

WISPIRG Foundation

Connecting Wisconsin

Public Transportation Projects for the 21st Century



Connecting Wisconsin

Public Transportation Projects for the 21st Century

WISPIRG Foundation

Siena Kaplan and Kari Wohlschlegel, Frontier Group
Bruce Speight, WISPIRG Foundation

June 2009

Acknowledgments

The authors wish to thank Kurt Paulsen, Urban and Regional Planning, University of Wisconsin – Madison; Robert Henken, Public Policy Forum; and Eric Sundquist, Center on Wisconsin Strategy, for their review of this report. Thanks to Tony Dutzik of Frontier Group and Carolyn Kramer for their editorial assistance. The generous financial support of the Rockefeller Foundation, Helen Bader Foundation and Surdna Foundation made this report possible.

The authors bear responsibility for any factual errors. The recommendations are those of WISPIRG Foundation. The views expressed in this report are those of the authors and do not necessarily reflect the views of our funders or those who provided review.

© 2009 WISPIRG Foundation

With public debate around important issues often dominated by special interests pursuing their own narrow agendas, WISPIRG Foundation offers an independent voice that works on behalf of the public interest. WISPIRG Foundation, a 501(c)(3) organization, works to protect consumers and promote good government. We investigate problems, craft solutions, educate the public, and offer Wisconsinites meaningful opportunities for civic participation.

For more information about WISPIRG Foundation or for additional copies of this report, please visit www.wispirg.org.

Frontier Group conducts independent research and policy analysis to support a cleaner, healthier and more democratic society. Our mission is to inject accurate information and compelling ideas into public policy debates at the local, state and federal levels.

www.frontiergroup.org

Cover photos: High speed train, www.reddot.ch (hfng); (inset, top to bottom) Metra train, Che Lin; La Crosse bus, Doug Connell; potential train for Madison Commuter rail, Transport 2020 Implementation Task Force; Milwaukee Intermodal Station, John December.

Layout: Harriet Eckstein Graphic Design

Table of Contents

Executive Summary	1
Introduction	4
The Case for More and Better Public Transportation in Wisconsin	6
Travel Trends: More Driving, Rising Transit Ridership	7
The Benefits of Transit in Wisconsin	12
A Vision for the Future of Public Transportation in Wisconsin	13
Goals of Transit Investments in Wisconsin	14
Connecting Southeastern Wisconsin	14
Strengthening Transit Across Wisconsin	19
Building a High-Speed Rail Network in the Midwest	28
From Vision to Reality: A 21 st Century Transit System for Arizona	32
State Policy	32
Regional Coordination	33
Federal Government	33
Notes	35

Executive Summary

Wisconsin's transportation system is in trouble. High and wildly fluctuating gas prices add to Wisconsin residents' economic woes, traffic congestion wastes valuable time and energy, and our cars and trucks produce pollution that harms Wisconsin residents' health and contributes to global warming.

Public transportation makes a vital contribution to Wisconsin's transportation system, supporting economic development, curbing pollution and congestion, reducing our dependence on oil, and helping to sustain healthy, vibrant communities. In recent years, Wisconsin transit systems have made these vital contributions despite funding levels that have often threatened service and left important projects on the drawing board.

Wisconsin needs a transportation system that meets the needs of the 21st century—one in which public transportation plays an even bigger role than it does today. To get there, we need to start investing now in critical public transportation projects.

Our public transit system has not kept up with growing need. Wisconsin residents drive more miles, spend more

on gasoline, experience more congestion, and produce more global warming pollution from transportation than they did two decades ago.

- Vehicle travel on Wisconsin highways increased by approximately 90 percent between 1980 and 2007. This is largely due to more driving per person—the number of vehicle miles traveled per person has increased by 60 percent over that same period.
- Wisconsin residents spent about \$2.7 billion more on gasoline in 2006 than they did in 1998, a product of more miles being driven in less efficient vehicles, coupled with higher gasoline prices.
- Congestion on Wisconsin roads imposes a real cost on the state's economy. In 2005, Milwaukee area residents spent about 15 million hours in traffic delays, while congestion cost the area's economy about \$282 million.
- Transportation is a leading source of global warming pollution in Wisconsin.

Wisconsin's transportation system produced 25 percent more carbon dioxide in 2005 than it did in 1990.

- Cuts in transit service in Milwaukee have added to these problems. Between 2001 and 2007, bus miles in Milwaukee were cut by 19 percent and fares rose by 30 percent, leading to a 34 percent drop in ridership over the same period.

Wisconsin's investments in public transportation to date help address Wisconsin's economic, transportation and energy challenges.

- Public transportation pays dividends for Wisconsin residents and our economy.
 - o In 2006, public transportation in Wisconsin saved approximately 700,000 gallons of oil, saving consumers more than \$1.8 million at the pump.
 - o Public transportation prevented more than one million hours of traffic delay—equivalent to about 25,000 work weeks—in the Milwaukee metropolitan area in 2006, saving the economy more than \$23 million in wasted time and lost productivity.
- More and more Wisconsin residents are choosing to take public transit rather than drive. Outside Milwaukee, where severe service cuts have led to dropping ridership, transit ridership has continued to rise, increasing by 17 percent since 2001.
- In 2008, ridership on the state's transit lines jumped 1.8 percent compared to the year before, and vehicle travel dropped 3.9 percent.

- However, 80.1 percent of Wisconsin residents drive to work alone while only 1.7 percent take public transportation, meaning that there are plenty of opportunities to entice new riders to transit.

There are dozens of worthy public transit improvements that would give Wisconsin residents alternatives to the rising cost of driving, reduce congestion by removing cars from the road, save oil and reduce pollution.

A comprehensive transit system for Wisconsin would include the following (not in order of priority):

Connecting Southeastern Wisconsin

- Connecting **Kenosha, Racine and Milwaukee by commuter rail** to provide better options for commuters between the southeastern Wisconsin cities.
- Expanding **Kenosha's streetcar line**, revitalizing more parts of downtown Kenosha.
- Building a **modern streetcar in Milwaukee** to help residents, workers and tourists move quickly and easily around the downtown area.

Strengthening Transit Across Wisconsin

- Building a **commuter rail line through Madison** to support the University and manage growth in Dane County.
- Connecting **Green Bay to Appleton by commuter bus** to provide better options for commuters and build the corridor's economy.
- Connecting **Janesville to Milton and**

Whitewater by commuter bus, connecting residents with job markets and making the cities' businesses accessible to more people.

- Expanding **bus service in the La Crosse area**, making the city easy to reach for residents of surrounding rural towns
- Connecting **Eau Claire with Chippewa Falls and Lake Hallie by bus** to restore transit connections between the cities and prepare for expected growth.
- Improving **bus service in Superior** to provide better options for the growing population of people commuting to Superior from Duluth.

Building a High Speed Rail Network in Wisconsin

- Building on the current passenger rail system to create a fast and efficient **Midwest high speed rail system** that would take passengers between the major cities in the Midwest in 50 to 70 percent of the current travel time.

To build a 21st century transit system that will allow Wisconsin to meet our current and future challenges, the state needs forward-thinking regional plans for public transportation with stable, dedicated and long-term sources of funding. Wisconsin should do the following to address its transportation needs:

- Permit local governments to create Regional Transportation Authorities,

providing regional planning and dedicated funding for transit, empowering communities to make decisions about their local transportation systems, and leveraging more federal transportation funding for Wisconsin.

- Require that all proposed transportation investments be evaluated for their impact on oil dependence and global warming pollution. State government buildings should be located, to the extent possible, in areas with transit service. And Wisconsin should encourage local governments to adopt land-use plans and zoning reforms that allow for and encourage compact development in and around transit stations.
- Prioritize public transit in plans for state transportation investment.
- Coordinate with the other Midwestern states and take a leadership role in ensuring the implementation of a modern regional rail system. Wisconsin should work to secure its share of federal high speed rail funding.
- Urge the U.S. Congress to revamp federal transportation policy when the federal transportation funding law comes up for reauthorization in late 2009. Revisions should include shifting resources from highway expansion to transit projects and focusing federal money on strategic goals such as transportation system efficiency and safety, energy conservation, environmental improvement, and the creation of compact, sustainable communities.

Introduction

Since the beginning, Wisconsin's growth and development has been tied to investments in transportation.

In the 1840s, Wisconsin was on the brink of becoming a state, but transportation difficulties kept people cut off from the rest of the world, and it was hard to get the agricultural products produced by settlers to larger markets.¹ Business owners and officials who envisioned meeting population requirements for statehood and growing Wisconsin's economy by exporting agricultural products saw an opportunity in railroads, and worked to get lines built across the state. By the 1860s, railroad lines stretched across the state from Milwaukee to the Mississippi, transforming Wisconsin's economy. The railroads made it easy to transport goods from small towns to the rest of the country, so that by the mid-1800s, a sixth of the wheat in America was grown in Wisconsin. Trains also made the rise of Wisconsin's dairy industry possible, bringing dairy farmers from New York to settle in the state and transporting the cheese they produced back east.²

In the 20th century, Wisconsin invested in highways, linking cities with each other and with rural areas, helping to support the

state's transition into an industrial powerhouse, opening up new recreational opportunities for residents and tourists, and facilitating the growth of new residential areas in the suburbs.

Today, as the 21st century begins, Wisconsin is on the cusp of another transformation. Cheese, wheat, cars and manufactured goods are still mainstays of the state's economy, but so are high-tech industries such as health care, biotechnology and information technology. Where we once faced the challenge of delivering Wisconsin's bounty to the rest of the nation, today we are faced with the challenges of building attractive communities that will enable us to retain our highly educated population and building an efficient transportation system that will attract new enterprises to our state. Moreover, we face the challenge of operating an effective transportation system in an era when oil is likely to become increasingly scarce and global warming an increasingly pressing concern.

Across the nation, officials looking to the future are funding public transportation projects to create jobs now—but also to build the quick and efficient travel

networks upon which the future success of our economy depends. New high-speed rail lines will connect cities, facilitating commerce. And modern commuter rail lines, light rail, and bus systems will make it easy for people to get to jobs without cars.

Wisconsin can be a part of this transformation. We can fund the transit systems we already have, and build new projects to strengthen the connections between our towns and cities, help people move more efficiently within our cities, and connect Wisconsin with the rest of the Midwest.

In building this network, in addition to benefiting from the job boost created by the projects themselves, we will create jobs manufacturing the trains and buses these new transportation systems will depend on. New businesses will locate in Wisconsin cities where they know their jobs will be easy to access for large labor pools, and where travel connections with other large economic centers are quick and easy. People graduating from Wisconsin schools will stay here to take advantage of new jobs, vibrant communities, and convenient transportation. And while building the economy that will keep Wisconsin

competitive, this new transportation system will also keep Wisconsin healthy and livable, by reducing pollution, helping to save our open space, and giving Wisconsinites an alternative to volatile gas prices and global warming.



The newly renovated Milwaukee Intermodal Station connects Wisconsin commuters and travelers with Amtrak, Greyhound and local buses. Soon it may also connect to a commuter rail to Chicago, local streetcars, and high speed rail across Wisconsin. Photo credit: John December.

The Case for More and Better Public Transportation in Wisconsin

Over the last three decades as towns have sprawled outward and people have come to live farther from the places where they work and shop, Wisconsin residents have driven more miles, become more dependent on oil, and spent more time in traffic. Automobile dependence is increasingly a drain on our economy, particularly during spikes in gasoline prices.

Recently, Wisconsin's public transportation system has been faltering just when Wisconsinites need it the most. With fluctuating gas prices and heightened concern about global warming, more and more people are turning to public transit. But our current transit system doesn't come close to meeting the need, and in fact reaches fewer Wisconsin residents every year as agencies cut services in response to rising operating costs and inadequate funding.³

As we proceed further into this century, the need for public transit will only increase. Easy and modern transit systems are moving higher on the checklist

for businesses and workers looking for a new place to locate. As our state grows, congestion will become a larger and more widespread problem without better public transit. Oil and gas prices will very likely be higher. The threat of global warming will be more immediate and more energy-efficient modes of travel will be high in demand. A solid and efficient public transit system will be a critical tool for success as we work to build our economy.

Wisconsin needs a modern transportation system for the 21st century. The state benefits from the public transportation system already in place, which saves Wisconsinites money, boosts the economy, reduces the amount of oil we use, and provides an important service for those without cars. But our shrinking system cannot meet current demand, and is not prepared to meet the challenges we will increasingly face. Creating a strong public transit system that will set Wisconsin up to succeed, today and tomorrow, must be a top priority for public officials in the years ahead.

Travel Trends: More Driving, Rising Transit Ridership

Automobile Travel

Wisconsin residents drive far more than they did several decades ago—both in terms of total miles and miles per person—leading to more congestion, greater dependence on oil, and increased emissions of global warming pollution.

Almost 60 billion miles were traveled on Wisconsin roads in 2007—up from just 31 billion miles in 1980. While some of the increase is due to population growth, the average Wisconsin resident is also driving many more miles each year than three decades ago. Vehicle travel per capita on Wisconsin highways has increased by 60 percent since 1980, although there has been a small drop off in recent years. (See Figure 1).

The increased travel on Wisconsin highways has led to worsening traffic congestion in a number of corridors. Residents

of the Milwaukee metropolitan area spent over 15 million hours in traffic congestion in 2005—close to a five-fold increase since 1982.⁵

Congestion imposes real costs on Wisconsin's economy. Between the costs of wasted time and wasted fuel, congestion cost the Milwaukee metropolitan area approximately \$282 million in 2005.⁶

Increasing vehicle travel has also helped lead to a recent increase in the amount of money that Wisconsin residents must spend on fuel. After a spike in fuel expenditures in the 1970s during the energy crisis, new fuel economy standards led to a rapid increase in vehicle fuel economy nationally.⁷ The improved fleet combined with low gasoline prices actually led to a substantial drop in the amount of money that Wisconsin residents spent on gasoline between the early 1980s and the late 1990s. By 1998, Wisconsin residents were spending about 30 percent less each year on gasoline in inflation-adjusted terms than they had in 1982, despite a dramatic

Figure 1. Per Capita Vehicle Miles Traveled, Wisconsin⁴

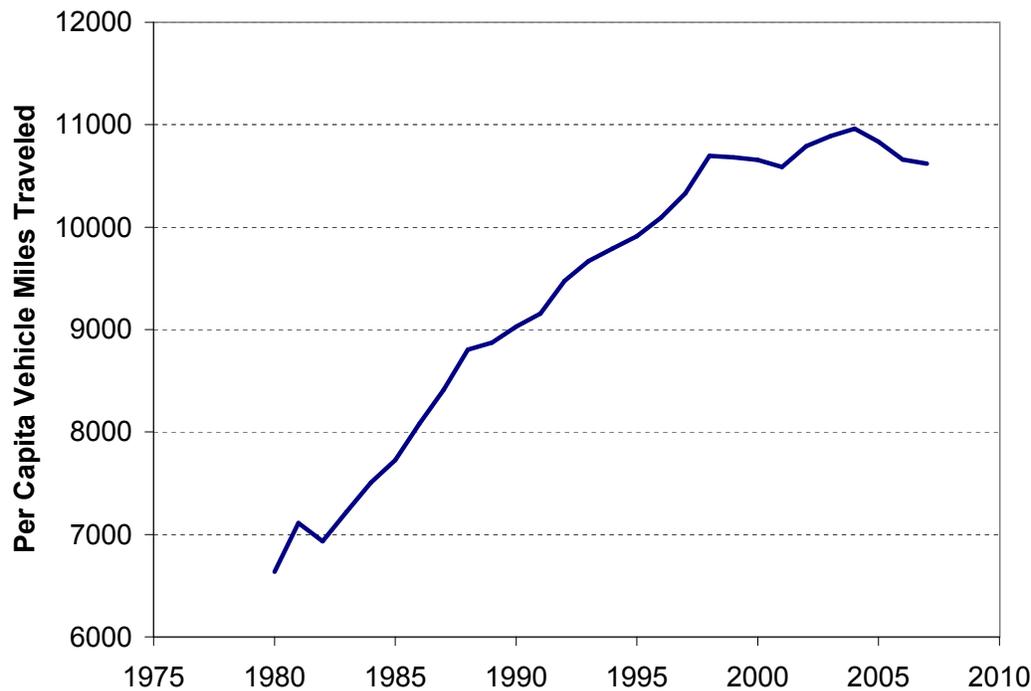
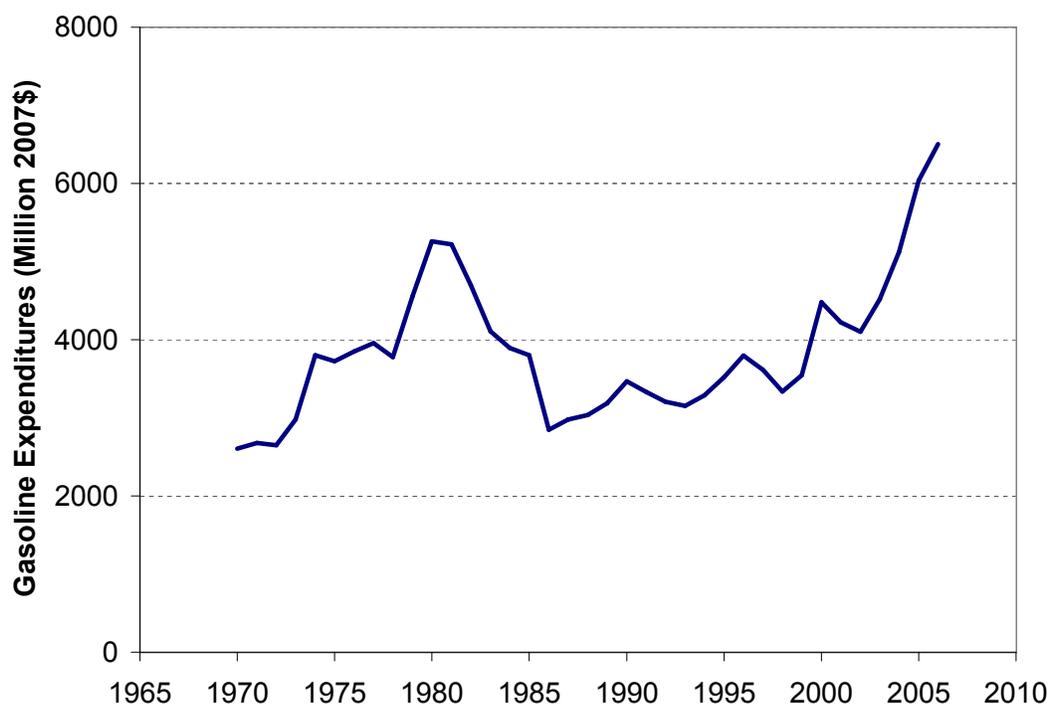


Figure 2. Inflation-Adjusted Spending on Gasoline, Wisconsin⁹



rise in vehicle travel over that time.⁸ (See Figure 2).

The expectation that the era of cheap gasoline would continue, however, led Wisconsin residents (as well as public officials responsible for energy and development policy) to make choices that increased Wisconsin's dependence on oil, including the proliferation of SUVs on Wisconsin highways. In 1998, passenger cars (as opposed to SUVs and other trucks) made up 61 percent of all motor vehicles registered in Wisconsin. By 2006, the percentage of passenger cars had declined to 53 percent. By the end of that eight-year span, there were 4 percent more cars registered in Wisconsin, but 70 percent more SUVs.¹⁰ Nationally, the sudden increase in SUVs actually led to a slight drop in average fuel economy by 2006.¹¹

As a result, when gasoline prices started to spike in 2004, Wisconsin families were hit hard. In 2006, Wisconsin residents spent almost three times as much on

gasoline as they did a decade before, costing Wisconsin families an estimated \$2.7 billion in additional annual costs in 2006 compared with 1998.¹²

The sudden spikes and drops over the past few decades have shown us that our reliance on cars for transportation makes Wisconsin families vulnerable to wild fluctuations in gas prices.

Rising vehicle travel—not just in personal vehicles but also in the form of increased truck traffic—has also increased Wisconsin's emissions of global warming pollution. In 2005, Wisconsin's transportation network emitted 25 percent more carbon dioxide than in 1990. The transportation sector is the second largest source of global warming emissions in Wisconsin, after electricity generation.¹³

Public Transportation

Across the country, public transportation ridership has boomed in recent years, as riders have taken advantage of new services

and rising gasoline prices and growing congestion have caused many drivers to give transit a second look.

In Wisconsin, however, the story has been more complicated. In most of the state, transit ridership has increased in keeping with the national trend. But in the state's biggest city—Milwaukee—service cut-backs and rising fares have taken a bite out of transit ridership at precisely the time when the need for efficient, low-cost travel has been greater than ever. Over the past 10 years, many cities in the rest of Wisconsin have found other sources of funding to keep transit systems running even as operating expenses balloon, and outside of Milwaukee, ridership continued to increase on average, growing by 17 percent, similar to the rest of the country (See Figure 3).¹⁴

As gas prices spiked in 2008, cities that did not cut their public transportation systems provided a vital service to residents, allowing many Wisconsinites to switch from driving to transit to save money.

Outside of Milwaukee, transit ridership was 4.3 percent higher in 2008 than the year before.¹⁶ Statewide, transit ridership was 1.8 percent higher. Over the same period, vehicle travel in Wisconsin dropped by 3.9 percent (see Figure 4).¹⁷

Most public transit trips taken in Wisconsin, however, happen within Milwaukee's bus system.¹⁸ Yet over the past decade, operating costs for public transportation systems have soared, and funding for these systems has not kept up with rising costs, which has led to severe service cuts and dropping transit ridership in the city. In the rest of the state, transit ridership has increased, especially in 2008 as gas prices spiked.

Costs of fuel and employee health insurance have risen much faster than inflation while funding for Milwaukee's public transportation system has remained steady.¹⁹ The resulting severe budget shortfalls have led to the elimination of bus routes and reduced service. Milwaukee's transit agency has attempted to close the budget gap by increasing fares, and by

Figure 3. Passenger-Miles Traveled via Transit, Wisconsin Without Milwaukee¹⁵

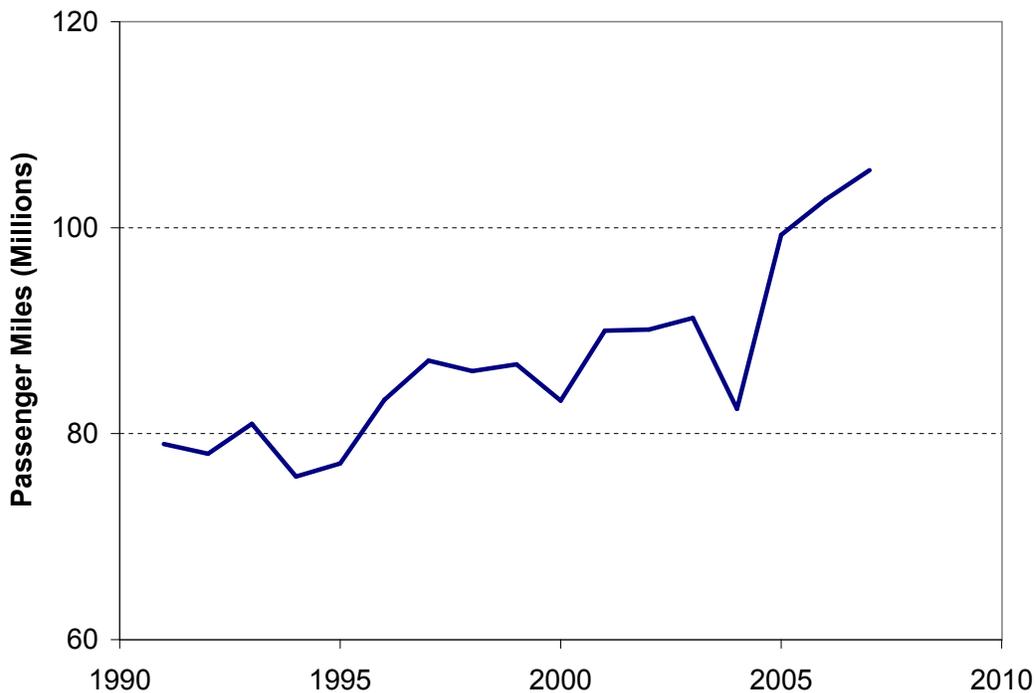
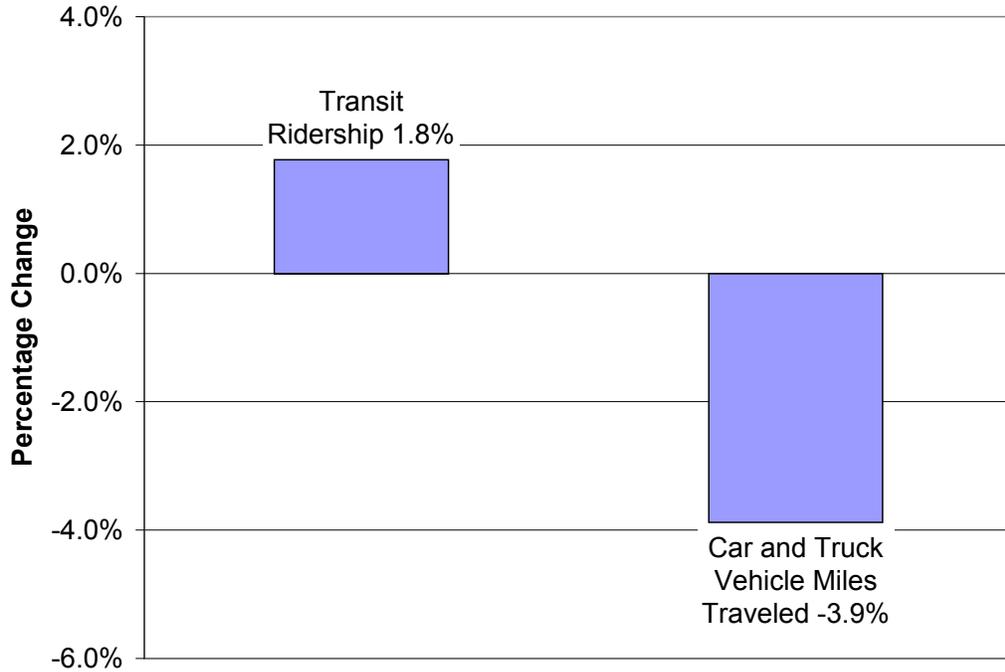


Figure 4. Transit Ridership vs. Vehicle Miles Traveled in Wisconsin, Change from 2007 to 2008



dipping into federal capital funding to pay operating expenses instead of replacing old buses.²⁰ Since 2001, the number of miles of bus service in the Milwaukee area has been reduced by 19 percent, and fares have increased by 30 percent.²¹

As a result, transit ridership in Milwaukee dropped by 34 percent between 2001 and 2007 (see Figure 5).²² Reduced ridership is a problem not only because it limits the benefits a city gains from transit, but also because it reduces revenue over the long term. Service cuts, fare increases, and aging buses create a downward spiral of lower ridership widening the city's transit budget gap.²³ Even in 2008, when rising gas prices led to booming transit ridership in almost every other major city in the United States, transit ridership in Wisconsin's largest city increased by only 0.5 percent.²⁴

Past experience in Wisconsin, as well as

the experience of other cities during this time period, show that Wisconsin can increase transit ridership by adequately funding its public transportation systems. In the 1990s, public transit funding increased steadily and as a result, Wisconsin residents took more trips on public transit. Between 1991 and 2001, transit ridership increased 25 percent across the entire state.²⁶

Still, many Wisconsin residents find themselves without good options other than driving. Among Wisconsin commuters, for example, 80 percent drive to work by themselves, compared to just 1.7 percent who take transit.²⁷ (See Figure 6).

More and better public transportation options, and adequate funding for Milwaukee's public transit system, would allow more Wisconsin residents to choose transit, which in turn would reduce pollution, curb our reliance on oil, and relieve commuters when gas prices rise.

Figure 5. Passenger-Miles Traveled via Transit, Milwaukee²⁵

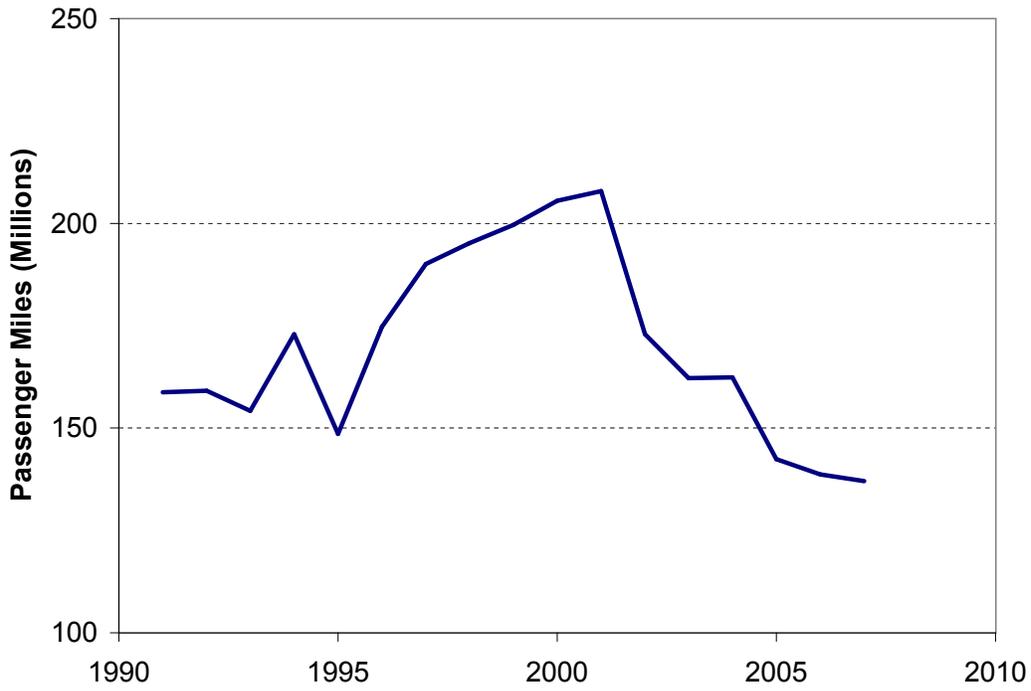
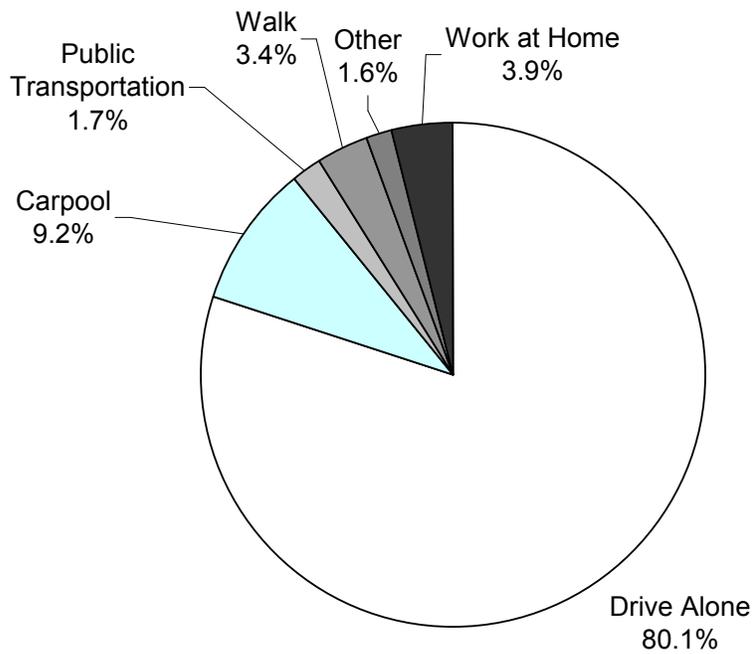


Figure 6. Means of Travel to Work in Wisconsin, 2007²⁸



The Benefits of Transit in Wisconsin

Public transportation provides three major benefits to Wisconsin—saving oil, improving our quality of life, and enhancing the state's economy.

In 2006, public transportation in Wisconsin saved approximately 700,000 gallons of oil that would have otherwise been burned in vehicles, saving consumers more than \$1.8 million at the pump, based on an average gasoline price in 2006 of \$2.68 per gallon.²⁹

Public transportation also plays an important role in reducing traffic congestion. A 2007 study of the Milwaukee metropolitan area in 2005 estimated that public transportation prevented over a million hours of traffic delay—equivalent to about 25,000 work weeks—saving the economy more than \$23 million in wasted fuel, time and productivity.³⁰

Public transportation provides a host of other important, if difficult to quantify, benefits. Transit provides a source of mobility to the elderly, children, disabled and others who cannot afford a car or choose not to drive. Investments in transit have helped spark the economic revitalization

of areas around transit stations, helping to create vibrant communities that are less dependent on the automobile—a big advantage in an era of higher fuel prices. Transit can also increase property values in areas accessible to stations—new high speed rail stations are projected to increase development potential by tens of millions of dollars in every Wisconsin city in which they're built.³¹ Transit riders are free from the responsibilities of driving, meaning that they can use their time to read, catch up on the day's news or, in an increasing number of transit vehicles, use wireless to access the Internet.

Every day, residents across Wisconsin count on transit to get where they need to go. And even those of us who don't take transit every day can rely on it in a pinch—when gasoline prices are high or when we don't have the use of a car.

In short, public transportation is a vital resource for Wisconsin—one that will become even more important in a world of unstable oil prices and increased concern about congestion and global warming. Investing in transit can preserve and build on this important public asset and position Wisconsin for even greater benefits in the years to come.

A Vision for the Future of Public Transportation in Wisconsin

Across Wisconsin, many cities benefit from their public transportation. Where transit is available, it connects people with jobs and businesses with customers, helping to keep local economies strong. Strong public transit systems attract new companies to areas by promising easy connections to labor pools and other cities. The bus system in Superior has connected commuters with their jobs in Duluth for years and benefits the economies of both cities. Kenosha's connections with Chicago through the commuter rail line make the city attractive to potential new residents and businesses, and the city's new connecting streetcar line attracts visitors and makes traveling around the city easier for people living, working and shopping in downtown Kenosha.

In other cities, public transit systems have been faltering, and no longer provide the benefits they once did. In Milwaukee, funding problems led to the deterioration of a bus system that many residents once relied on, with a profound negative effect on the regional economy. In the fall of 2008, a University of Wisconsin-Milwaukee study showed that service reductions in Milwaukee have hurt the

ability of Milwaukee residents to access jobs via public transportation. Since 2001, Milwaukee and Waukesha have reduced bus service miles by nearly 20 percent. As a result, the percentage of employers in the Milwaukee region accessible by public transit has dropped from 63 to 55 percent. More than 40,000 jobs have become inaccessible to Milwaukee residents due to these service cuts. Moreover, if budget trends continue, that number will exceed 100,000 by 2010. This loss of job accessibility contributes to rising unemployment, harming the regional economy of the most populous area in Wisconsin and making recovery more difficult for both the city and the state.³²

The sobering lesson of Milwaukee's transit troubles clarifies the need for a renewed commitment to public transportation throughout the state. We must make sure that all our cities have public transit systems that can meet growing demand and prepare the state for the future. Public transit will be critical in meeting the challenges of this century—the challenges of creating jobs and building our state's economy, of making sure that while our towns grow they don't become congested

and polluted, and of curbing emissions that threaten our climate.

This report lists 10 projects that exemplify the types of investments Wisconsin must make in its public transportation system. The list is not exhaustive, nor are the projects listed here in order of priority. Rather, these projects were chosen to highlight the broad range of transit services that can help us move around more efficiently and economically—from passenger rail to bus shuttles—and the broad range of Wisconsin communities that can benefit from a focus on transit.

Goals of Transit Investments in Wisconsin

Wisconsin's transit investment strategy should have a blueprint to guide it—a set of goals that the state wishes to achieve. While some efforts toward such a vision have been made at the state and local levels, it is important that decision-makers articulate overall objectives for investments in transit for entire regions.

The state should set a target of completing investments by 2030 at the latest that would achieve the following goals:

- 1) Ensure that residents of all Wisconsin cities have access to transit as an option in addition to walking, biking and driving.
- 2) Complete world-class transit systems in Milwaukee and Madison, with commuter rail lines linking suburbs with employment centers and connecting with efficient bus and other local transit services.
- 3) Integrate transit and land-use planning wherever transit projects exist. Use principles of transit-oriented

development, including making sure that roads around transit stations are bikable and walkable, to combat sprawl and create a healthier future for Wisconsin's communities and economy.

- 4) Expand regional systems to connect all Wisconsin towns in a statewide transit network so that it is possible to travel to any population center in the state by public transportation.
- 5) Create an integrated, Midwest-wide rail transportation network, that serves both commuters and inter-city passengers within the Midwest and connects the region to important destinations elsewhere.

Achieving these goals will create a Wisconsin that is more economically vibrant, less dependent on oil, less impacted by traffic on the roadways, and capable of meeting the transportation challenges of the 21st century.

Connecting Southeastern Wisconsin

As the economic center of the state, and with some of the largest cities, densest population centers, and connections with Chicago, Southeastern Wisconsin has strong potential to benefit from public transportation. *Forbes* already listed Milwaukee as the fifth best city in the country to look for a job in 2009, ahead of Seattle and Baltimore, largely because its quick train connection with Chicago has attracted companies looking for a cheap and convenient place to locate.³³

Improving the connections between Milwaukee, Chicago, and the cities in between, will continue this trend and bring the

economic advantage of good transit systems to other cities in Southeastern Wisconsin. Increasing mobility within the cities will make these new jobs convenient to more Wisconsinites and increase the labor pool that business can tap into when they locate in an area. Creating more travel options will also help bring more people to tourist centers on the Lake Michigan coast.

Well-coordinated public transportation projects could form a network of efficient and modern public transit in Southeastern Wisconsin, maximizing the area's potential. The projects described below could form the initial framework for this network.

Connecting Kenosha, Racine and Milwaukee by Commuter Rail

Milwaukee and Chicago form the ends of a corridor that is increasingly merging into one continuous metropolitan area. Each day, workers travel from the older inner-ring and newer suburban communities in Southeastern Wisconsin to employment centers in Milwaukee, Chicago, Racine, and Kenosha—while others commute between the large cities themselves.³⁴ Where public transit connections are available, people have been turning to them in record numbers. Amtrak's Hiawatha line between Milwaukee and Chicago has seen a 63 percent increase in ridership since 2004, and in just the last year ridership rose by more than 25 percent.³⁵

Unfortunately, most of the corridor lacks efficient transit options. While the Hiawatha service connects Milwaukee, Racine and Chicago with seven daily roundtrips, it bypasses Kenosha and the other cities on this corridor. Metra, Chicago's commuter rail system, ends in Kenosha, but very few Metra trains go all the way to Kenosha, and none connect with Milwaukee. The local bus systems are not coordinated to connect cities beyond the local regions.³⁶ As a result, available transit services are not able to efficiently

Figure 7. Proposed Route of the Kenosha-Racine-Milwaukee Commuter Rail, and Connecting Transit Systems



carry people between the major cities in the corridor, leaving many stranded or dealing with long commutes, and representing a missed opportunity for economic growth in the region.

The lack of good transit options means that most people who commute between the cities are forced to use their cars. As this area becomes more developed, if there are no better commuting options, congestion will increase. Widening the highways might help temporarily, but with travel and population projected to increase, this would be an expensive stop-gap which



Extending current Metra service from Kenosha to Milwaukee would provide residents of Southeastern Wisconsin with easy connections to Chicago, Milwaukee, and other employment hubs. Photo credit: Che Lin.

would not solve the problem in the long term.³⁷ In addition, the Environmental Protection Agency has designated the Southeastern Wisconsin region as a non-attainment area for ozone, meaning the air in the area is unhealthy to breathe due in part to heavy car traffic. Transportation plans should work to reduce car traffic, not increase it.³⁸ Sprawl will also be a growing concern as this area develops if there are few options for dense development around transit stations. Public transit is the best option for this region, to solve these problems and to encourage development that improves quality of life in the region.

Residents of the region have been rallying around the proposed construction of a commuter rail linking Kenosha, Racine and Milwaukee. In the spring of 2003, during the public comment portion of a study, more than a thousand participants expressed support for a commuter rail while only 20 opposed.³⁹ The commuter rail system would extend for 33 miles on existing freight lines from Milwaukee through the cities of St. Francis, Cudahy, South Milwaukee, Oak Creek, Racine, and Kenosha.⁴⁰ The system would be integrated into the existing Metra service in

Kenosha, so that a commuter could ride in the same train from Milwaukee all the way to Chicago.⁴¹ Under the current plans, 28 trains would operate each day, with a train every half hour during peak periods.⁴²

This level of service would require a capital cost of \$237 million, and yearly operating and maintenance costs of \$15 million.⁴³ However, the cost per passenger mile would be lower than that of the existing transit agencies.⁴⁴ In 2005, the state legislature and the governor created a Regional Transit Authority serving Kenosha, Racine and Milwaukee counties. This RTA may eventually serve as the manager of the project, providing the necessary funding and operating the completed system.⁴⁵

Transit officials predict that the service will attract 5,600 weekday riders by 2035, accounting for 90,000 passenger miles per day. Almost half of these riders would have switched from driving, decreasing the number of vehicle miles traveled on I-94 by almost 5 million miles a year.⁴⁶ Ensuring that there are good transit options connecting to the stations would make it convenient for more commuters to use the rail line, and could increase ridership and the regional benefit from this line. The commuter line could serve as the backbone for modern transportation, connecting with streetcars and light rail lines that would take people from stations to their jobs and give everyone in the region better options as Southeastern Wisconsin's economy grows.

In addition, the commuter rail line could help spur housing development near transit stations. One estimate predicted that residential units near the proposed stations would increase by over 10,000, while the number of jobs is predicted to grow by 19,471. These two factors would increase the local tax base by an estimated \$7.8 billion.⁴⁷ Local governments could encourage compact development centered around the transit stations, which would make it easy for people to walk, take buses, and ride the

rails instead of driving. In addition, the 15 percent of households within the corridor that do not have access to a personal automobile will have access to a wider job market, which will help the region's economy.⁴⁸

Expanding Kenosha's Streetcar

On the shore of Lake Michigan, close to the Illinois-Wisconsin border, Kenosha boasts a population of only 90,000. This small city managed to establish an efficient streetcar system that has been vital to renewing the aging city, and now plans to capitalize on success by expanding the route.

Streetcars play a unique role in the transportation system. Unlike commuter rail and light rail which carry large numbers of people to particular destinations, streetcars help people get around in densely developed urban areas. A worker might use the streetcar to get to a local meeting, a visitor might use the streetcar to visit tourist destinations, or a resident might decide that she can give up her car because the streetcar takes her most of the places she needs to go. Streetcars allow streets to accommodate more activity with fewer vehicles. And because streetcars operate on electricity, they help to reduce air pollution from cars, trucks, and buses along the corridor.

Kenosha Transit has been running the historic streetcar loop through downtown Kenosha since 2000. The streetcar, designed to circulate tourists and residents around the new and improved downtown area, was an integral part of downtown revitalization efforts. The current line is approximately two miles long and makes a loop around the downtown area near the lake. The routes link key destinations such as the Harbor Park development area, the museums, two marinas and a waterfront park, the new downtown transit station, and the Metra commuter rail station that connects the city to Chicago.⁴⁹ Kenosha

residents and visitors use the streetcar to travel short distances in destinations around downtown. One can easily grab lunch, visit the marina, and spend the afternoon at the museum using only streetcars—in fact, in 2003, the streetcars helped 67,000 people make this sort of trip.⁵⁰

The streetcar system has also been lauded for its aesthetic appeal. The loop is well integrated into the natural landscape, and over half the tracks run through grassy medians.⁵¹ The streetcars themselves are vintage cars that are painted with unique scenes representing an historic American transit system. Many tourists take advantage of this historic form of transportation, and the streetcars themselves actually serve as a tourist attraction.

Due to the success of the system, the city council voted in December 2005 to study an expansion of the route. In 2008, Governor Doyle announced a \$4 million grant to extend the route to 3.4 miles, an endeavor that would cost slightly more than \$5 million.⁵² The expansion would connect the current line to a development area on the former American Brass brownfield site and a second business and retail district known as Uptown. The downtown loop



Kenosha's streetcar uses vintage trolleys. Tracks are embedded in a grassy median, allowing the trains to blend in as they make it easy for visitors and residents to get around downtown Kenosha. Photo credit: Eric Allix Rogers.

would also be expanded further south.⁵³

This expansion would be another wise investment for Kenosha. In addition to the revitalization and business it would bring to these new areas, expanding the streetcar would connect it with most bus lines that pass through Kenosha's downtown, making the city's entire transit system better integrated and more convenient for Kenosha residents and visitors.

Building a Streetcar in Milwaukee

Milwaukee's downtown is up and coming, with a new convention center, a baseball stadium, a riverwalk, new additions to the art museums, and growth in downtown housing. The increasing number of people both living and working in downtown Milwaukee is part of a promising trend across the country towards livelier cities. In addition, 5.5 million people travel to the downtown area annually to visit the Bradley Center, the US Cellular Arena, the Milwaukee Theater, Discovery World, Cathedral Square, Eisner Museum, and the Henry Maier Festival Park.⁵⁴



A new streetcar line in Milwaukee, like this one in Portland, Oregon, would make a three-mile loop around the downtown, connecting residents, workers, and tourists with important destinations like the new Intermodal Station, the Milwaukee Art Museum, and the Shops of Grand Avenue. Photo credit: Alliance for Regional Transit - Cincinnati.

Milwaukee is planning a new streetcar line to facilitate the movement of residents, workers and tourists around its downtown. In several cities across the U.S., modern streetcar lines have been successful at encouraging the trend towards downtown living, by providing easy connections between home, work, restaurants, movie theaters, and the other destinations that make cities attractive places to live. A streetcar line could bring these benefits to Milwaukee, and also serve as the beginning of a more comprehensive light rail system which could give commuters, in addition to people who live downtown, better travel options.

In Milwaukee, the proposed streetcar would operate on rails that are embedded in the roads, located in either shared traffic lanes or dedicated lanes.⁵⁵ The service would make a three-mile loop around downtown, connecting important city destinations. Through the new multi-modal transportation center in downtown Milwaukee, the streetcar would tie in to existing rail and bus stations, and connect with the airport. The streetcar would also connect with proposed services such as the Kenosha-Racine-Milwaukee commuter rail and the Midwest high speed rail network through the transportation center.⁵⁶ These connections would make the streetcar part of an efficient public transportation network, making it easy for Milwaukee residents to reach other parts of Southeastern Wisconsin and the rest of the Midwest without having to rely on a car for any part of the trip. Ridership projections for many proposed transit projects, such as the Kenosha-Racine-Milwaukee commuter rail, are dependent on the construction of this project due to its importance in distributing riders throughout the city and helping them to make the final leg of their trips.⁵⁷

The service would provide frequent stops at key downtown attractions, allowing visitors and residents to quickly reach

their destinations. The planned route would be adjacent to many important businesses such as the US Bank Center, the Shops of Grand Avenue and Milwaukee Public Market, and the Milwaukee Art Museum.⁵⁸ Visitors arriving in the city via bus or rail would also be able to use the streetcar to travel within a few blocks of their final downtown destinations.

The streetcar's ability to move people around efficiently in Milwaukee would also be a boon for the region's tourism industry. David Fantle, vice president of public relations for Visit Milwaukee, explains, "Great tourism destinations, with few exceptions, have a great transportation infrastructure."⁵⁹ And beyond tourism, the streetcar would encourage development in the downtown area. Initial feasibility studies have determined that construction of the streetcar would result in moderate development over the next 10 years, with potential construction of 1750 housing units and 1,250,000 square feet of commercial real estate, translating into \$85,250,000 of property tax revenue.⁶⁰ Much of this development would be oriented towards the transit line, encouraging workers and residents to organize their commutes and errands around transit options and thus reducing the need for personal vehicles.

The city is currently studying the project, but officials envision a service that would stop every one to two blocks, serving each location every five to ten minutes.⁶¹ The project would be funded partly through a store of federal funds for mass transit projects that has been sitting dormant for decades.⁶² A recent federal budget bill will ensure that these funds are finally used to support Milwaukee's public transit system: 60 percent of the remaining money has been allocated to the streetcar system, and 40 percent to the city's bus system.⁶³ This funding is a substantial downpayment on the system, but it is not sufficient to build the entire project, so Milwaukee Mayor Tom Barrett is pushing

for the establishment of a Regional Transit Authority to fully fund and operate the project.⁶⁴

Strengthening Transit Across Wisconsin

An efficient, integrated transit system is important for the state's economic center in Southeastern Wisconsin, but effective public transit systems are also important in other cities across the state. Public transit systems help build local economies, and give people better commuting options in all parts of Wisconsin. Bus and other transit systems in cities from Madison to La Crosse allow businesses to reach into new labor markets and retail stores to reach new customers. They also relieve downtown pollution and congestion as towns grow, making cities with strong transit systems nicer places to live and attracting new residents.

These public transportation systems are also the foundation of a larger, more connected transit network that would prepare Wisconsin for tomorrow's transportation demands. City bus systems are expanding to reach more small towns, and increasingly connecting with other nearby cities where commuter populations are growing. By encouraging these connections and building modern public transportation infrastructure as demand increases, Wisconsin can strengthen its economy and prepare for the future.

Building a Commuter Rail Line Through Madison

The University of Wisconsin in Madison is one of Wisconsin's greatest economic assets, and has helped build Madison into the second largest metropolitan area in the state. In terms of total dollars, the school is the top research university in the United States. Dane County's economy is closely



A new commuter rail in Dane County would bring suburban commuters to downtown Madison and connect the University of Wisconsin with residential areas. Photo credit: Transport 2020 Implementation Task Force.

tied in with the university. The campus is already one of the top destinations for trips to Madison, and the school is projecting robust growth in its facilities over the next few decades. The university was the most significant reason that *Forbes* rated Madison the best city in the country to look for a job in 2009, along with government jobs and an educated workforce.⁶⁵

Careful city planning has helped keep Madison an attractive, livable city even as it has grown. Since the 1970s, government planners have attempted to focus growth in Dane County in downtown Madison and existing suburban communities, limiting the development of far-flung subdivisions and preserving more of the county's farmlands and open spaces. Civic reinvestment programs have also revitalized the city, making it an attractive place to live.⁶⁶ In 2009, Madison was ranked the third-best midsized city in the country in a quality of life survey by Bizjournals.⁶⁷

Still, Madison is the fastest growing metropolitan area in Wisconsin, and an increasing number of people drive downtown every day.⁶⁸ Each day, 100,000 people commute in Madison—a number that will double over the next two decades.⁶⁹ By 2030, Dane County's population is

projected to increase by 36 percent.⁷⁰

Madison's location on a narrow isthmus of land between two lakes means that two roads, University and East Washington avenues, serve as the major east-west connections through the area. These two roadways each carry a whopping 50,000 to 60,000 vehicles every day, far beyond their capacity, leading to terrible traffic conditions. Neither of the roads can be expanded, however, due to dense development on both sides of the streets.⁷¹ On the east side of the corridor there are two alternate roads, Williamson Street and Johnson/Gorham Street, but these roads are also congested due to spill-over traffic from the main roads. Geographical considerations constrain the ability of planners to expand these roadways as well.⁷²

As Dane County grows, commuting by rail and efficient compact housing development will be key to maintaining Madison's high quality of life. With the population increase projected, 100,000 vehicles will be added to Dane County's roads over the next two decades. Many of these vehicles will be used to commute from outlying communities into the City of Madison. By 2030, for example, Madison will provide 64 percent of the county's employment, but only 48 percent of the labor force will reside in the city itself. Without transit options available, these commuters will clog the road network. Transportation officials predict that all of University Avenue and 85 percent of East Washington Ave will be extremely congested by 2030. For example, travel time between Hills Farms and Reiner Road will increase by 50 percent.⁷³

With the pressures of population growth and limited options for highway expansion, county officials have determined that enhanced public transit is the best way to meet the challenges facing Dane County. In particular, transportation officials have been studying the feasibility of a commuter rail service connecting residential areas to the employment centers

of downtown Madison. Compared with the alternatives for improved public transit, the commuter rail is estimated to save

users about 420,100 hours in travel time a year—the equivalent of 2,500 weeks of travel time saved for Madison residents.⁷⁴

Transit-Oriented Development

Madison is a living example of how cities can achieve a high quality of life and create the environment that residents want through careful planning with a focus on smart growth and transit-oriented development (TOD) principles. TOD is a simple and sensible idea: mixed-use zoning around a major transit station encourages compact, walkable development that is good for people, businesses and the environment alike. The Madison area has used TOD principles to guide its growth for decades. For the past 10 years in particular, Dane County has used a comprehensive land use plan that the county developed, along with Madison and the Wisconsin Department of Transportation, to guide its growth and transportation to meet 11 goals. These goals include:

- Compact urban development
- Employment and activity centers concentrated along public transit lines
- A transportation system that integrates all modes, including buses, bike lanes, sidewalks, connections to the airport, and a future train line
- Redevelopment instead of new development (to minimize the need for new infrastructure)
- Protected agricultural land, open spaces, and other environmental, cultural, historic, and recreational resources
- Mixed development that integrates employment, housing, and shopping.⁸¹

These principles have guided development in the Madison area, and are a key reason that Madison is known across the country as a good place to live. Most Madison residents live in a neighborhood that has been designed so that when they want to go downtown, they can walk to a bus stop, use a bike lane, or walk on sidewalks, in addition to driving. The compact development has preserved the farms and natural areas surrounding the city, and making downtown Madison easily accessible has kept it culturally rich and a good place for businesses and other employers.

By planning its development to make it easy for people use transit, Madison has seen unusually high use of its city buses. In 2006, out of the ten cities with population sizes closest to Madison, Madison had the highest number of transit trips per capita, and had almost four times the average for transit trips per capita in these cities.⁸²

Though still in the initial planning phases, this commuter service also offers the promise of helping to focus Dane County's growth and to meet future challenges in an efficient and sustainable way.

The proposed commuter rail service would operate on an underutilized freight corridor, stretching from Middleton in the west to Sun Prairie in the east, and crossing through Madison. In the short term, it may be expanded to reach the Dane County Regional Airport in the north.⁷⁵ Over time, the service may extend to communities such as Fitchburg, McFarland, Stoughton, Oregon, Verona, Cottage Grove, DeForest, Waunakee, Cross Plains, Black Earth and Mazomanie. Along the route, there would be 17 stations and four park-and-ride lots situated to make it easy for many area residents to access the train.⁷⁶ The line would

provide 70 weekday trains with a train running every 20 minutes during peak hours. Service on Sunday and for special events would be offered as needed.⁷⁷

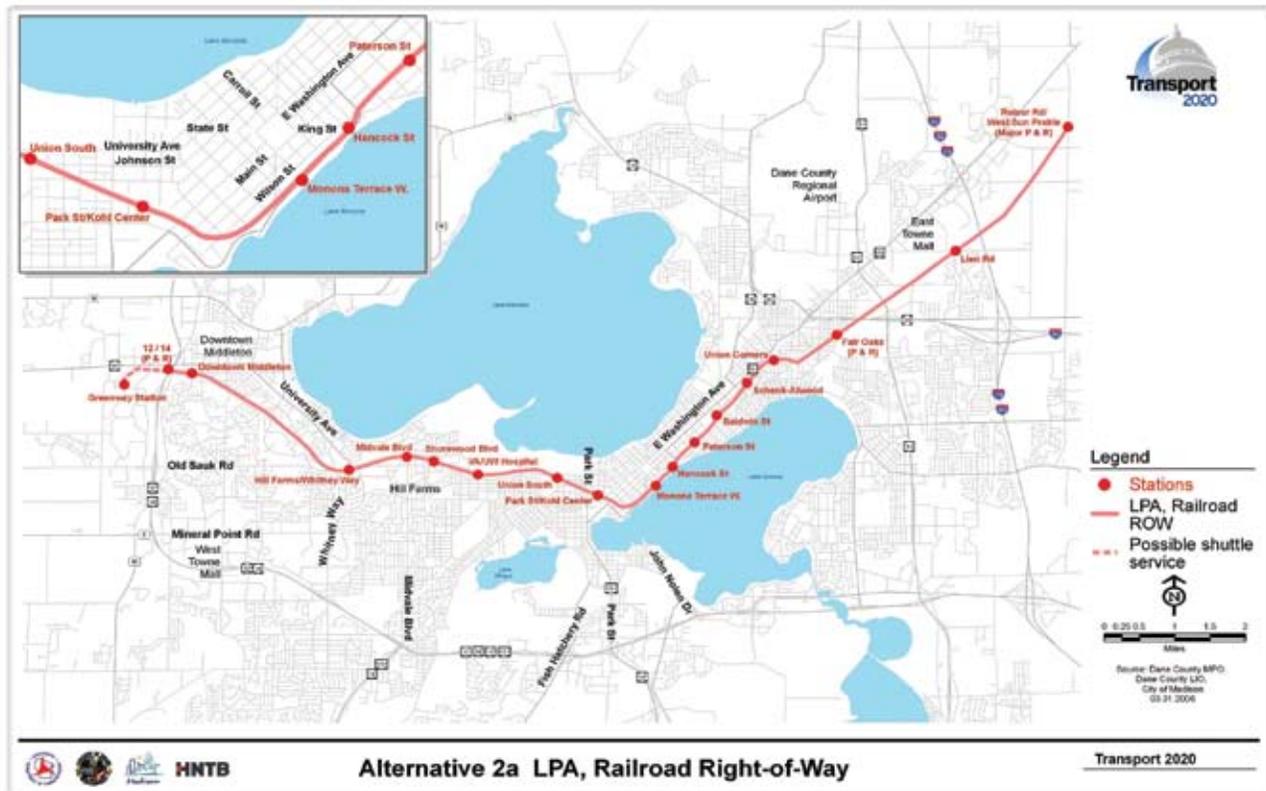
This line would support the university and help the region maximize the economic benefit from the school. Parking is growing scarce in downtown Madison near the university, but land is too valuable for the university to build new parking facilities even as it expands. Transportation officials predict that the three transit stations located near the University of Wisconsin's campus will attract over 3,300 boardings each day by 2030, helping more people to commute to the university as it expands without increasing the demand for parking or the amount of time students and professors must waste sitting in traffic.⁷⁸

Smart growth oriented around transit



By making it easy to get around by bus, walking, and biking, and discouraging sprawl, Madison has achieved a high quality of life for its residents and kept its downtown lively and accessible. Photo credit: Tor-Erik Bakke.

Figure 8. Proposed Route of the Dane County Commuter Rail



stations would further enhance the region’s livability. The commuter rail service will give Madison more opportunity for dense development along the rail corridor. Businesses will seek to locate near transit stations to benefit from the increased pedestrian traffic and the accessibility of the location for both employees and customers. Residents will want to live near stations that will provide them a quick and efficient mode of transport. In fact, one market study found that implementation of the commuter rail service would result in 10 percent more households and 200 percent more employment in the corridor.⁷⁹ This new, compact development will help make the city more sustainable by encouraging a transit-centered lifestyle—one in which people use personal vehicles sparingly.

A commuter rail line through Dane County would also alleviate growing traffic congestion. Officials predict that the

service would attract 11,000 riders per day, or 3 million people annually, by 2030. Such high ridership would significantly reduce the number of cars on the road, reducing traffic on the main routes.⁸⁰ Additionally, the reduction in vehicles on the road would reduce the level of air pollution and global warming emissions in the corridor, leading to a better quality of life for residents.

Connecting Green Bay to Appleton by Commuter Bus

Green Bay and Appleton used to be separate metropolitan areas, with residents largely working in the same city they lived in. Increasingly, however, these cities are connected, with more people traveling from one city to the other for work, as well as shopping, school and other needs. This phenomenon, seen also in other cities across Wisconsin, contributes to the growing number of miles Wisconsinites drive each

year. Every day, 6,000 vehicles make the 45-minute drive between Green Bay and the Fox Cities.⁸³ As these cities' mutual dependency grows, the need to provide more transportation options will grow with it.

Currently, each city operates a bus system that serves local residents, but no intercity connections exist. Green Bay Metro and Valley Transit, the transit authorities in the cities, are now considering the establishment of a bus line connecting Green Bay to Appleton. The initial plan envisions running 16 buses per day along U.S. 41, with eight buses originating in Appleton and eight originating in Green Bay. The route would have stops at a park-and-ride lot on Ballard Road in Appleton, by the Mid-Vallee Golf Course near Wrightstown, and at County G in De Pere. The buses would run at peak travel times during the early morning and late afternoon.⁸⁴

The Brown County Planning Department estimates that this level of service would cost \$240,000 a year, 80 percent of which could be covered by state and federal grants.⁸⁵ Both cities intend for the majority of funding to be provided through state and federal grants, with large employers and fare revenue covering the rest of the costs. Some employers will likely receive tax credits for participating in the program.⁸⁶

This commuter service will benefit both Green Bay and Appleton. With buses running in each direction, residents of the two towns will be able to easily access key destinations in the neighboring communities. These destinations include places of employment, retail centers, and medical facilities.

Commuters in particular will benefit from the intercity service. Even though many residents have personal vehicles, bus service would help users save money on traveling expenses—such as gasoline and car maintenance. And by increasing connections between the cities and connecting the job markets with more people,

the commuter bus will help attract more business to the area and help the region grow its economy.

Connecting Janesville to Milton and Whitewater by Commuter Bus

Janesville, looking to its future, recently surveyed residents and held a number of community meetings as part of the process of updating the city's comprehensive plan. One of the most common responses to the question, "if you could change something about the community, what would it be?" was "traffic congestion". Residents also wanted to see the downtown area revitalized, and wanted the city to attract new businesses and jobs.⁸⁷

With its river, parks and bike paths, affordable and pleasant neighborhoods, historic downtown, and multitude of employers, Janesville has a lot to offer residents. Its bus system, carrying half a million passengers a year, makes it easy to travel between home, jobs, and recreation.⁸⁸ It's no wonder that the city has been growing slowly but steadily over the past few decades—from 1980 to 2000, Janesville's population grew 18 percent, one of the highest rates of growth in the region. Nearby Milton has also been growing, with a 25 percent population increase over the same time period.⁸⁹

As Janesville looks forward, city planners have been considering expanding the bus system to include commuter service to Milton and Whitewater to connect the three cities and solve some of the problems identified by residents.

Janesville would benefit from having more options for regional travel between city centers. A commuter bus would not only address Janesville's congestion problems, but it would also connect Janesville's labor market with the new manufacturing jobs in Whitewater.⁹⁰ And by bringing passengers to Janesville from other cities, such as the students at the University of Wisconsin in Whitewater, this bus could

help spur downtown revitalization, as well as help students living in Janesville reach the university. The bus would also make it easier for residents of other cities to commute to Janesville, making the city an attractive hub of potential employees for new businesses. Connecting Janesville to Whitewater and Milton by public transit would also give Janesville a wider range of transportation options, making it easy to access cultural attractions in the other cities such as Whitewater's Lake Cravath and events at the university.

Last year, the Wisconsin Department of Transportation awarded a grant to the cities to fund a feasibility study for commuter service between Janesville, Milton and Whitewater. The study would also look at the possibility of establishing a transit service within Milton, and upgrading the shared-ride taxi service in Whitewater.⁹¹ The cities should work to ensure that this study leads quickly to establishing the commuter service, to ease congestion in Janesville and make regional travel easier.

Expanding Bus Service in the La Crosse Area

Public transportation is often associated with big cities. But in many rural Wisconsin communities, transit plays a vital role in linking people with employment, education, medical care and critical public services. Transit is particularly important for those who cannot always drive—the young, the elderly, the disabled and those who cannot afford the expense of owning a car.

In La Crosse, buses operated by the Municipal Transit Utility (MTU) help residents get around downtown, but also connect residents of surrounding rural towns with the city. People in French Island, Le Crescent, and parts of Onalaska depend on the bus routes to connect them to La Crosse. However, the transit needs of many people in other area cities and towns are still unmet, and La Crosse is working

to expand its bus system to reach more of these people. Two additions in particular would be helpful to the region: expanded service to West Salem, and a shuttle service to Viroqua.

West Salem Expansion

West Salem, a village of 5,000 residents about 10 miles northwest of La Crosse, has a small transit system, which provides door-to-door rides on demand. While this is important for travel around the village, especially for people who do not have access to a car, the transit system will not bring people anywhere outside of West Salem. This leaves many without good options for travel to La Crosse, and limits commuting options for West Salem residents who work in the city.⁹²

Recently, the La Crosse Municipal Transit Utility (MTU) began a new bus line to parts of Onalaska, which had been the most requested service expansion. The line to Onalaska connects with the local shared taxi service, so that Onalaska residents who live some distance from the new route also benefit from it. Based on the success of this expansion, transit officials are now considering expansion of service to West Salem as well. Though the details are still being studied, it is possible that in the



The buses in La Crosse help residents get around downtown, and connect surrounding rural towns with the city. Photo credit: Doug Connell.

next year service could be provided during peak commuting hours between the West Salem industrial park and the downtown La Crosse transit center.⁹³

The new service expansion will take place in two phases in order to build ridership. During the first phase officials would establish fixed pick-up and drop-off times at certain locations in West Salem and Valley View Mall. Possible transfer locations in West Salem include Northern Engraving, Sprint, Lakeview Health Center, and the commuter lot. The drop-offs at the mall would be coordinated with the MTU bus schedule. The second phase of the project would be to bypass the mall and take the commuters directly to the transit center in downtown La Crosse. This phase would eliminate the need to transfer and decrease travel times for the commuters.⁹⁴

Many West Salem residents work in La Crosse, which is a major employment center for the region. Many other residents also commute to La Crosse on a frequent basis, to access health services, educational facilities, shopping centers, and other important destinations. Providing a bus link between West Salem and La Crosse would help reduce traffic in this area, and it would provide a viable transportation mode to the many residents who are unable to drive.

Shuttle Bus Service from Viroqua to La Crosse

A recent change in bus routes has suddenly left many communities south of La Crosse without transit access. For five years, the Jefferson Bus Line operated three weekly runs from Madison to La Crosse and the Twin Cities. Along the route, the bus stopped in 10 villages and small cities such as Spring Green, Richland Center and Westby. Recently, Jefferson Bus Lines discontinued the route, planning to replace it with a line that will run from Minneapolis, Rochester, Winona, La Crosse, and into Tomah where it will connect with Greyhound. As the La Crosse bus system does

not provide bus service south of the city, this means that many previously served communities, such as Westby, Viroqua and Beaver, will no longer have a transit connection to La Crosse.

Even though the Jefferson Bus Line only provided three weekly trips from the communities in Vernon County (where Westby and Viroqua are located), it was a vital connection for residents south of La Crosse. There is a growing number of people who must make regular trips to La Crosse to access medical centers for health care appointments and long-term care.⁹⁵ The Jefferson Bus Line provided these communities with at least some transit option, and the discontinuation of service will leave many without any convenient way to access the larger city.⁹⁶

Changing demographics and land use patterns in the rural county will lead to an even greater need for transit connections to La Crosse. The urban section of the corridor connecting Vernon County to La Crosse has long been dominated by travel-oriented businesses, such as motels and gas stations. Recently, however, there has been a transition towards large and mid-scale retail developers and more senior housing. If these current trends continue, and the population of seniors continues to increase, alternative transportation modes will become more important. This is especially true considering the fact that the rural county is experiencing residential and suburban growth, which will lead to more pressures on the transportation network.⁹⁷

Given these concerns, the Westby City Council recently supported a proposal to begin a bus shuttle service connecting Vernon County to La Crosse. The system would make regular stops in Viroqua, Westby and Coon Valley, and it would connect with the Jefferson Bus Line in La Crosse. The service would most likely be operated by Vernon County, and initial estimates project that four daily round trips

would cost approximately \$344,300.⁹⁸

Though Vernon County is still predominantly a rural area, it would benefit immensely from improved connections to La Crosse. A daily bus service would allow people to use transit to commute to employment in La Crosse, and it would enable elderly residents to easily access medical centers in the city. Furthermore, the shuttle's connection to the Jefferson Bus Lines would enable residents to reach destinations such as the Twin Cities and Minneapolis. Such a connection is important for the many seniors in the region who wish to visit their children who work in the cities. It will also be a crucial option to the large Amish community in the area, which relies on public transportation to travel long distances.

Connecting Eau Claire with Chippewa Falls and Lake Hallie by Bus

During the 1970s and early 1980s, Lake Hallie, Eau Claire and Chippewa Falls were all connected by public transportation. Eau Claire Transit (ECT) provided fixed route service going from Eau Claire to Chippewa Falls and to the Village of Lake Hallie. ECT also offered intra-city service throughout the city of Chippewa Falls. These connections allowed people to access their homes near Lake Hallie, employment centers in Chippewa Falls, and the shopping destinations of Eau Claire. However, in July 1985, Chippewa Falls disbanded the service in favor of a shared-ride taxi program, due to its lower cost. Unfortunately, this effectively severed all transit ties between the towns, as the shared-ride taxi program only provides transport to locations within Chippewa Falls.⁹⁹

The residents of these towns are now demanding a reinstatement of the bus services connecting Eau Claire, Chippewa Falls, and the Village of Lake Hallie. Residents have also expressed a desire for expanded service in Altoona, which currently has

only limited routes.¹⁰⁰ Such investments represent a unique opportunity for the local governments to capitalize on the lessons of history to meet the challenges of the future.

The transportation plans of both the Eau Claire and the Chippewa-Eau Claire Metropolitan Planning Organizations call for expanding ECT service to Altoona in the medium term (3 to 5 years), and studying extension of service to Chippewa Falls and Lake Hallie in the long-term (5 years or more).¹⁰¹ Altoona has received requests from many residents for transit service to the mobile home park in the eastern side of the city, which is currently more than a half mile away from the existing bus line. ECT has indicated that it would work with Altoona to modify the bus line's route and identify other service expansion opportunities.¹⁰²

Expansion of bus services will help transport individuals more efficiently through the corridor. Eau Claire is home to many popular destinations, such the University of Wisconsin–Eau Claire campus and Oakwood Mall, while Chippewa Falls has many important employment centers, such as TTM Advanced Circuits, Inc. and St. Joseph's Hospital.¹⁰³ The bus services would allow the car-less, such as the elderly or students, to access these important destinations. Shoppers going to Eau Claire and commuters traveling to Chippewa Falls for employment would also benefit.¹⁰⁴

Eventually, as the populations in the region continue to grow, transportation officials will also consider expansion of bus service to outlying communities such as Menomonie, located 25 miles to the west of Eau Claire, and the Greyhound station at I-94 and Highway 12. There has also been discussion of providing rail passenger service between Minneapolis and Milwaukee with a rail depot in Eau Claire. If the depot is constructed, ECT would likely provide service to the area as well.

Connecting these regions is important for the quality of life of the residents. Many currently lack any ability to reach commercial and business districts, limiting their potential for employment and commerce. Providing bus service to these populations would significantly improve their situations and benefit the region as a whole.

Improving Bus Service in Superior

Historically, Superior has been primarily a residential area, with people living in the city traveling to Duluth, a large center for jobs. The Duluth Transit Authority has played a vital role in helping commuters make this trip between the cities, giving people options and helping keep congestion low. Today the agency operates 20 routes in Duluth, Proctor and Superior, which carry nearly 3 million passengers each year.¹⁰⁵

Recently, changing demographics have created the need to re-conceptualize some of the routes. A significant amount of development has occurred in Superior, such as along Long Tower Avenue, providing people with more jobs and destinations in the city. As a result, more people wish to commute to downtown Superior than in the past. In response, the Duluth Transit Authority is working to change bus routes to better accommodate the new travel patterns in Superior.

Currently, three routes operate in Superior, and two of the lines are oriented towards travel into Duluth. These two routes go through the residential areas of Superior and bring commuters directly to Duluth. The third route, which serves Billings Park, operates as a circulator bus, bringing people from the residential areas to downtown Superior. When the majority of people were traveling from Superior to jobs in Duluth, these three routes served most transit needs. However, today many people are left without public transportation options to get to work.

Recently, officials from the Duluth

Transit Authority recommended changes to the Superior routes in order to meet the new challenges. These changes would transform the three routes in Superior into circulator routes—they would each bring commuters from the residential areas to a downtown transit hub in Superior. From this hub, separate buses would take commuters to Duluth. While these service changes would make some trips less convenient than they currently are, it would improve commuter service in Superior and provide a greater frequency of buses, improving service for the majority of riders. New businesses in the city of Superior would benefit from increased travel, and strain on the roadways would be reduced as a public transit option became available to the numerous people who work in Superior each day.

Superior and Duluth should work to improve the bus service so that as many transit riders as possible are well served. The new circulator routes are an important step to meet this goal, and specific routes should be chosen to maximize transit ridership.

Building a High-Speed Rail Network in the Midwest

High-speed rail technology has been around for decades, and where it is available it is often the best option for most trips under 500 miles. In many countries, travel by high-speed rail is much easier, faster, and more reliable than air travel is in the U.S. The Tokaido Shinkansen in Japan connected Tokyo with Osaka in time for the 1964 Olympics in Tokyo, reducing travel time between the cities to four hours for the 320-mile trip—a bit shorter than the distance between Milwaukee and Minneapolis. Upgrades in 1992 shortened the travel time to two and a half hours.¹⁰⁶

In contrast, if someone in Milwaukee

Figure 9. Proposed Midwest Regional Rail System¹¹⁰



wants to attend an afternoon meeting in Minneapolis, she has few good options. She can drive five and a half hours that morning, and return that night, for 11 hours of driving in one day. Or, she can take a flight in the morning, with a total travel time of about four hours assuming there are no delays. If she wanted to take the train, she would have to take it the day before and return the day after, extending her trip over three days.¹⁰⁷

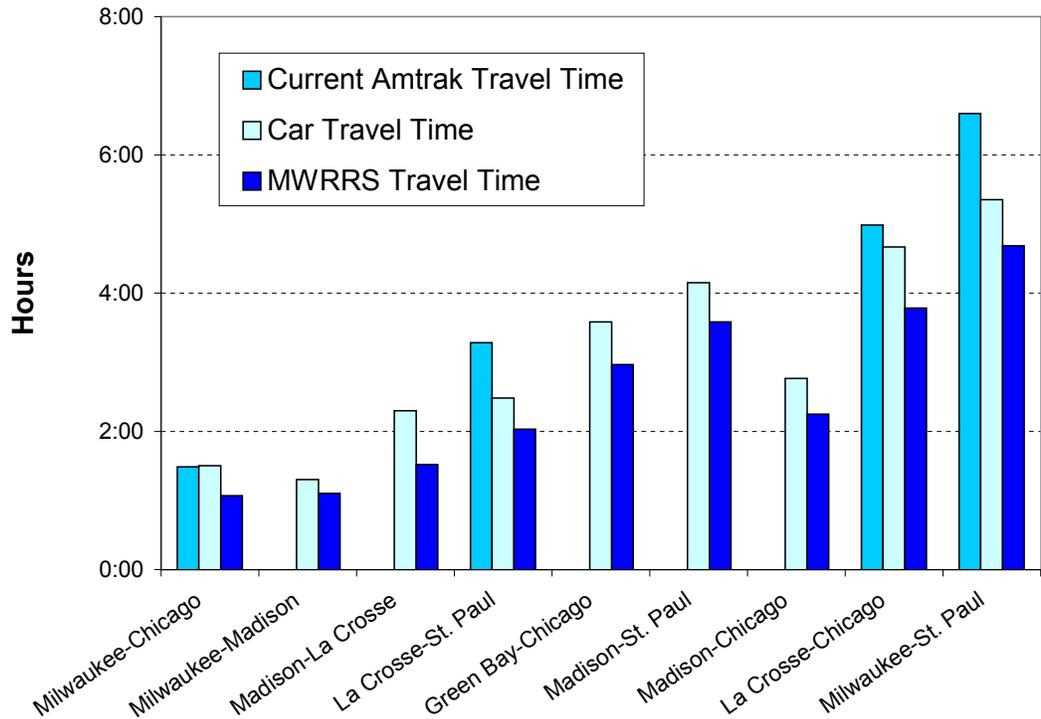
A proposed high-speed rail system, extending in spokes from Chicago across the Midwest, would give her a better option, bringing her from city to city in four hours and 45 minutes—faster and more reliably than any other option, with the possibility of going there and back in the same day.

The Midwest was built on rail, with

regular service connecting small towns with the big Midwestern cities and the rest of the country. To this day, Chicago still has more lines of track radiating from its center than any other city in North America.¹⁰⁸ But unlike other nations, America never invested in upgrading its passenger rail system to high-speed standards, and much of the railway infrastructure that once supported a vast passenger rail network in the Midwest has deteriorated.

Rail travel has several important advantages over other forms of intercity travel. Most railway stations are located in city centers at large transit hubs, unlike airports which usually must be located on the fringes of cities, increasing travel time. Rail travelers can work, nap, or read on the train, tasks that are impossible while

Figure 10. Travel time from Chicago to Midwestern cities by car, current Amtrak service, and the proposed MWRRS¹¹³



driving, and enjoy greater leg room and comfort than flying. With air travel growing increasingly unreliable and fluctuating gas prices hampering driving, rail travel is an appealing option.

An extensive and efficient high-speed rail system has been talked about since the 1960s.¹⁰⁹ Now the transportation departments of the Midwest states have developed a plan with Amtrak that would connect the major cities in the Midwest with trains that would reach their destinations faster than a car, and with many more frequent trips than current service.

The Midwest Regional Rail System (MWRRS) would build on the current rail system by upgrading tracks and building new tracks on existing railroad rights-of-way so that trains could travel up to 110 miles per hour on seven spokes starting in Chicago. One spoke would be located primarily in Wisconsin, connecting Chicago

and Milwaukee and from there splitting into a line to Green Bay and another to the Twin Cities. The train would stop in cities across Wisconsin such as Madison, Oshkosh, and La Crosse, with feeder bus service to Wausau and Eau Claire and between Madison and Chicago through Janesville. Others spokes would connect through Chicago to Detroit, St. Louis, Cleveland, and Cincinnati, with stops in between in major cities such as Springfield, Toledo, and Kalamazoo. (See Figure 7).

The travel time for trips between these cities would be cut by 30 to 50 percent compared with current Amtrak service, and the frequency of trains would be increased three or fourfold, making rail travel the most convenient way to get between the major cities in the Midwest.¹¹¹ Travel time between Milwaukee and Chicago would be cut to an hour, and the number of daily roundtrips would be increased from eight

to seventeen. Travel time between Milwaukee and Minneapolis would be cut from six and a half hours to less than five, and the number of daily roundtrips would be increased from one to six. People in Madison, which currently has no rail service, would be able to travel to the Twin Cities in three and a half hours, and to Chicago in just over two.¹¹² (See Figure 8).

The rail system would also reach more people—90 percent of the population of the Midwest would be within a one-hour drive from a train station, or within a half-hour drive from a feeder bus station.¹¹⁴ Because of this increased convenience, ridership for the MWRRS is projected to be 13.6 million passengers a year by 2025—four times what it would be with the level of service currently offered by Amtrak.¹¹⁵

High-speed rail in the Midwest would also represent an efficient use of the region's resources and contribute to economic development. A railroad track can carry the same number of travelers as a 10-lane highway, but costs much less to build, brings passengers directly to downtown areas, and has much less impact on surrounding areas.¹¹⁶ According to a study conducted for the Wisconsin Department of Transportation, the project would deliver 1.8 times greater economic benefit than it would cost, generating \$23 billion in benefits including money saved from lowered highway and rail congestion, shorter travel time for riders, and reduced emissions. About \$4 billion of that benefit would go directly to Wisconsin.¹¹⁷ On top of the money saved, jobs would be created by a Midwest high-speed rail system—152,000 person years of work during the construction period, and over 57,000 permanent jobs, including 9,570 in Wisconsin.¹¹⁸ By connecting communities and improving access to Wisconsin, the MWRRS would increase economic activity, boosting small businesses and existing industry and

attracting new business to regions served by rail, which would bring \$173 million of additional household income to Wisconsin residents. New multimodal stations in Wisconsin cities will also bring economic activity to downtown areas, adding millions of dollars in development potential around stations. For example, Milwaukee would see development potential increase by over \$150 million.¹¹⁹

In addition to these benefits, reduced air and car travel would save oil and gas, relieving some of the stress on strained petroleum supplies, and reduce global warming emissions. By 2020, the MWRRS would divert about 1.3 million trips from air travel, and 5.1 million trips that would have been taken by car. Improvements to the passenger rail lines would also enhance freight service using the same tracks, adding potential for companies to switch more of their shipping from trucks to trains.

The initial capital investment required would be \$7.7 billion for the trains and the tracks, but by 2025 the system would pay for itself with no further federal subsidies.¹²⁰ In 2008, Congress passed a bill that would provide stable, multi-year funding to Amtrak and create \$350 million per year in matching funds for investment in high-speed rail corridors.¹²¹ And in February 2009, the American Recovery and Reinvestment Act included \$8 billion for intercity and high-speed rail development, and \$1.3 billion for Amtrak infrastructure improvements.¹²² Wisconsin officials should take advantage of this momentum and secure from the federal government all the funding needed to ensure that Wisconsin's high-speed line gets built. And Congress should establish the same sort of steady funding for passenger rail allocated to highway and mass transit programs by adding a rail title to the multiyear federal transportation legislation.¹²³

From Vision to Reality: A 21st Century Transit System for Wisconsin

Wisconsin faces a number of transportation challenges in the coming century. Wisconsinites are traveling farther and more frequently than they have in the past, and as these distances grow, our 20th century highway system will not be able to efficiently handle the travel demands of the new economy. We will need to reduce our global warming emissions to prevent damaging changes to our state's climate, and we cannot do that with our current reliance on oil. Our reliance on oil also makes us vulnerable to price fluctuations, which will only increase as supplies dwindle. And as our cities grow, we will need to plan carefully to preserve the high quality of life we value in our state.

Our best hope in meeting those challenges is to modernize our transportation system to support a 21st century economy. The state must develop forward-thinking plans to ensure that Wisconsin has rail and bus systems that not only serve current demand, but anticipate and guide future growth so that transit can serve the needs of a larger portion of Wisconsin's population.

To make this happen, Wisconsin's transit systems must have funding that they can

rely on. More than that, however, the state needs a coordinated vision for the balanced transportation in which public transportation plays a vital and important role. The state should develop a long-range, strategic plan for transit investments in Wisconsin, determine the price tag, and then work to obtain the necessary resources to improve and expand transit availability.

Many levels of government and other institutions have a role to play in achieving the goal of a 21st century transit system for Wisconsin.

State Policy

Wisconsin must ensure that public transit agencies and projects have the resources they need not only to continue existing service, but also to expand service to meet growing demand and encourage Wisconsin residents to choose public transportation by ensuring the quality and efficiency of transit. In addition, in order to build our transportation system intelligently and efficiently, Wisconsin must develop

a public transportation plan that ensures that all levels of government are working together to meet Wisconsin's growing transit demands.

Wisconsin needs forward-thinking regional plans to ensure that transit projects are well coordinated and will meet both current and future demand in each region. Long-term planning must be paired with long-term funding. Unlike some states, Wisconsin does not have a dedicated funding source for public transportation. We must find a stable source of funding for public transit that will ensure that the transportation system can meet growing demand. States across the country use a variety of funding sources for transit, ranging from levies on vehicles and fuels to toll revenue to general state funds and other dedicated sources. Some states encourage investment from private sector institutions that benefit from transit service or find ways to recapture some of the increases in property values that result when transit lines are extended to a community.

One critical step necessary in the short term to achieve a 21st century transportation system in Wisconsin is the creation of regional transportation authorities (RTAs). RTAs will provide both regional planning and dedicated funding, empower communities to make decisions about their local transportation systems, and leverage more federal transportation funding for Wisconsin. RTAs will enable regions to plan and sustain a regional transportation network—growing the region's and the state's economy and building dynamic and accessible communities where more Wisconsinites can walk, bike or take transit to get where they need to go.

When planning future investments in the state's transportation network, Wisconsin should prioritize investments in public transportation over new highways and roads. A larger share of state and federal dollars should be used to finance transit improvements than the current

formulas allocate.

The state should align other public policies with a 21st century vision for transportation that is less dependent on automobiles and can take full advantage of improved public transit. For example, Wisconsin should require that all proposed transportation investments be evaluated for their impact on oil dependence and global warming pollution. State government buildings should be located, to the extent possible, in areas with accessible transit service. And Wisconsin should encourage local governments to adopt land-use plans and zoning reforms that allow for and encourage compact development in and around transit stations.

Regional Coordination

Coordination with other states will be critical to the success of a number of projects in Wisconsin's 21st century transportation system—particularly the state's rail network. Amtrak's intercity rail network and the Metra commuter rail already cross state borders, linking Wisconsin residents to the rest of the Midwest.

The development of plans for the Midwest Regional Rail System shows that the Midwestern states recognize the benefit of coordinating across the region. Wisconsin has already shown strong leadership in ensuring that these plans become a reality across the region. Wisconsin should continue to coordinate with the other states on the implementation of this rail system and in developing future regional transit plans, and work to ensure federal investment in the region's rail infrastructure.

Federal Government

The main federal transportation funding law—the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A

Legacy for Users (SAFETEA-LU)—is due for reauthorization by Congress in late 2009. It is possible that the coming reauthorization will be the most sweeping reform of federal transportation policy in nearly two decades. The Congressional Budget Office projects that the portion of the federal highway trust fund that pays for highway projects will run out of money sometime during fiscal year 2009, with the public transit portion of the account scheduled to run out of money soon thereafter.¹²⁴ America's aging transportation network is increasingly in need of costly repairs. Meanwhile, amid fluctuating gasoline prices, Americans are experiencing the downside of the highway-centered investment policies of the last few decades, which leave too many Americans with too few transportation choices. In short, the status quo cannot continue.

Wisconsin officials should call for a new federal transportation funding law that shifts federal investment priorities

toward improvements to transit systems and intercity rail, while focusing federal highway investment on the need to maintain and repair existing infrastructure. Federal funding rules that currently favor highway projects over transit should be changed. Federal money should be used in a targeted and strategic way to encourage transportation investments that minimize oil dependence, congestion, environmental pollution and sprawl, and encourage the development of compact, livable communities where driving is an option, not a requirement.

Such a dramatic shift would benefit Wisconsin by providing additional resources for needed transit projects—including some that have sat on the drawing board for decades. In addition to pushing for new federal transportation priorities, Wisconsin should also work aggressively to obtain federal funding now becoming available for transit infrastructure projects, including high-speed passenger rail.

Notes

1. Wisconsin Historical Society, *Wisconsin Turning Points*, downloaded from www.wisconsinhistory.org/turningpoints/, 10 April 2009.
2. Ibid.
3. Center for Economic Development, University of Wisconsin-Milwaukee, *Out of Service: The Impact of Transit Cuts on Access to Jobs in Metropolitan Milwaukee*, October 2008.
4. Based on 1992-2007 vehicle-miles traveled estimates from U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* series of reports, Historical Summary to 1995 and annual reports from 1996 to 2006; 2007 vehicle-miles traveled estimates from U.S. Department of Transportation, Federal Highway Administration, *Traffic Volume Trends* series of reports, February 2007 to January 2008; 1990s population estimates from U.S. Census Bureau, *Time Series of Wisconsin Intercensal Population Estimates by County: April 1, 1990, to April 1, 2000*, 17 April 2002; 2000s population estimates from U.S. Census Bureau, *Annual Population Estimates, Estimated Components of Population Change and Rates of the Components of Population Change for the United States and States: April 1, 2000, to July 1, 2007*, 1 July 2007.
5. David Schrank and Tim Lomax, Texas Transportation Institute, *The 2007 Urban Mobility Report*, September 2007.
6. Ibid.
7. Robert Heavenrich, Advanced Technology Division, Office of Transportation and Air Quality, U.S. Environmental Protection Agency, *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2006*, July 2006, downloaded from www.epa.gov/otaq/cert/mpg/fetrends/420r06011.pdf, 8 December 2008.
8. Based on state gasoline expenditure data for 1970 through 2006 from U.S. Department of Energy, Energy Information Administration, *State Energy Data 2006: Expenditures*, 28 November 2008, adjusted for inflation based on U.S. Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts Table, Table 1.1.9: Implicit Price Deflators for Gross Domestic Product*, 29 May 2008.
9. Ibid.
10. U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* reports, years 1998 and 2006.

11. See note 7.
12. Estimate is in 2007 dollars, see note 4 for calculation methodology.
13. U.S. Environmental Protection Agency, *State CO₂ Emissions from Fossil Fuel Combustion, 1990-2005*, downloaded from www.epa.gov/climatechange/emissions/downloads/CO2FFC_2005.pdf, 25 January 2009.
14. U.S. Department of Transportation, Federal Transit Administration, *National Transit Database*, with data through 2007, downloaded from www.ntdprogram.gov/ntdprogram/, 30 March 2009. Note: this figure includes only transit agencies that report to the National Transit Database. Figures for private transit providers were excluded, as was data for transit agencies whose reporting was inconsistent.
15. Ibid.
16. Ibid.
17. U.S. Department of Transportation, Federal Highway Administration, *Traffic Volume Trends* series of reports, February 2007 to February 2008 and February 2008 to February 2009.
18. See note 14.
19. Robert E. Henken, Ryan J. Horton, and Jeffrey K. Schmidt, Public Policy Forum, *Milwaukee County's Transit Crisis: How Did We Get Here and What Do We Do Now?*, May 2008.
20. Ibid.
21. Service mile decrease: Center for Economic Development, University of Wisconsin-Milwaukee, *Out of Service: The Impact of Transit Cuts on Access to Jobs in Metropolitan Milwaukee*, October 2008; fare increase: see note 19.
22. See note 14.
23. See note 19.
24. See note 14.
25. Ibid.
26. Ibid.
27. U.S. Census Bureau, *2007 American Community Survey 1-Year Estimates: Means of Transportation to Work: Workers 16 Years and Over*, downloaded from www.census.gov, 25 January 2009.
28. Ibid.
29. WISPIRG Foundation, *A Better Way to Go: Meeting America's 21st Century Transportation Challenges with Modern Public Transit*, March 2008.
30. See note 5
31. Transportation Economics and Management Systems, Inc. *Benefiting Wisconsin's Economy*, downloaded from miprc.org/Portals/0/pdfs/MWRRI_Wisconsin_brochure_2007.pdf, 24 April 2009.
32. Center for Economic Development, University of Wisconsin-Milwaukee, *Out of Service: The Impact of Transit Cuts on Access to Jobs in Metropolitan Milwaukee*, October 2008.
33. Tara Weiss, "Ten Cities for Job Growth in 2009," *Forbes.com*, 5 January 2009.
34. Earth Tech, Inc., prepared for Southeastern Wisconsin Regional Planning Commission, *Kenosha-Racine-Milwaukee Alternatives Analysis: Environmental Impact Statement & Project Development Phase*, May 2006.
35. Midwest Interstate Passenger Rail Commission, "Amtrak Ridership in the Midwest FY 2004—FY 2008," 22 October 2008.
36. Southeastern Wisconsin Regional Planning Commission, *Kenosha-Racine-Milwaukee Corridor Transit Study Summary Report and Recommended Plan*, August 2003.
37. Todd Litman, Victoria Transport Policy Institute, *Smart Transportation Investments: Reevaluating the Role of Highway Expansion for Improving Urban Transportation*, 1 October 2006.
38. Classification as non-attainment: See note 34. Definition of non-attainment: United States Environmental Protection Agency, "Frequent Questions," *8-Hour Ground-Level Ozone Designations*, 27 October 2008.

39. Southeastern Wisconsin Regional Planning Commission, "Background," *The Kenosha-Racine-Milwaukee Commuter Link*, downloaded from <http://www.sewrpc.org/KRMonline/background.shtm>, 1 April 2009.
40. See note 34.
41. Southeastern Wisconsin Regional Planning Commission, "What's New," *The Kenosha-Racine-Milwaukee Commuter Link*, downloaded from www.sewrpc.org/KRMonline/, 1 April 2009.
42. Earth Tech, Inc., prepared for Southeastern Wisconsin Regional Planning Commission, *Kenosha-Racine-Milwaukee Commuter Rail Extension, Environmental Impact Statement and Project Development Phase: Evaluation of Alternatives*, January 2007.
43. Ibid.
44. Ibid.
45. See note 34.
46. See note 42.
47. Ibid.
48. Southeastern Wisconsin Regional Planning Commission, "Purpose & Need," *The Kenosha-Racine-Milwaukee Commuter Link*, downloaded from www.sewrpc.org/KRMonline/studypurpose.shtm, 1 April 2009.
49. Larry W. Grant, "In Kenosha's Tracks? How a Streetcar System Works in Southeastern Wisconsin," *Altamont Press*, 18 June 2007.
50. Light Rail Now Project Team, "Kenosha, Wisconsin Streetcar System: Workable Light Rail Meets Small-Town Mobility and Urban Development Needs," *Light Rail Now*, March 2005.
51. Ibid.
52. Wisconsin Department of Transportation, *Governor Doyle Announces \$23.2 Million in Congestion Mitigation and Air Quality Awards* (press release), 16 May 2008.
53. See note 49.
54. Milwaukee Transit, *Mayor Tom Barrett's Comprehensive Transit Strategy*, downloaded from www.city.milwaukee.gov/ImageLibrary/Groups/MayorAuthors/issues/FINAL_Barrett_Comprehensive_Transit_Strategy.pdf, 31 March 2009.
55. Milwaukee Connector Transit Study, *Summary of Meeting Presentations*, downloaded from www.milwaukeeconnector.com/pdf/02-02-2009-Milwaukee-Connector-Study.pdf, 27 March 2009.
56. Larry Sandler, "US Spending Bill Funds Milwaukee Streetcar System," *Journal Sentinel*, 13 March 2009.
57. "Common Council Transit Resolution Protects Interests of Milwaukee, Citizens," *US States News*, 10 July 2007.
58. "Walker was Blindsided by Barrett's 'End-Around,'" *BizTimes*, 13 March 2009.
59. Ibid.
60. See note 54.
61. Ibid.
62. Larry Sandler, "US Spending Bill Funds Milwaukee Streetcar System," *Journal Sentinel*, 13 March 2009; Walker was Blindsided by Barrett's 'End-Around,' *BizTimes*, 13 March 2009.
63. Millard, Pete. "Barrett's Streetcar Plan Receives Most of \$91.5 million," *The Business Journal*, 13 March 2009.
64. See note 58.
65. See note 33.
66. Transport 2020 Finance and Governance Subcommittee, *Background Information and Appendices, Draft 2*, 21 January 2009.
67. G. Scott Thomas, "Mid-sized Metros With the Best Quality of Life," *Bizjournals*, 16 March 2009.
68. Transport 2020, "Study Info," downloaded 21 April 2009 from <http://www.transport2020.net/studyinfo.html>.
69. "Mayor Cieslewicz, Dane County Executive Falk Unveil Agreement on Regional Transit for Madison, Dane

- County,” *US States News*, 27 June 2007.
70. Transport 2020, *Environmental Impact Statement and New Starts Application: Draft Purpose and Needs Statement*, December 2006.
71. See note 66.
72. Ibid.
73. Ibid.
74. Transport 2020, *Environmental Impacts Statement and New Starts Application: Request to Initiate Preliminary Engineering*, June 2008.
75. See note 66.
76. Ibid.
77. Ibid.
78. Ibid.
79. Ibid.
80. Ibid.
81. Dane County Regional Planning Commission, *Land Use & Transportation Plan: Plan Summary*, June 1997.
82. See note 74.
83. “Commuter Bus Between Green Bay and Appleton,” *WFRV Green Bay*, downloaded from nl.truveo.com/Commuter-buses-between-Green-Bay-and-Appleton/id/3206917177, 8 April 2009.
84. Tony Walter, “Commuter Buses Could Connect Green Bay, Appleton Downtowns,” *Green Bay Press Gazette*, 10 February 2009.
85. “Commuter Bus Service Could Connect Green Bay, Appleton,” *Journal Sentinel*, 10 February 2009.
86. “Appleton-Green Bay Bus Route Worth Try,” *Green Bay Press Gazette*, 17 February 2009.
87. City of Janesville, “Volume 1: Existing Conditions Report,” *City of Janesville Comprehensive Plan (Draft)*, December 2008.
88. See note 14.
89. See note 87.
90. Andrew Beckett, “Janesville Considers Regional Bus Service,” *Wisconsin Radio Network*, 24 September 2008.
91. Kim Hixson, State Representative, *Hixson Helps Secure Transportation Funding for District* (press release), 7 January 2008.
92. La Crosse Area Planning Committee, *2008-2015 Transit Development Plan for the La Crosse Municipal Transit Utility*, 16 May 2007.
93. Keith Carlson, Transit Manager, La Crosse Municipal Transit Utility, personal communication 7 April 2009.
94. Michael Martin, “Transit Expansion Proposed in West Salem,” *La Crosse Tribune*, 22 June 2008.
95. Dorothy Jaspersen, “Council Supports Shuttle Service,” *Westby Times*, 19 November 2008.
96. Ibid.
97. La Crosse Area Planning Committee, prepared for the Metropolitan Planning Organization for the La Crosse, Wis. and La Crescent, Minn. Urbanized Area, *Final 2030 La Crosse and La Crescent Metropolitan Area Transportation Plan*, 17 August 2005.
98. See note 95.
99. Urbitran, prepared for the City of Eau Claire, WI, *Eau Claire Transit: Transit Development Plan and Long Range Plan Element Final Report*, November 2003.
100. Ibid.
101. The Chippewa-Eau Claire Metropolitan Planning Area includes the Cities of Eau Claire, Chippewa Falls and Altoona, the Village of Lake Hallie, portions of the Towns of Brunswick, Pleasant Valley, Seymour, Union, Washington, and in Eau Claire County, Anson Eagle Point, Hallie, Lafayette, Tilden, and Wheaton in Chippewa County.
102. See note 99.
103. Chippewa Falls Employment: West Central Wisconsin Regional Planning Commission, *Chippewa County Economic Profile*, December 2008.
104. See note 99.

105. "DTA Celebrates 125 Years of Public Transportation with Photo Exhibit at Downtown Transit Center," *The Duluth Journal*, downloaded from www.howiehanson.com/?p=3380, 8 April 2009.
106. Takahiro Fukada, "Shinkansen about more than speed," *The Japan Times*, 9 December 2008.
107. Trip estimates based on Google Maps driving directions, orbitz.com flight availability, and Amtrak.com Fare Finder.
108. John C. Hudson, "Railroads," in Janice L. Reiff, Ann Durkin Keating, and James R. Grossman, Ed., Chicago History Museum, the Newbury Library, and Northwestern University, *The Encyclopedia of Chicago*, 2005.
109. U.S. Department of Transportation, Federal Railroad Administration, *High-Speed Ground Transportation for America*, September 1997.
110. Transportation Economics & Management Services, Inc., prepared for Illinois Department of Transportation, Indiana Department of Transportation, Iowa Department of Transportation, Michigan Department of Transportation, Minnesota Department of Transportation, Missouri Department of Transportation, Nebraska Department of Roads, Ohio Rail Development Commission, and Wisconsin Department of Transportation, *Midwest Regional Rail System Executive Report* September 2004.
111. See note 110.
112. Wisconsin Department of Transportation and Midwest Interstate Passenger Rail Commission, *Benefiting Wisconsin's Economy* (brochure), 2007.
113. All but Milwaukee-St. Paul: See note 112; Milwaukee-St. Paul: Auto travel time estimated from Google Maps, downloaded from maps.google.com, 8 April 2009; Current Amtrak Travel Time from *Empire Builder: Chicago and Portland/Seattle (schedule brochure)*, 27 October 2008; MWRRS travel time estimated by adding Milwaukee-Madison and Madison-St. Paul from Wisconsin Department of Transportation and Midwest Interstate Passenger Rail Commission, *Benefiting Wisconsin's Economy (brochure)*, 2007.
114. Ibid.
115. Ibid.
116. Midwest Interstate Passenger Rail Commission, *Midwest Regional Rail Initiative* (brochure), downloaded from miprc.org/Portals/0/pdfs/Midwest_final.pdf, 8 April 2009.
117. Transportation Economics & Management Services, prepared for Illinois Department of Transportation, Indiana Department of Transportation, Iowa Department of Transportation, Michigan Department of Transportation, Minnesota Department of Transportation, Missouri Department of Transportation, Nebraska Department of Roads, Ohio Rail Development Commission, Wisconsin Department of Transportation, and Amtrak, *Midwest Regional Rail Initiative Project Notebook Chapter 11*, November 2006.
118. Ibid.
119. Midwest Regional Rail Initiative, *Economic Impacts of the Midwest Regional Rail System*, 2007.
120. See note 110.
121. Speaker Nancy Pelosi, *The Passenger Rail Investment and Improvement Act*, downloaded from www.speaker.gov/legislation?id=0216, 16 December 2008.
122. Midwest Interstate Passenger Rail Commission, *Congress Passes Economic Stimulus Bill with Big Boost for Passenger Rail* (press release), 14 February 2009.
123. Jon Hilkevitch, "Congress' boost to Amtrak fueled by high gas prices, too much traffic," *Chicago Tribune*, 6 October 2008.
124. William W. Millar, American Public Transportation Association, *On Public Transportation Funding for Fiscal Year 2009: Testimony Before the Subcommittee on Transportation and Housing and Urban Development, and Related Agencies of the U.S. House Committee On Appropriations*, 16 April 2008.

