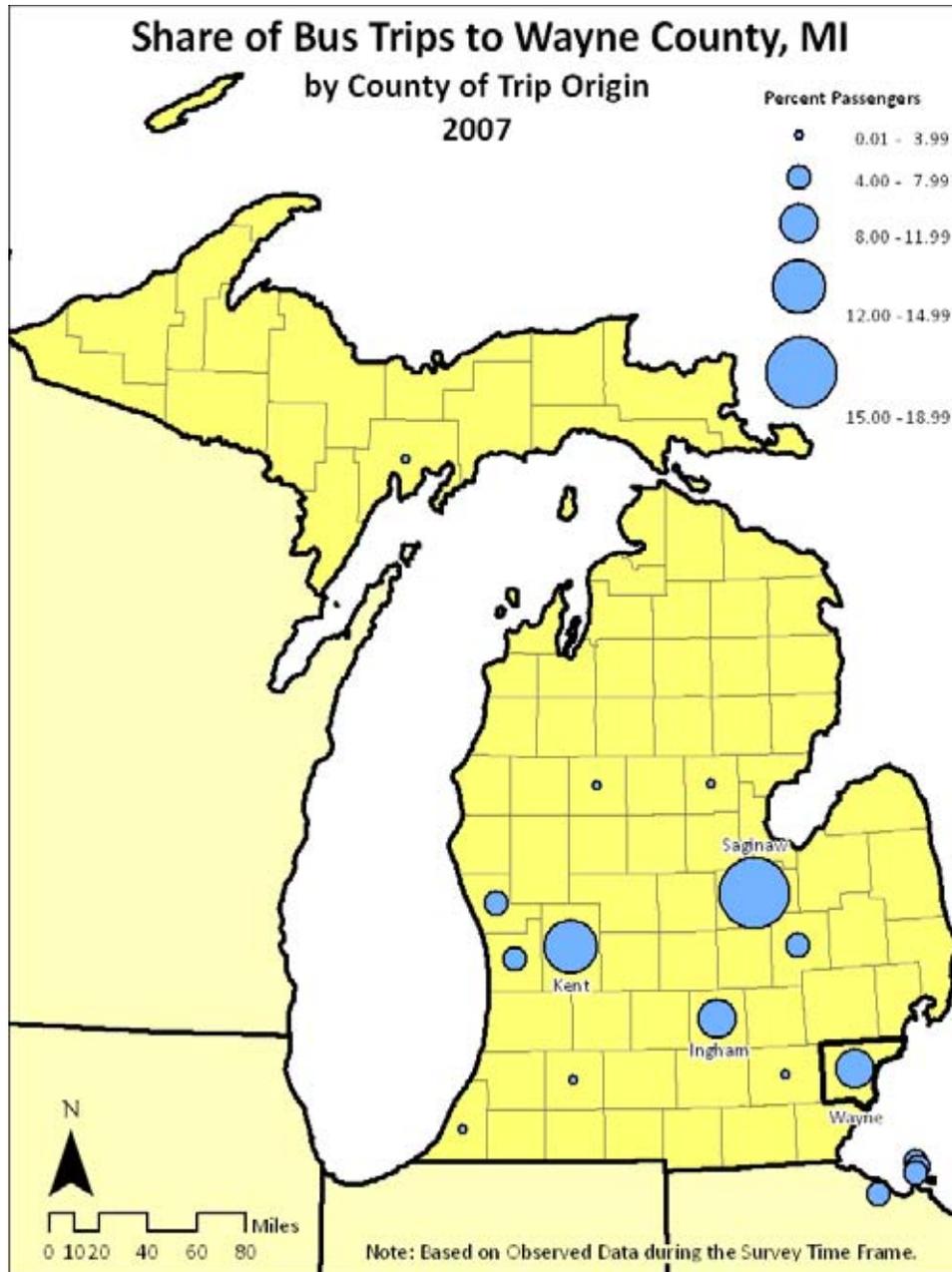


Figure 44. Bus Trip Distribution of Wayne County

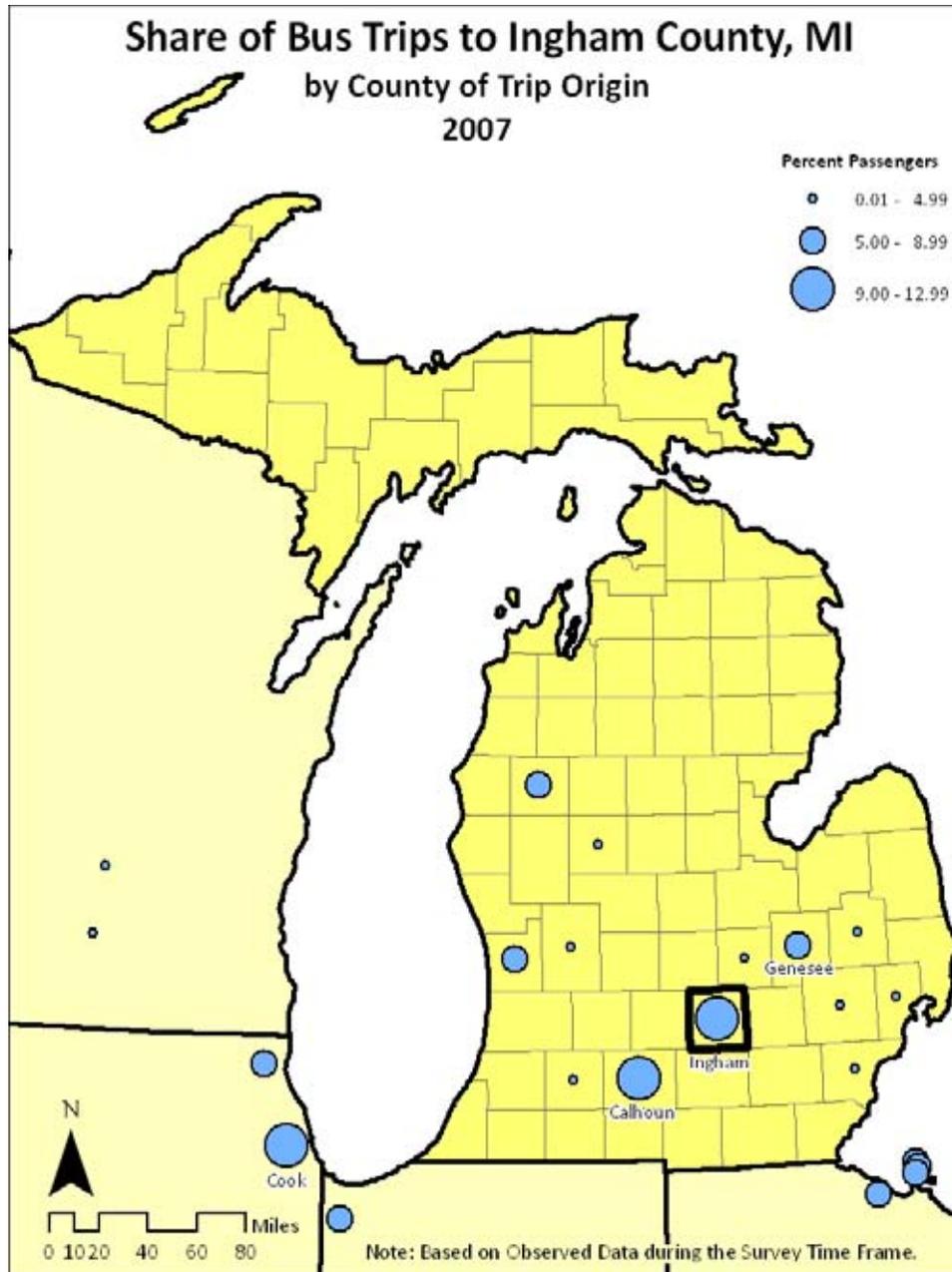


Figure 45. Bus Trip Distribution of Ingham County

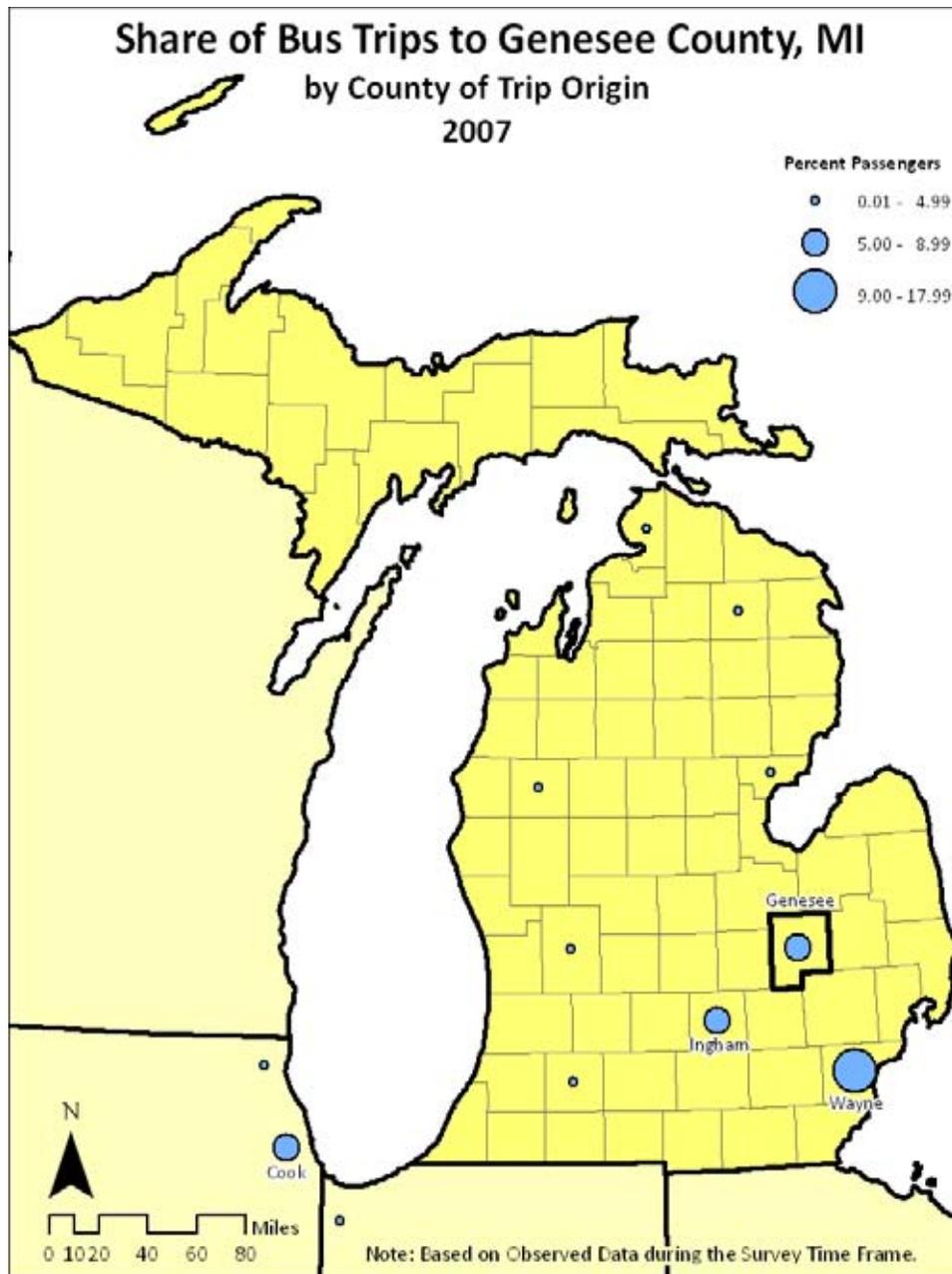


Figure 46. Bus Trip Distribution of Genesee County

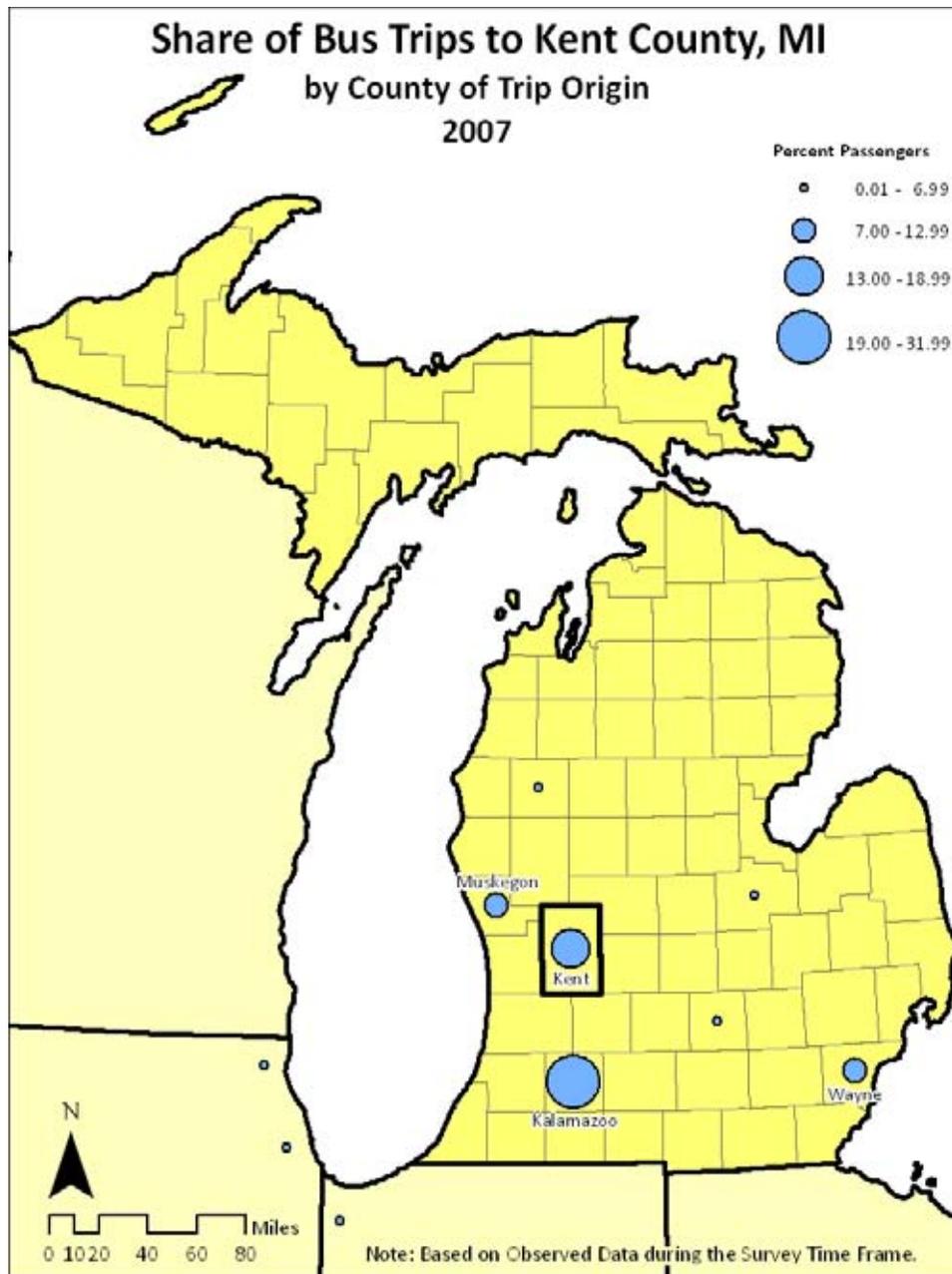


Figure 47. Bus Trip Distribution of Kent County

Purpose of Trip

Figure 48 shows that "visiting friends and family" was by far the most frequently cited reason survey respondents gave for taking the bus. Slightly over 50 percent of respondents listed this as their main reason for travel. This was substantially greater than the next response, "going on vacation", which had a response of only 12 percent of respondents. The least-cited reasons for taking the bus were for "going to and from entertainment", "school (not university or college)", and "shopping".

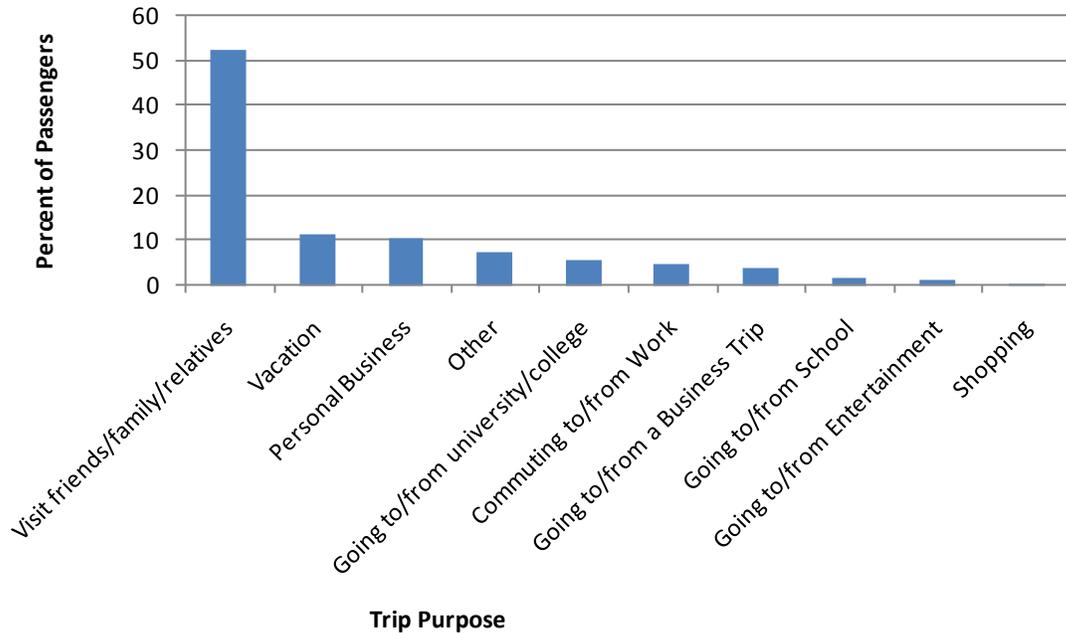


Figure 48. Reason for Taking Trip, Bus Passengers

Trip Purpose by Destination Counties

For a closer investigation of the reasons for taking bus trips, Table 20 reports the breakdown of trip purposes for the top five destination counties. Visiting friends and family remains the dominant reason for travel by bus, with over half of all respondents reporting this purpose for trips that end in all five counties listed except for Wayne. Wayne County attracted an unusually high share of trips for commuting and personal business, suggesting that respondents were using intercity bus to destinations within Wayne for work and work-related purposes. Traveling to attend college or university is a commonly cited reason in four of the five top destination counties.

Table 20. Trip Purpose by Top Five Destination Counties, Bus Passengers

Purpose of Trip	Top Five Destination Counties				
	Cook, IL (%)	Wayne (%)	Ingham (%)	Genesee (%)	Kent (%)
Commuting	2.0	14.8	8.0	0.0	0.0
College /University	8.2	11.1	20.0	11.1	0.0
Visit Friends/Family	53.1	37.0	52.0	66.7	81.3
Vacation	8.2	7.4	12.0	0.0	6.3
Shopping	0.0	0.0	0.0	0.0	0.0
Personal Business	2.0	14.8	4.0	11.1	12.5
Other	16.3	3.7	4.0	5.6	0.0
Business Trip	10.2	7.4	0.0	0.0	0.0
Entertainment	0.0	0.0	0.0	0.0	0.0
School	0.0	3.7	0.0	5.6	0.0
All	100.0	100.0	100.0	100.0	100.0

Note: Based on observed data during the survey time frame.

Compared to the previous study of 2001, bus passengers in 2007 reported similar reasons for taking trips. In both 2001 and 2007, “visiting family and friends” was the most frequently cited reason for taking a bus trip. However, the relative importance of this purpose appears to have increased slightly, jumping from 40 percent to 51 percent between 2001 and 2007. “Vacation” was the second-most common response in both 2001 and 2007, but with a slight drop between the survey years. In 2001, 20 percent of respondents reported vacation while, in 2007, this figure dropped to 11 percent.

Catchment Area of Bus Stations

A comparison of per capita bus boardings provides a basis for understanding in relative terms how much a community uses bus service. Bus stations that are located in dense population settlements are expected to attract more riders than stations that are located in less densely populated places, all else being equal. A “catchment area” is used to control for the differences in drawing power among stations, and is the same as that defined for rail stations in Section 3.2. Although the example is a rail station in Detroit, Figure 20 illustrates what a catchment area looks like. The dark shading is the “catchment area,” which extends in the case of bus stations up to eight miles (the median travel distance to bus boarding stations among all bus respondents) along all roads in the vicinity of the station. The “catchment area population” is then defined as the population that lives within the boundary, based on block-level population from the 2000 Census of Population and Housing, Summary File 1.⁷

⁷ U.S. Bureau of the Census. (2002). *2000 Census of Population and Housing, Summary File 1, United States, Technical Documentation*. Washington, DC: U.S. Government Printing Office.

Boardings Per Capita

Using the concept of the “catchment area,” Figure 49 and Table 21 show the number of boardings per capita at bus stations and illustrate these findings:

- Even though Wayne County had the third highest number of boardings, the Detroit station had the fifth smallest number of boardings per capita.
- Considering the small population base upon which they draw, several stations in the northern Lower Peninsula attracted a disproportionately high number of riders. This illustrates the relative significance of intercity bus services to people living in the northern areas of the state.

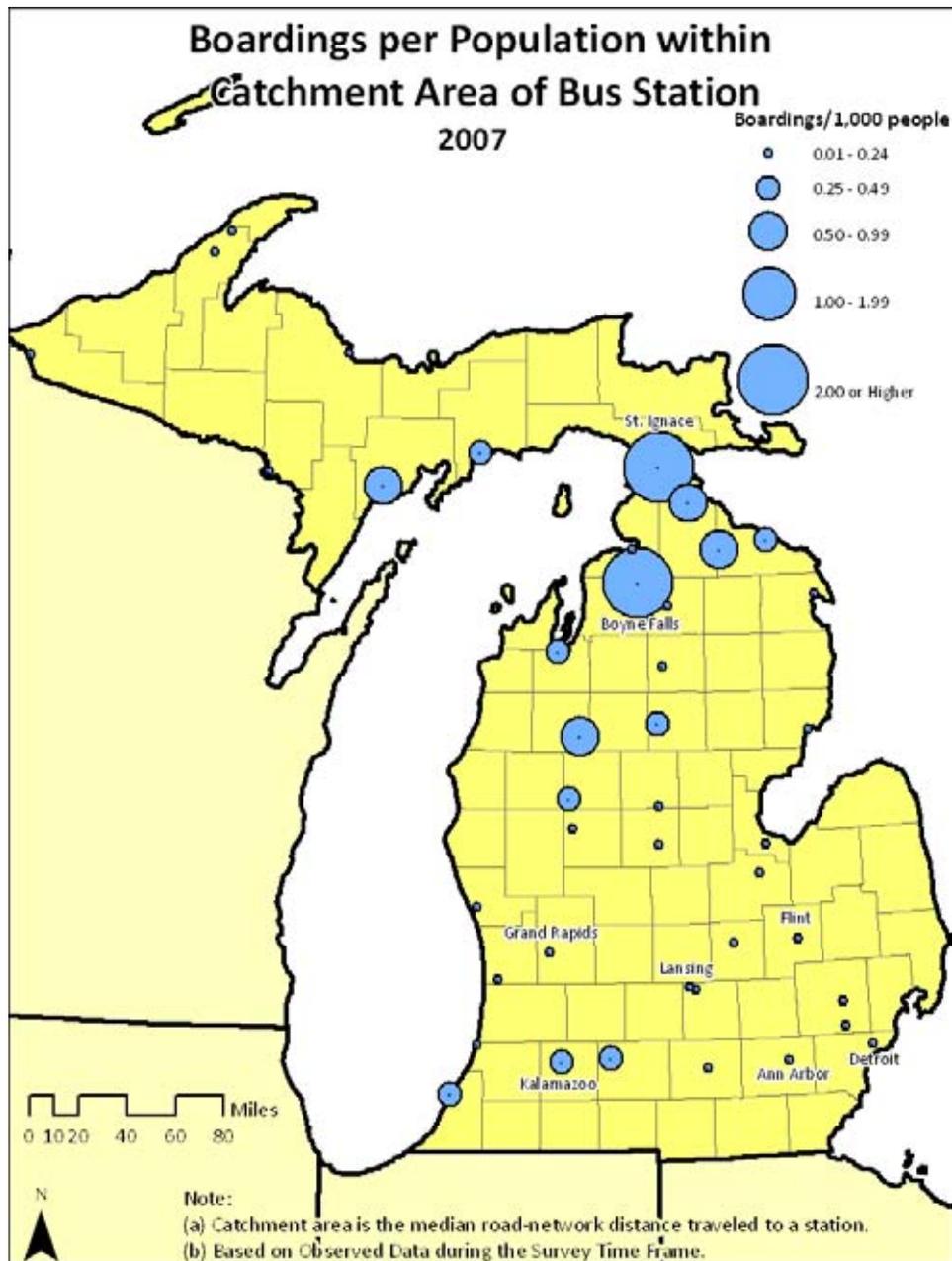


Figure 49. Bus Boardings per Capita at Bus Stations

Table 21. Bus Boardings per Capita at Bus Stations

Station	Boardings	Catchment Area Population (2000)	Boardings per Catchment Area Population (per 1,000)
St. Ignace	15	2,552	5.88
Boyne Falls	5	2,367	2.11
Escanaba	14	16,968	0.83
Onaway	1	1,775	0.56
Cheboygan	3	5,753	0.52
Cadillac	8	15,752	0.51
St. Joseph/ Benton Harbor	27	57,233	0.47
Houghton Lake	2	4,306	0.46
Reed City	2	5,309	0.38
Rogers City	1	2,807	0.36
Traverse City	12	37,073	0.32
Kalamazoo	44	165,703	0.27
Manistique	1	3,800	0.26
Battle Creek	22	87,418	0.25
Gaylord	3	12,271	0.24
Flint	55	235,687	0.23
Marquette	5	22,391	0.22
Muskegon	20	100,702	0.20
East Lansing	47	238,401	0.20
Alpena	3	16,639	0.18
Grayling	1	5,866	0.17
Lansing	39	246,931	0.16
Tawas City	1	6,729	0.15
Saginaw	19	127,982	0.15
Grand Rapids	53	361,701	0.15
South Haven	2	14,828	0.13
Calumet	1	8,715	0.11
Clare	1	8,866	0.11
Houghton/ Hancock	2	17,878	0.11
Ironwood	1	8,967	0.11
Bay City	8	74,318	0.11
Owosso	3	30,904	0.10
Mt. Pleasant	4	42,007	0.10
Petoskey	1	13,071	0.08
Jackson	7	96,113	0.07
Iron Mountain	1	14,037	0.07
Holland	6	89,126	0.07
Detroit	56	838,300	0.07
Ann Arbor	11	184,103	0.06
Big Rapids	1	17,318	0.06
Pontiac	8	278,884	0.03
Southfield	7	518,063	0.01

Mode of Travel to Boarding Station

The most common mode of transportation to the boarding station reported by survey respondents is private vehicle. Figure 50 shows that 52 percent of passengers are dropped off by private vehicle. No other mode exceeded 10 percent of respondents, with a fairly even split among them.

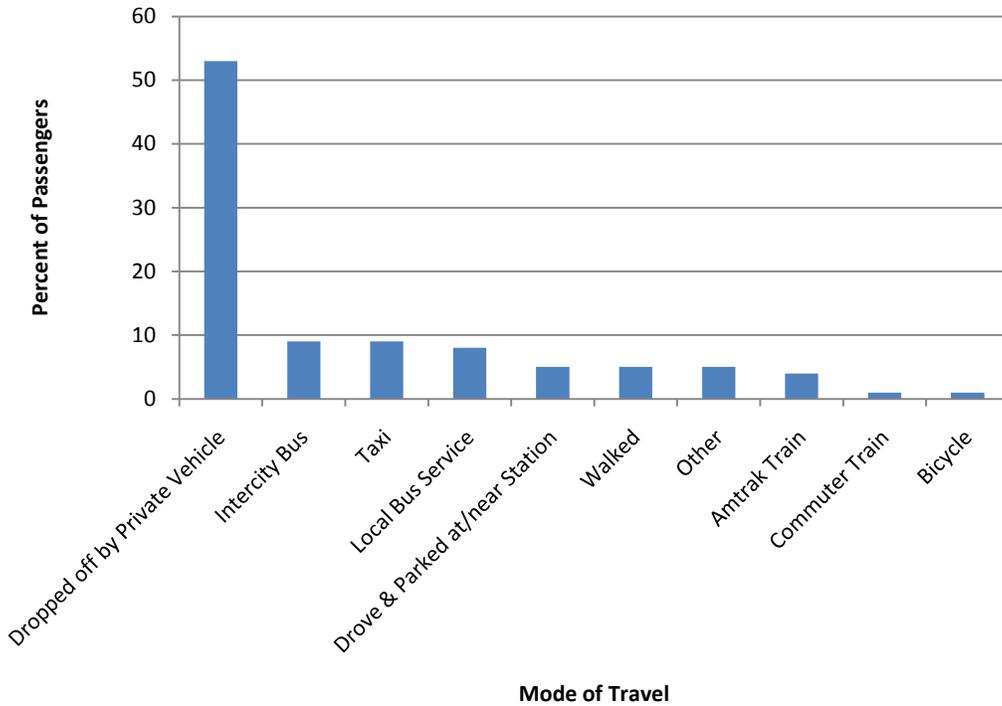


Figure 50. Mode of Travel to Boarding Station, Bus Passengers

Table 22 illustrates how the mode of travel to a station varies by the location of the trip origin. It shows that Cook County is an atypical location, likely because the City of Chicago offers a wide array of travel options to a bus station. For example, even though 52 percent of all survey respondents were dropped off by private vehicle at a station, among those passengers boarding in Cook County, this figure was only 37 percent. This is likely a reflection of the high cost of driving a private vehicle in downtown Chicago – in terms of both parking and traffic congestion. Instead, passengers boarding a bus in Cook County are more likely than their counterparts in other counties to take a taxi or a commuter train to the station.

Table 22. Travel Mode to Boarding Stations, Bus Passengers

Travel Mode	Top Five Origin Counties				
	Ingham (%)	Cook, IL (%)	Wayne (%)	Genesee (%)	Kent (%)
Taxi	7.06	14.29	13.33	5.45	7.55
Walked	12.94	4.08	3.33	1.82	1.89
Amtrak Train	0.00	4.08	0.00	0.00	0.00
Commuter Train	0.00	4.08	0.00	0.00	0.00
Bicycle	1.18	2.04	0.00	1.82	0.00
Local Bus Service	15.29	8.16	6.67	10.91	11.32
Other	2.35	4.08	6.67	3.64	5.66
Dropped off	45.88	36.73	53.33	63.64	56.60
Drove & Parked	10.59	2.04	1.67	9.09	3.77
Intercity Bus	4.71	20.41	15.00	3.64	13.21
Total	100.00	100.00	100.00	100.00	100.00

Note: Based on observed data during the survey time frame.

Mode of Travel Away From Alighting Station

Figure 51 illustrates the travel mode away from alighting stations. One notable difference compared to the mode of travel to boarding stations is that survey respondents were slightly more likely to be picked up by private vehicle at the alighting station (56 percent) than to be dropped off at the boarding station (52 percent). The most common mode of travel is over five times higher than the second-most common mode of travel, Amtrak train. As shown in Figure 51, nearly 10 percent of responding passengers reported continuing on from their alighting station by Amtrak train. Of those who leave a station by Amtrak train, almost half are Thruway passengers.

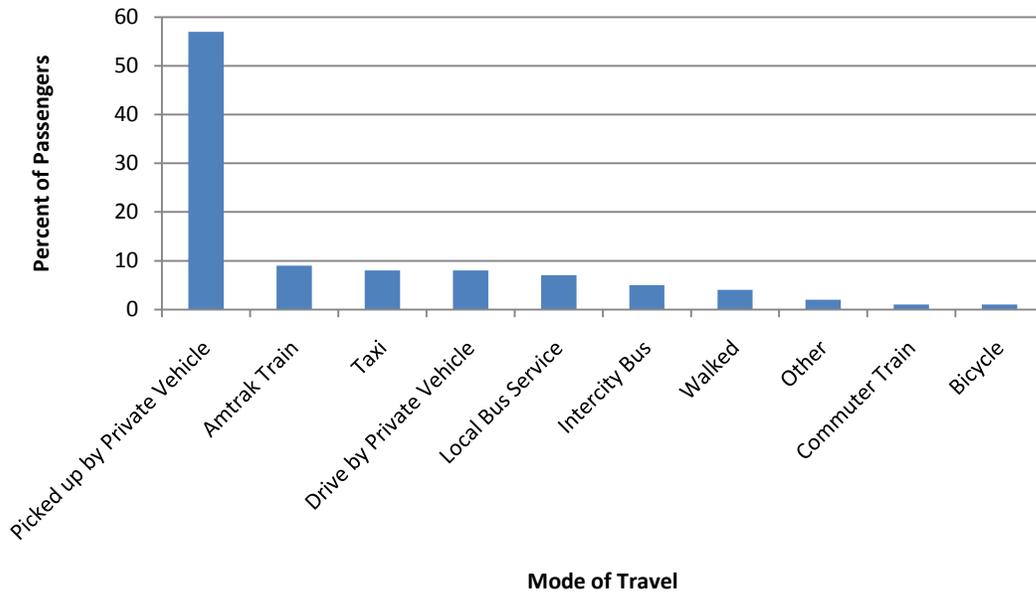


Figure 51. Mode of Travel from Alighting Destination, Bus Passengers

Table 23 illustrates how the mode of travel away from an alighting station varies by the location of the bus trip destination and, like with the case of boarding stations, it shows that Cook County is an atypical location. Cook County shows that a disproportionately low share of respondents was picked up by private vehicle, likely a reflection of the high cost of driving in Chicago. The most common mode of travel at the bus alighting station in Cook County was Amtrak train, with 44 percent of passengers taking this option. This suggests that a common purpose for using intercity bus services in Michigan is to connect to Amtrak trains in Chicago.⁸

⁸ This result may be skewed by the design of the survey questionnaire. Because many bus respondents were from areas that lack commuter rail service, and because Amtrak train was the first response offered on the questionnaire, it is possible that these respondents checked the first "train" response they found which would not accurately reflect their use of METRA services in Chicago.

Table 23. Travel Mode from Alighting Stations, Bus Passengers

Travel Mode	Top Five Destination Counties				
	Cook, IL (%)	Wayne (%)	Ingham (%)	Genesee (%)	Kent (%)
Taxi	9.4	5.4	6.3	3.2	7.0
Walked	3.1	0.0	9.4	0.0	4.7
Amtrak Train	43.8	0.0	3.1	0.0	0.0
Commuter Train	3.1	0.0	0.0	0.0	0.0
Bicycle	1.6	0.0	0.0	0.0	2.3
Local Bus Service	6.3	5.4	25.0	6.5	16.3
Other	0.0	0.0	3.1	6.5	0.0
Picked up	26.6	81.1	43.8	67.7	65.1
Drove & parked	1.6	8.1	3.1	16.1	4.7
Intercity Bus	4.7	0.0	6.3	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Note: Based on observed data during the survey time frame.

Cross-Tabulation of Travel Modes

To investigate further how people travel to and from bus stations, we cross-tabulated the mode of travel in Table 24. As an illustration of how to read the table, the first row shows that of the survey respondents who took a taxi to the boarding station, 19.3 percent of them took another taxi and 5.3 percent of them walked when leaving the alighting station at the end of their bus trip. One finding from the table is that people who took a taxi to a bus station were more likely to take a taxi at the other end of their bus trip than any other kind of passenger, with about 19 percent of them taking a taxi from the alighting station.

Table 24. Comparing Modes of Travel To and From Station

	Mode from Alighting Station										
Mode to Boarding Station	Taxi	Walked	Amtrak Train	Commuter Train	Bicycle	Local Bus	Other	Picked Up	Drove	Intercity Bus	All
Taxi	19.3	5.3	0.0	0.0	0.0	8.8	1.8	52.6	12.3	0.0	100.0
Walked	0.0	10.0	13.3	0.0	0.0	10.0	3.3	33.3	20.0	10.0	100.0
Amtrak Train	0.0	16.7	0.0	0.0	0.0	0.0	0.0	66.7	16.7	0.0	100.0
Commuter Train	0.0	0.0	14.3	14.3	0.0	0.0	0.0	42.9	14.3	14.3	100.0
Bicycle	0.0	0.0	40.0	0.0	0.0	0.0	0.0	40.0	0.0	20.0	100.0
Local Bus	7.1	3.6	3.6	0.0	1.8	17.9	1.8	51.8	8.9	3.6	100.0
Other	3.4	6.9	0.0	0.0	0.0	0.0	13.8	62.1	13.8	0.0	100.0
Dropped off	8.2	2.9	7.3	0.9	0.6	6.2	1.8	63.0	4.4	4.7	100.0
Drove	3.0	3.0	18.2	0.0	3.0	6.1	0.0	48.5	9.1	9.1	100.0
Intercity Bus	3.2	4.8	1.6	0.0	0.0	7.9	3.2	58.7	11.1	9.5	100.0

In comparing the results of the 2007 survey with the survey of 2001, taking a private vehicle to the bus station remains overwhelmingly the most common mode of travel for both arriving at a boarding station and for leaving an alighting station. Although private vehicles were the most common mode of travel to and from stations, private vehicles are becoming a smaller share of all modes over time. For example, in 2001, approximately 70 percent of passengers arrived at a boarding station by private vehicle. In contrast, by 2007, about 60 percent of passengers used a private vehicle for arriving at a boarding station. However, the 2001 study did not distinguish between passengers who were dropped off by a private vehicle and those who had a vehicle parked at the station.

Travel Time To and From Boarding and Alighting Stations

Figure 52 shows that bus passengers tend to arrive at the boarding station from locations near the station. Nearly half of passengers (49 percent) took trips of 15 minutes or less, and over three out of four passengers (68 percent) arrived at the station with a trip of no more than 30 minutes. At the other end of the trip, Figure 53 shows that passengers either traveled on to nearby destinations or traveled to far away destinations, with little in between.

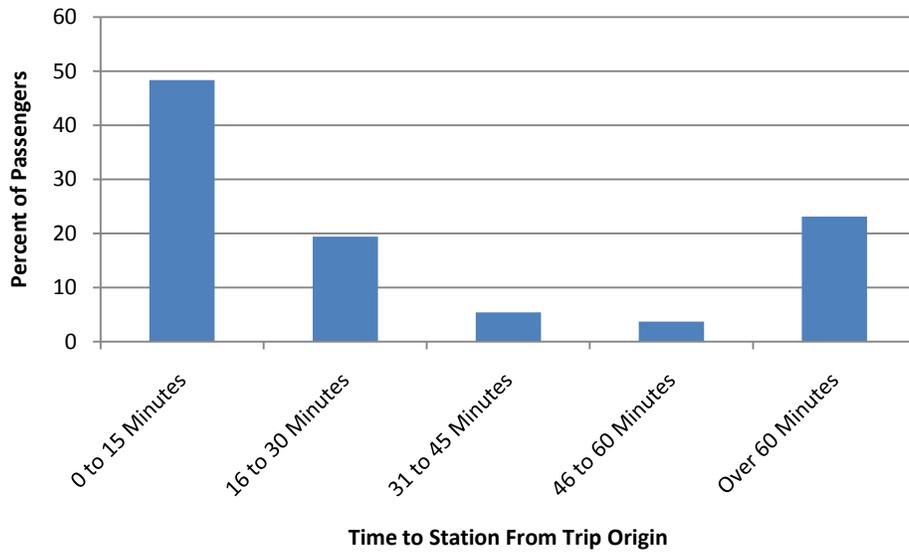


Figure 52. Travel Time to Boarding Station, Bus Passengers

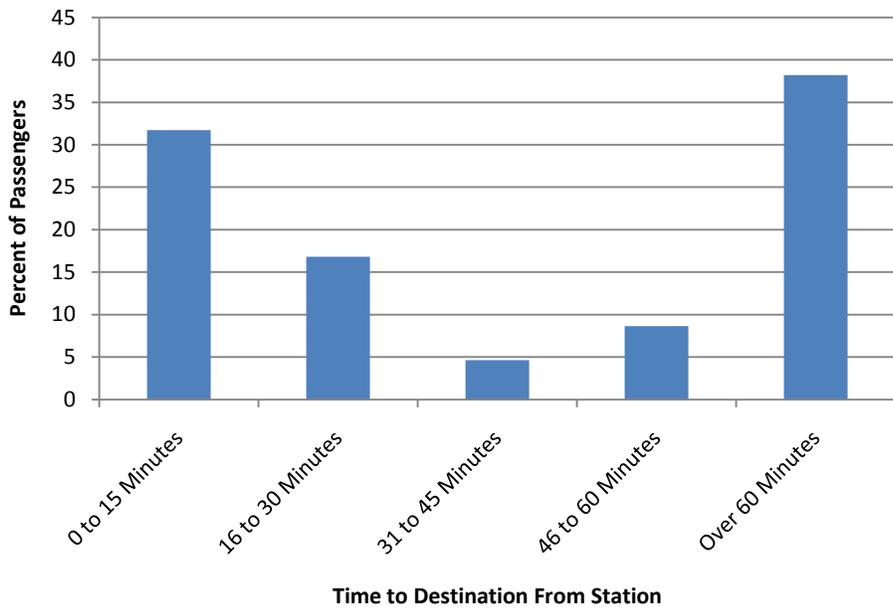


Figure 53. Travel Time from Alighting Station, Bus Passenger

To see whether the travel time distribution varies by location, Table 25 and Table 26 list the breakdown by station, one for boarding stations and the other for alighting stations. Table 25 confirms that most bus passengers typically spend short durations of time when traveling to a boarding station. Among the 10 stations with the highest observed boardings, only two – Chicago and Benton Harbor – do not have a majority of passengers arriving at the station within 30 minutes. In both Chicago and Benton Harbor, nearly half of responding bus passengers arrived at the station with a trip duration of over 60 minutes. Other stations with high shares of passengers arriving with trip durations of over 60 minutes include Battle Creek (45 percent) and Grand Rapids (35 percent). Two-thirds of the respondents who reported 60 minutes or more in arriving at Battle Creek made the trip to Battle Creek by Amtrak train, and continued on by bus to either Flint or East Lansing as Thruway bus passengers. The stations in East Lansing and Muskegon, by contrast, drew very few passengers from long distances. In East Lansing, for example, nearly 70 percent of respondents arrived at the station within a 15-minute trip, and only seven percent arrived with a trip of over 60 minutes. Stations with long trip durations to and from the station (except Benton Harbor) are stations where bus and rail services are designed to connect. Bus respondents may be considering the rail and bus portions of their trip as separate in their response to survey questions.

Table 26 reports the travel time breakdown for trips leaving an alighting station. In general, respondents reported longer trips away from an alighting station than trips to a boarding station. Table 26 shows the distribution of travel times away from alighting stations, for the 10 bus stations with the highest observed alightings. The table shows that although most respondents took trips of short duration when arriving at a boarding station at the beginning of the journey, they spent considerably more time traveling away from the alighting station at the end of the journey. At six of the ten of stations listed, over half of bus respondents spent at least 45 minutes of travel when leaving the alighting station for their final destination (Chicago, Detroit, Battle Creek, Kalamazoo, Bay City, and St. Ignace). Over 80 percent of survey respondents at the Battle Creek station reported travel times exceeding 60 minutes. Of the respondents who reported 60 minutes or more in leaving Battle Creek, three out of four arrived as Thruway Bus passengers who continued on by Amtrak train.

Table 25. Travel Time to Boarding Station, Bus Passengers

	0 - 15 Minutes (%)	16 – 30 Minutes (%)	31 – 45 Minutes (%)	46 – 60 Minutes (%)	Over 60 Minutes (%)	All (%)
1. Grand Rapids	40.4	17.3	5.8	1.9	34.6	100.0
2. Flint	43.1	21.6	11.8	0.0	23.5	100.0
3. Detroit	27.7	38.3	4.3	6.4	23.4	100.0
4. East Lansing	68.9	20.0	2.2	2.2	6.7	100.0
5. Chicago	30.2	2.3	7.0	14.0	46.5	100.0
6. Kalamazoo	45.2	26.2	4.8	2.4	21.4	100.0
7. Lansing	47.4	18.4	5.3	0.0	28.9	100.0
8. Benton Harbor	32.0	12.0	0.0	8.0	48.0	100.0
9. Battle Creek	20.0	35.0	0.0	0.0	45.0	100.0
10. Muskegon	61.1	22.2	5.6	5.6	5.6	100.0

Note: Bus stations shown consist of the highest observed boardings from survey data. Top ten boarding stations.

Table 26. Travel Time from Alighting Station, Bus Passengers

	0 - 15 Minutes (%)	16 - 30 Minutes (%)	31 - 45 Minutes (%)	46 - 60 Minutes (%)	Over 60 Minutes (%)	All (%)
1. Grand Rapids	30.2	28.6	6.3	12.7	22.2	100.0
2. Chicago	8.5	11.9	8.5	5.1	66.1	100.0
3. Detroit	25.5	19.6	2.0	5.9	47.1	100.0
4. Battle Creek	9.3	7.0	0.0	2.3	81.4	100.0
5. Kalamazoo	15.8	26.3	2.6	21.1	34.2	100.0
6. Flint	18.9	32.4	2.7	2.7	43.2	100.0
7. Lansing	26.5	20.6	5.9	14.7	32.4	100.0
8. Saginaw	33.3	16.7	0.0	16.7	33.3	100.0
9. Bay City	18.8	25.0	6.3	6.3	43.8	100.0
10. St. Ignace	7.7	15.4	7.7	7.7	61.5	100.0

Note: Bus stations shown consist of the highest observed alightings from survey data. Top ten alighting stations.

The 2001 study is not directly comparable to these 2007 data for comparing trends over time in trip duration to and from bus stations. In 2001, the distribution of travel time among passengers was not disaggregated into boardings and alightings as in this study. Nevertheless, two observations can be made in comparing results between 2001 and 2007. First, the general patterns are similar. In both 2001 and 2007, bus passengers tend to travel either very short durations or very long durations when arriving at or leaving from a station, with little medium-duration travel. Second, the station of Benton Harbor shows contradictory results from one study to the next. In 2001, only about three percent of bus passengers were reported to have traveled over 60 minutes when arriving or leaving a station. In contrast, by 2007, nearly half of passengers arriving at the boarding station required a trip of at least 60 minutes.

Alternative Mode of Travel

Respondent passengers were asked to indicate the likelihood of choosing another mode of travel if a bus were not available. Just over half indicated that they would be "very likely" to drive if bus service were not available and three-quarters were "likely" or "very likely" to drive.

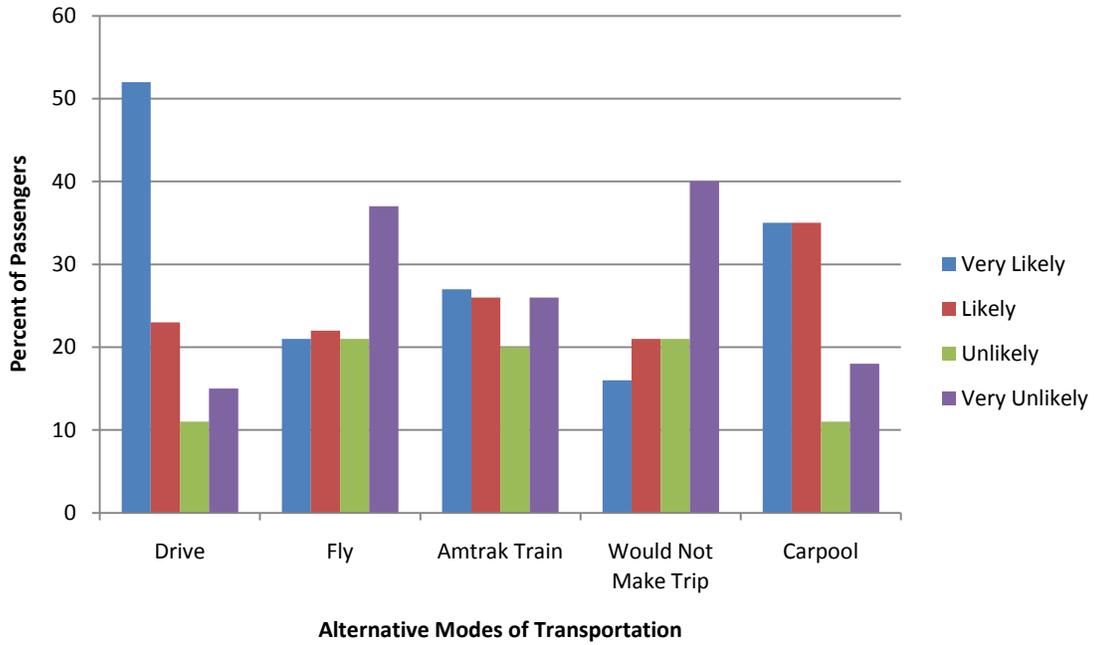


Figure 54. Likelihood of Choosing Alternative Mode of Travel, Bus Passengers

Alternative Mode of Travel and Income

Figure 55 presents the data on likelihood of selecting an alternative mode of travel by household income. The figure shows that the higher the level of income, the more likely a passenger would choose to drive rather than take a bus. By contrast, it also shows that the lower the income, the more likely a passenger would choose to not make a trip if a bus were not available. This finding is not surprising because driving is the most costly (including all associated costs of owning and operating a vehicle) among the alternatives, and bus passengers disproportionately report household incomes lower than national averages.

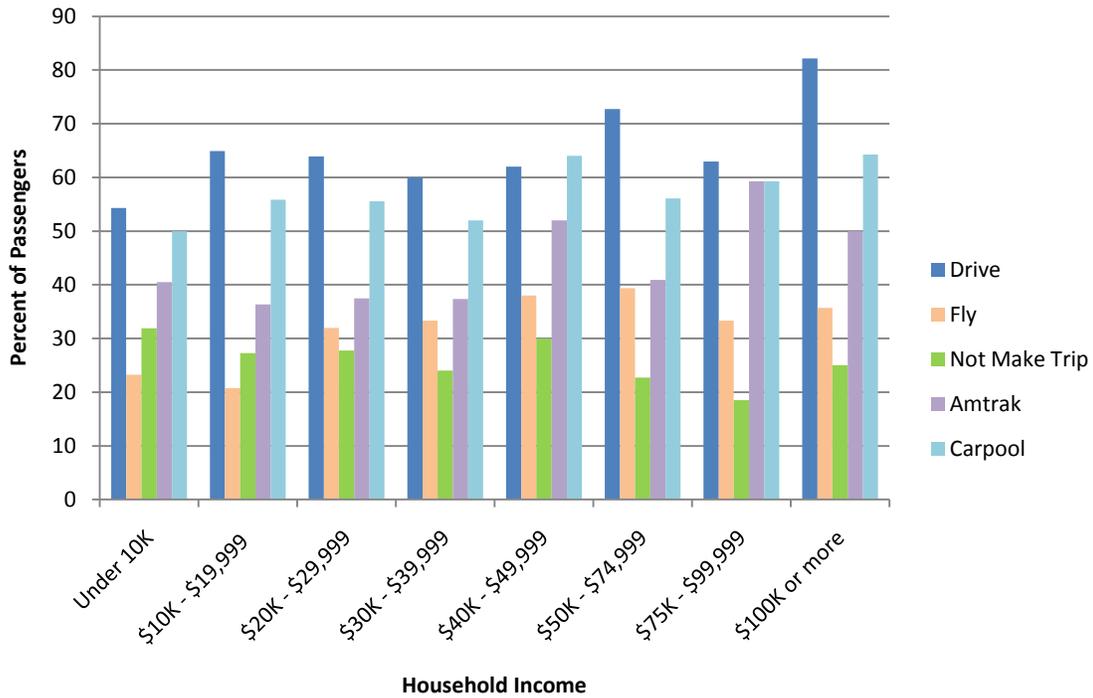


Figure 55. Alternative Mode of Transportation Based on Income, Bus Passengers

Reason for Choosing Intercity Bus

Bus passengers were asked to select which reason best describes how they selected to travel by intercity bus rather than by other means. Figure 56 lists the choices available to a survey respondent and shows that cost was by far the most cited reason for bus travel.

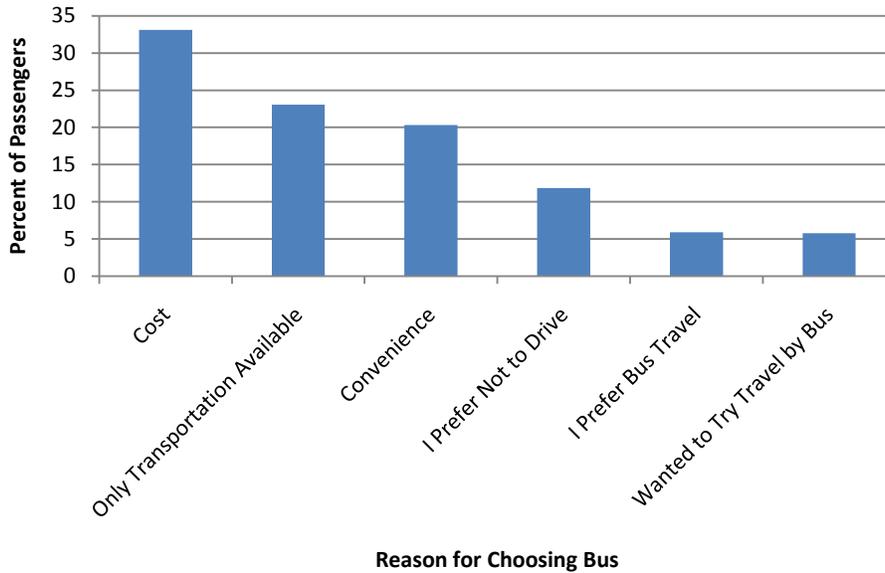


Figure 56. Reason for Choosing Intercity Bus

Trips in the Past Year

Figure 57 shows that over 27 percent of passengers reported that they had taken no other intercity bus trip during the past year. While most bus passengers took no more than one other trip during the previous year, 14 percent of passengers took over five round trips in a year.

This trip-making behavior is different than the findings in 2001: in 2001, only 14 percent of bus travelers reported having taken no other trips in the past year, but by 2007, this figure jumped to 27 percent.

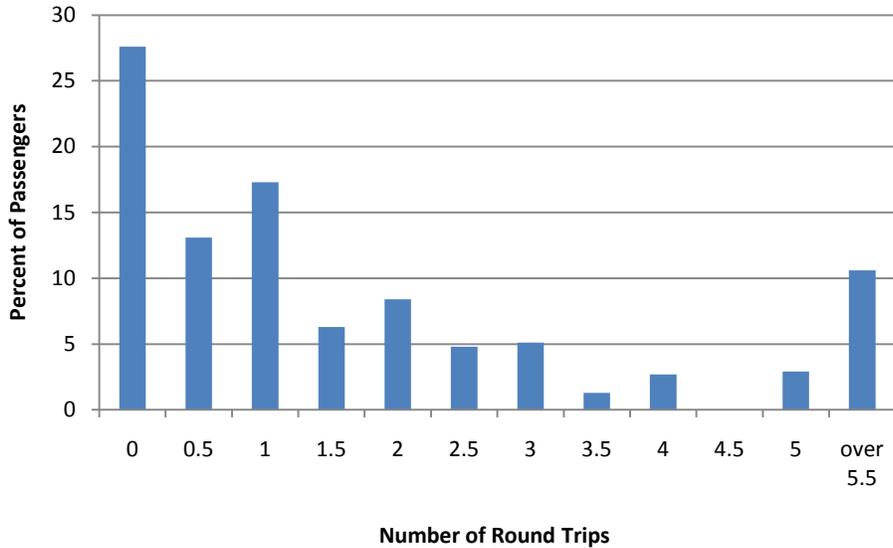


Figure 57. Number of Trips in the Past Year, Bus Passengers

Reasons for Increase in Bus Use

Passengers were asked to rate the likelihood of using bus services more frequently, by rating several factors on a scale of 0 (least likely) to 10 (most likely). As shown in Table 27, the most commonly cited reasons for which passengers would use more bus services include: Fewer and shorter layovers (average rating of 7.67) and Improved on-time reliability (7.54). The least likely factor is providing improved connections to Amtrak routes.

Despite these tentative findings, the data also show that little separates these factors. Notice that the average scores vary little among the factors, suggesting that bus passengers have substantially varying opinions on what would make them choose to use more bus service.

Table 27. Likelihood of Increasing Bus Use, Average Rating, Bus Passengers

Use Factor	Average
Fewer and Shorter Layovers	7.67
Improved On-Time Reliability	7.54
Increased Express Service	7.49
More Frequent Bus Service	7.35
Improved Conditions at Bus Stations	7.23
Improved Customer Service	6.90
Sharp Increase in the Price of Gas	6.79
A Station Closer to Where I Live	6.54
Improved Amtrak Train Connection	6.08

4.3 Bus Service Characteristics

Safety While Waiting For and Riding the Bus

Surveyed passengers were asked to indicate whether they felt safe while (a) waiting for a bus at a station and (b) while riding a bus. Respondents rated safety highly: 92 percent indicated that they felt safe while waiting for the bus, and 96 percent indicated feeling safe while riding the bus. No discernible difference was observed between women and men in regards to safety.

These results are consistent with the findings from the 2001 survey. In 2001, 92 percent of passengers indicated feeling safe waiting for a bus, while 98 percent indicated feeling safe while riding a bus.

The findings are somewhat unusual in the degree to which passengers reported feeling safe, and are likely a reflection of the fact that people who tend to feel unsafe when using transit do not show up in on-board surveys.⁹ To further investigate the safety that passengers feel when using intercity bus services, we checked for differences by location.

Table 28 compares the perceived safety at the top ten boarding stations. It shows that even though respondents reported high degrees of safety, significant differences exist from one place to another. For example, responding passengers reported comparatively low degrees of safety for trips originating from Benton Harbor. This may be a result of the station's socially isolated location.

The Benton Harbor station was unusual in the large share of passengers it attracted from distant locations. Nearly half of responding bus passengers (48 percent) arrived at the Benton Harbor station with a trip duration of over 60 minutes (see Table 25). To check whether the safety findings of the Benton Harbor station are a reflection of having a higher share of passengers who are unfamiliar with the area, we cross-tabulated safety perceptions with the travel time to boarding stations. The result does not support the contention that if passengers are unfamiliar with a bus station environment, they may be more likely to report feeling unsafe. There was no appreciable difference in safety perceptions between respondents who traveled to a station in less than 30 minutes compared to those who traveled in more than 30 minutes.

⁹ Although few studies have examined intercity transit, many others have found a fear of transit to be a deterrent to the use of public transit in general. For example, see: Loukaitou-Sideris, Anastasia. (1999). Hot Spots of Bus Stop Crime: The Importance of Environmental Attributes. *Journal of the American Planning Association*, 65(4), 395-411.

Table 28. Perceived Safety by Boarding Station, Bus Passengers

Top Ten Boarding Stations	Safety	
	Waiting for the Bus (%)	Riding on the Bus (%)
1. Detroit	92.5	98.5
2. Flint	92.6	96.3
3. Grand Rapids	94.1	100.0
4. East Lansing	98.0	98.0
5. Chicago	94.0	96.0
6. Kalamazoo	93.2	100.0
7. Lansing	95.0	100.0
8. Benton Harbor	85.2	88.9
9. Battle Creek	90.5	95.2
10. Muskegon	94.7	100.0

Table 29 compares differences in the safety questions by gender. The results show little meaningful difference between men and women. A higher share of male responding passengers reported feeling safe in Detroit, Kalamazoo, and Benton Harbor; a higher share of female responding passengers reported feeling safe in Flint, Chicago, and Lansing. Note that small sample sizes may affect these results. For example, the data on Benton Harbor are based on only 12 males and 12 females.

Table 29. Perceived Safety by Boarding Station, by Gender, Bus Passengers

Top Ten Boarding Stations	Safety			
	Waiting for the Bus (%)		Riding on the Bus (%)	
	Male	Female	Male	Female
1. Detroit	97.4	88.0	100.0	96.0
2. Flint	91.7	92.6	91.7	100.0
3. Grand Rapids	96.2	94.7	100.0	100.0
4. East Lansing	94.7	100.0	100.0	96.4
5. Chicago	89.3	100.0	92.9	100.0
6. Kalamazoo	96.0	87.5	100.0	100.0
7. Lansing	91.3	100.0	100.0	100.0
8. Benton Harbor	100.0	75.0	100.0	75.0
9. Battle Creek	88.9	90.9	100.0	100.0
10. Muskegon	100.0	100.0	100.0	100.0

Importance of Bus Service

Surveyed bus passengers were asked to rate the importance of the bus service that they were experiencing when completing the survey questionnaire, with an option of choosing among four choices: very important; important; unimportant; or very unimportant. Not surprisingly, nine out of ten passengers indicated either “very important” or “important,” with 51 percent choosing the “very important” option. Responses did not vary substantially by bus route, although when compared to bus riders in general, bus riders on the following routes indicated a slightly lower level of importance: Chicago-Flint-St. Ignace; and Calumet-Marquette-Green Bay-Milwaukee-Chicago.

Importance of Bus Service Connections

Figure 58 shows that bus passengers find connections to other transportation services important. Over half of respondents rated connections to local transit as “very important,” and half of passengers also rated connections to other services in Chicago as “very important.” Most important to passengers are connections to local transit. Even though responding bus passengers rated local transit as a high priority, the data collected in this study indicate that few respondents are actually using local transit. For example, Figure 51 shows that only about eight percent of responding bus passengers used local transit when arriving at an alighting station. Intercity bus passengers may not be using local transit because it is either not available or because passengers are not aware of it.

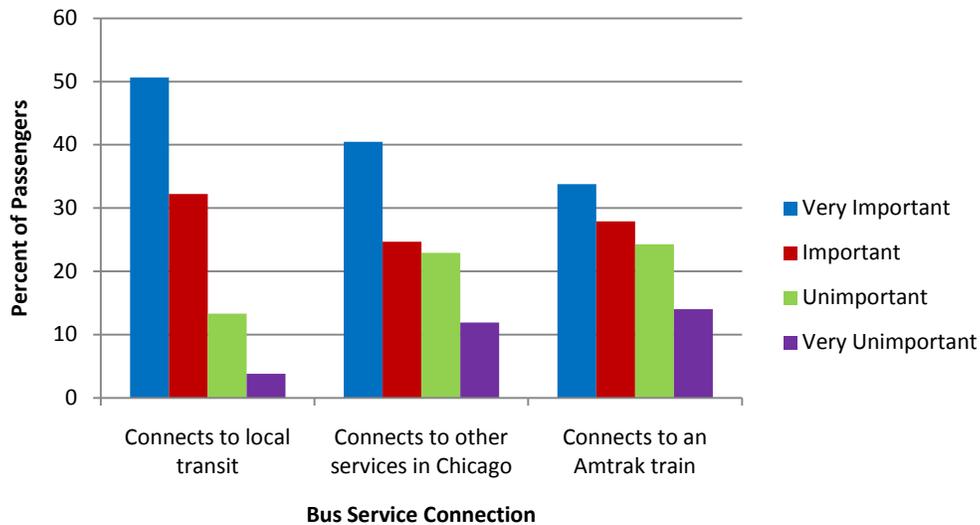


Figure 58. Importance of Bus Service Connections

Likelihood of Using Intercity Bus Services for Next Trip

The survey questionnaire asked bus passengers to rate the likelihood that they would use intercity bus services again for a similar trip. As shown in Figure 59, three out of four passengers indicated they would either be “very likely” or “likely” to use the services again. These high ratings for likelihood of using bus services again in the future are in part a function of a dependence that many passengers tend to feel toward intercity bus services. Bus passengers tend to be a clientele with few feasible options.

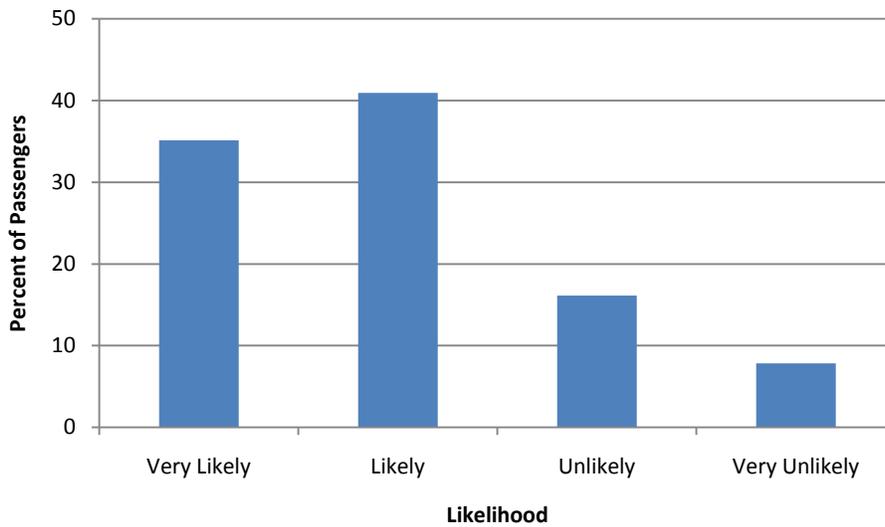


Figure 59. Likelihood of Using Intercity Bus Lines Again

Overall Rating of Intercity Bus

Bus passengers indicated a high degree of satisfaction with their overall experience riding an intercity bus. As shown in Figure 60, nine out of ten passengers indicated that they had either a “very positive” or “positive” experience. These high figures may be a result of the study's design; potential travelers whose trips are not served by the current network were unlikely to be found on board the buses to begin with.

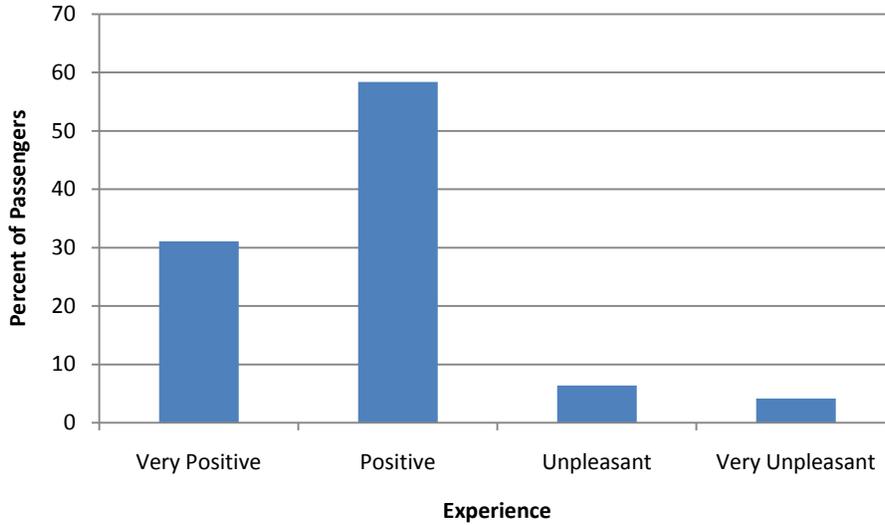


Figure 60. Experience on Intercity Bus

5 Comparisons Between Rail and Bus Modes

This chapter compares and contrasts the intercity bus and rail modes. As in previous chapters, three sections detail passenger demographics, service use and service characteristics. As survey questions for each mode differed, the analysis is limited to data common to both modes.¹⁰

5.1 Demographic Comparison of Passengers Between Modes

Household Income

The annual household income of responding rail passengers was substantially higher than that of responding bus passengers. The median household income of responding rail passengers was in the category of \$50,000 to \$74,999, compared to \$20,000 to \$29,999 for responding bus passengers. Figure 61 illustrates the stark contrast between rail and bus respondents. A majority of rail passengers were in the high-income categories. For bus respondents, the distribution is just the opposite. For example, the share of responding rail passengers with incomes less than \$20,000 (17 percent) is much lower than that of responding bus passengers (37 percent). By contrast, the share of rail respondents whose household income was more than \$75,000 (41 percent) is considerably higher than that of bus respondents (12 percent).

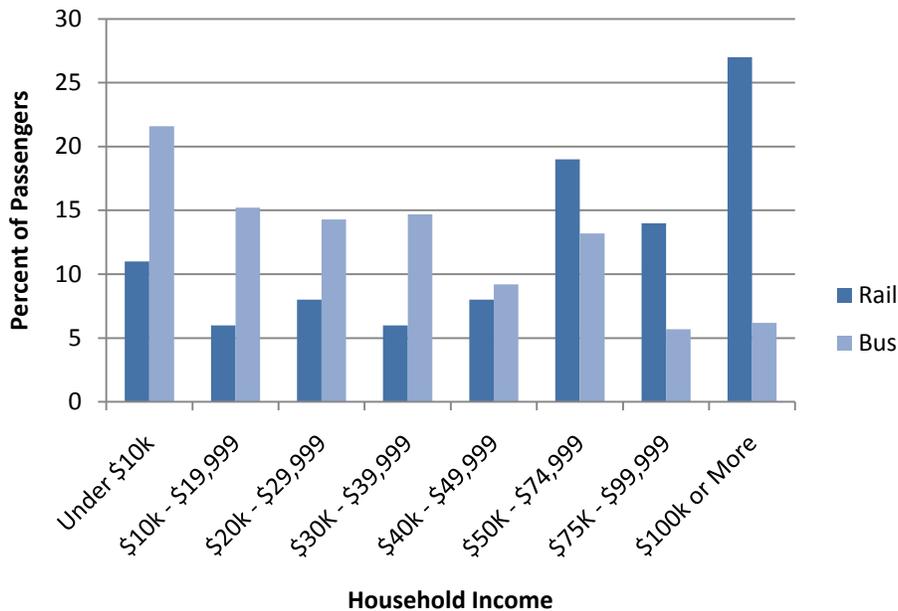


Figure 61. Comparison of Household Income, Rail and Bus Passengers

¹⁰ For a summary of the differences between the surveys by mode, refer to Table 30 in the appendix.

Age

Bus respondents were slightly younger than rail respondents, although the median age category for both modes was 25-34. As shown in Figure 62, the highest share of passengers in both modes was in the category of 18-24 years. The slight difference between the modes can be observed by comparing the distributions before and after the age of 44. For example, 73 percent of all bus respondents were younger than 44, compared to just 63 percent of all rail respondents.

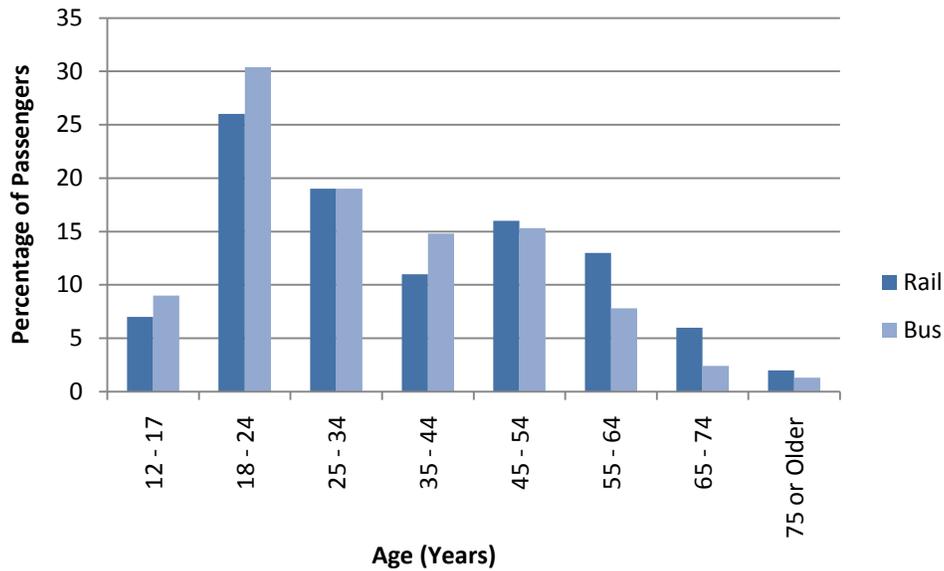


Figure 62. Comparison of Age, Rail and Bus Passengers

Employment Status

Figure 63 provides a comparison between rail and bus passengers on employment status. The most notable difference is that the share of responding bus passengers who were unemployed (18 percent) is substantially higher than that of responding rail passengers (4 percent).

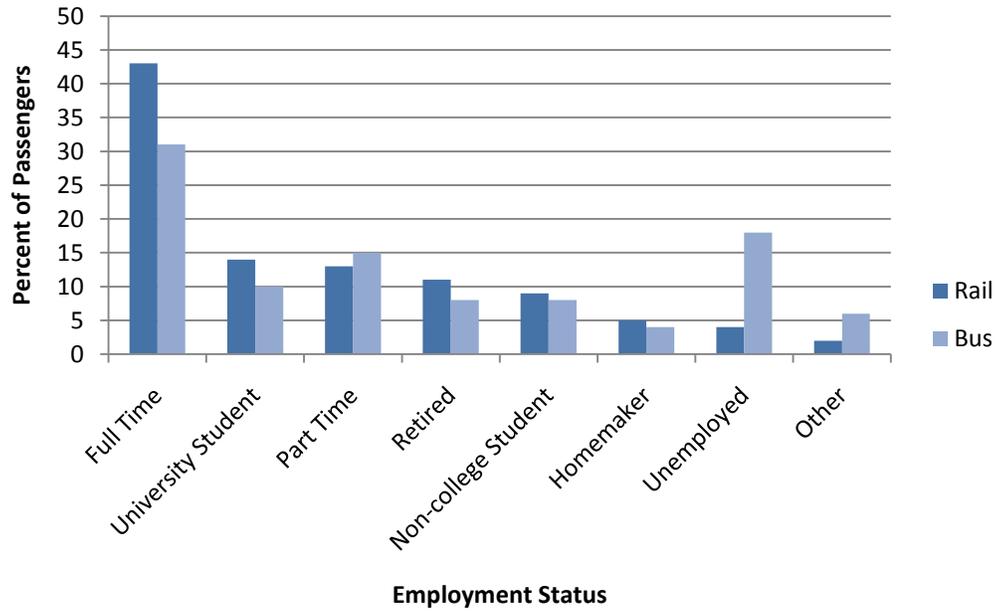


Figure 63. Comparison of Employment Status, Rail and Bus Passengers

Vehicle Ownership

The average number of vehicles per household among rail respondents was 2.01 compared to 1.72 among bus respondents. Figure 64 shows a pattern similar to household income above: a majority of rail passengers own multiple vehicles per household, with the distribution tapering off at the categories of zero or one vehicle. Bus respondents are more likely to come from a household with no vehicle than rail respondents.

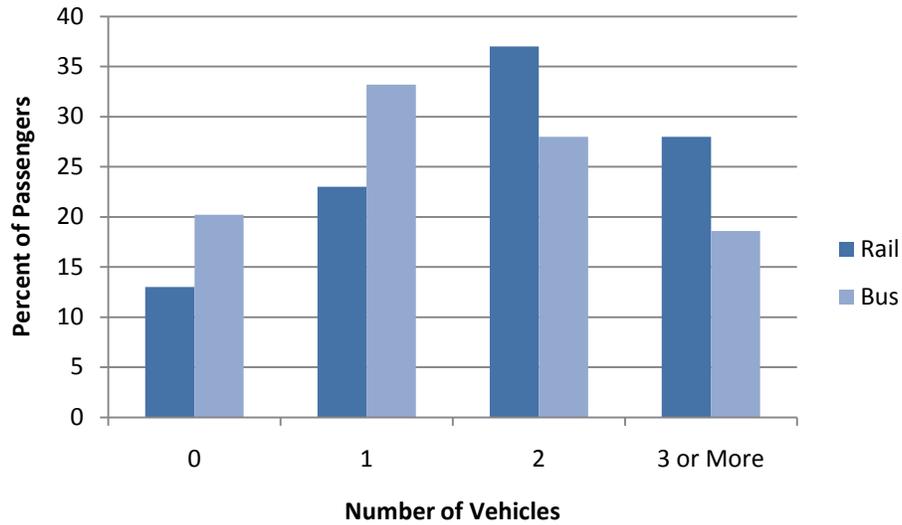


Figure 64. Comparison of Number of Vehicles Owned, Rail and Bus Passengers

Gender of Passengers

Responding rail passengers were more likely to be female than bus passengers: 61 percent of rail respondents were female compared to just 47 percent of bus respondents. As Figure 65 shows, the gender distribution across age categories of rail respondents is fairly constant, with the female share of respondents deviating only slightly from the overall share. By contrast, the gender distribution among age categories for bus respondents shows a distinct age-related pattern: the share of women bus respondents drops considerably in the middle ranges (25-34 and 35-44) while in the older age categories women accounted for 60 percent of all responding bus passengers.

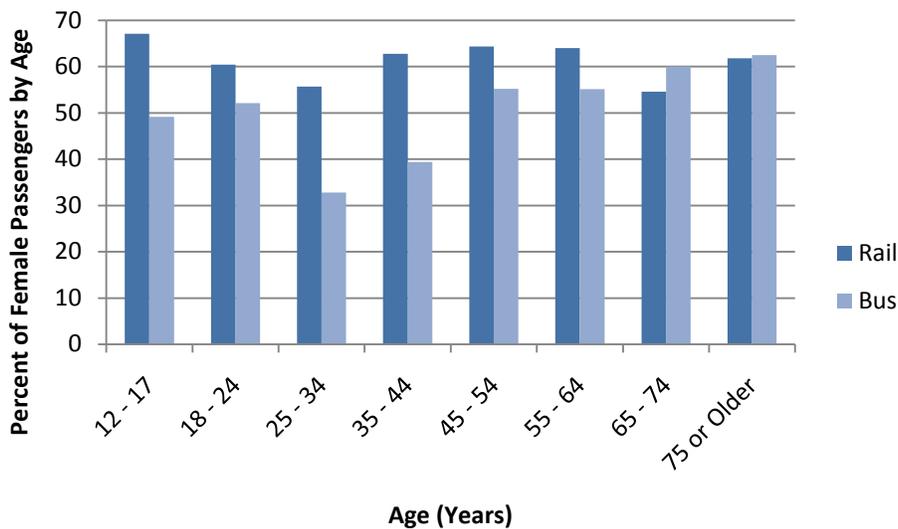


Figure 65. Comparison of Gender, Rail and Bus Passengers

5.2 Service Use Comparisons Between Modes

Purpose of Trip

Responding rail passengers traveled for different purposes than responding bus passengers, as illustrated in Figure 66. Although the predominant purpose among both bus and rail passengers was to visit friends or family, the data shows distinct differences by mode. Bus respondents were far more likely to visit friends or family (52 percent) than rail passengers (39 percent). Rail respondents were more likely to travel for vacation (26 percent) than bus respondents (12 percent). The differences in these trip purposes are explained by the difference in the geographic coverage of the services provided by each mode. Rail service is dominated by destinations to Cook County, with well over half (55 percent) of all responding passengers reporting this destination (refer to Figure 13 for an illustration of this dominance). By contrast,

bus service is far more evenly distributed geographically (refer to Figure 42 for an illustration). The wide geographic coverage provided by bus service better supports the widespread locations of family and friends, while the common destination of Chicago by rail service supports trips to a common vacation destination.

The other purposes made up a small share of trips, and the figure reveals marginal differences between the modes. Note that comparisons between the modes are likely influenced to some degree by the differences in the survey time frames for each mode, especially in differences between weekdays and weekends. While 55 percent of rail survey participants responded on weekend days (Friday for the case of rail), just 35 percent of bus survey participants responded on weekend days (either a Friday or Saturday for the case of bus). Not surprisingly, non-work purposes (visiting, vacation, entertainment, shopping) accounted for a higher share of rail respondents (about 72 percent) compared to bus respondents (about 65 percent).

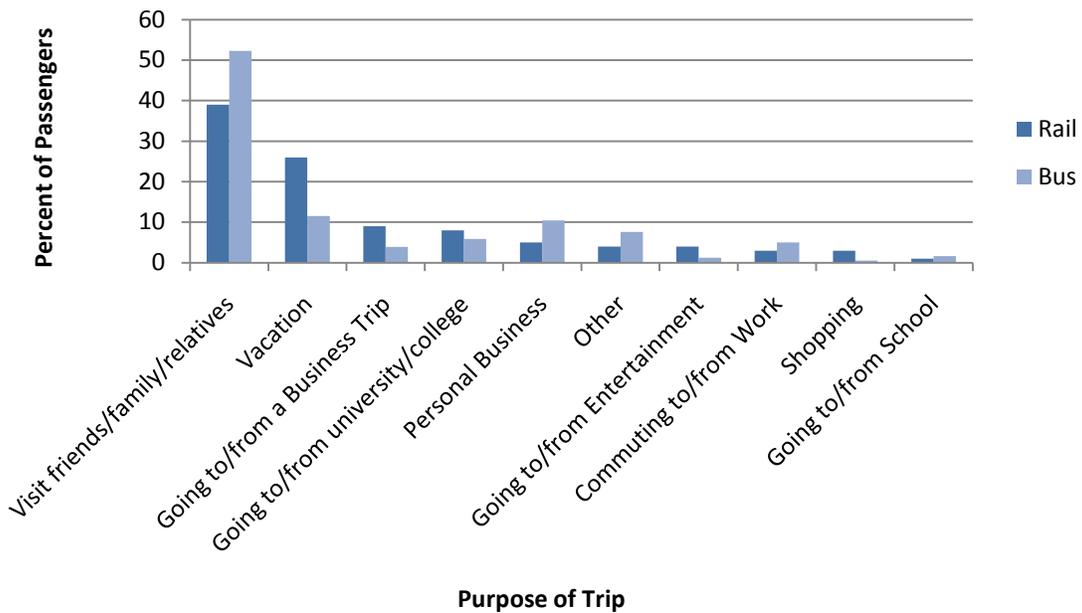


Figure 66. Comparison of Trip Purpose, Rail and Bus Passengers

Counties of Trip Origin

Figure 67 provides a comparison of origin counties by the share of responding passengers by bus and rail. It shows that Wayne and Kalamazoo counties are places with relatively high proportions of trip origins for both bus and rail respondents. A high share of rail respondents originated in Cook, Washtenaw, and Oakland, and a high share of bus respondents originated in Ingham, Kent, and Genesee counties.¹¹

Figure 68 offers a visual depiction of the geographic difference in trip origins between responding bus and rail passengers and, as expected, counties with high proportions of trip origins are those that are well served by bus and rail service.

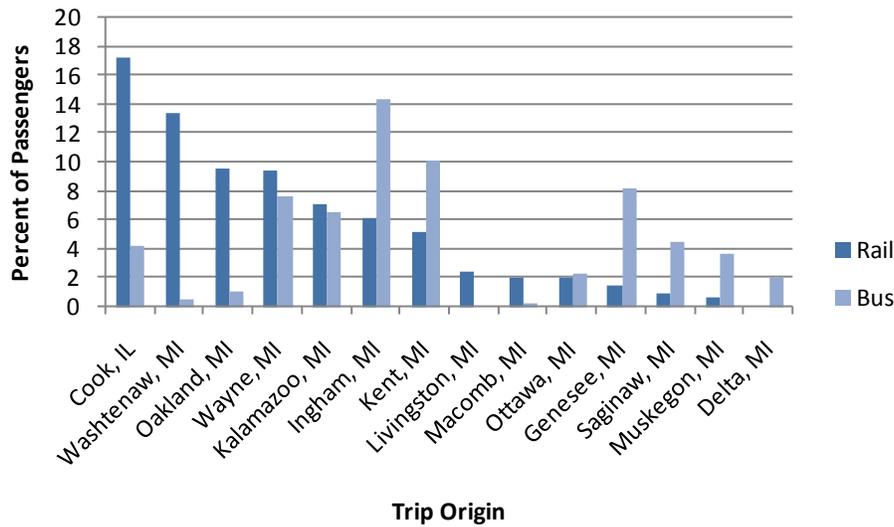


Figure 67. Counties of Trip Origin, Rail and Bus Passengers

¹¹ These results may be influenced by survey bias because Cook, Oakland, Washtenaw, and Wayne Counties have three round trip rail services per day while Ingham, Kent, and Genesee Counties have only one.

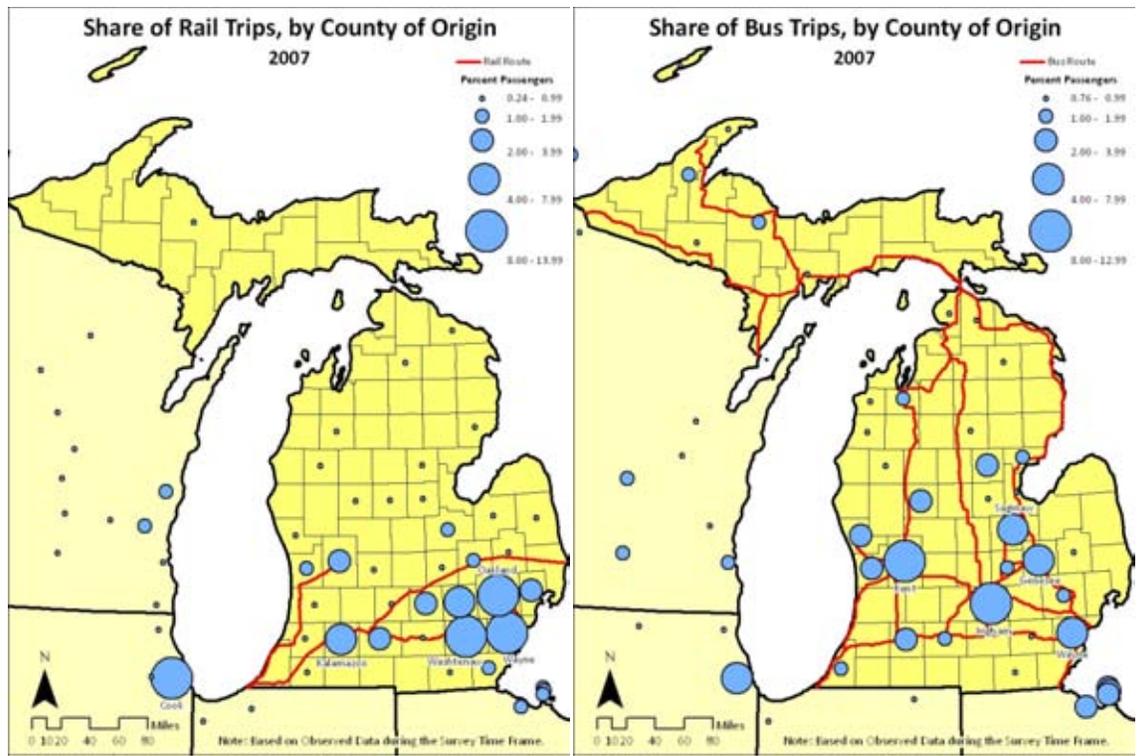


Figure 68. Comparing Rail Origins and Bus Origins

Counties of Trip Destination

Figure 69 provides a comparison of responding bus and rail passengers and their counties of destination. The figure reflects the predominance of Chicago as a destination, especially among responding rail passengers, but among bus respondents as well. Figure 70 illustrates the difference in geographic distribution of destinations between bus and rail respondents.

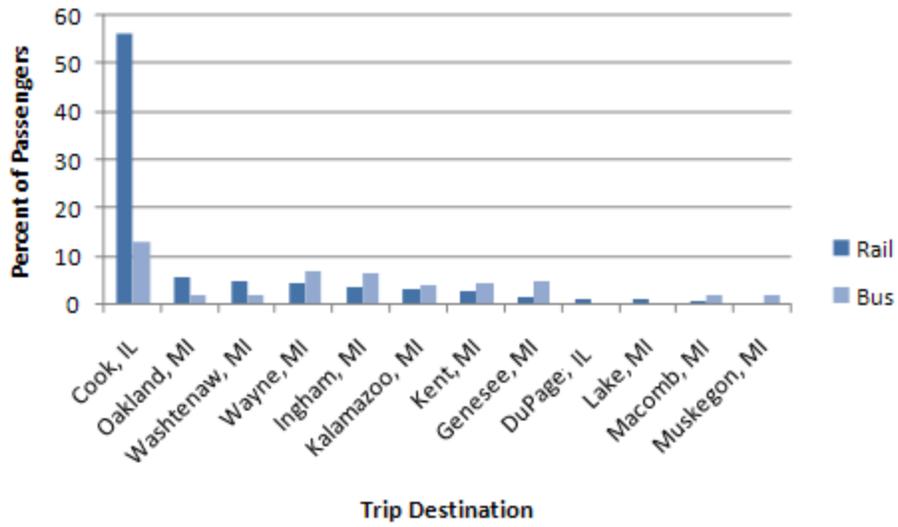


Figure 69. Counties of Trip Destination, Rail and Bus Passengers

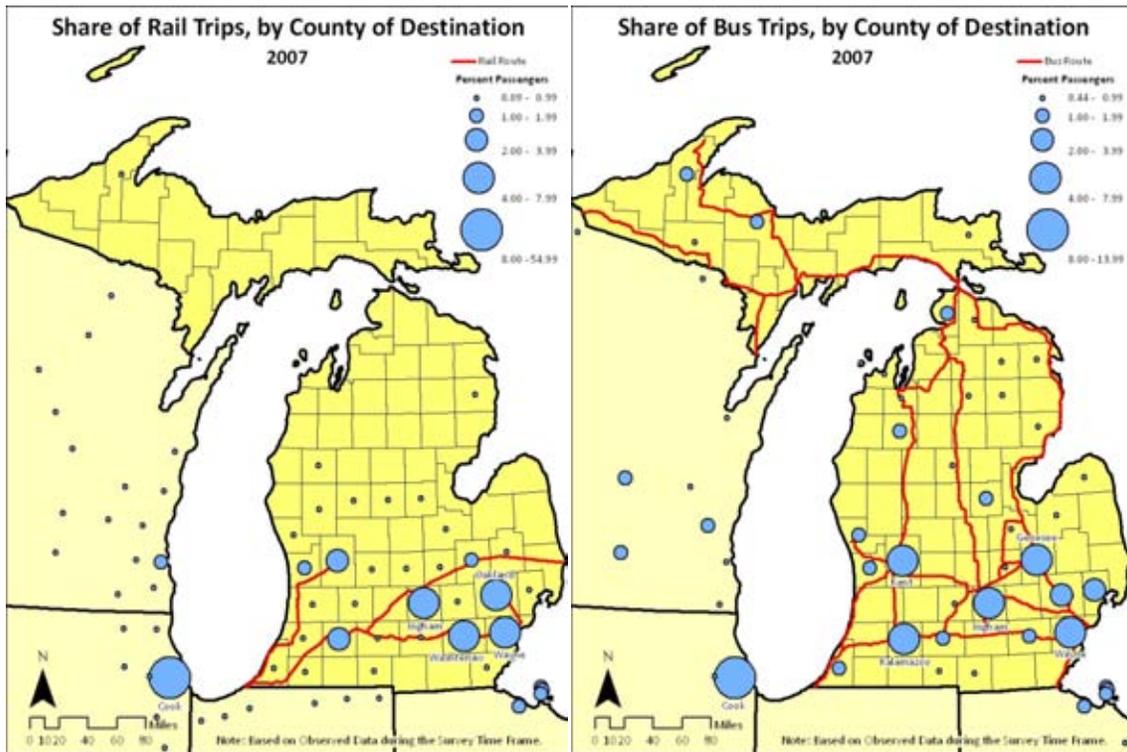


Figure 70. Comparing Rail and Bus Destinations

Mode of Travel To and From Boarding and Alighting Stations

Although both bus and rail respondents predominantly used private vehicles to access boarding stations, they do so in substantially different ways. As shown in Figure 71, both bus and rail respondents were more likely to be dropped off at the station by private vehicle than by any other means of travel. But bus respondents (53 percent) were more likely than rail respondents (35 percent) to be dropped off. Adequate drop-off facilities are important at both bus and rail stations, but particularly so at bus stations. Confirming this finding would require comparing the difference in the availability of parking between bus and rail stations.

The figure shows a substantial difference between bus and rail with respect to parking at stations. The share of rail respondents who drove and parked at a station was 23 percent, compared to just five percent of bus respondents. Similarly, responding rail passengers were nearly two times as likely to take a taxi to a station as responding bus passengers. The finding that rail respondents were more likely to both drive a private vehicle and take a taxi is consistent with the finding that rail passengers tend to come from households with substantially higher incomes, since parking or taking a taxi are among the more expensive options for arriving at a station. The difference in taxi service is also partly due to the predominance of rail service being located in urban areas – especially Chicago – where taxi services are more likely to be available.

Figure 72 provides a contrast between bus and rail respondents in how they traveled away from the destination station after arriving by bus or rail, and the general patterns follow those of Figure 71 discussed above. Figure 72 reveals another difference between bus and rail passengers: bus respondents were more likely to transfer to other transit services (local bus service, Amtrak train, or intercity bus), suggesting the importance of providing adequate transfer facilities at or near bus stations. However, the data may be biased to the extent that they are not controlling for the fact that some transit and some intercity bus services are specifically intended to connect with rail transport for the longest part of the journey.

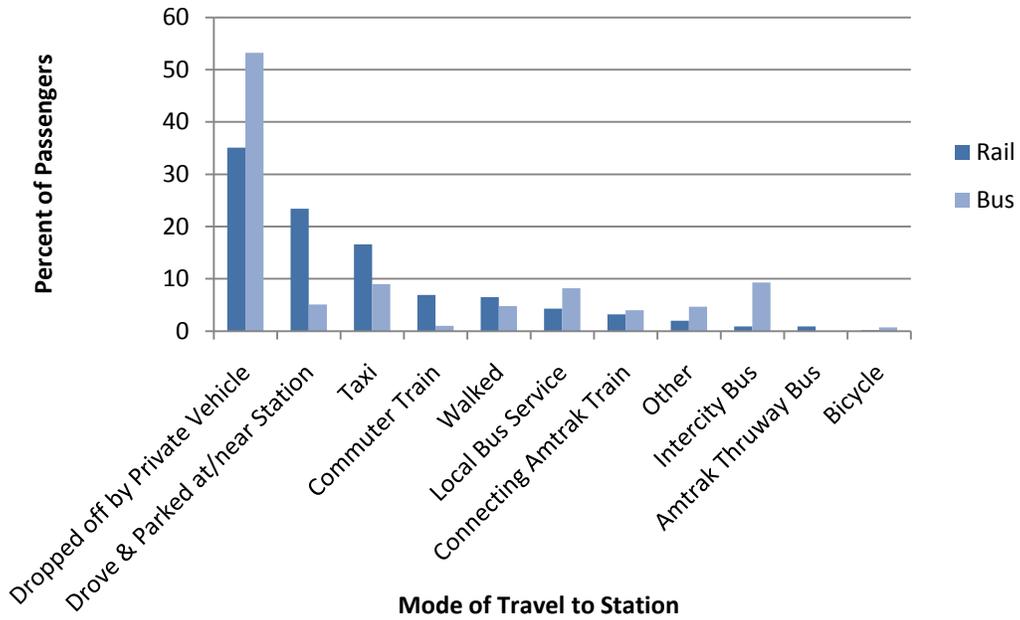


Figure 71. Comparison of Travel Mode to Station, Rail and Bus Passengers

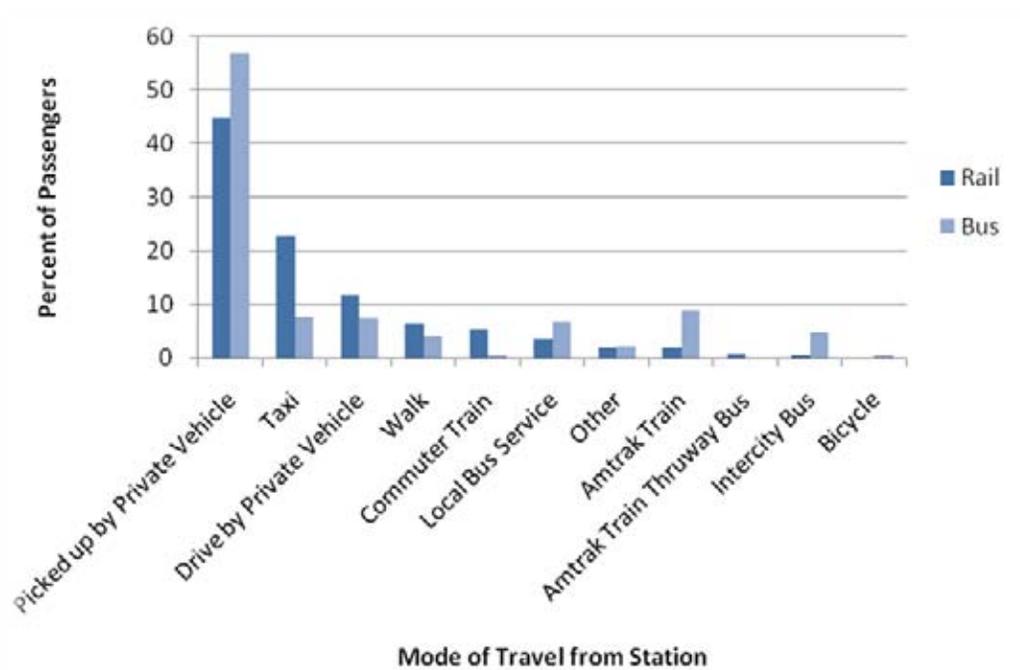


Figure 72. Comparison of Travel Mode from Station, Rail and Bus Passengers

Place of Residence

For both bus and rail, slightly more than one out of five responding passengers reported a residence outside the state of Michigan. Figure 73 illustrates the location of residences for responding bus and rail passengers.

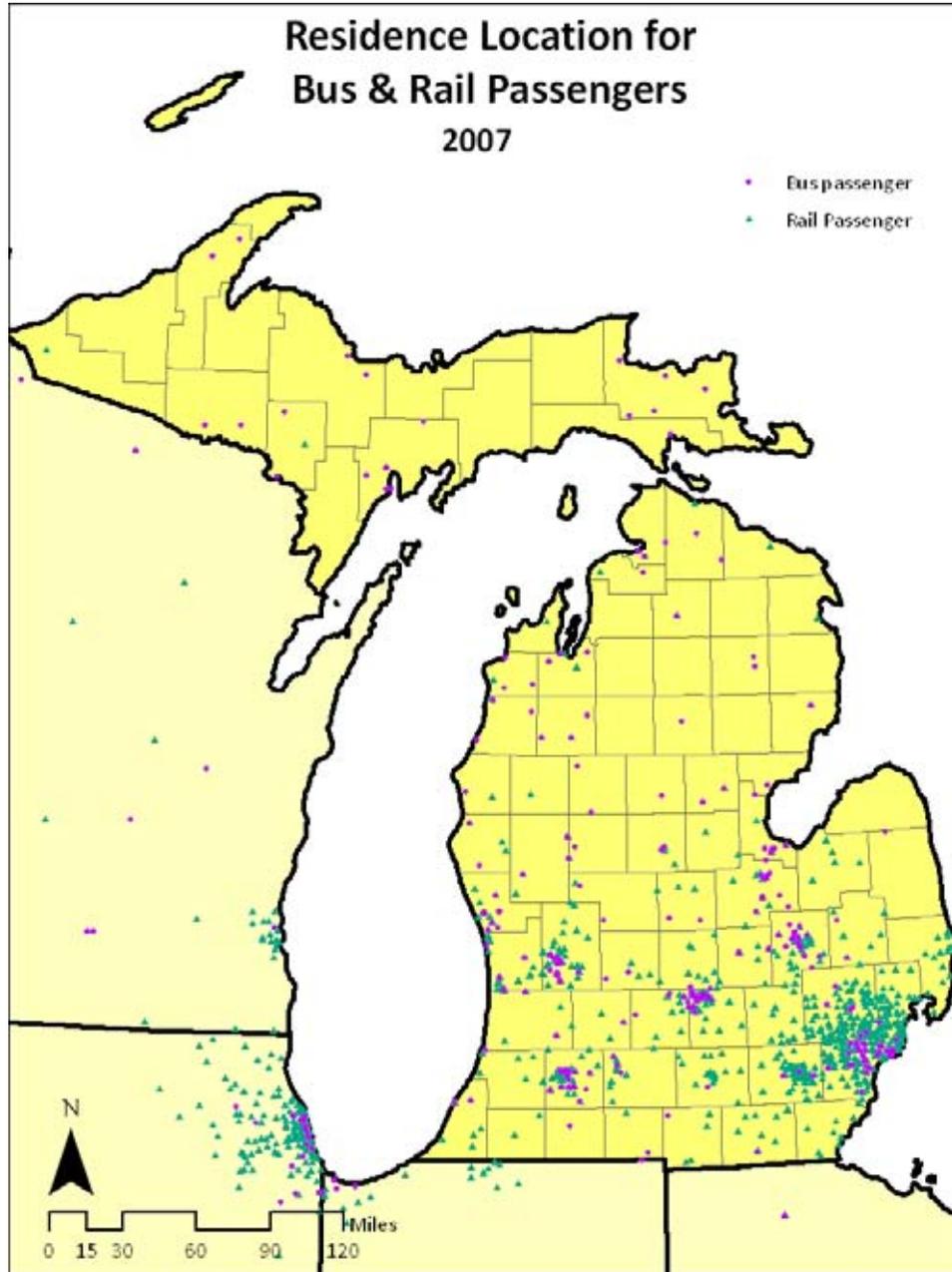


Figure 73. Comparing Place of Residence, Rail and Bus Passengers

Alternative Mode of Travel

Surveyed passengers were asked to indicate the likelihood of choosing an alternative mode of transportation. Figure 74 reports the share of respondents who indicated either “Very Likely” or “Likely.” It shows that rail respondents were slightly more likely to choose driving or flying to make a trip, while bus respondents were somewhat more likely to forego making the trip altogether. Rail respondents did not rate intercity bus highly as a possible option if rail services were not available, while bus respondents rated intercity passenger rail much more favorably as an alternative to bus services.

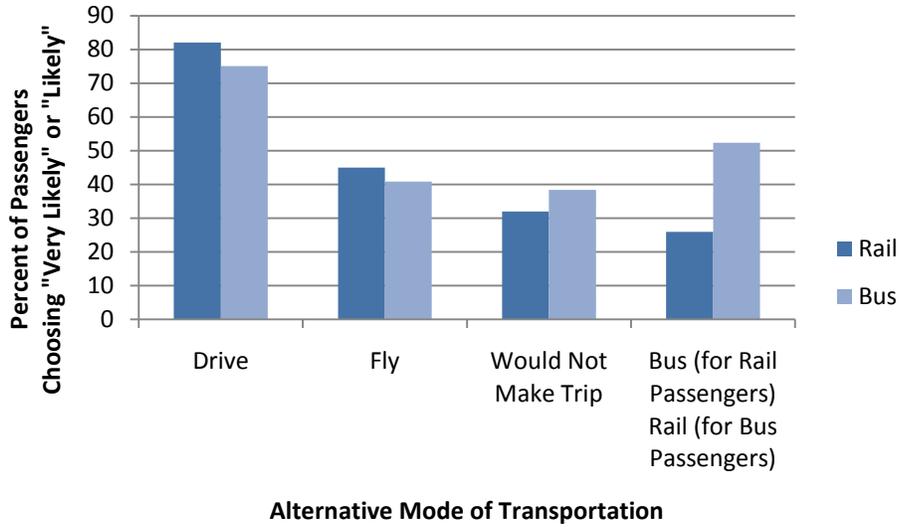


Figure 74. Alternative Mode of Travel, Rail and Bus Passengers

Trips in the Past Year

Figure 75 compares bus and rail respondents in their frequency of trips. It shows that responding rail passengers were less likely to have made repeat use of intercity services than bus respondents, with 42 percent of rail respondents having made no other trip in the previous year compared to just 28 percent of bus respondents.

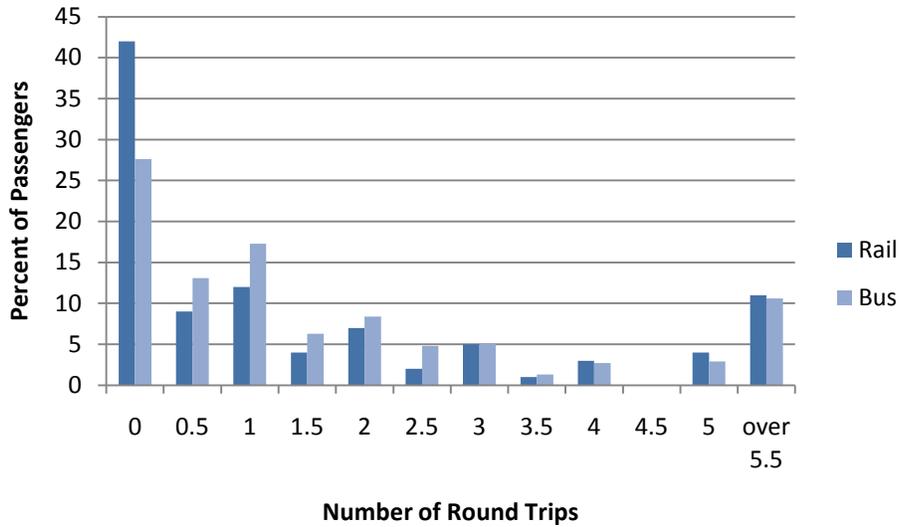


Figure 75. Number of Trips in the Past Year, Rail and Bus Passengers

5.3 Service Characteristics Comparison

The bus and rail surveys addressed different issues regarding service characteristics.¹² The one question in common between the surveys asked about which factors would cause a respondent to use bus or rail services more often. Figure 76 compares bus and rail respondents on the five factors that are comparable between the surveys. Although the figure reveals little difference between bus and rail respondents on these factors, on-time reliability is the most important improvement identified by both bus and rail survey respondents, followed closely by more frequent service.

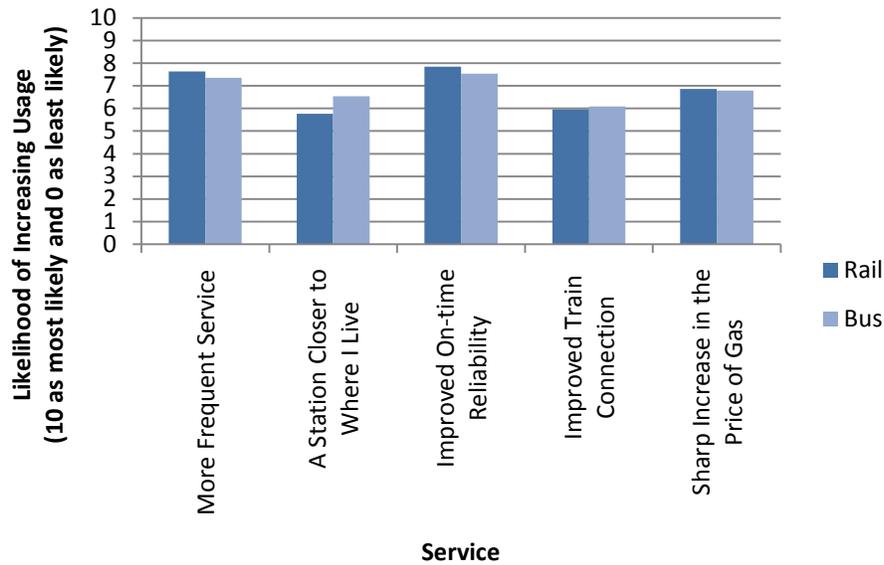


Figure 76. Likelihood of Increasing Usage by Changing Services, Rail and Bus Passengers

¹² The bus survey asked questions about service characteristics such as the importance of connections to other transportation services, but the rail survey did not. The rail survey asked about the importance of activities while riding the train or the importance of amenities at a train station, but the intercity bus survey did not.

6 Conclusion

The purpose of this study is to better understand issues involving passengers of intercity public transportation in Michigan. The analysis is based on surveys conducted by the Michigan Department of Transportation that asked about use patterns on intercity bus and intercity passenger rail, trip origins and destinations, trip purpose, alternatives to rail and intercity bus use, and perceptions of service quality.

Survey responses indicate that passengers of intercity bus and intercity passenger rail in Michigan have several characteristics in common:

- Both bus and rail respondents used the services first and foremost for the purpose of visiting family and friends.
- The vast majority of responding passengers of both modes reported that driving by automobile was a likely alternative if their chosen mode of travel were not available.
- Improved on-time arrivals and more frequent service were rated as important for both bus and rail respondents.
- For both bus and rail, slightly more than one out of five responding passengers reported a residence outside the state of Michigan.
- Bus and rail respondents alike reported high degrees of overall satisfaction with intercity public transportation services.

The high degree of satisfaction with Michigan intercity public transportation services was particularly evident in the written comments provided by survey respondents. The written comments are categorized in the appendix, which shows that positive service compliments were the single most common comment among bus respondents and the second-most common comment among rail respondents. Further support is found in the extremely low incidence of negative comments, a noteworthy finding because it is in written comments that frustrated patrons will commonly express their misgivings in surveys like these. Furthermore, the written comments were also dominated by thoughtful, constructive suggestions for improvements, an indication that patrons want to see advancements in the services.

Despite these commonalities, the data reveal substantial differences between patrons of bus and rail services. Bus and rail passengers in Michigan have distinctly different demographic backgrounds:

- Bus respondents had lower household incomes than rail respondents. The share of responding bus passengers with incomes less than \$20,000 (37 percent) is much higher than that of responding rail passengers (17 percent).

- Bus respondents owned fewer automobiles: 20 percent of responding bus passengers came from a household with no vehicle compared to 13 percent of rail passengers; 33 percent of responding bus passengers came from a household with one vehicle compared to 23 percent of rail passengers.
- Bus respondents were more likely to be unemployed, consisting of 18 percent of responding bus passengers compared to just four percent of rail respondents.
- Bus respondents were more likely to be male, consisting of 53 percent of responding bus passengers compared to only 39 percent of responding rail passengers.

These demographic differences between bus and rail respondents contribute, in part, to different motivations in choosing their respective modes of transportation. Bus passengers show characteristics of being “captive” riders whereby they depend on bus services for meeting basic mobility needs. Rail passengers, in contrast, tend to be “choice” riders, having more discretion in their decision to use the service or not. This distinction is reflected in the way passengers used services:

- Cost was the most important factor cited by bus respondents in the decision to use intercity bus services, and nearly one in four respondents indicated that they had no transportation options other than intercity bus.
- By contrast, among rail respondents, having a train that meets one’s scheduling needs and experiencing comfort while traveling were rated higher than cost in the decision to use rail services.
- Rail respondents were more likely to travel for vacation (26 percent of respondents) than bus respondents (12 percent).
- The share of women among bus respondents grew with age.
- Responding rail passengers were less likely to have made repeat use of intercity services than bus respondents.
- Rail respondents were somewhat more likely to choose driving or flying as an alternative mode of transportation.
- Patrons of rail services show little interest in using bus services. When considering alternative services, rail respondents did not rate intercity bus highly as a possible option if rail services were not available, while bus respondents rated intercity passenger rail much more favorably as an alternative to bus services. Furthermore, when asked to rate factors that would increase the use of rail services, rail respondents indicated that having more connections to intercity buses was the least important factor by a wide margin.

Observations of Rail Service

Chicago was the predominant destination among rail passengers, with 55 percent of survey respondents ending their trip in Cook County. Of those passengers who traveled to Cook County, two out of five did so for the purpose of vacation. This represents a significant change since the last survey was completed in 2000, when a very small share of respondents reported traveling to Cook County for vacation. In 2000, shopping was by far the most common reason cited for traveling to Cook County, at 31 percent of respondents. By 2007, shopping was among the least commonly cited reasons, at just five percent of trips. The relative prominence between shopping and vacation were essentially reversed during this time, which is likely a result of the difference in seasons in which the surveys were collected. This may also reflect the change in perceptions of travelers who now consider shopping to be a vacation activity.

Although it has remained the most common destination for rail passengers, the share of responding passengers traveling to Cook County dropped slightly from 60 percent in 2000 to 55 percent in 2007. Over this time period, the share of passengers traveling to Oakland County increased from two percent to six percent of responding rail passengers.

Aside from Cook County, travel to visit family and friends was high for all rail destinations. Traveling for college was a common purpose for the destinations of Oakland, Washtenaw, Wayne, and Ingham counties.

Rail trip origins were highly concentrated in southern Michigan where rail stations are concentrated. The highest number of boardings occurred primarily at stations in large cities served by rail routes, such as Ann Arbor, Kalamazoo, East Lansing, and Dearborn. However, on a per capita basis, several stations in smaller cities produced high numbers of boardings, such as Durand, Holland, and Lapeer.

The rail station at Battle Creek emerged as somewhat unusual in the length of travel required to and from the station. Approximately half of all responding passengers reported trips of more than 45 minutes to and from the station. No other Michigan station came close to this high share of long-duration trips. The fact that Battle Creek is a connection point for Thruway Bus services helps explain the high travel time leaving the station, but does not necessarily explain the high travel times in arriving at the station.

In terms of service improvements, rail respondents indicated a strong and explicit desire for improved on-time arrivals. Improved on-time reliability was the single most important factor identified by rail respondents if they were to increase their use of the service. This was reinforced by the written comments where improved reliability was overwhelmingly the most common remark. More frequent train service, overall comfort while traveling, and cleanliness were all rated highly in the survey questions and in written comments. One item that was less frequently expressed in the comments but which may be worthy of attention because of recent changes in technology is the desire for having wireless internet connections and more electrical outlets available on trains.

Observations of Bus Service

The most common destination for bus respondents was Chicago, although it was far less dominant as a destination than for rail passengers. More than two out of five bus passengers traveling to Cook County shifted to Amtrak rail services in Chicago. Bus destinations were spread widely but occurred primarily in southern Michigan where services are concentrated. The residences of bus respondents were widely spread throughout the state, reflecting the wide geography of service coverage. However, a larger share of bus passengers resided in Michigan in 2007 than in 2001. Only 60 percent of bus respondents reported a residence in Michigan in 2001, while nearly 80 percent resided in Michigan in 2007.

Considering the small population base upon which they draw, several stations in the northern Lower Peninsula attracted a disproportionately high number of riders on a per capita basis, illustrating the significance of intercity bus services to people living in the northern areas of the state.

Similar to the case of rail, the station at Battle Creek was unusual in the long trips required for traveling to and from the station. Over 80 percent of survey respondents at the Battle Creek station reported travel times exceeding 60 minutes after deboarding from a bus. These findings are a result of Battle Creek being a connecting point for Thruway Bus services: a high share of respondents reporting travel over 60 minutes to or from the station were Thruway Bus passengers.

The data suggest that bus passengers do not use intercity transportation services as consistently as they had in the past, with fewer repeat trips taken during the past year. In 2001, only 14 percent of bus travelers reported having taken no other trips in the past year, but by 2007 this figure jumped to 27 percent.

Responding bus passengers indicated that they value having local transit services available at bus stations. Yet, the data also show that few respondents are actually using local transit. Only about eight percent of responding bus passengers used local transit when arriving at an alighting station. This contradiction suggests that one way to improve services for intercity bus passengers would be to increase local transit connections or to enhance communications at stations to help passengers find existing local services.

The most important service improvement expressed by bus respondents was in regard to layovers. When asked to rate the likelihood of using bus services more frequently, the most commonly cited reason was if fewer and shorter layovers could be experienced. Improving layovers was the third-most common written comment left by respondents. The written comments indicate that it is the duration of layovers that respondents find most objectionable, followed by the frequency of layovers. Other improvements that respondents rated highly in the survey included improved on-time reliability, expanded express service, and more frequent bus service. The written comments, however, suggest that improving comfort is also of great concern to bus passengers, including better seat comfort, reducing overcrowding, and mitigating noise. The survey data revealed that safety was not a main concern of bus passengers, and the written comments are consistent with this finding. Several other suggested

improvements in the written comments identify topics that are administratively straightforward to address, such as increasing customer relations and providing cleaner facilities.

Recommendation for Future Surveys

Thruway Bus respondents were included with other bus respondents in the analysis which skewed the results of the intercity bus analysis. Future studies should analyze Thruway Bus passengers separately from both intercity bus passengers and intercity rail passengers. If Michigan Flyer passengers are surveyed, they too should be analyzed separately from all other passengers.

7 Appendices

7.1 Rail Survey Instrument

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERCITY PASSENGER RAIL SURVEY

March - April 2007



The Michigan Department of Transportation (MDOT) is conducting a survey among rail passengers in cooperation with Amtrak. The information obtained will be used in the continuing efforts to provide the highest quality transportation services for Michigan residents and visitors. All responses will be treated as confidential and the information will only be used in combination with other questionnaires received. An MDOT representative is available to answer questions, and will collect your survey before you reach your destination.

Thank you for your cooperation.

INTERCITY PASSENGER RAIL SURVEY

Today's Date (mm/dd/yy):

Train #: 350 352 354 364 370
 351 353 355 365 371

1. At which station did you board this train today? _____
(Station or City Name)

2. How did you travel to the station to board the train today *(please select one)*?

<input type="checkbox"/> Dropped off by private vehicle	<input type="checkbox"/> Taxi	<input type="checkbox"/> Walked
<input type="checkbox"/> Drove & parked at/near station	<input type="checkbox"/> Bicycle	<input type="checkbox"/> Intercity bus (<i>Greyhound, Indian Trails</i>)
<input type="checkbox"/> Amtrak Thruway Bus	<input type="checkbox"/> Local bus service	<input type="checkbox"/> Connecting Amtrak train
<input type="checkbox"/> Commuter train	<input type="checkbox"/> Other (<i>Please specify</i>) _____	

3. Please estimate the time it took you to travel to the station where you boarded the train:
 Hours: _____ Minutes: _____ Miles: _____

4. Where did you come from to board this train today? _____
(City/Community) (State/Province)

5. Which best describes the place you came from to board the train today? *(please select one)*?

<input type="checkbox"/> Home	<input type="checkbox"/> Vacation	<input type="checkbox"/> Work-related activity (<i>meeting, convention, seminar</i>)
<input type="checkbox"/> Place of work	<input type="checkbox"/> Shopping	<input type="checkbox"/> Visit friends/family/relatives
<input type="checkbox"/> School (<i>other than college</i>)	<input type="checkbox"/> Personal business	<input type="checkbox"/> Entertainment (<i>theater, concert, sports event</i>)
<input type="checkbox"/> University/college	<input type="checkbox"/> Other (<i>Please specify</i>) _____	

6. At which station will you get off this train today? _____
(Station or City Name)

7. What is your final destination, beyond the station where you will get off this train today?

(City/Community) (State/Province)

8. After leaving this train, how will you travel to your final destination?

<input type="checkbox"/> Picked up by private vehicle	<input type="checkbox"/> Taxi	<input type="checkbox"/> Walk
<input type="checkbox"/> Drive by private vehicle	<input type="checkbox"/> Bicycle	<input type="checkbox"/> Intercity bus (<i>Greyhound, Indian Trails</i>)
<input type="checkbox"/> Amtrak Thruway Bus	<input type="checkbox"/> Local bus service	<input type="checkbox"/> Connecting Amtrak train
<input type="checkbox"/> Commuter train	<input type="checkbox"/> Other (<i>Please specify</i>) _____	

9. How much time do you estimate it will take to travel from the station indicated in **question #6** to your final destination?
 Hours: _____ Minutes: _____ Miles: _____

10. Which of the following best describes the reason for taking this train trip?

<input type="checkbox"/> Commuting to/from work	<input type="checkbox"/> Vacation	<input type="checkbox"/> Going to/from a business trip (<i>meeting, convention, seminar</i>)
<input type="checkbox"/> Going to/from university/college	<input type="checkbox"/> Shopping	<input type="checkbox"/> Going to/from entertainment (<i>theater, concert, sports event</i>)
<input type="checkbox"/> Visit friends/family/relatives	<input type="checkbox"/> Personal business	<input type="checkbox"/> Going to/from school (<i>other than college</i>)
<input type="checkbox"/> Other (<i>Please specify</i>) _____		

11. If train service were not available for this trip, how likely is it that you would use the following types of transportation?

	Very Likely	Likely	Unlikely	Very unlikely
Drive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airplane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would not make the trip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ride intercity bus (<i>such as Greyhound or Indian Trails</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. How would you rate the importance to you of being able to carry out the following activities while riding the train?

	Very Important	Important	Unimportant	Very Unimportant
Reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Playing cards/games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eating meals or snacks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visiting with companions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performing business or school related work tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. When you decided to make this trip by train instead of by automobile, airline, or bus, how important were the following considerations in making your choice?

	Very Important	Important	Unimportant	Very Unimportant
Train schedules matched your travel schedule needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fast overall travel time to your final destination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comfort while traveling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High cost of gasoline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total cost of the trip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety while traveling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No other option	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Not counting this trip, how many other trips have you made during the past 12 months on Amtrak (count a round trip as two trips)? _____

15. Are you a Michigan resident? Yes No If **no**, please answer the following question: If a train had an earlier arrival time of 9:00 AM in Chicago, would you stay an additional night in Michigan? Yes No

16. How likely is it that the following changes would cause you to use Amtrak services more often than you currently do? (Please rank from 0 to 10, with 10 as Most Likely)

	Most Likely 10	9	8	7	6	5	4	3	2	1	Least Likely 0
More frequent train service	<input type="checkbox"/>										
Improved on-time arrivals	<input type="checkbox"/>										
More connections to other trains	<input type="checkbox"/>										
More connections to intercity buses (Greyhound, Indian Trails)	<input type="checkbox"/>										
Improved connections between your home and train station with local public transit service	<input type="checkbox"/>										
A train station closer to your home	<input type="checkbox"/>										
Improved personal security at stations	<input type="checkbox"/>										
Rising gasoline prices	<input type="checkbox"/>										
Easier ability to purchase tickets	<input type="checkbox"/>										

17. How would you rate the importance of having the following at a train station?

	Very Important	Important	Unimportant	Very Unimportant
Parking availability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability and comfort of seating while you wait	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clean facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concession/snack area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of ticket vending machines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper/magazine stand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Car rental services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of public telephones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lighting and security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signs to help you navigate the premises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taxi services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet (WiFi)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power outlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Have you ever been denied a reservation because seats were sold out? Yes No
 If **yes**, did Amtrak provide alternative schedule options to you? Yes No

Your answers to the following questions will help MDOT and Amtrak determine general characteristics for the typical rail passenger in Michigan. This information is completely anonymous and confidential:

19. Where do you live? College students please answer for your place of residence while attending school?

_____ (City/Community) _____ (State/Province) _____ (Zip code) _____ (Nearest major intersection)

20. What is your gender? Male Female

21. Which age group are you in?

12 - 17 years 25 - 34 years 45 - 54 years 65 - 74 years
 18 - 24 years 35 - 44 years 55 - 64 years 75 years or older

22. Which of the following best describes your current employment status?

Employed full-time Homemaker Student (other than college)
 Employed part-time Retired University/college student
 Unemployed Other (Please specify) _____

23. How many people (including yourself) are in your household? _____

24. How many personal vehicles (cars, vans, trucks) do the people living in your household own or lease?
 (College students please answer for your place of residence while attending school)

None One Two Three or more

25. What is your current annual household income (the sum of all people who live in your household)?

Under \$10,000 \$20,000 to \$29,999 \$40,000 to \$49,999 \$75,000 to \$99,999
 \$10,000 to \$19,999 \$30,000 to \$39,999 \$50,000 to \$74,999 \$100,000 or more

26. Please share any comments or suggestions you may have for improving intercity passenger rail services.

Thank you for your participation in this effort and for traveling by Intercity Passenger Rail.

7.2 Bus Survey Instrument

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERCITY BUS SURVEY

March - April 2007



The Michigan Department of Transportation (MDOT), in cooperation with the bus operators, is conducting a survey of intercity bus passengers. The information obtained will be used in our continuing effort to provide the highest quality transportation services. Participation in this survey is voluntary. All responses are confidential and the information will only be used in combination with other surveys received. If you come to a question you would rather not answer, please skip it and continue with the rest of the survey. An MDOT representative is available to answer questions and will collect the survey before you reach your destination. If you have questions at a later date, feel free to contact Forest Kraus at (517) 335-2572 or by e-mail at krausf2@michigan.gov.

Thank you for your cooperation.

INTERCITY BUS SURVEY

Date: _____

Schedule #: _____

1. At which station or location did you board this bus? _____
(Station or City Name)
2. Where did you come from to board this bus today? _____
(City /Community) (State/Province)
3. Which of the following best describes the place you came from to board this bus? *(please select one)?*

<input type="checkbox"/> Home	<input type="checkbox"/> Vacation	<input type="checkbox"/> Work-related activity <i>(meeting, convention, seminar)</i>
<input type="checkbox"/> Place of work	<input type="checkbox"/> Shopping	<input type="checkbox"/> Visit friends/family/relatives
<input type="checkbox"/> School <i>(other than college)</i>	<input type="checkbox"/> Personal business	<input type="checkbox"/> Entertainment <i>(theater, concert, sports event)</i>
<input type="checkbox"/> University/college	<input type="checkbox"/> Other <i>(Please specify)</i> _____	
4. How did you travel to the station/location to board the bus today *(please select one)?*

<input type="checkbox"/> Taxi	<input type="checkbox"/> Bicycle	<input type="checkbox"/> Dropped off by private vehicle
<input type="checkbox"/> Walked	<input type="checkbox"/> Local bus service	<input type="checkbox"/> Drove & parked at/hear station
<input type="checkbox"/> Amtrak Train	<input type="checkbox"/> Intercity bus <i>(Greyhound, Indian Trails)</i>	
<input type="checkbox"/> Commuter train	<input type="checkbox"/> Other <i>(Please specify)</i> _____	
5. Please estimate the time it took you to travel to the station/location where you boarded the bus:
Hours: _____ Minutes: _____ Miles: _____
6. At what station/location will you get-off this bus today? _____
(Station or City Name)
7. What is your final destination, beyond the station/location where you will get off this bus today?

(City /Community) (State/Province)
8. Which of the following best describes the reason for taking this bus trip?

<input type="checkbox"/> Commuting to/from work	<input type="checkbox"/> Vacation	<input type="checkbox"/> Going to/from a business trip <i>(meeting, convention, seminar)</i>
<input type="checkbox"/> Going to/from university/college	<input type="checkbox"/> Shopping	<input type="checkbox"/> Going to/from entertainment <i>(theater, concert, sports event)</i>
<input type="checkbox"/> Visit friends/family/relatives	<input type="checkbox"/> Personal business	<input type="checkbox"/> Going to/from school <i>(other than college)</i>
<input type="checkbox"/> Other <i>(Please specify)</i> _____		
9. After leaving this bus, how will you travel to your final destination?

<input type="checkbox"/> Taxi	<input type="checkbox"/> Bicycle	<input type="checkbox"/> Picked up by private vehicle
<input type="checkbox"/> Walk	<input type="checkbox"/> Local bus service	<input type="checkbox"/> Drive by private vehicle
<input type="checkbox"/> Amtrak train	<input type="checkbox"/> Intercity bus <i>(Greyhound, Indian Trails)</i>	
<input type="checkbox"/> Commuter train	<input type="checkbox"/> Other <i>(Please specify)</i> _____	
10. How much time do you estimate it will take to travel from the station/location indicated in **question #6** to your final destination? Hours: _____ Minutes: _____ Miles: _____
11. Not counting this trip, how many times have you traveled by intercity bus in the past twelve (12) months?
(Count One Round Trip as Two Trips) _____
12. If bus service were not available for this trip, how likely is it that you would use the following types of transportation?

	Very Likely	Likely	Unlikely	Very unlikely
Drive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airplane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amtrak train	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would not make the trip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ride in a vehicle with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. How many nights will you be or have you been away from home on this bus trip? _____

14. Did you feel safe while you were waiting for the bus to arrive/leave? Yes No

15. Did you feel safe while you were riding on the bus? Yes No

	Very Important	Important	Unimportant	Very Unimportant
16. How important to you is this particular bus service?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. How important to you is it that:				
This bus service connects to local transit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This bus service connects to other services in Chicago....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This bus service connects to an Amtrak train.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Which of the following best describes the reason you chose to travel by intercity bus? (please select one)?

- Cost I prefer not to drive I prefer bus travel
 Convenience Only transportation available Wanted to try travel by bus

19. How likely is it that the following changes would cause you to use Greyhound Lines' or Indian Trails' intercity bus services more often than you currently do? (Please rank from 0 to 10, with 10 as Most Likely)

	Most Likely	10	9	8	7	6	5	4	3	2	1	Least Likely	0
Improved customer service	<input type="checkbox"/>												
More frequent bus service	<input type="checkbox"/>												
A station/location closer to where I live	<input type="checkbox"/>												
Improved on-time reliability	<input type="checkbox"/>												
Fewer and shorter layovers	<input type="checkbox"/>												
Improved conditions at bus stations	<input type="checkbox"/>												
Improved Amtrak train connections	<input type="checkbox"/>												
Increased express service, Example: city to city.....	<input type="checkbox"/>												
Sharp increase in the price of gasoline	<input type="checkbox"/>												

20. How likely are you to travel by intercity bus Service when planning your next trip?

- Very Likely Likely Unlikely Very Unlikely

21. Please rate your experience using intercity bus Service:

- Very Positive Positive Unpleasant Very Unpleasant

Your answers to the following questions will help MDOT, Indian Trails and Greyhound determine general characteristics for the typical bus passenger in Michigan. This information is completely anonymous and confidential:

22. Where do you live? College students please answer for your place of residence while attending school? (If you do not want to answer this, Check Box)

_____ (City /Community) _____ (State/Province) _____ (Zip code) _____ (Nearest major intersection)

23. What is your gender? Male Female

24. Which age group are you in?

- 12 - 17 years 25 - 34 years 45 - 54 years 65 - 74 years
 18 - 24 years 35 - 44 years 55 - 64 years 75 years or older

25. Please indicate the number of persons traveling with you for each age group (including yourself):

___ 12 - 17 years	___ 25 - 34 years	___ 45 - 54 years	___ 65 - 74 years
___ 18 - 24 years	___ 35 - 44 years	___ 55 - 64 years	___ 75 years or older

26. What is the highest level of education you have completed?

<input type="checkbox"/> Less than high school	<input type="checkbox"/> Some college/trade school
<input type="checkbox"/> High school graduate	<input type="checkbox"/> College graduate

27. Which of the following best describes your current employment status?

<input type="checkbox"/> Employed full-time	<input type="checkbox"/> Homemaker	<input type="checkbox"/> Student (other than college)
<input type="checkbox"/> Employed part-time	<input type="checkbox"/> Retired	<input type="checkbox"/> University/college student
<input type="checkbox"/> Unemployed	<input type="checkbox"/> Other (Please specify) _____	

28. How many people (including yourself) are in your household? _____

29. How many vehicles (cars, vans, or pickup trucks) do those in your household own, lease or use regularly?
(College students please answer for your place of residence while attending school)

None One Two Three or more

30. What is your current annual household income (the sum of all people who live in your household)?

<input type="checkbox"/> Under \$10,000	<input type="checkbox"/> \$20,000 to \$29,999	<input type="checkbox"/> \$40,000 to \$49,999	<input type="checkbox"/> \$75,000 to \$99,999
<input type="checkbox"/> \$10,000 to \$19,999	<input type="checkbox"/> \$30,000 to \$39,999	<input type="checkbox"/> \$50,000 to \$74,999	<input type="checkbox"/> \$100,000 or more

31. Please share any comments or suggestions you may have for improving intercity bus services:

Thank you for your participation in this effort and for traveling by Intercity Bus.

7.3 Summary of Survey Questionnaires

Table 30. Comparing the Survey Questionnaires

Categories	Rail Survey	Bus Survey
Demographics	7	9
Service Use	11	12
Service Characteristics	7 (41)	9 (23)
Number of Records Used in Analysis	2,513	689

Notes: The bus survey contained two demographic questions that the rail survey did not: Number of persons traveling with you, and level of education. Number in parentheses – such as “(41)” – indicates the number of sub questions within a major question, to characterize the level of detail collected. Although the bus survey contained more questions pertaining to service characteristics, the rail survey collected more detail on survey characteristics.

7.4 Comparing Survey Questions Between Studies

Table 31. Comparing Survey Questions on Service Characteristics, Rail

Service Characteristics Variables - Rail	2000	2007
Passenger Satisfaction with Boarding Train Station ¹	✓	✓
Method of Purchasing Ticket	✓	
Rating Amtrak Services	✓	
Rating Importance of Amtrak Amenities	✓	
High Speed Rail Opportunities	✓	
General Characteristics of Michigan Amtrak Service	✓	
Impact of Required Reservation	✓	
Ability to Check Baggage	✓	
Importance of Guaranteed On-Time Arrival	✓	
How Much More Would Passenger Pay for Reduced Travel Time	✓	
Feelings on “no smoking on trains” policy	✓	
Importance of Activities on Train		✓
Denied an Amtrak Reservation		✓

Notes: 1. The 2000 survey asked about level of satisfaction; the 2007 survey asked about importance of station amenities.

Table 32. Comparing Survey Questions on Service Characteristics, Bus

Service Characteristics Variables - Bus	2001	2007
Likelihood of Using Intercity Bus Lines Again	✓	✓
Safety While Waiting for and Riding the Bus	✓	✓
Experience on Intercity Bus ¹	✓	✓
Rating Importance of Michigan Bus Improvements	✓	
Method/Satisfaction of Purchasing Ticket	✓	
Importance of Particular Bus Service		✓

Notes: 1. The 2000 survey contained this question but it was not addressed in the report.

7.5 Summary of Comments Provided by Survey Respondents: Rail

The following summarizes the comments provided by respondents to the survey question “Please share any comments or suggestions you may have for improving intercity passenger rail services.”

General Subject Areas	Instances of		Instances of Specific Comment
	General Subject Area	Specific Comment Areas	
Reliability	352	Improve reliability and on-time performance	295
		Less delay due to freight traffic	40
		Need dedicated track	9
		Compensation for late trains	8
Positive	226	Service compliments	209
		Continue service	17
Comfort	185	Improve seat comfort	43
		More business class seating	33
		Improve train quality/comfort	22
		Improve bathroom quality/comfort	16
		Improve temperature control	13
		Face seats forward	11
		Smoothness complaints	10
		Adjust lighting	9
		Train overcrowding	8
		Noise complaints	7
		Improve station comfort	4
		Add/expand lounge car	3
		Provide cup holder	3
		More Super Liner Trains	2
More first class seating	1		
Routes	112	Expand service to more locations	76
		More direct service	11
		Improve layovers	8
		Improve routes	7

General Subject Areas	Instances of General Subject Area	Specific Comment Areas	Instances of Specific Comment
Entertainment	102	Provide airport route	6
		More stops	4
		Wi-Fi	55
		Electrical outlets	34
		Movies	6
		TV	4
		More/other entertainment options	2
		Music	1
Food	102	Better/more food options	42
		Better food service/more personnel	25
		Lower prices	20
		Healthier food options	10
		Provide complimentary food	5
Frequency	93	Improve service frequency	92
		Improve service frequency seasonally	1
Faster Service	78	Faster service	62
		Fewer stops/more express buses	15
		More Blue Water trains	1
Cleanliness	70	Train cleanliness complaints	34
		Bathroom cleanliness complaints	23
		Station cleanliness complaints	13
Stations	59	Improve stations	19
		Improve station safety	11
		Station availability/location	10
		Improve station service	7
		Improve station hours	6
		Station overcrowding	3
		Better/more food options in stations	2
Communications	59	Healthier food options in stations	1
		More information on delays	15

General Subject Areas	Instances of General Subject Area	Specific Comment Areas	Instances of Specific Comment
		Improve signage	10
		Better sound system to hear announcements	9
		Better information on internet	6
		More announcements/explanations	5
		Better information by phone	4
		More information on connections	3
		Need public phones	2
		Better communication of schedules	2
		Better ticketing information	1
		More advertising	1
		Provide information for new riders	1
Personnel	55	Improve boarding procedures	19
		On-board personnel complaints	10
		Personnel complaints	8
		Station personnel complaints	8
		Customer service complaints	6
		Need more passenger assistance	4
Miscellaneous	51	Miscellaneous	51
Schedules	50	Earlier trains	20
		Later trains	15
		Improve schedules	13
		Overnight trains	2
Prices	42	Lower fares	26
		More discounts	9
		Frequent traveler rewards	4
		Keep prices consistent	3
Parking	32	Improve parking	22
		Improve parking security	6
		Improve long-term parking	4

General Subject Areas	Instances of		Instances of Specific Comment
	General Subject Area	Specific Comment Areas	
Reservations	28	Reserved seating needed	28
Safety	26	Improve security	14
		Improve safety	11
		Improve safety: seatbelts	1
Tickets/Ticketing	26	Improve ticketing procedure/services	16
		Electronic ticket machines	7
		On-line ticket purchase complaints	3
Luggage	25	Need assistance with luggage	12
		Luggage storage complaints	6
		Need luggage checking option	5
		Luggage handling complaint	1
		Provide bicycle rack	1
First Time Rider	24	First time rider	24
Children	19	Need family seating/child friendly car	13
		Improve child friendliness	2
		Need car seat harness	2
		Need assistance for passengers with children	1
		Need changing stations	1
Access	15	Improve local access to stations	15
Survey	15	Survey complaints	15
Disabled/elderly	13	Need more assistance	8
		Need better seating	1
		Need car for disabled/elderly	1
		Better overnight accommodations	1
		Need pre-boarding	1
		Provide train service for disabled/elderly	1
		Smoking	12
Better accommodate smokers	2		
Keep train non-smoking	2		

General Subject Areas	Instances of General Subject Area	Specific Comment Areas	Instances of Specific Comment
		Allow smoking on train	1
Negative	6	Negative comments	6
Environment	1	Provide recycling options	1

7.6 Summary of Comments Provided by Survey Respondents: Bus

The following summarizes the comments provided by respondents to the survey question “Please share any comments or suggestions you may have for improving intercity bus services.”

General Subject Areas	Instances of General Subject Area	Specific Comment Areas	Instances of Specific Comment
Comfort	64	Improve seat comfort	17
		Bus overcrowding	13
		Improve bus quality/comfort	9
		Complaints about other passengers	7
		Noise/TV complaints	6
		Improve bathroom comfort/quality	4
		Improve station comfort	2
		Improve temperature control	2
		More bathroom stops	2
		Provide cup holder	1
Adjust lighting	1		
Positive	59	Service compliments	43
		Service compliments-Indian Trails	8
		Service compliments-Greyhound	4
		Continue service	4
Routes	40	Improve layovers	20
		Expand service to more locations	11
		More direct service	4
		Improve routes	3
		More stops	1
Personnel	28	Provide airport route	1
		On-board personnel complaints	11
		Customer service complaints	7
		Improve boarding procedures	4
		Personnel complaints	3
		Station personnel complaints	2
Reliability	26	Need more passenger assistance	1
Reliability	26	Improve reliability and on-time performance	22

General Subject Areas	Instances of General Subject Area	Specific Comment Areas	Instances of Specific Comment
		Less waiting time	4
Stations	19	Improve stations	6
		Improve station safety	5
		Station availability/location	3
		Improve station service	3
		Improve station hours	2
Cleanliness	14	Bathroom cleanliness complaints	5
		Station cleanliness complaints	5
		Bus cleanliness complaints	4
Faster Service	14	Faster service	7
		Fewer stops/more express buses	7
Entertainment	13	TV	4
		Other TV options	3
		Movies	2
		Electrical outlets	2
		Music	1
		Wi-Fi	1
Frequency	13	Improve service frequency	11
		Improve service frequency seasonally	2
Communications	11	Improve signage	2
		More announcements/explanations	2
		More information on delays	2
		More/better advertising	2
		Better sound system to hear announcements	1
		More information/assistance with connections	1
		Need public phones	1
Luggage	9	Luggage handling complaints	4
		Need assistance with luggage	3
		Luggage storage complaints	2
Safety	9	Improve security	6
		Improve safety	2
		Improve safety: seatbelts	1

General Subject Areas	Instances of General Subject Area	Specific Comment Areas	Instances of Specific Comment
Miscellaneous	7	Miscellaneous	7
Food	6	Better/more food choices	3
		Provide complimentary food	1
		Improve food service/more personnel	1
		Alcohol	1
Schedules	5	Earlier schedules	3
		Improve schedules	2
Prices	5	Lower fares	5
Access	4	Improve local access to stations	4
First Time Rider	3	First time rider	3
Breakdowns	2	Better contingency plan for breakdowns	2
Environment	2	Use biodiesel fuels	2
Negative	2	Negative comments	1
		Negative comments-Greyhound	1
Smoking	2	Provide smoking area	1
		Reduce delays from smoking breaks	1
Survey	2	Survey complaints	2
Tickets/Ticketing	2	Improve ticketing procedure/services	2
Children	1	Improve child friendliness	1
Pets	1	Allow pet on-board	1

7.7 Summary Tables Comparing Rail Routes

Mode of Transportation to Rail Station

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Drove	22.4	23.5	23.7
Dropped Off	41.7	34.8	33.0
Taxi	12.8	9.3	19.4
Commuter Train	6.7	10.4	6.3
Walked	6.3	9.6	5.9
Local Bus Service	5.6	4.1	4.0
Connecting Amtrak	1.7	3.2	3.7
Other	2.0	2.3	1.9
Intercity Bus	0.4	0.9	1.0
Amtrak Thruway Bus	0.0	1.7	1.0
Bicycle	0.4	0.3	0.1
All	100.0	100.0	100.0

Mode of Transportation from Rail Station

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Picked Up	49.3	42.3	43.5
Taxi	19.9	22.7	23.8
Drove	8.6	11.7	12.8
Walk	6.3	8.5	6.1
Commuter Train	6.0	6.1	4.8
Local Bus Service	3.7	2.6	3.8
Connecting Amtrak Train	2.6	2.3	1.7
Other	2.0	2.6	1.9
Amtrak Thruway Bus	0.7	0.0	1.0
Intercity Bus	0.6	0.9	0.4
Bicycle	0.2	0.3	0.1
All	100.0	100.0	100.0

Trip Purpose

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Visit	43.0	44.4	36.3
Vacation	17.3	18.4	29.9
Business Trip	9.5	9.1	8.4
University/College	8.9	6.7	7.3
Personal Business	7.1	5.0	5.0
Other	5.0	5.0	3.0
Entertainment	3.7	4.4	3.2
Work	2.4	3.2	3.2
Shopping	2.8	3.2	2.6
School	0.2	0.6	1.1
All	100.0	100.0	100.0

Likelihood of Choosing Alternate Travel Mode

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Drive	82.6	80.5	82.2
Airplane	37.5	31.3	49.8
Would Not Make the Trip	34.5	40.0	28.7
Ride Intercity Bus	25.8	25.7	25.3
All	100.0	100.0	100.0

Note: Percentages represent the share of respondents who reported either “Very Likely” or “Likely” to choose the alternative mode.

Gender

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Female	58.0	60.8	62.0
Male	42.0	39.2	38.0
All	100.0	100.0	100.0

Age

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
12 – 17 Years	1.3	4.1	9.1
18 – 24 Years	33.2	25.4	24.2
25 – 34 Years	17.3	21.3	18.8
35 – 44 Years	11.4	10.2	11.5
45 – 54 Years	15.9	18.7	15.9
55 – 64 Years	12.9	13.1	12.1
65 – 74 Years	5.8	4.7	5.7
75 Years or Older	2.1	2.0	2.5
All	100.0	100.0	100.0

Household Income

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Under \$10,000	17.1	11.1	9.1
\$10,000 - \$19,999	6.2	7.3	5.2
\$20,000 - \$29,999	7.9	11.5	7.9
\$30,000 - \$39,999	5.8	6.1	5.3
\$40,000 - \$49,999	9.2	11.8	7.4
\$50,000 - \$74,999	20.7	16.2	19.1
\$75,000 - \$99,999	12.6	13.1	15.2
\$100,000 or More	20.5	22.9	30.8
All	100.0	100.0	100.0

Household Vehicles

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
None	17.8	14.2	10.5
One	21.2	25.2	22.8
Two	34.1	39.2	37.2
Three or More	26.9	21.4	29.4
All	100.0	100.0	100.0

Employment Status

	Blue Water (%)	Pere Marquette (%)	Wolverine (%)
Employed Full-time	39.4	50.3	42.9
Employed Part-time	13.7	16.5	11.9
Unemployed	4.7	1.8	3.6
Homemaker	4.7	7.1	4.8
Retired	12.8	7.1	10.6
Other	2.6	0.9	2.1
Student	4.1	5.6	10.9
University/College Student	17.9	10.9	13.3
All	100.0	100.0	100.0

7.8 Rail Schedules

WOLVERINE AND BLUE WATER SERVICE

Chicago • Kalamazoo • Battle Creek • Port Huron • Detroit • Pontiac

Wolverine	Wolverine	Blue Water	Wolverine	◀ Train Name ▶	Blue Water	Wolverine	Wolverine	Wolverine				
350	352	364	354	◀ Train Number ▶	365	351	353	355				
Daily	Daily	Daily	Daily	◀ Days of Operation ▶	Daily	Daily	Daily	Daily				
☒ ☒ ☒	☒ ☒ ☒	☒ ☒ ☒	☒ ☒ ☒	On Board Service ▶	☒ ☒ ☒	☒ ☒ ☒	☒ ☒ ☒	☒ ☒ ☒				
Read Down				Mile	▼	Symbol	▲	Read Up				
8 30A	12 15P	3 00P	6 00P	0	Do	Chicago, IL-Union Sta. (CT)	● ☒ ☒	Ar	11 14A	11 59A	4 41P	10 38P
8 57A	12 42P			16		Hammond-Whiting, IN	○ ▲				D 3 45P	D 9 47P
	1 19P			52		Michigan City, IN (CT)	○					D 9 11P
		☒ 5 10P	☒ 8 14P	62		New Buffalo, MI (ET)	● ▲		☒ 10 50A			☒ 9 59P
11 09A	2 54P	5 38P	8 41P	80		Niles, MI (South Bend)	● ▲		10 25A		3 43P	9 34P
11 21A		5 50P		102		Dowagiac, MI	○		10 10A			9 21P
12 10P	3 45P	6 34P	9 30P	138		Kalamazoo, MI	● ▲ ☒		9 41A	10 24A	3 01P	8 52P
						Traverse City, St. Ignace—see page 73	● ▲ ☒					
12 40P	4 15P		10 00P	160	Ar	Battle Creek, MI	● ▲ ☒	Dp	9 12A	9 54A	2 31P	8 22P
☒ 3 40P		7 09P	☒ 11 10P		Do		○ ▲	Ar			☒ 1 40P	☒ 4 40P
☒ 5 00P		8 21P	☒ 12 20A	208		East Lansing, MI	○ ▲		7 43A		☒ 12 25P	☒ 1 25P
		9 07P		238		Durand, MI	○		7 02A			
☒ 6 00P		9 32P	☒ 1 15A	256		Flint, MI	○ ▲		6 26A		☒ 11 20A	☒ 1 45P
		10 01P		274		Lapeer, MI	○ ▲		6 00A			
		11 03P		319	Ar	Port Huron, MI	● ▲ ☒	Dp	5 15A			
	4 43P			184	Dp	Albion, MI	○	Ar			1 58P	
1 30P	5 07P		10 50P	205		Jackson, MI	● ▲		8 50A		1 34P	7 27P
2 09P	5 47P		11 30P	243		Ann Arbor, MI	● ▲		8 23A		12 56P	6 51P
						Greenfield Village, MI ☒	● ▲ ☒					
☒ L 2 46P	☒ L 6 22P		L 11 59P	273		Dearborn, MI	● ▲ ☒		☒ 7 46A	☒ 12 13P		6 14P
L 3 15P	L 6 49P		L 12 32A	281	Ar	Detroit, MI	● ▲ ☒	Dp	7 23A	11 46A	5 53P	
					Do		○ ▲	Ar	7 20A	11 43A	5 50P	
L 3 36P	L 7 10P		L 12 53A	292		Royal Oak, MI	○		7 00A	11 25A	5 30P	
L 3 43P	L 7 17P		L 1 00A	296		Birmingham, MI	○		6 53A	11 18A	5 23P	
4 06P	7 44P		1 29A	304	Ar	Pontiac, MI (ET)	○ ▲	Dp	6 40A	11 05A	5 10P	

The Blue Water is financed primarily through funds made available by the Michigan State Department of Transportation.

Services on Wolverine and Blue Water Service

- ☒ Coaches: Reservations required.
- ☒ Business Class Service.
- ☒ Café Car: Sandwiches, snacks and beverages.
- ☒ Smoking is prohibited entirely on these trains.

VIA operates train service between Windsor and Toronto. See page 120 for schedules. Passengers make own arrangements for transfer to/from Windsor.

Symbols and Reference Marks

- D Stops only to discharge passengers.
- L Stops to receive and discharge passengers; train may leave before time shown.
- ☒ Quik-Trak Ticket Express machine available for credit/debit card sales. No Amtrak ticket office. (Cash fares may be paid on board without penalty.)
- ☒ Passengers not carried locally between Dearborn and Detroit except when transferring to/from VIA Rail Canada trains at Windsor. Passengers make own arrangements for transfer.
- ☒ Bus will discharge passengers at Amtrak station on request to driver.
- ☒ Indian Trails Thruway Connection available between Battle Creek, East Lansing and Flint.
- ☒ Stop is available for group travel only; reservations required.
- Reserved Corridor service.
- Thruway and connecting services.

PERE MARQUETTE

Chicago • St. Joseph • Holland • Grand Rapids

Pere Marquette	◀ Train Name ▶	Pere Marquette
370	◀ Train Number ▶	371
Daily	◀ Days of Operation ▶	Daily
☒ ☑	◀ On Board Service ▶	☒ ☑
Read Down	Mile	Read Up
5 20P	0	Chicago, IL-Union Sta. (CT)
☒ 7 35P	61	New Buffalo, MI (ET)
8 03P	89	St. Joseph-Benton Harbor, MI
8 39P	116	Bangor, MI (South Haven)
9 21P	151	Holland, MI
10 20P	176	Grand Rapids, MI (ET)

The Pere Marquette is financed primarily through funds made available by the Michigan State Department of Transportation.

Thruway Motorcoach Connections

Kalamazoo • Traverse City • St. Ignace (Indian Trails)

8364	Mile	Days of Operation	Symbol	A	8365
Daily					Daily
2 40P	0	Kalamazoo, MI-Amtrak Sta. (ET)	● A [3]	Ar	5 20P
☒ 3 00P	50	Lansing Rapids, MI-Amtrak Sta.	○ [9]	Dp	4 00P
4 10P	64	Rockford, MI	○ [9]	↑	3 45P
4 20P	65	Howard City, MI	○ [9]	↑	3 15P
5 03P	100	Big Rapids, MI	○ [9]	↑	2 50P
5 33P	130	Iredell City, MI	○ [9]	↑	2 15P
8 30P	177	Cadillac, MI	○ [9]	↑	1 15P
8 49P	178	Manton, MI	○ [9]	↑	12 55P
7 24P	168	Kingsley, MI	○ [9]	↑	12 20P
7 50P	192	Traverse City, MI	○ [9]	↑	11 50A
8 35P	215	Calkaska, MI	○ [9]	↑	10 55A
8 50P	226	Masonville, MI	○ [9]	↑	10 40A
8 13P	249	Boyer Falls, MI	○ [9]	↑	10 10A
9 24P	255	Boyan City, MI	○ [9]	↑	10 05A
9 33P	262	Walton Lake, MI	○ [9]	↑	9 55A
9 48P	270	Pewee, MI	○ [9]	↑	9 40A
10 15P	288	Pewee, MI	○ [9]	↑	9 10A
10 40P	305	Mackinaw City, MI	○ [9]	↑	8 45A
10 55P	312	St. Ignace, MI (ET)	○ [9]	Dp	8 30A

Services on Pere Marquette

- ☒ Coaches: Reservations required.
- ☑ Smoking is prohibited entirely on these trains.

Limited beverage and snack service available from snack cart on board select trains offering a selection of cold food and drink items. Consult station agent for specific trains.

COMING - New station location at New Buffalo, MI

☒ The New Buffalo station will be relocated to 225 North Whittaker St., New Buffalo, MI at a date to be announced. When the move is completed, Trains 370 and 371 will not stop. Please consult Amtrak for effective dates.



Students Take Note:

Amtrak's Midwest Is in a Class of its Own.

Now more than ever, it's easy to escape campus for a day or a weekend with Amtrak's new expanded service in the Midwest. With additional service, you can take a day trip home or explore a city, watching the scenery glide by, studying, or socializing along the way. Call your travel agent or Amtrak today at 1-800-USA-RAIL, or log on to Amtrak.com.

7.9 Bus Schedules



CHICAGO—FLINT—ST. IGNACE

READ DOWN	SCHEDULE NUMBER		READ UP
85	1485		84
	Folder No.	2-1-07	
	FREQUENCY		
11:00	Lv	Calumet, MI (1493) IT	Ar 8:00
1:20	Ar	Easton, MI	Lv 1:40
3:40	Lv	Easton, MI	Ar 3:20
8:17	Ar	Milwaukee, WI (CT)	Lv 8:45
10:10	Lv	Ironwood, MI (CT) (1489) IT	Ar 6:15
2:15	Ar	Easton, MI	Lv 3:30
3:40	Lv	Easton, MI	Ar 2:35
6:25	Ar	St. Ignace, MI	Lv 11:40
8:30	4:30	South St. Marie, MI (I & J Lines)	Ar 12:00 7:30
9:30	5:30	St. Ignace, MI (See Note 2)	Lv 11:00 6:30
ST. IGNACE, MI			
6:30	Lv	St. Ignace Bus Stop (L.R.) (ET) IT	Ar 9:50
6:45	Lv	MacKinnon City (Village City Hall)	Ar 9:37
7:15	Lv	Chetwygan (Advance Travel)(L.R.)	Ar 9:07
17:45	Lv	Tower (Township Hall)	Ar 18:37
7:50	Lv	Orinway (Village City Hall)	Ar 8:30
8:21	Lv	Rogers City (Chi Chi's Restaurant)	Ar 8:01
9:12	Ar	ALPENA, MI (Lad's Hamburgers South)	Lv 7:50
9:25	Lv	ALPENA, MI (Lad's Hamburgers South)	Ar 6:58
19:47	Lv	Oshtemo (BP/Subway (US-2))	Ar 18:30
10:10	Lv	Harrisville (Main & State Streets)	Ar 6:14
10:31	Lv	Oshtemo (Tobacco Row)	Ar 5:53
10:50	Lv	Lewis City (East Tawas (Tawas Motel))	Ar 5:20
11:19	Lv	Au Gres (US-21 & Court St.)	Ar 19:08
11:28	Lv	Orinway (Council on Aging @ RKO/US-21)	Ar 14:57
11:38	Lv	Standish (Standish Laundry)	Ar 4:47
11:42	Lv	Standish Correctional Facility	Ar 14:42
OC-D	Lv	Perceoning (The Cheese House)	Ar 0:00
12:22	Ar	BAY CITY, MI	Lv 4:00
12:25	Lv	Bay City, MI (1482) IT	Ar 4:00
12:50	Ar	Saginaw	Lv 3:35
12:55	Lv	Saginaw	Ar 3:30
1:40	Ar	Flint, MI	Lv 2:50
1:45	Lv	Flint, MI	Ar 2:45
1:51	Ar	Lansing	Lv 12:55
5:10	Ar	Kalamazoo, MI (ET)	Lv 11:00
8:30	Ar	Chicago, IL (CT)	Lv 6:00
1:40	Lv	Flint, MI (248) GL	Ar 1:15
2:30	Ar	Poniatz, MI	Lv 12:25
3:00	Ar	Southfield, MI	Lv 11:55
3:25	Ar	Detroit, MI	Lv 11:30

OC — Passengers must contact Bay City agency 24 hours prior to trip. 1485-0112cb
D — Discharge only

CHICAGO—KALAMAZOO—ST. IGNACE

READ DOWN	SCHEDULE NUMBER		READ UP	
81	1484		80	
	Folder No.	2-1-07		
	FREQUENCY			
11:00	Lv	Calumet, MI (1493) IT	Ar 8:00	
1:20	Ar	Easton, MI	Lv 1:40	
3:40	Lv	Easton, MI	Ar 3:20	
8:25	Ar	Milwaukee, WI (CT)	Lv 8:45	
10:10	Lv	Pontiac, MI (CT) (1489) IT	Ar 6:15	
2:15	Ar	Easton, MI	Lv 3:30	
3:40	Lv	Easton, MI	Ar 2:35	
6:25	Ar	St. Ignace, MI	Lv 11:40	
8:30	4:30	South St. Marie, MI (I & J Lines)	Ar 12:00 7:30	
9:30	5:30	St. Ignace, MI (See Note 2)	Lv 11:00 6:30	
ST. IGNACE, MI				
6:30	Lv	St. Ignace Bus Stop (L.R.) (ET) IT	Ar 10:55	
6:45	Lv	MacKinnon City (Village City Hall)	Ar 10:15	
7:15	Lv	Chetwygan (Advance Travel)(L.R.)	Ar 9:50	
17:45	Lv	Tower (Township Hall)	Ar 18:37	
7:50	Lv	Orinway (Village City Hall)	Ar 8:30	
8:21	Lv	Rogers City (Chi Chi's Restaurant)	Ar 8:01	
9:12	Ar	ALPENA, MI (Lad's Hamburgers South)	Lv 7:50	
9:25	Lv	ALPENA, MI (Lad's Hamburgers South)	Ar 6:58	
19:47	Lv	Oshtemo (BP/Subway (US-2))	Ar 18:30	
10:10	Lv	Harrisville (Main & State Streets)	Ar 6:14	
10:31	Lv	Oshtemo (Tobacco Row)	Ar 5:53	
10:50	Lv	Lewis City (East Tawas (Tawas Motel))	Ar 5:20	
11:19	Lv	Au Gres (US-21 & Court St.)	Ar 19:08	
11:28	Lv	Orinway (Council on Aging @ RKO/US-21)	Ar 14:57	
11:38	Lv	Standish (Standish Laundry)	Ar 4:47	
11:42	Lv	Standish Correctional Facility	Ar 14:42	
OC-D	Lv	Perceoning (The Cheese House)	Ar 0:00	
12:22	Ar	BAY CITY, MI	Lv 4:00	
12:25	Lv	Bay City, MI (1482) IT	Ar 4:00	
12:50	Ar	Saginaw	Lv 3:35	
12:55	Lv	Saginaw	Ar 3:30	
1:40	Ar	Flint, MI	Lv 2:50	
1:45	Lv	Flint, MI	Ar 2:45	
1:51	Ar	Lansing	Lv 12:55	
5:10	Ar	Kalamazoo, MI (ET)	Lv 11:00	
8:30	Ar	Chicago, IL (CT)	Lv 6:00	
1:40	Lv	Flint, MI (248) GL	Ar 1:15	
2:30	Ar	Poniatz, MI	Lv 12:25	
3:00	Ar	Southfield, MI	Lv 11:55	
3:25	Ar	Detroit, MI	Lv 11:30	
4:45	4:15	Grand Rapids, MI (1437) IT	Ar 5:55 1:40	
4:50	4:20	Flintwell (McDonald's)	Ar 1:45	
8:45	8:20	Kalamazoo, MI	Lv 4:35 2:40	
9:00	5:50	9:20	Lv Kalamazoo, MI (1482) IT	Ar 4:50 2:35
10:00	6:55	10:25	Ar Benton Harbor, MI (ET)	Lv 1:45 1:30
11:20	8:30	11:30	Ar Chicago, IL (CT)	Lv 12:45 10:05
10:10	11:00	Lv	Kalamazoo, MI (1482) IT	Ar 2:25
12:10	12:50	Ar	Lansing, MI	Lv 12:40
1:15	2:45	Ar	Flint, MI	Lv 11:20
4:50	Lv	Grand Rapids, MI (242) GL	Ar 3:35	
5:10	Ar	Lansing, MI	Lv 2:25	
5:30	Ar	Detroit, MI	Lv 11:30	
4:50	Lv	Grand Rapids, MI (242) GL	Ar 3:35	
5:10	Ar	Flintwell, MI	Lv 1:45	

Note 2 — I & J Line does not accept interim bus tickets. Passenger must purchase bus ticket to St. Ignace, MI and then purchase ticket (\$50.00) from the I & J Line for transportation between St. Ignace and South St. Marie. 1484-0115cb

GRAND RAPIDS—BENTON HARBOR

READ DOWN	SCHEDULE NUMBER		READ UP	
92	1486		90 92	
	Folder No.	2-1-07		
	FREQUENCY			
4:05	Lv	Maskagon, MI (242) GL	Ar 5:05	
4:55	Ar	Grand Rapids, MI	Lv 4:15	
5:00	10:30	Lv	GRAND RAPIDS, MI	Ar 3:30 10:50
5:40	11:10	Ar	Kalamazoo	Lv 3 1
5:45	11:15	Lv	Holland	Lv 2:55 10:15
6:25	11:55	Ar	South Haven	Lv 2:10 9:30
6:55	12:25	Ar	BENTON HARBOR, MI	Lv 1:40 9:00
7:00	G 12:45	Lv	Benton Harbor, MI (1482) IT	Ar 1:25 8:55
7:20	G 1:10	Ar	Gary, IN	Lv 11:05 6:25
7:40	G 1:30	Ar	Holland, IN	Lv 10:45 6:00
8:30	G 1:20	Ar	Chicago, IL	Lv 10:05 5:00
9:00	1:30	Lv	Benton Harbor, MI (1482) IT	Ar 6:55
10:05	2:35	Ar	Kalamazoo	Lv 5:50
1:15	6:05	Ar	Flint, MI	Lv 1:45

G — Gelpound Lines 1486-0112cb

GRAND RAPIDS—CHICAGO

READ DOWN	SCHEDULE NUMBER		READ UP	
33	1487		82	
	Folder No.	2-1-07		
	FREQUENCY			
7:45	4:15	8:05	Lv GRAND RAPIDS, MI (Grey Term.)	Ar 5:55 3:40
8:45	4:50	9:05	Ar Flintwell (McDonald's)	Lv 1 3:06
9:00	5:20	9:05	Ar KALAMAZOO, MI (KTC)	Lv 4:55 2:40
9:00	5:50	9:20	Lv Kalamazoo, MI (1482) IT	Ar 4:50 2:35
10:00	6:55	10:25	Ar Benton Harbor, MI (ET)	Lv 1:45 1:40
11:20	8:30	11:30	Ar Chicago, IL (CT)	Lv 12:45 10:05
10:10	11:00	Lv	Kalamazoo, MI (1482) IT	Ar 2:25
12:10	12:50	Ar	Lansing, MI	Lv 12:40
1:15	2:45	Ar	Flint, MI	Lv 11:20

1487-0112cb

LANSING—ST. IGNACE

AD DOWN	SCHEDULE NUMBER	READ UP
4	1488	55
Folder No.	1488	2-1-07
FREQUENCY		
9:05 Lv Chicago, IL (1487) IT Ar	8:30	
2:55 Lv Kalamazoo, MI Ar	8:30	
1:45 Ar Lansing, MI Lv	7:40	
4:45 Lv Lansing, MI (1482) IT Ar	3:35	
1:00 Ar Flint, MI Lv	1:45	
1:45 Ar Saginaw, MI Lv	12:55	
2:10 Lv Detroit, MI (1472) GL Ar	4:55	
2:15 Ar Lansing, MI Lv	2:50	
5:30 Lv EAST LANSING, MI Ar	1:55	
5:40 Ar Lansing, MI Lv	1:45	
5:45 Lv Lansing, MI Ar	1:40	
6:48 Ar Alma Ar	12:39	
7:12 Ar Mt. Pleasant Ar	12:10	
7:15 Lv Mt. Pleasant Ar	12:05	
7:40 Ar Clare Lv	11:40	
8:05 Lv Clare Ar	11:22	
8:20 Ar Harrison Lv	11:07	
8:50 Ar Houghton Lake Lv	10:37	
8:50 Lv Houghton Lake Ar	10:35	
9:15 Ar Grayling Lv	10:10	
9:20 Lv Grayling Ar	10:05	
9:50 Ar Grayling Lv	9:55	
9:55 Lv Grayling Ar	9:30	
9:55 Ar Mackinaw City Lv	8:30	
1:10 Ar ST. IGNACE, MI Ar	8:15	
1:40 Lv St. Ignace, MI (1489) IT Ar	6:25	
2:25 Ar Escanaba, MI Lv	3:40	
3:10 Lv Escanaba, MI (1489) IT Ar	2:55	
6:15 Ar Ironwood, MI Lv	20:10	
3:40 Lv Escanaba, MI (1490) IT Ar	3:20	
4:15 Ar Milwaukee, WI Lv	8:45	
3:40 Lv Escanaba, MI (1490) IT Ar	3:20	
8:00 Ar Calumet, MI Lv	11:00	

f — Discharge only. 1488-0208cb

ST. IGNACE—ESCANABA—IRONWOOD

READ DOWN	SCHEDULE NUMBER	READ UP
51	1489	50
Folder No.	1489	2-1-07
FREQUENCY		
11:30 Lv Detroit, MI (ET) (1484) GL Ar	3:25	
1:15 Ar Flint, MI Lv	1:40	
2:50 Lv Flint, MI (1484) IT Ar	1:40	
9:50 Ar St. Ignace, MI Lv	6:30	
8:30 Lv South St. Marie, MI (F & J Line) Note 1 Ar	7:20	
9:30 Ar St. Ignace, MI Lv	6:30	
7:35 Lv Traverse City, MI (1484) IT Ar	11:40	
10:55 Ar St. Ignace, MI Lv	8:40	
11:40 Lv ST. IGNACE, MI (ET) Ar	6:25	
11:05 Epoufette Lv	14:02	
11:26 Nuburway Lv	15:39	
11:35 Gould City Lv	15:32	
11:52 Blaney Park Lv	15:13	
1:20 Ar Manistique Lv	4:45	
1:35 Lv Manistique Ar	4:40	
11:45 Thompson Lv	14:34	
12:10 Rapid River Lv	13:56	
12:27 Gladstone Lv	13:45	
2:35 Ar Escanaba, MI Lv	3:40	
2:40 Lv Escanaba, MI (ET) (1489) IT Ar	3:20	
5:30 Ar Green Bay, WI (CT) Lv	11:25	
8:15 Ar Milwaukee, WI Lv	8:45	
3:40 Lv Escanaba, MI (ET) (1490) IT Ar	3:20	
3:10 Ar Marquette, MI Lv	1:30	
7:25 Ar Houghton, MI Lv	11:35	
8:00 Ar Calumet, MI Lv	11:00	
11:00 Lv Calumet, MI (1490) IT Ar	8:00	
11:35 Lv Houghton, MI Ar	7:25	
1:50 Lv Marquette, MI Ar	5:00	
1:20 Ar Escanaba, MI (ET) Lv	3:40	
4:45 Lv Milwaukee, WI (1490) IT Ar	8:15	
11:25 Lv Green Bay, WI (CT) Ar	5:35	
3:20 Ar Escanaba, MI (ET) Lv	3:40	
3:30 Lv Escanaba, MI Ar	2:55	
13:48 Bark River (ET) Lv	12:37	
13:55 Wilson (CT) Lv	12:30	
3:00 Powers (CT) Lv	1:25	
13:24 Norway Lv	11:01	
3:40 Ar Iron Mountain, MI Lv	12:45	
3:40 Lv Iron Mountain, MI Ar	12:45	
13:48 Spread Eagle, WI Lv	11:36	
13:57 Florence, WI Lv	11:28	
14:15 Crystal Falls, MI Ar	11:20	
4:30 Iron River Lv	11:50	
13:56 Watermeet Lv	11:19	
15:34 Marquette Ar	10:51	
5:50 Ar Wakefield Lv	10:35	
5:55 Lv Wakefield Ar	10:30	
16:01 Bossomer Lv	10:24	
6:15 Ar IRONWOOD, MI (F) (CT) Lv	10:10	

f — Flag stop. 1489-0205cb

CALUMET—MARQUETTE—GREEN BAY—MILWAUKEE—CHICAGO

READ DOWN	SCHEDULE NUMBER	READ UP
53	1490	52
Folder No.	1490	2-1-07
FREQUENCY		
11:00 Lv CALUMET, MI (ET) Ar	8:00	
11:25 Hancock Ar	7:35	
11:35 Houghton Ar	7:25	
11:44 Chassel Ar	17:16	
11:59 Keweenaw Bay Ar	17:01	
12:08 Baraga Ar	6:55	
12:15 St. Anse Ar	6:45	
11:51 Three Lakes Ar	16:09	
11:59 Michigamme Ar	16:01	
11:12 Champion Ar	15:48	
1:20 Ishpeming Ar	5:40	
11:30 Negaunee Ar	15:30	
1:50 Lv MARQUETTE Ar	5:10	
12:58 Givins Ar	14:42	
13:08 Gladstone Ar	13:02	
3:20 Ar Escanaba, MI Lv	3:40	
11:40 Lv St. Ignace, MI (1489) IT Ar	6:25	
2:25 Ar Escanaba, MI (ET) Lv	3:40	
10:00 Lv Ironwood, MI (CT) (1489) IT Ar	6:15	
2:25 Ar Escanaba, MI (ET) Lv	3:40	
3:40 Lv Escanaba, MI Ar	3:20	
13:58 Bark River (ET) Ar	13:02	
13:03 Wilson (CT) Ar	11:58	
3:10 Powers Ar	1:51	
13:10 Nichols Ar	11:45	
3:20 Carney Ar	1:41	
13:23 Bagley Ar	11:38	
13:30 Daggert (CT) Ar	11:31	
3:35 Stephenson Ar	1:26	
13:51 Wallace Ar	11:10	
3:57 Menominee, MI Ar	1:04	
4:07 Ar Marinette, WI Lv	12:54	
4:22 Lv Marinette, WI Ar	12:39	
4:37 Peshtigo Ar	12:24	
4:56 Oconto Ar	12:05	
5:36 Ar GREEN BAY, WI Lv	11:25	
5:40 Lv GREEN BAY, WI Ar	11:20	
6:45 Ar Marinowoc Ar	10:15	
7:15 Lv Sheboygan Ar	9:45	
8:15 Ar MILWAUKEE, WI (CT) Lv	8:45	
9:00 Lv Milwaukee, WI (184) Ar	7:00	
11:00 Ar Chicago, IL (CT) Lv	4:55	

f — Flag stop. 1490-0207cb

CHICAGO—KALAMAZOO—FLINT—ST. IGNACE

READ DOWN				SCHEDULE NUMBER				READ UP			
28	24	14	72	10	17	25	27	33			
Folder No. 1482 2-1-07 FREQUENCY											
12:58	6:15	3:05		9:30	Lv Indianapolis, IN				Ar 6:40	11:25	3:25
1:00	9:30	5:15		11:40	Ar Chicago, IL (218)	Lv	2:15	7:00	10:50		
6:00	9:20				Lv Omaha, NE				Ar 10:30		7:55
4:20	6:10				Ar Chicago, IL (350)	Lv	12:07				9:45
2:17	11:30	7:00	4:00	10:25	Lv Milwaukee, WI			Ar 4:15	9:30	12:00	2:15
4:15	1:15	9:45	5:45	12:10	Ar Chicago, IL (104)	Lv	1:30	7:40	9:15	12:10	
	4:30	11:15			Lv Memphis, TN (265)	Ar		4:20	7:00	10:45	
6:45	2:15	9:35			Ar Chicago, IL	Lv		6:35	9:30	12:07	
4:30				9:30	Lv Minneapolis, MN			Ar 7:05		6:15	9:00
				5:45	Ar Chicago, IL (304)	Lv	3:00		9:15	12:30	
6:40	2:30	9:30		9:00	Lv St. Louis, MO			Ar 5:40	12:10	7:25	6:05
7:30	5:45	2:45		11:30	Ar Chicago, IL (255)	Lv	12:07	6:35	9:05	1:00	
5:00	10:05	6:00		12:45	Lv CHICAGO, IL (CT) IT	Ar	11:30	5:40	8:30	11:20	
8:40	10:25	6:20			Lv Chicago (95th & Dan Ryan Expy) (CT) IT	Ar	0	0	0	0	
6:00	10:45	6:45			Lv Hammond, IN (CT)	Ar		4:40	7:40	0	
6:25	11:05	7:10		1:25	Lv Gary, IN (CT)	Ar	10:45	4:20	7:20	0	
7:05					Lv Michigan City, IN			0	0	15	
8:55	1:25	9:30		3:40	Lv BENTON HARBOR, MI			10:30	4:00	7:00	10:05
9:00	1:30	9:35		3:45	Lv BENTON HARBOR, MI			10:25	3:50	6:55	10:00
					Lv Westland (Standard Station)					DX 6:30	
					Lv Paw Paw			9:50		6:20	
10:05	2:35	10:40		4:50	Lv KALAMAZOO, MI			9:20	2:40	5:50	9:00
					Lv Kalamazoo, MI (1484) IT	Ar			5:20		
	2:40				Ar Grand Rapids, MI				4:15		
	3:40				Lv Grand Rapids, MI				4:05		
	4:45				Ar Grand Rapids, MI				4:00		
	5:50				Ar Petoskey, MI				9:40		
	10:55				Ar St Ignace, MI				8:30		
10:10	2:55	11:00		4:55	Lv KALAMAZOO, MI			9:05	2:25	5:30	8:45
10:15	3:00	11:40			Ar Rest Stop (Burger King/Starbuck)						
h 11:15	3:40	11:45			Lv BATTLE CREEK				1:45	4:50	
					Lv BATTLE CREEK				1:40	4:45	
D 11:45	4:05	12:20			Lv Bellevue					4:05	
					Lv Charlotte (Mick's Party Store)						
				5:55	Ar Grand Rapids, MI			8:05		7:45	
				6:05	Lv Grand Rapids, MI			7:35		7:40	
				6:45	Ar Ionia			6:55			
				6:55	Lv Ionia			6:45			
12:10	4:45	12:50		7:30	Lv LANSING (CT) IT			6:05	12:40	3:40	6:30
12:15	4:50	12:55		7:35	Lv LANSING (CT) IT			6:00	12:35	3:35	6:20
12:20	5:00	1:05			Lv East Lansing (CT) IT			5:50	12:25	3:25	6:10
12:20	5:00	1:05			Lv East Lansing (CT) IT			5:50	12:20	3:20	6:05
D	0	0			Lv Michigan State Univ. (Kellogg Center)				0	0	0
	0	0			Lv Perry Jct. (I.M.)				0	0	0
	1:55				Ar OWOSSO			5:05		2:40	
	6:00	2:45		8:35	Lv OWOSSO				11:20	1:45	5:05
	6:05	2:50		8:40	Lv FLINT, MI (Bus/Train)				11:05	1:40	4:55
					Lv Cheesaning						
					Lv St. Charles						
	D 6:45	3:30		9:20	Ar SAGINAW, MI			10:25	12:55	4:10	
	D 7:15	4:00	3:30	9:45	Ar BAY CITY, MI			10:00	12:25	3:45	
					Lv BAY CITY, MI (ET) IT						
				4:00	Lv BAY CITY, MI (1485) IT					12:22	
	6:55				Lv ALPENA				9:32		
	9:50				Ar ST. IGNACE, MI				6:30		

AM — Light Face Figures.
 PM — Bold Face Figures.
 X — Will operate time points at Expressway interchange.
 ⊙ — Sunday only.

▲ — Full service agency handling tickets, baggage and express, including C.O.D. express.
 ⊕ — Agency handling baggage and express only.
 ⊕ — Change buses.

D — Stops only to discharge passengers at agency or in town.
 ⊕ — Package express pickup and delivery service available.
 ⊕ — Rural Van service available from this location.
 h — Holds for connection.
 HS — Highway stop.
 JCT — Junction.
 (LB) — Lock box.

GL or g — Greyhound Lines, Inc.
 IT — Indian Trails.
 ■ — Rest stop.
 X — Meal or lunch stop.
 OC — Owosso agency must be notified on prior day.
 ● — Connection made at Chicago 95th Street Station.

1482-0112cc

LANSING—OWOSSO—FLINT

READ DOWN		SCHEDULE NUMBER		READ UP	
09	14	27	07		
Folder No. 1483 2-1-07					
FREQUENCY					
1:45	12:50	Lv LANSING, MI (CT) IT	Ar 3:35		5:40
1:55	1:05	Lv East Lansing (CT) IT	Ar 3:20		5:25
2:35	1:30	Lv Perry Jct. (Burger King)	Ar 2:55		4:45
		Lv Owosso	Ar 2:40	D 1:25	
		Lv Cassina (Shaw Street)			
		Lv Durand (Shell Station, M-71)			
	2:45	Ar FLINT, MI (CT) IT	Lv 1:45	12:45	

OC — Passengers must contact Owosso agency one day prior to trip.

1483-0109cc

♿ — Wheel chair accessible bus service is available with a 48 hour advance notice. Notification must be made to Indian Trails at 1-989-725-5105 on Monday thru Friday between 8:00 a.m. & 5:00 p.m.

CLEVELAND—AKRON—COLUMBUS—CINCINNATI

READ DOWN										READ UP									
4387	1157	1117	4379	4381	4383	SCHEDULE NUMBER					1142	1150	4384	1170	4368	1104			
					Folder No.	234					1-9-07								
					FREQUENCY														
11:00	7:15	3:00	11:45	9:15	4:30	Lv	▲CLEVELAND, OH	GL	Ar	6:50	10:55	4:35	7:20	11:15	1:40				
	8:40		1:10			Ar	▲Mansfield		Lv	5:25		3:10							
	8:45		1:15			Lv	▲Mansfield		Ar	5:20		3:05							
▲ 1:25	9:55	5:25	2:30	11:59	6:55	Ar	▲West Salem		Lv	4:10	8:30	1:50	6:10	8:50	11:15				
							▲COLUMBUS, OH												
	1:45	10:20	5:55	2:50	12:20	Lv	▲COLUMBUS, OH		Ar	3:40	8:10	1:20	4:10	8:25	10:45				
							▲Springfield												
							▲Dayton		Lv										
							▲Dayton		Ar										
3:40	12:15	7:50	4:45	2:15	10:00	Ar	▲CINCINNATI, OH	GL	Lv	1:45	6:15	11:30	2:15	6:30	8:50				
4:15	1:00	10:00	5:15	2:45	10:45	Lv	Cincinnati, OH		Ar	1:00	5:45	10:15	11:45	5:45	8:00				
6:00	2:45	11:45	7:00	4:30	12:30	Ar	Louisville, KY	(ET) GL	Lv	11:15	4:00	8:30	10:00	4:00	6:15				
9:10	5:20	2:30	9:20	7:20	3:15	Ar	Nashville, TN	(CT) GL	Lv	6:30	11:30	3:45	4:45	11:00	1:30				
	1:00	8:30			11:45	Lv	Cincinnati, OH	(ET) (426) GL	Ar	11:50	5:15	10:25			7:05				
	5:25	1:30			5:05	Ar	Knoxville, TN	GL	Lv	6:45	12:45	5:10			2:00				
	11:15	6:25			10:20	Ar	Atlanta, GA	(ET) GL	Lv	1:00	7:00	12:45			8:10				

2234-4129eb

DETROIT—INDIANAPOLIS

READ DOWN										READ UP									
4553	SCHEDULE NUMBER					4890													
					Folder No.	239					1-9-07								
					FREQUENCY														
1:40	Lv	▲DETROIT, MI	(ET)	GL	Ar	4:00													
2:50	Ar	▲TOLEDO, OH		Lv	2:50														
3:00	Lv	▲TOLEDO, OH	(ET)	Ar	2:30														
5:00	Ar	▲FT. WAYNE, IN	(EST)	Lv	12:35														
5:10	Lv	▲FT. WAYNE, IN		Ar	12:25														
6:10	Ar	▲Marion (Jas 69 & 18)		Lv	11:20														
6:20	Lv	▲Marion (Jas 69 & 18)		Ar	11:10														
7:10		▲Anderson		Lv	10:20														
8:20	Ar	▲INDIANAPOLIS, IN	(EST)	GL	9:10														

2239-1113cb

DETROIT—MUSKEGON

READ DOWN										READ UP									
5082	5090	5088	SCHEDULE NUMBER					5096	5091	5093									
					Folder No.	242					1-9-07								
					FREQUENCY														
4:40	12:10	8:00	Lv	▲DETROIT, MI	Ar	11:25	4:55	8:20											
5:10	12:40	8:25		▲Southfield		11:00	4:25	8:00											
6:35	2:05	9:50		▲East Lansing		9:35	3:00	6:35											
6:45	2:15	10:05	Ar	▲LANSING, MI	GL	Lv	9:25	2:50	6:25										
5:05	11:20	6:15	Lv	Flint, MI	(1482) IT	Ar		5:45											
6:20	12:35	7:40	Ar	Lansing, MI	IT	Lv		4:30											
6:55	2:25	10:20	Lv	▲LANSING, MI	Ar	9:20	2:40	6:15											
8:05	3:35	11:30	Ar	▲GRAND RAPIDS, MI	GL	Lv	8:05	1:25	5:05										
				Lv	Kalamazoo, MI	(1494) IT	Ar		8:45										
				Ar	Grand Rapids, MI	IT	Lv		7:45										
4:20	11:40	Lv	▲GRAND RAPIDS, MI	GL	Ar	7:55	4:55												
6:10	12:30	Ar	▲MUSKEGON, MI	GL	Lv	7:05	4:05												

2242-1212cb

IT — Indian Trails.
 () — Will stop at State Capitol Building on request.
 Wheel chair accessible buses are available in Michigan and require 48 hour advance reservation. 1-800-752-4841

FLINT—DETROIT

READ DOWN										READ UP									
5129	5138	SCHEDULE NUMBER					5130	5128											
					Folder No.	248					1-9-07								
					FREQUENCY														
6:10	1:40	Lv	▲FLINT, MI	(ET)	GL	Ar	1:15	5:15											
7:00	2:30	Ar	▲Pontiac		Lv	12:25	4:25												
7:00	2:35	Lv	▲Pontiac		Ar	12:20	4:20												
7:25	3:00		▲Southfield			11:55	3:55												
7:50	3:25	Ar	▲DETROIT, MI		GL	Lv	11:30	3:30											

2248-1113cb

IT — Indian Trails.
 Wheel chair accessible buses are available in Michigan only and require 48 hour advance reservation. 1-800-752-4841

DETROIT—JACKSON—KALAMAZOO—CHICAGO

SCHEDULE NUMBER	181	5173	5179	5181	READ DOWN
Folder No. 250	Toronto, ON		Chicago		
	3-14-07				
FREQUENCY				X23	
Toronto, ON	(738) GLC Lv	6:30	7:00		7:30
London, ON	Lv	9:15	7:05		3:00
Detroit, MI	Ar	12:15	5:50		5:55
▲DETROIT, MI	(ET) Lv	12:45	7:40	2:30	6:00
▲Wayne			8:20	3:10	↓
▲Ann Arbor			8:55	3:45	7:05
▲JACKSON	Ar		9:45	4:35	7:50
▲JACKSON	Lv		9:50	4:40	8:00
▲Albion			10:15	5:05	↓
▲Battle Creek			11:00	5:50	9:10
▲KALAMAZOO, MI	GL Ar		11:25	6:25	9:10
▲KALAMAZOO, MI	GL Lv		11:40	6:40	9:20
Rest Stop (Flying J)		15*			
▲Benton Harbor, MI	(ET) Ar		12:45	7:45	↓
▲Benton Harbor, MI	(ET) Lv		12:55	7:50	↓
▲Michigan City, IN	(CT) Ar		12:40	↓	↓
▲Gary, IN	(CT) Ar		1:20	8:05	↓
▲Hammond, IN	Ar		1:40	↓	↓
▲CHICAGO, IL	GL Ar	5:05	2:30	9:00	11:20

Z250A-0206cb

CHICAGO—KALAMAZOO—JACKSON—DETROIT

SCHEDULE NUMBER	184	5180	5182	5186	READ DOWN
Folder No. 250	Chicago		Toronto		
	2-21-07				
FREQUENCY				X34	
▲CHICAGO, IL	GL Lv	12:01	7:00	9:00	4:00
▲Hammond, IN			↓	9:40	↓
▲Gary, IN	(CT) Ar		7:55	10:00	4:55
▲Michigan City, IN	(CT) Ar		↓	10:40	5:35
▲Benton Harbor, MI	Ar		10:00	12:20	7:15
Rest Stop (Flying J)		15*			
▲KALAMAZOO, MI	GL Ar		11:05	1:25	8:20
▲KALAMAZOO, MI	GL Lv		11:20	1:35	8:35
▲Battle Creek			11:55	2:10	↓
▲Albion			12:40	2:55	↓
▲JACKSON	Ar		1:05	3:20	9:40
▲JACKSON	Lv		1:10	3:25	9:45
▲Ann Arbor			2:10	4:25	10:30
▲Wayne			2:45	5:00	↓
▲DETROIT, MI	GL Ar	6:20	3:25	5:40	11:35
Detroit, MI	(738) GLC Lv	7:10	4:15		7:10
London, ON	Ar	9:50	7:45		3:50
Toronto, ON	Ar	12:55	10:15		6:25

Z250B-0206cb

GLC — Greyhound Canada.
 IT or T — Indian Trails.
 Wheel chair accessible buses are available in Michigan only and require a 48 hour advance reservation. 1-800-752-4841

PASSENGERS TRAVELING INTO CANADA

Canadian immigration will require varying forms of documentation from all persons seeking entry into Canada based on a persons country of citizenship. Without appropriate documentation, entry into Canada will not be allowed. Check with your Greyhound Agent for further information.