

# KEEP WISCONSIN *moving*

*SMART INVESTMENTS  
MEASURABLE RESULTS*



*Report of the Wisconsin Transportation  
Finance and Policy Commission*

*January 2013*

January 2013

**MEMBERS**

	The Honorable Scott Walker Governor of Wisconsin
Mark Gottlieb Chairman	Members of the Legislature State of Wisconsin
John Antaramian	Dear Governor Walker and Members of the Legislature:
Tom Carlsen	We are pleased to transmit to you the final report of the Wisconsin Transportation Finance and Policy Commission entitled “Keep Wisconsin Moving—Smart Investments, Measurable Results.” We submit this report in response to the direction you provided in Section 9148 of 2011 Wisconsin Act 32, in which you requested a report of the Commission’s findings and recommendations on options to achieve a stable balance between transportation expenditures, revenues and debt service over the next decade.
Dave Cieslewicz	In developing our report, the Commission was assisted by a wide range of transportation experts from state and national organizations. We received valuable information on current transportation programs, revenues, expenditures, and program challenges.
Robert Cook	Further, we believed it was important to travel to different parts of the state to learn about transportation challenges from different perspectives. Wisconsin residents and public officials shared their stories of how transportation affects them personally and as a community, making suggestions for modernizing and investing in the state’s multimodal transportation network. In addition, focus group participants were engaged in a discussion of policy and finance options, reflecting on their own transportation needs and experiences.
Barbara Fleisner LaMue	Our report outlines policy and program funding changes as well as a revenue package to support those changes. This report represents a consensus of opinion on issues affecting the future of transportation in Wisconsin by all ten commissioners. We are honored to have had the opportunity to serve the people of Wisconsin through this comprehensive analysis. The Commission recognizes the importance of transportation to state’s economy and the quality of life of its residents.
Martin Hanson	
William Hanson	
Robb Kahl	
Craig Thompson	
Tom Vandenberg	

Please know that we are available to answer your questions and address your concerns as you consider the findings and recommendations of the Commission over the coming months.

Respectfully submitted,

Members of the Wisconsin Transportation  
Finance and Policy Commission



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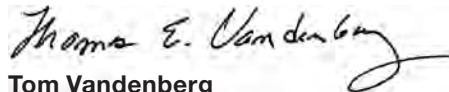
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# Executive summary

**W**isconsin faces a daunting challenge when it comes to meeting the growing needs of its multimodal transportation network. The state's roads, bridges, railways, harbors, airports and transit facilities are getting older and more congested. A growing segment of the population is aging and increasingly dependent on public transit services. Wisconsin's economic future and the safety of all of its residents and visitors depend on a quality transportation network that can efficiently move people to jobs, raw materials to factories, finished products to markets, and tourists to their destinations.

At the same time, the state's decades-old transportation funding model is not keeping pace with current or future needs. The state has chosen to address its transportation funding shortfall with increased debt through bond issuance—a path that is unsustainable over the long term.

To address this challenge, the Legislature, as part of the 2011–13 state biennial budget, created the 10-member Wisconsin Transportation Finance and Policy Commission. The Commission is comprised of a cross-section of citizen members from across the state, chaired by the non-voting Secretary of the Department of Transportation. The Commission held over a dozen public meetings and several public listening sessions and focus group meetings to examine issues related to the future of transportation finance and policy in Wisconsin, among them:

- ▶ state highway programs;
- ▶ local road, bridge and aid programs, including bicycle-pedestrian facilities and transit;
- ▶ freight and multimodal programs, including airports, harbors, and railroads;
- ▶ Transportation Fund revenue projections and debt service; and
- ▶ revenue and finance alternatives.

The Commission's overall goal was to develop policy changes and financing options to balance projected transportation needs with revenues over the next 10 years.



*WIS 42, Door County*

## Current revenue and travel trends

Over the past year, the Commission has developed an understanding of the state's transportation programs and services and how Wisconsin funds its entire multimodal transportation network. A narrow funding base—primarily, motor fuel taxes and vehicle registration fees—funds the transportation network and its maintenance needs, as well as the operations of the Divisions of Motor Vehicles and State Patrol.

Improvements in motor vehicle fuel economy and the increasing popularity of hybrid and electric vehicles are decreasing state and federal motor fuel tax collections. Additionally, since 2002, the number of vehicle miles traveled (VMT) has been essentially flat on a statewide basis. Statewide VMT has declined over three percent from its peak in 2004, yet many urban areas of the state are experiencing congestion. The result is increasing transportation needs and decreasing revenues to address them.

The federal motor fuel tax (unchanged since 1993) is 18.4 cents per gallon, and the state motor fuel tax is 30.9 cents per gallon.<sup>1</sup> The last time the Legislature voted to increase the state motor fuel tax was in 1997. Since 2006 when motor fuel tax indexing was repealed, inflation has reduced the buying power of the state motor fuel tax by nearly 13 percent.

The state's decision to issue bonds to address the loss of revenues led to debt service payments of \$762 million in the 2011-13 biennium. Assuming a similar level of bonding over the next 10 years, debt service will consume one-quarter of all state transportation revenues by FY 2023.

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<sup>1</sup> An additional 2.0 cents per gallon goes to the Petroleum Inspection Fund.

## Review of transportation needs—four scenarios

The Commission scrutinized current state transportation investments to gain a better understanding of how transportation assets and projects are currently managed and how overall performance is measured. To better understand potential needs of the transportation network in the future, the Commission considered four scenarios that define how the network would function at different investment levels.

The four needs analyses—from system disinvestment to multimodal enhancements—allowed commissioners to consider the funding levels needed to address specific condition goals for the transportation network over the next 10 years. The four scenarios gave the Commission a common perspective from which to develop recommendations. All scenarios assumed a total of about \$25 billion in state and federal transportation revenues over the decade.

- ▶ **SCENARIO ONE—DISINVESTMENT:** Scenario One holds transportation expenditures at current levels over the next 10 years, resulting in a 15.7 percent reduction in purchasing power. This scenario envisions significant deterioration of the state transportation network. The condition of state and local highway pavements and bridges deteriorate. Planned major highway projects are delayed several years. Funding for transit, rail, harbors and airports is inadequate to maintain current conditions and service levels.
  - » Projected 10-year cost: \$27 billion
  - » Funding gap: \$2 billion
- ▶ **SCENARIO TWO—PRESERVATION:** Scenario Two preserves existing transportation services and the physical condition of the network at current levels over the next decade. This scenario does not address traffic congestion issues, resulting in a 50 percent increase in congested roadway miles.
  - » Projected 10-year cost: \$30.8 billion
  - » Funding gap: \$5.8 billion
- ▶ **SCENARIO THREE—CAPACITY MANAGEMENT:** Scenario Three keeps transportation services, conditions, and traffic congestion at current levels and allows highway maintenance and operations services to keep pace with needs. Funding for other transportation modes keeps pace with inflation.
  - » Projected 10-year cost: \$40.3 billion
  - » Funding gap: \$15.3 billion
- ▶ **SCENARIO FOUR—MULTIMODAL ENHANCEMENTS:** In addition to meeting the goals noted in Scenario Three, this scenario addresses basic needs of the state's public transit, airport, freight rail and commercial port systems.
  - » Projected 10-year cost: \$42.1 billion
  - » Funding gap: \$17.1 billion



## The consequences of no action

The four scenarios provide a sobering assessment of transportation conditions under various investment levels. In light of our uncertain economic climate, commissioners carefully considered the impact of a “no funding increase” approach as described in Scenario One. While they found the consequences of failing to address the state’s transportation needs to be substantial, they also realize the Legislature, the Governor, and the people of Wisconsin will ultimately determine the investment priorities for the state.

Over the next 10 years, the State Highway Rehabilitation Program will need to fund major rehabilitation projects on a large portion of the state trunk highway system. The Major Highway Development Program will fund other high-cost rehabilitation and large capacity projects to address safety concerns and meet economic goals. Twelve major highway projects are scheduled for construction in future years. The current estimated cost to complete these projects is \$3.1 billion.

Southeast Wisconsin has some of the busiest highways and most complex infrastructure in the state. While progress has been made through improvements to the Marquette Interchange and the I-94 corridor between Milwaukee and Chicago, funding projects under the Southeast Wisconsin Freeway Megaprojects Program will require an estimated \$300 million annually for the next 20 years.

Without additional highway funding:

- The percentage of the state highway system in poor or worse condition will increase from 20 percent in 2014 to 42 percent in 2023.
- Planned major highway projects, which have already been identified as necessary to enhance safety and support economic growth, will be delayed six years, resulting in a 22 percent increase in congested state highway miles.

Through a unique and valuable partnership, the Wisconsin Department of Transportation contracts with counties to handle routine maintenance of the state trunk highway system, including mowing and snow and ice removal. The costs associated with maintenance and traffic operations continue to grow.

Without additional maintenance and traffic operations funding:

- Investments in traveler warning and road weather management systems will be reduced, routine maintenance will be deferred, and roads will remain snow-covered and slippery for longer time periods after major storms, creating additional safety problems.
- Deferred routine maintenance will lead to higher repair costs in the future.

Mobility takes many forms. For increasing numbers of Wisconsinites who cannot, should not, or choose not to drive, transit is their link to jobs, medical appointments, family and friends, shopping and culture.

Without additional transit funding, unless local governments can increase their funding share:

- Routes will be cut and fares will increase; aging buses and bus facilities will become unsafe or go out of service; and the state's transit-dependent population will be isolated in their homes, with people unable to get to jobs or school.

Without local revenue options for transit services:

- Local governments will continue to rely on the property tax to fund their local transit share.

The Federal Aviation Administration is implementing the Next Generation Air Transportation System, NextGen, a 10-year federal initiative to move the nation's air traffic control system from ground-based radar to a modern satellite-based system. This vital safety improvement will require a state and federal funding partnership.

Without additional aeronautics funding:

- The state will be unable to match federal funding for safety upgrades necessary to comply with NextGen.

Wisconsin's 29 commercial ports and harbors are the state's most direct link to world markets. Water transportation is a fuel-efficient way to move bulk commodities.

Without increased harbor investment:

- Conditions at Wisconsin's commercial ports will continue to deteriorate. The state's ability to attract and retain industries that rely on efficient bulk freight movement will be negatively impacted by decaying and inefficient harbor infrastructure and a lack of coordinated harbor plans.
- The potential of the state's commercial ports as a source of economic development will remain underutilized as the pace of needed investment slows.

Commissioners view freight rail as having two components—preservation and acquisition. While the overwhelming majority of freight rail in Wisconsin occurs on tracks owned and cars operated by one of the private Class I railroads, the state owns and operates a small but important segment of the freight rail network. Commissioners support an emphasis on upgrading existing state-owned lines, and they also recognize the need to acquire lines that would otherwise be abandoned in order to preserve a mobility option for those lines in the future.

Without increased freight rail investment:

- The state's rail system will continue to operate at speeds of less than 20 miles per hour and be unable to support current and future car load weights.
- Line abandonments could cut off access to the national rail network for many carload rail shippers and dozens of communities.

Bicycle and pedestrian facilities help create an integrated, balanced transportation network. Investing in these facilities supports efficient land use, improves commuting options for Wisconsin residents, and improves roadway safety for all users.

Without increased funding for bicycle and pedestrian facilities:

- People will not feel safe while biking and walking, and commuters will not experience the modal choice that these facilities offer.

## Recommendations and impacts on motorists

After careful consideration of the impact of a “do nothing” approach, the Commission developed its program and funding recommendations to assure an acceptable condition level for the transportation network. These recommendations are not a wish list—they essentially fund programs to maintain condition and congestion levels that exist today through 2023. The Commission believes the economic and safety impacts of this investment will justify the underlying tax and fee increases needed to improve the state’s multimodal transportation network over the next 10 years.

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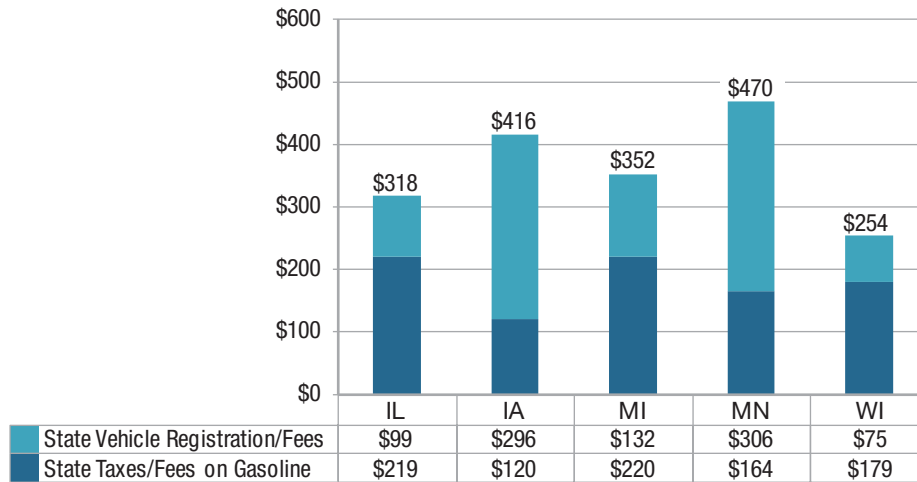
**III ➔ To maintain a safe and efficient system, the Commission recommends the following increased investments on an annual basis:**

- **State highway rehabilitation, maintenance and modernization**      **\$387.1 million**
  - **Local highways and bridges**      **\$40.0 million**
  - **Public transit**      **\$36.3 million**
  - **Airports, rails, harbors, bicycle and pedestrian facilities**      **\$16.1 million**
- 

Commissioners were committed to developing a plan that balanced expenditures and revenues. They began with evaluating the impact of existing motor fuel taxes and registration fees on vehicle owners. In Wisconsin, the owner of a 2010 mid-size sedan with a fuel efficiency of 22 miles per gallon who drives 12,000 miles a year currently pays about \$254 annually in state motor fuel taxes and vehicle registration fees.

A similar comparison shows vehicle owners in surrounding states currently pay higher motor fuel tax and vehicle registration fees on an annual basis: \$318 in Illinois, \$416 in Iowa, \$352 in Michigan, and \$470 in Minnesota. Comparatively speaking, Wisconsinites enjoy a relative bargain with access to the state’s 114,800 miles of federal, state and local roadways for under a dollar a day.

## Five-State Comparison of Vehicle Registration Fees and Motor Fuel Taxes



Mindful of the factors creating a growing imbalance between transportation needs and revenues, commissioners considered a full range of revenue options, noting the advantages and disadvantages of each. For example, while tolls raise significant transportation revenues in some states, commissioners deemed tolls unworkable in Wisconsin at this time due primarily to federal tolling restrictions.

The Commission's preferred transportation revenue plan puts the state on course to support economic growth and public safety over the next 10 years. It accounts for needed investments in the multimodal transportation network and addresses the declining revenue generation of the current transportation funding model.

**➡ The Commission offers the following recommendations to raise the revenues required to preserve and improve the transportation network:**

- **Raise the state motor fuel tax by five cents per gallon.**
- **Adopt a new mileage-based registration fee for passenger cars and light trucks of approximately one cent per mile travelled.**
- **Increase annual registration fees for commercial vehicles by 73 percent.**
- **Increase the fee for an eight-year driver license by \$20.**
- **Eliminate the sales tax exemption on the trade-in value of a vehicle.**

Under the Commission's recommendations, fuel taxes and registration fees for the owner of a typical passenger vehicle will increase by approximately \$120 annually—just 33 cents per day.

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➔ In addition, the Commission offers the following recommendations and finding to address policy issues related to transportation funding and finance in Wisconsin:

- The Commission supports legislation to allow regional transportation authorities to raise funds through a one-half-cent maximum sales tax, with voter approval, for transportation purposes.
- The Commission supports legislation to authorize a maximum one-half-percent local option sales tax, for transportation purposes, in counties with populations less than 100,000.
- The Commission supports capping debt service payments for transportation projects at a manageable level compared with annual transportation revenues.
- The Commission supports indexing the state motor fuel tax and/or vehicle registration fees to provide inflationary adjustments over time.
- The Commission supports the proposed state constitutional amendment to protect the integrity of Wisconsin's Transportation Fund.
- The Commission found that current federal regulations on tolling create an obstacle to its implementation in Wisconsin. The Commission encourages the Wisconsin Congressional Delegation to support federal legislation that allows states more flexibility to toll on the National Highway System.

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The Commission's report highlights the importance of a safe, efficient multimodal transportation system to address the basic mobility needs of Wisconsin residents, young and old. It represents the minimal level of investment needed to keep Wisconsin moving. The challenges before us are clear—as are the consequences of failing to address this major public policy issue. Wisconsin's economic future, personal mobility and the safety of its residents are all at stake.

# Introduction

**E**very day, Wisconsinites wake up with plans for the day, and they often include a variety of trips to serve individual needs—jobs, appointments, errands, deliveries and vacations—important activities that require transportation.

Wisconsin’s network of highways, local streets, transit systems, airports and other connections get people where they need to go. By getting workers to jobs, goods to market, and tourists to their destinations, transportation literally keeps Wisconsin moving—supporting Wisconsin’s economy and the aspirations of its residents.

Most people rarely think about how transportation contributes to the quality of their lives and their economic well-being until it becomes unreliable, unsafe, inconvenient or totally unavailable. This scene was recently brought to life on the east coast as the region dealt with the impacts of Superstorm Sandy. Roadways, railways, waterways and airways were all severely compromised, limiting mobility to affected residents.

Governor Walker and state legislators recognized that the long-term health of Wisconsin’s transportation network<sup>1</sup> is in jeopardy. They created a 10-member citizen commission<sup>2</sup> to review the state’s existing transportation programs, consider their funding and effectiveness, and outline a 10-year plan to balance system needs and the funding necessary to support those needs. The Legislature asked the Commission for a plan on how to fund a transportation network that is safe, smart and reliable and provides the mobility that Wisconsin residents need to succeed.

The Wisconsin Transportation Finance and Policy Commission (the Commission) began with some basic questions:

- ▶ How do we currently spend the money to support transportation in Wisconsin?
- ▶ Why isn’t funding keeping pace with the cost to provide a safe and efficient transportation network?
- ▶ What should the transportation network look like by the end of 2023 to support Wisconsin residents’ needs?
- ▶ What underlying principles should guide the Commission’s consideration of future spending and revenues?
- ▶ Where should we get the money to pay for Wisconsin’s transportation network?

<sup>1</sup> In this report, “system” refers to a single mode—e.g., the highway system—and “network” refers to the multimodal network of highways, buses, trains, airplanes and ports.

<sup>2</sup> In addition to 10 citizen members, the Wisconsin Transportation Secretary chaired the Commission and participated as a non-voting member.

## Current revenues—sources of money for transportation spending



**F**or each trip taken, people pay for use of the transportation system. Sometimes, the cost of a trip is clear—an air fare or a bus ticket. When people drive on Wisconsin highways, they pay for the use of the highway system through annual vehicle registration fees and gasoline and diesel taxes. These user fees are not as straightforward as paying for a ticket for a particular trip, but the payment of a tax each time they fill up the gas tank is roughly associated with their use of the system. Over time, the connection between paying at the pump and use of the highway system has become less direct. Cars and trucks have become more fuel efficient. Drivers of highly fuel-efficient vehicles who drive the same number of miles as moderately fuel-efficient vehicles pay less in taxes to support their use of the highway system or to address their contribution to highway congestion.

*“To put it a little more in perspective, like in my monthly budget—I’m at \$350—less than \$30 a month [in transportation costs based on car and miles driven]. I think that it’s really low compared to what I pay in my other monthly bills...”*

Focus group participant

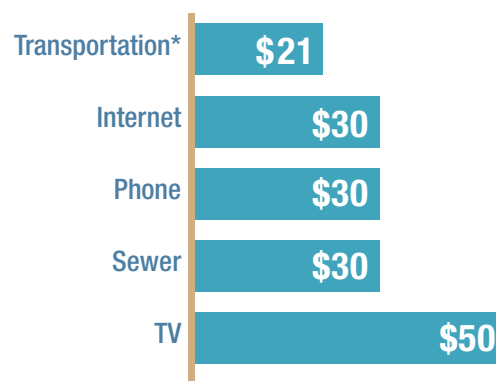
A driver who travels 12,000 miles per year in a vehicle that gets 22 miles per gallon has a monthly cost for vehicle registration and state gas tax of approximately \$21. Compare that \$21 to other bills, such as telephone or internet services. The highway system provides a high value for a relatively modest investment.

### Average Monthly Household Expenditures

**Without transportation, we can’t get to our jobs and schools. Food and goods we rely on can’t get to us. The average household contributes \$21 per month to fund the transportation system in Wisconsin.**

**How does that cost compare with other household expenses?**

\*Based on one mid-size car per household. Includes motor fuel taxes and vehicle registration.



Revenues to support Wisconsin’s transportation network come from a variety of sources. The construction and maintenance of local roads may be funded by local governments through property taxes, bonding, or fees paid by property developers. The largest single source of funds for the state segregated Transportation Fund (the Transportation Fund) is state and federal gasoline and diesel fuel taxes. State vehicle registration fees, bonding and other sources also contribute significantly to Transportation Fund revenues.

**Table A: Revenues 2011–13 Biennial Budget (\$ in millions)**

Funding Source	Amount	% of Total
State funds	\$3,658.5	55.8%
Federal funds	\$1,695.7	25.9%
Bond funds	\$764.6	11.7%
Other funds	\$433.2	6.6%
<b>Totals:</b>	<b>\$6,552.0</b>	<b>100.0%</b>

Based on identified costs for preservation of the transportation network, it is clear to commissioners that Wisconsin’s narrow motor vehicle fuel tax and vehicle registration fee base is insufficient, and its reliance on bond financing at current rates will be unsustainable over time. It should be noted that all modes of transportation support the general health and welfare of Wisconsin residents, but prior to the current biennium, the use of general funds to support transportation has been limited in the state.

The Commission recognizes that increases in transportation taxes and fees, even to meet demonstrated needs, are politically sensitive. To assure they were prudent in making their recommendations, commissioners carefully evaluated how other states fund the various transportation modes. This report will highlight some of those comparisons.



*WIS 40, Chippewa County*



## Current spending—where the money goes



Users of all modes of transportation—trucks, cars, planes, buses and trains—pay fares or fees, some of which contribute to the Transportation Fund. The Transportation Fund provides funding for state highways and bridges, local roads and bridges, operation and maintenance of the state and local highway system, transit systems, bicycle facilities and walking paths, airport and harbor improvements, freight rail facilities, and passenger rail services. In addition, the Transportation Fund supports the safety and traffic duties of the Division State Patrol, the Division of Motor Vehicles, and the administrative operation of the Department of Transportation (the department).

### Wisconsin Transportation At-a-Glance



#### Highways and roads

**11,800 miles**  
State and Interstate highways

**103,000 miles**  
County highways, town roads and municipal streets



**13,700** local and state bridges

**4 million** licensed drivers

**59 billion** vehicle miles of travel (VMT) each year

**Nearly 5.5 million** registered vehicles



#### Airports

**131** public use airports  
**About 6.6 million** people boarding commercial flights each year



#### Railroads

**About 3,600** route miles  
**80 million tons** Cargo shipped on freight railroads each year



#### Harbors

**40 million tons** of cargo each year  
**29 ports** of commerce



#### Bicycle/pedestrian

Wisconsin ranked **6th** most bicycle-friendly state in 2012



#### Transit

**81** public bus and shared-ride taxi systems

In the 2011–13 biennium, the Legislature authorized spending from the Transportation Fund as follows:

<b>Use of Funds</b>	<b>Amount</b>	<b>% of Total</b>
State Highway Programs	\$3,267.6	50.3%
Local Programs	\$1,981.0	30.4%
Debt Service/Reserves	\$781.5	12.0%
DOT State Operations	\$471.1	7.3%
<b>Totals:</b>	<b>\$6,501.2</b>	<b>100.0%</b>

*“In the last year, [Highway 41 between Green Bay and Milwaukee] is so much better than when we started driving it. It just flows so much better than it used to.”*

Focus group participant

Wisconsin residents don’t see transportation spending as numbers on a budget ledger. They see orange barrels on the state and local highway network, new buses or repairs to current bus facilities, an airport runway project, or dredging at a port. Sometimes, a community sees a new facility—a bike path, a transit station, a roadway or a bridge. Behind the scenes, their tax dollars are going to work funding plans and designs, safety, traffic operations, and other important non-construction activities. While construction may present a temporary inconvenience, the outcome is the heart of the state’s transportation mission—to provide a safe and efficient transportation network.

Like any physical asset, the transportation network is in constant need of repair and improvement and experiences changes in use over time. Sound planning and asset management techniques are an integral part of cost-effective network improvements. The department continues to implement cost-saving innovations and efficiencies, but these changes alone will not resolve the state’s transportation funding challenges.

*“I can think of certain places that are poor [condition] on Highway 56. I have been driving them for years and wondering why they don’t ever repave them. Highway 164 south of Big Bend to Highway 35 is a terrible road.”*

Focus group participant



<sup>i</sup> An additional \$50.8 million is provided to other state agencies for transportation-related services.

## Revenues aren't keeping up with needs—the math doesn't add up

Over the course of their work, commissioners identified a number of reasons why the state's transportation revenue sources are not keeping pace with transportation program needs. Key issues include:

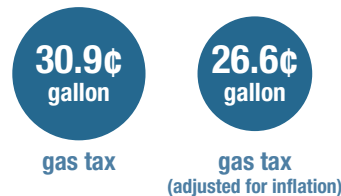
### The gas tax isn't keeping up with inflation

Both federal and state transportation revenues rely heavily on the gasoline and diesel tax.<sup>3</sup> However, these taxes are not indexed to inflation or, like the sales tax, linked to the price of goods purchased. Further, gasoline and diesel fuel is exempt from the state sales tax. The current federal gasoline tax (unchanged since 1993) is 18.4 cents per gallon, and the current state tax collected at the gas pump is 32.9 cents per gallon, of which 30.9 cents goes to the Transportation Fund.<sup>4</sup> The last time the state excise tax was increased was in 2006. Since then, inflation has reduced the buying power of the state gasoline tax by nearly 13 percent.



### Since 1993, gas prices at the pump have more than tripled.

But since 2006, the Wisconsin gas tax of 30.9¢ a gallon stayed the same. Meanwhile, inflation has whittled away at the value of the gas tax, making it worth about 26.6¢ a gallon.



<sup>3</sup> States impose a motor fuel excise tax. In this report, the terms “gas tax” and “diesel tax” refer to the motor fuel excise tax.

<sup>4</sup> Two cents goes to the Wisconsin Petroleum Inspection Fund.

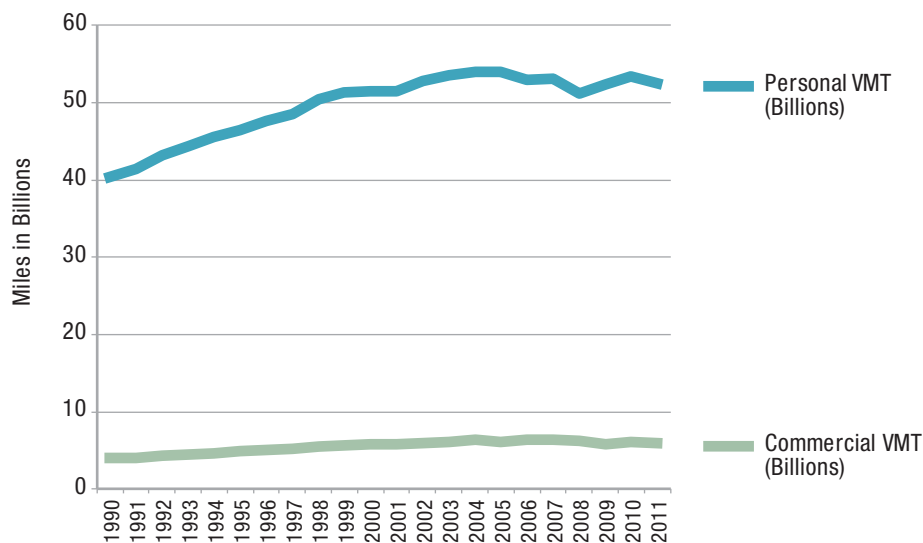


## People are driving less, reducing gas tax revenues

Prior to 2000, as a nation, people drove more each year than the year before; in most years, gasoline tax revenues increased too. In some years, vehicle miles traveled (VMT) decreased, but it generally rebounded and resumed its upward course until mid-2000 when the trend line began to flatten out. Nationally, since 2007, VMT has been essentially flat, and considering population growth, VMT has declined almost 8.4 percent from its peak in 2007.<sup>5</sup>

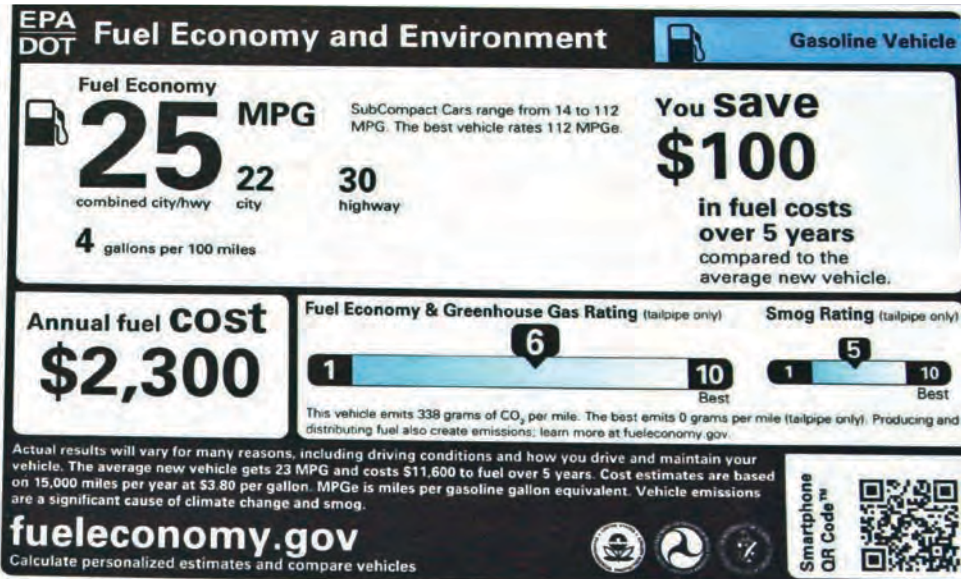
In Wisconsin, VMT peaked in 2004 and decreased overall since then by slightly more than three percent, as Chart A shows. However, while statewide VMT decreased, urban travel in Wisconsin increased and rural travel decreased, resulting in increasing congestion in urban areas.

Chart A: Statewide Vehicle Miles Traveled in Wisconsin—  
Personal and Commercial Vehicles



<sup>5</sup> [www.advisorperspectives.com/dshort/updates/DOT-Miles-Driven.php](http://www.advisorperspectives.com/dshort/updates/DOT-Miles-Driven.php)

## Corporate Average Fuel Economy (CAFE) standards and fuel-efficient vehicles are reducing revenues



The motor vehicle options available to consumers today include electric vehicles that use no gasoline and high-mileage, gasoline-powered cars, trucks and hybrids. Federal CAFE standards adopted in August 2012 require that cars and light trucks reach a fuel economy of 54.5 miles per gallon by 2025. As with decreasing VMT, the more miles to each gallon of gas, the less gas is purchased at the pump resulting in less gas tax collected. This impacts all drivers as the revenue source to fund preservation of the transportation network gradually erodes. Based on Congressional Budget Office estimates,<sup>6</sup> the new CAFE standard requirement could result in a 13 percent decrease in fuel tax revenues to the federal Highway Trust Fund by 2022 and a 21 percent reduction by 2040.

## Policy makers are choosing debt to fill the revenue hole

The 2011–13 biennial budget includes \$762 million for debt service. Based on the amount of debt currently committed for projects and assuming a similar level of bonding each year over the next 10 years, the percent of Transportation Fund revenues devoted to paying debt service on bonds will rise to more than 24 percent of revenues between FY 2014 and 2023.<sup>7</sup> Any additional borrowing over current levels in future budgets will cause that ratio to increase. Debt service reduces the funding available for projects because it must be paid first to address the principal and interest on outstanding bonds.

<sup>6</sup> Congressional Budget Office, *How Would Proposed Fuel Economy Standards Affect the Highway Trust Fund?* May 2012.

<sup>7</sup> Data is reported by state fiscal year (July 1 through June 30) throughout this report unless otherwise noted.

## More revenue needed to address more complex and costly projects

*In addition to the challenges associated with current revenues, the Commission carefully analyzed issues associated with the department's responsibilities and program spending.*

### Infrastructure is deteriorating



*WIS 104, Green and Rock Counties*

Like a car, home or any depreciating physical asset, the transportation infrastructure requires periodic maintenance and rehabilitation. Road wear and tear is not simply related to vehicle miles traveled; Wisconsin's climate—from mid-summer heat to the snow, ice and salt of winter—puts additional demands on infrastructure.

Roadways, runways and railways all need repair and improvement. Buses, bus shelters and maintenance garages need maintenance and replacement.

Also like a home or car, a transportation facility needs maintenance and repair on a timely basis. Without proper maintenance, safety is compromised and the roadway may need to be replaced sooner and at greater expense.

Based on data provided by the department's asset management model, the department would need an average annual increase of \$1.35 billion each year from 2014 to 2023 just to maintain current conditions. These funds are needed to cover inflation costs and investments to preserve Wisconsin's transportation infrastructure and transit services. The department estimates that on average, 85 percent of the total state highway program budget is devoted to preserving the state highway network and 15 percent is devoted to congestion and capacity needs.

### Demographics and life styles are changing



*Coulee Cab, Prairie du Chien*

Wisconsin's population is growing and demographic shifts were identified in the 2010 U.S. Census report. The most significant change is the percentage of the state's population age 60 and over, which increased from 16.9 to 19.2 percent from 2000 to 2010. This increase has implications for the transportation network, primarily for services to older drivers and expanded transit services for drivers

who transition from cars to public transportation or paratransit services. Mobility options are a challenge in the rural parts of the state where non-driving options are more limited. Other trends related to driving could also impact transportation

investment decisions. For example, more workers are telecommuting and young people are waiting longer to apply for driver licenses.

### Traffic congestion is growing in urban areas



As the population grows and shifts, transportation investment must adjust or the system will not adequately support its changing needs. From 1990 until recently, VMT in Wisconsin increased 32 percent in urbanized areas, while the state's road mileage increased only five percent. While VMT has essentially been flat and

is expected to remain stagnant over the next decade, metropolitan areas are growing faster, causing congestion. Even with large urban projects in southeast Wisconsin, 90 percent of the costs are for infrastructure replacement; only 10 percent of project costs are associated with capacity expansion.

### Focus on department stewardship of existing resources

In analyzing its charge, commissioners agreed they had a responsibility to carefully scrutinize the department's current spending and assure that current resources are being used wisely. Commissioners directed staff to provide additional information on the decision-making process associated with spending on projects; overall project management and opportunities for improvement; and performance measurement and reporting. Commissioners assessed department initiatives on asset management, project innovation, and the department's performance measurement and reporting system.

### Transportation system needs scenarios—a look to the future

To better understand the potential needs of the transportation network over the next 10 years, the Commission asked staff to develop alternative scenarios to define how the network would function at different investment levels. The scenarios helped answer the question of what would happen if the Commission recommended no change in funding or recommended additional investment to achieve certain specific outcomes by the end of 2023—for example, a certain level of road condition or transit service.

The information presented in the four needs analyses allowed the Commission to begin to consider the funding needed to address specific goals for the transportation network. In addition, this information provided a basis of shared understanding for commissioners as they developed their recommendations.

Table C outlines the scenarios, their underlying assumptions, and the transportation network outcomes and conditions associated with each scenario.

**Table C: Needs Analysis Scenarios**

Scenario Description and Assumptions	Scenario Outcomes/Conditions	Funding Need 2014–2023
<p><b>Scenario One-Disinvestment</b> highlights the impacts of holding the mix of transportation program expenditures constant at FY 2013 levels from FY 2014 through 2023. The main assumption underlying the scenario is to maintain funding for each modal program and sub-program at the same level as in FY 2013.</p>	<ul style="list-style-type: none"> <li>» The loss of purchasing power associated with this scenario will result in deterioration of the state’s transportation network. Total purchasing power over the 10 years is reduced by 15.7 percent to reflect the impact of inflation on flat funding levels.</li> <li>» The condition of state trunk highway pavements will grow worse; miles of pavement in poor or worse condition will double, encompassing 42 percent of the system.</li> <li>» Large projects that address congestion will be delayed, increasing the number of congested highway miles to 776 by the end 2023—a 22 percent increase.</li> <li>» The condition of local highway pavements and bridges will deteriorate.</li> <li>» Funding for transit, passenger rail, harbors and airports will not be adequate to maintain current condition and service levels; system conditions will degrade, and service cuts will likely result unless local governments provide the funding to maintain current service levels.</li> </ul>	<p>\$27.0 billion</p>
<p><b>Scenario Two-Preservation</b> highlights funding needs associated with preserving the current transportation services and physical condition of the transportation system from FY 2014 to 2023. Funding is increased over the 10-year period to hold transportation network conditions and services at current levels. However, under this scenario, funding is not available for roadway congestion, resulting in more congested miles at the end of the period.</p>	<ul style="list-style-type: none"> <li>» Miles of state trunk highway in fair or better condition hold steady at 86 percent; poor conditions also hold steady at 14 percent.</li> <li>» Bridge conditions are unchanged, with 96 percent in fair or better condition.</li> <li>» Congestion on the state highway system increases 49 percent to 944 miles.<sup>i</sup></li> <li>» Conditions on the local system remain the same, but local governments may be challenged to address the impacts of overweight vehicles on their system.</li> <li>» Funding for all modes is adjusted for inflation, with SHR, maintenance and operations, transit, aeronautics, freight rail and harbors receiving further increases to maintain conditions.</li> </ul>	<p>\$30.8 billion</p>

<sup>i</sup> Congested miles are greater under Scenario Two because all spending on capacity is taken out of Scenario Two. Scenario One continues to have current levels of funding for capacity projects, albeit reduced over the 10-year period due to lower purchasing power.



**Table C: Needs Analysis Scenarios**

<p><b>Scenario Three-Capacity Management</b> highlights the funding needs associated with preserving current state highway congestion levels and improving maintenance and operations services from FY 2014 to FY 2023. This scenario builds on Scenario Two. The additions under this scenario are to keep the level of congestion on the state highway network the same in 2023 as it is in 2013 and to upgrade maintenance and operations.</p>	<ul style="list-style-type: none"> <li>» This scenario keeps the number of congested miles on the state highway network at 2013 levels.</li> <li>» Highway maintenance and operations service levels are increased, allowing consistent investment in all major categories, including critical safety projects. Compass grade levels increase to an “A.”<sup>ii</sup></li> <li>» As in Scenario Two, the state and local highway system is maintained to at least current conditions and all modes receive inflation adjustments to their funding.</li> </ul>	<p>\$40.3 billion</p>
<p><b>Scenario Four-Multimodal Enhancements</b> highlights the funding needs associated with better addressing transit needs from FY 2014 to FY 2023, implementing the NextGen<sup>iii</sup> air traffic control system as required by the Federal Aviation Administration, and further improving the state-owned rail system and the infrastructure of Wisconsin’s commercial ports.</p>	<ul style="list-style-type: none"> <li>» All assumptions associated with Scenario Three are retained.</li> <li>» Service levels are restored to Calendar Year (CY) 2000 levels for the Milwaukee County Transit System (MCTS), funding needs for transit capital are met, the percentage of transit operating costs covered by federal and state assistance is brought back in line with previous policy goals.</li> <li>» Airport infrastructure improvements are made to implement the Federal Aviation Administration’s NextGen initiative and incentives are provided to assist with the installation of upgrades to on-board equipment for the general aviation sector.</li> <li>» State-owned freight rail facilities are improved to allow moderate operating speeds and upgrade deteriorating bridges to handle the higher weight carloads necessary for rail companies to operate efficiently.</li> <li>» Commercial port infrastructure is improved by implementing high priority improvements consistent with local harbor development plans.</li> </ul>	<p>\$42.1 billion</p>

<sup>ii</sup> The department’s quality assurance and asset management program (Compass) uses existing data and statistical sampling to gather information on highway conditions, reports on conditions, and sets targets under existing budget levels.

<sup>iii</sup> NextGen is a satellite navigation system that provides pilots the precise locations of other airplanes around them, allowing more planes in the sky and enhancing the safety of travel. Satellite landing procedures allow pilots to arrive at airports more predictably and more efficiently. NextGen must be implemented by January 1, 2020.

With the needs analysis scenarios as a framework, the Commission reviewed the department’s projection of available revenues (state, federal and bonding) expected over the 10-year period to determine the revenue gap associated with each needs scenario. Table D outlines the funding gap between projected revenues and the actual funding needs associated with each needs scenario.

<b>Table D: Revenue Gap in Needs Analysis Scenarios (\$ in billions)</b>			
<b>Condition (End of 2023)</b>	<b>Funding Need (2014–2023)</b>	<b>Current Available Revenues (2014–2023)</b>	<b>Revenue Gap based on 10-year Needs</b>
Scenario One Disinvestment	\$27.0		-\$2.04
Scenario Two Preservation	\$30.8		-\$5.84
Scenario Three Capacity Management	\$40.3	\$24.96	-\$15.34
Scenario Four Multimodal Enhancements	\$42.1		-\$17.14

## Commission principles for moving forward

At its first meeting, the Commission carefully reviewed the Legislature’s charge for its work. The Legislature asked that the Commission address several key issues:

- The cost of funding state and local highway, bridge and other assistance programs over the next 10 years;
- Transportation Fund revenue and debt projections over the next 10 years;
- Options for increasing Transportation Fund revenues or adjusting Transportation Fund spending over the next 10 years to achieve a stable balance between expenditures, revenues and debt service; and
- Assessing the impacts of highway and project planning on landowners.

The Commission agreed to a work plan and developed a set of recommendations underpinned by several overarching goals to:

- Invest in the future by preserving and improving the multimodal system;
- Invest in safety—above all, the transportation network must be safe;
- Create a responsible borrowing policy that controls the growth of debt service;
- Respond to the need of local communities for local funding options for transportation;
- Ensure that transportation user fees and taxes are used only for transportation purposes;
- Consider mode contributions to the Transportation Fund;
- Invest in sustainable mobility for future generations;



*WIS 47, Shawano County*

- Modernize the approach to funding transportation;
- Ensure that citizens can easily obtain information about transportation needs, conditions and investments;
- Ensure that future spending is driven by data and results that are measured; and
- Ensure that the department reports on its progress and performance.

The political sensitivity of raising taxes and fees added to the Commission's sense of responsibility for making sound policy, funding and finance decisions. They sought a comprehensive understanding of current programs and their challenges and the transportation needs of Wisconsin residents, businesses, public officials and transportation stakeholders. They reviewed the policies and procedures of other states and looked for innovative ways to improve Wisconsin's transportation programs.

Commissioners met for 14 months and held 12 public meetings; they heard transportation experts discuss transportation revenues and spending in Wisconsin and other states. In addition to the 12 public meetings, commissioners met in work groups to devote more time to developing and refining policy recommendations.

Four focus groups on the highway system and one on transit services met to discuss their level of satisfaction with and opinions on transportation spending. The Commission reviewed the comments of focus group participants to learn more about citizen perspectives on transportation issues. The Commission also held public listening sessions in Madison, Milwaukee, Appleton and Eau Claire and heard from public officials and citizens in these areas. More than 100 residents participated in the public listening sessions.

Transportation experts and industry stakeholders from around the country provided input. The meetings were open to the public, and materials were made available both at meetings and on a public web site. In addition, the Commission's electronic mailbox was always open to receive comments. Over the past year, many Wisconsin residents added comments via the mailbox. The comprehensive public outreach process allowed individuals and groups with varied interests to offer input on transportation issues. While it is difficult to address every need expressed, the Commission's goal was to reach consensus on recommendations that would provide the greatest good to the most people in the state.

Following is the report of the Commission in four sections:

- Section I summarizes the current state of Wisconsin's transportation system in terms of multimodal needs, accountability and funding availability.
- Section II identifies the state's unfunded transportation needs over the next 10 years based on changing demographics and economic considerations.
- Section III discusses revenue options and the impact of those options on the typical Wisconsin driver.
- Section IV presents the findings, recommendations and concluding perspectives of the Commission.

These recommendations are meant to provide a foundation for legislative action on transportation policy, funding and financing for the next decade.



## Commission members

*Front row, left–right: Dave Cieslewicz, Martin Hanson, Mark Gottlieb, Craig Thompson, Tom Carlsen*

*Back row, left–right: Barbara Fleisner LaMue, Robb Kahl, Tom Vandenberg, William Hanson, John Antaramian, Robert Cook*



# Section I:

## The current transportation picture— the 2011–13 biennial budget

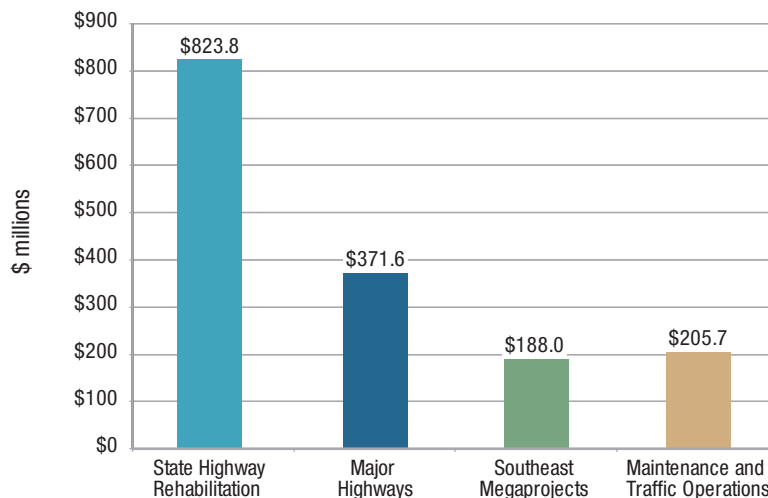
### Current system investment defined— transportation spending in five parts

*Over the course of several months, commissioners reviewed the state’s modal transportation programs, which comprise the majority of the state’s transportation spending. What follows are current funding and policy challenges of the modal programs based on the current biennial budget.*

#### 1. State highways

The 2011–13 biennial budget (2011 Wisconsin Act 32) provides over \$3.2 billion to plan, program, design, construct, preserve, operate and maintain the state highway system. Allocated by program, funds provided in the second year of the biennium (FY 2013) become the starting point for funding the next biennial budget. See Appendix B for a map of the state highway system.

Chart I-A: FY 2013 Base Funding for State Highway Programs



Each state highway program faces unique challenges over the 10-year analysis period.

### *State Highway Rehabilitation Program (SHR)*



*WIS 13, Bayfield County*

The SHR program funds highway and bridge improvements on more than 11,800 miles of state trunk and connecting highways, including the Interstate system, constructed in the 1950s and 1960s. A large portion of the Interstate system has either reached the end of its useful life or will do so in the next five to ten years. The costly reconstruction projects required on

the Interstate system consume significant financial resources and sometimes delay needed rehabilitation projects on other state highways. For example, to maintain conditions on the state's highway system including the Backbone system,<sup>1</sup> which includes Interstate miles, will require \$13.5 billion over the 10-year period.

### *Major Highway Development Program (Majors)*



*US 41, Winnebago County*

The Majors program funds high-cost rehabilitation and large capacity projects, excluding southeast Wisconsin freeway megaprojects and high-cost bridges. A major highway project has a total cost of more than \$80 million or a total cost of more than \$32 million involving any of the following:

(a) constructing a new highway 2.5 miles or more in length; (b) reconstructing

or reconditioning an existing highway by either relocating 2.5 miles or more of the existing highway or adding one or more lanes five miles or more in length to the existing highway; or (c) improving to freeway standards 10 miles or more of an existing divided highway having two or more lanes in either direction.

The department makes recommendations for project consideration to the Transportation Projects Commission (TPC), a 15-member body including the Governor, state legislators, and citizens. The transportation secretary serves as a non-voting member. The department's evaluation is based on a project's ability to enhance Wisconsin's economy, improve highway service, improve highway safety, minimize environmental impacts, and serve community objectives. Typically, only projects with serious safety or traffic flow problems on existing facilities are recommended to the TPC. The TPC only recommends projects where construction can start within six

<sup>1</sup> Backbone highways are identified in Connections 2030, the statewide long-range transportation plan, as the multi-lane highways connecting all major population and economic regions of the state.

years. The TPC's recommendations are included in the Governor's budget bill where they are acted on by the State Legislature (enumerated).<sup>2</sup>

The department is currently reporting on 21 major highway projects; however, only 12 have construction scheduled in FY 2013 and beyond. The other nine projects are nearing completion. The department's August 2012 TPC Report showed the cost to complete all currently enumerated projects would be \$3.1 billion.

In November 2011, the TPC approved six new potential major highway projects to be studied for possible future enumeration:

1. I-94, Milwaukee County, from 70th Street to 25th Street
2. I-43, Milwaukee and Ozaukee Counties, from Silver Spring Rd. to WIS 60
3. US 12, Beltline, Dane County, from US 14 to County N
4. I-39/90, Dane, Columbia and Sauk Counties, from US 12 (Beltline) to Wisconsin Dells
5. US 51, Dane County, from US 12, Beltline to WIS 19
6. I-94, St. Croix County, from US 12 to WIS 65

### *Southeast Wisconsin Freeway Megaprojects Program (Southeast Megaprojects)*



*Marquette Interchange, Milwaukee County*

Southeast Wisconsin has some of the busiest highways in the state and the most complex highway infrastructure. Consequently, its highway infrastructure is among the most expensive to replace. Southeast Wisconsin megaprojects are defined as freeway projects in the seven-county southeast region with estimated costs (inflation adjusted) of over \$500 million.

Since 2002, approximately \$489 million in state funds, \$786 million in bond funds and \$1 billion in federal funds were authorized to reconstruct the Marquette Interchange, the I-94 North-South Corridor and the anticipated reconstruction of the Zoo Interchange.<sup>3</sup> Based on preliminary projections, southeast megaprojects could consume an average of \$250–\$300 million annually for 20 years or more. Southeast megaprojects must be enumerated in the *Wisconsin State Statutes* prior to construction.

<sup>2</sup> In some cases, a project only needs approval by the TPC to be included in the Major Highway Program.

<sup>3</sup> The Marquette Interchange was completed before the Southeast megaprojects program was created.



## State Highway Maintenance and Traffic Operations Program



General maintenance<sup>4</sup> involves the daily or periodic repair and upkeep of state trunk highways. In winter, county workforces under contract with the state plow snow, control drifting, and apply de-icers. The state purchases de-icing chemicals directly and provides them to counties for use on state highways. Counties are reimbursed for

their work based on labor and machinery costs and materials supplied. Private contractors (disabled citizens participating in sheltered work centers) perform the maintenance of year-round rest areas and other roadside facilities.

The department uses a level-of-service model to estimate funds needed for maintenance activities provided by counties. Every year, the gap between estimated needs and available funding represents a funding shortfall. In part, the shortfall is caused by:

- Location-specific system growth combined with reconstruction projects that have included wider shoulders, longer ramps, added lane miles, new lighting and decorative features, all requiring more maintenance;
- County crews performing night work in high traffic areas, which is more expensive due to wage premiums and the need for lighting; and
- Installation of median barriers along divided highways, also requiring maintenance.

These and other increased demands, coupled with winter maintenance, have required highway maintenance program supplements four times in the last ten years.

The traffic operations program works to improve safety, manage congestion, mitigate delays, enable transportation emergency response, warn and guide motorists, and optimize operational performance of the transportation infrastructure. Traffic control and intelligent transportation systems (ITS) improvements are integral to highway safety. Improvements to traffic control systems are typically addressed as part of specific improvement projects. Discretionary ITS funding previously available from the Federal Highway Administration was discontinued in 2011.

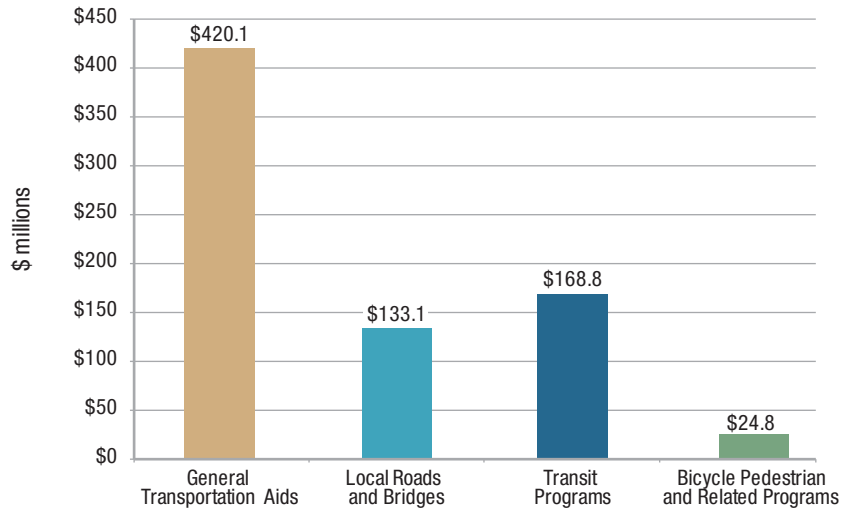
<sup>4</sup> Roadway surface, base and shoulder repair; minor bridge repair; emergency repairs and accident clean-up; drainage, culvert maintenance, erosion control measures; repair of guard rail and safety features; ferry and lift bridge operation; repair of damaged traffic signs and other roadway features; maintenance of rest areas, tourist information centers, waysides, scenic overlooks and historical markers, including parking, picnic, and toilet facility improvements; mowing and weed control; brush and tree removal; litter pick-up; and plantings and landscaping in rest areas and other areas.

2001 Wisconsin Act 16 mandated that highway signs, lighting, ITS, pavement marking and traffic signals be financed from the highway maintenance program rather than the SHR program unless incidental to a larger highway improvement project. The 2001 Wisconsin Act 16 language has restricted direct investment in solutions to address some traffic operations needs. In addition, decisions to make capital investments in the highway improvement program have been made without upfront consideration of the ongoing operating and basic maintenance costs for highway projects.

## 2. Local roads, bridges and transit

The 2011-13 biennial budget provides nearly \$1.5 billion for local roads and bridges, transit programs, bicycle and pedestrian programs and general transportation aids.<sup>5</sup>

Chart I-B: FY 2013 Base Funding for Local Roads, Bridges and Transit



City of Marshfield, Wood County



Onalaska/Holmen/West Salem Public Transit

<sup>5</sup> Of the \$420.1 million in GTA category funds, \$16.6 million is used for Connecting Highway Aids, Lift Bridge Aids, County Forest Road Aids, Flood Damage Aids and Expressway Policing Aids for Milwaukee County.

## General Transportation Aids



*Brady Bridge, Milwaukee*

GTA is the only state transportation program that provides funding directly to all 1,922 local units of government. Under GTA, a portion of state-collected transportation revenues from fuel taxes, vehicle registration and other fees is returned to local governments. GTA payments cover a portion of local highway transportation costs, including maintenance, operation and construction of local roads, streets and highways.

Funds are distributed based on a legislatively determined share-of-costs (SOC) or rate-per-mile (RPM) formula. Counties are paid under the SOC formula and municipalities under either the SOC formula or the RPM formula, whichever yields a greater share.

The Legislature set the rate per mile for calendar years 2012 and 2013 at \$2,117. The share-of-costs percentage floats from year to year based on costs reported and funds remaining after rate-per-mile entitlements are deducted. In calendar year 2012, municipalities received a total of \$308.9 million and counties shared in the distribution of \$94.6 million in state aid. Because of their generally lower costs, almost all town governments receive GTA on the RPM formula, whereas cities and villages typically receive SOC payments. The rate-per-mile payments are made first, and funds left over in the appropriation are distributed to municipalities using the SOC formula. This typically results in municipalities on the RPM system receiving reimbursement for a much larger percentage of their costs.

In calendar year 2012, counties were reimbursed for 19.7 percent of their eligible expenses, and municipalities an average of 21.4 percent. Table I-A breaks down these percentages by governing body and formula used to determine reimbursement amounts.

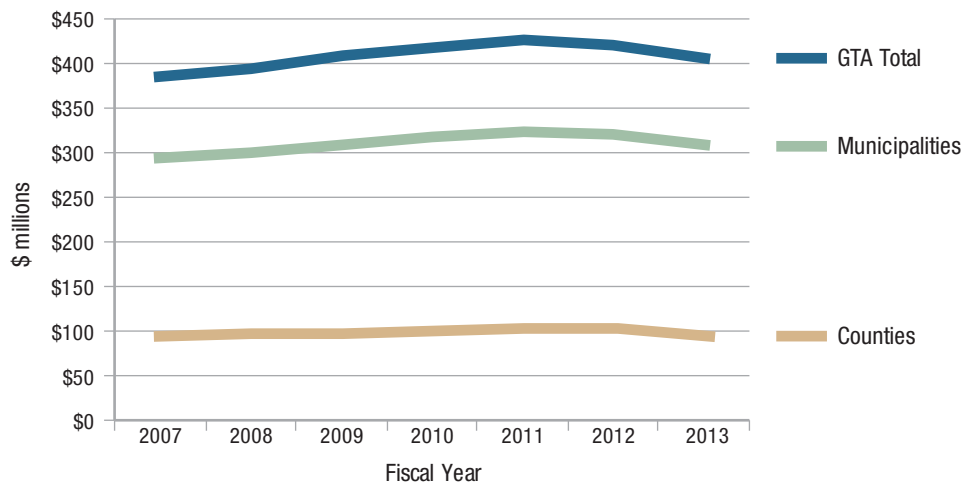
**Table I-A: GTA Reimbursement Rates to Counties and Municipalities (Percentage of Eligible Expenses Reimbursed in Calendar Year 2012)**

<b>Counties</b>	19.69%		
<b>Municipalities</b>	21.44%		
190 Cities		15.76%	
189 on SOC			15.75%
1 on RPM			24.68%
405 Villages		16.01%	
311 on SOC			15.84%
94 on RPM			21.12%
1,255 Towns		40.36%	
29 on SOC			15.97%
1,226 on RPM			43.66%

Municipalities are limited to receiving state aid equal to no more than 85 percent of their three-year average eligible costs under either the RPM or SOC formula. The minimum and maximum cushions in the formula ensure that local governments can receive increases from their previous year's payments up to 15 percent, with payment reductions limited to 10 percent of the previous year's payment. The statutory intent is to provide a measure of predictability and stability to GTA payments.

Chart I-C provides a funding history of the General Transportation Aids program from 2007 through 2013.

Chart I-C: Annual GTA Program Funding History (state funds)



### Local Road and Bridge Programs



New Glarus, Green County

In addition to GTA, the department funds local highway and bridge improvements on 103,000 miles of county highways, city and village streets, and town roads using a combination of federal and state funds. All local improvement projects funded by the department must be built to appropriate roadway standards based on state and federal requirements<sup>6</sup> and must adhere to program requirements. In some cases, federal rules and regulations mandate additional requirements. The department oversees the contract letting process for all local projects except those in the Local Roads Improvement Program (LRIP), which are let locally.

<sup>6</sup> Unless the department grants an exception.



*Miller Valley, Milwaukee County*

The urban and rural Surface Transportation Programs (STP-U and STP-R) fund improvements on federal-aid eligible highways—roads and streets in urban areas and highways outside of urban areas, primarily county trunk highways. This includes projects on higher functioning local roads not on the state highway system, and local safety improvements. The STP-R and STP-U programs are currently administered on a four-year programming cycle. The 2011–14 program cycle provides estimated funding of nearly \$100 million for STP-R projects on roads and streets in rural areas functionally classified as principle arterial, minor arterial or major collector. The program cycle provides over \$169.5 million for STP-U projects on roads functionally classified higher than “local.”

STP projects include 80 percent federal funding, though urbanized areas of 50,000 or more in population frequently pay more than the required 20 percent share. STP and local bridge improvements are generally made on existing roads and bridges, though new facilities or logical connections are sometimes allowed. STP projects typically address higher level projects that require a significant funding commitment. The department’s five regional offices solicit and approve STP projects in odd-numbered years.

LRIP is a reimbursement program, which pays up to 50 percent of total eligible project costs, with the balance paid by the local unit of government. Eligible project costs include reconstruction and rehabilitation costs. Only work on existing county trunk highways, city and village streets, and town roads under authority of the local government is eligible. Maintenance, new construction, and improvements to alleys or parking lots are not reimbursable. Projects must be included in a local improvement plan and have a projected design life of at least 10 years.

LRIP entitlement funds are available in three areas: the County Highway Improvement Program (CHI); the Municipal Street Improvement Program (MSI), and the Town Road Improvement Program (TRI). The 2011–13 biennial budget provides \$32.4 million in LRIP entitlement funds and \$23.7 million in LRIP discretionary funds,

which includes state and local contributions. LRIP projects are substantially lower in cost than STP projects. They are selected and prioritized at the local level.

As budgets become tighter, local governments are less able to fund the local match and project costs prior to reimbursement. The local and regional governments set their own priorities for funding a wide range of projects under their jurisdictions, from gravel and dirt roads to multi-lane paved highways and streets.

### Transit Programs

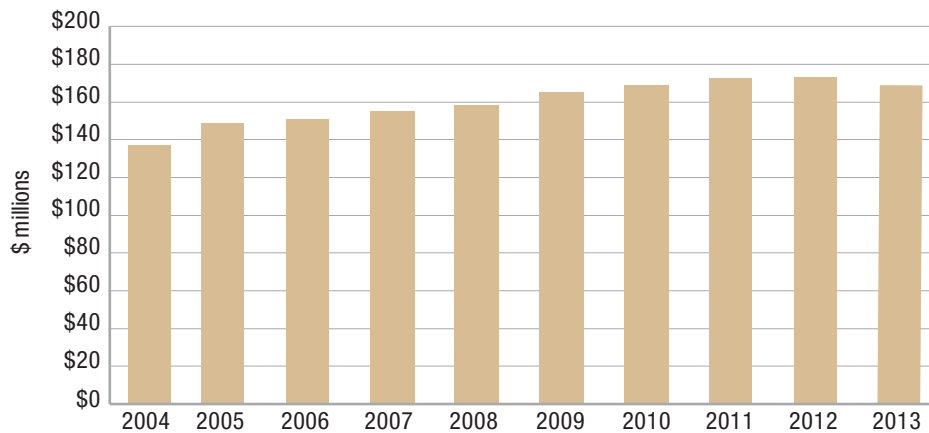


Oshkosh Transit System

The 2011–13 biennial budget provides \$221.7 million for mass transit operating aids, reflecting a 10 percent reduction over calendar 2011 aids. Another \$76.9 million is provided for other transit aids.

Chart I-D compares overall transit funding levels from FY 2004 through FY 2013.

Chart I-D: State Transit Funding FY 2004–2013



The state’s 81 public transit systems are depicted in the map in Appendix C. Seventy-six public transit systems receive both state and federal funding. They include 46 shared-ride taxi service providers, 18 urban bus systems, eight rural and small urban bus systems, and four commuter bus systems. Five rural bus systems receive federal funding only because they do not meet the eligibility requirements for state funding.<sup>7</sup>

<sup>7</sup> There is a difference in the state and federal definitions of “urban” and “rural.” Under state law, a transit system must serve an urban area of 2,500 or more in population to be eligible for state operating assistance. Rural areas are defined as less than 2,500 and no state transit program serves this population. Under federal law, urban areas of 50,000 or more in population are eligible for 5307 urban operating assistance; and rural areas of less than 50,000 in population are eligible for 5311 rural operating and capital assistance.

Specialized transit serves a target population, generally the elderly and disabled. The department funds over 130 specialized transit services, typically operated by county governments and a few non-profit organizations. Examples include senior buses, employment shuttles for the disabled, and volunteer driver organizations. Specialized transit projects are found in all 72 counties in Wisconsin.

The department provides oversight and technical assistance to local governments and non-profit organizations providing transit services. It does not operate or contract for public or specialized transit service, with the exception of intercity bus service. For public transit systems, local governments either operate the service themselves or contract with private providers. Over half of the state's 81 public transit systems are operated by private providers. Most specialized transit services are delivered by counties. A local project sponsor provides a local funding share for each public or specialized project. Much of the regional, intercity and rural transportation needs go unmet because communities are challenged to provide the local funding share for transportation costs outside their physical boundaries.



*Madison Metro Transit*

Transit issues extend beyond local boundaries. People travel via transit across political boundaries, and complex contractual arrangements are often needed between municipalities to provide regional mobility. Regional mobility depends on the level of property taxes that can leverage state and federal assistance. This is because the local share of transit funding comes from general funds, which are usually sourced by property taxes, and because statutes determine that an urbanized area can include all municipalities that contribute a local share. The result is a lack of regional stability as local investment fluctuates.

State law defines the tiered structure under which the department distributes state funding for operating assistance. The “tier system” is the mechanism by which the department distributes public transit operating assistance to the different sub-groups of transit systems. The tiers are as follows:<sup>8</sup>

- Tier A1—transit systems with \$80 million or more of operating expenses (Milwaukee County);
- Tier A2—transit systems with operating expenses between \$20 and \$80 million (Madison);

<sup>8</sup> Tier A-3 exists as a placeholder for future commuter or light rail systems as described in s. 85.062(3), Wis. Stats. (This could include Dane County commuter rail or any project resulting from the Milwaukee Downtown Transit Connector Study of the Wisconsin Center District.) Currently, no transit systems meet the definition of this tier.

- Tier B<sup>9</sup>—transit systems operating within an urbanized area of at least 50,000 in population, excluding Tiers A1 and A2; and
- Tier C<sup>10</sup>—transit systems operating within an area of less than 50,000 in population.

The department must ensure a uniform percentage distribution of state and federal operating assistance for transit systems in Tiers B and C. Since 2002, the uniform tier percentage has declined. Wisconsin has no dedicated state funding for transit capital needs (buses, facilities and equipment). In the past, local public transit systems relied largely on federal discretionary programs to provide federal assistance for capital items.

### *Bicycle and Pedestrian Facilities Program*



*Bicyclist, Dane County*

Wisconsin funds bicycle and pedestrian facilities through targeted programs and through state highway and bridge projects and local highway, street, road and bridge projects. Section 84.01(35), Wis. Stats., and TRANS 75, Wisconsin Administrative Code, require the department to ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole

or in part from state or federal funds. This is true except where facilities are prohibited, costs are excessive, the environment is constrained, there is no need, or the community does not agree to maintain them. Consideration for the inclusion of bicycle and pedestrian (bike/ped) facilities in projects is becoming integral to project planning.

The primary targeted funding programs for bike/ped facilities are under the federal Transportation Alternatives (TA) program and the Congestion Mitigation and Air Quality Improvement (CMAQ) program. Based on MAP-21 formula tables, Wisconsin will receive approximately \$18.9 million in FFY 2013 and 2014 under the TA program, an amount equivalent to two percent of the state's total authorized formula funds. As a comparison, the department received nearly \$25 million from similar programs under the previous federal authorization. As with other modes, the local ability to pay project costs upfront and to provide matching funds continues to be a significant issue. The effective management of local program funds requires a coordinated effort on the part of the state and its local partners, particularly since the federal programs that fund bike/ped projects have different eligibility rules, local matching requirements, funding amounts, and timeframes.

<sup>9</sup> Tier B systems include: Appleton, Beloit, Chippewa Falls, Eau Claire, Fond du Lac, Green Bay, Janesville, Kenosha, La Crosse, Monona, Onalaska, Oshkosh, Racine, Sheboygan, Stoughton, Sun Prairie, Superior, Verona, Waukesha, Wausau, Counties of Ozaukee and Washington.

<sup>10</sup> Tier C systems include: nine bus systems (Bay Area Rural Transit Commission, Manitowoc, Merrill, Stevens Point, Counties of Rusk, Sauk, Sawyer, Dunn and the Menominee Indian Tribe of Wisconsin) and 39 shared ride taxi systems.

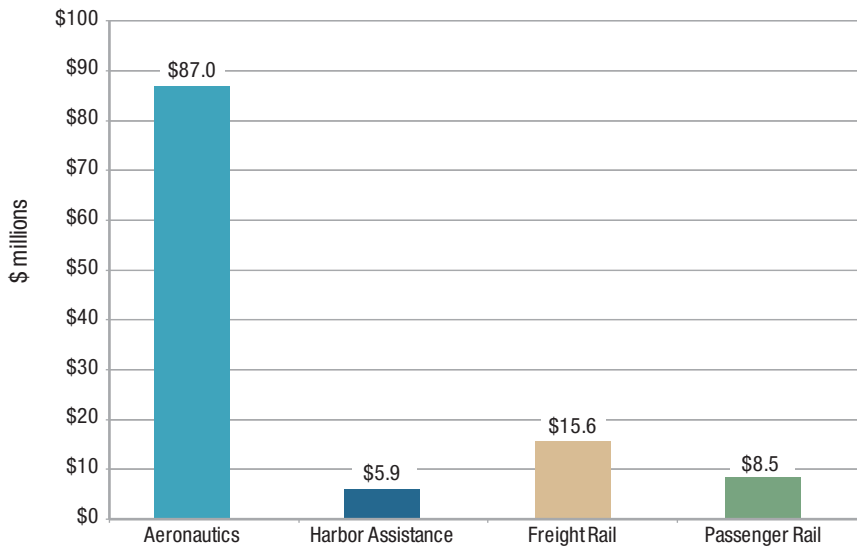


### 3. Freight and multimodal



The 2011–13 biennial budget provides \$234 million in funding for the following freight and multimodal programs:

Chart I-E: FY 2013 Base Funding for Freight and Multimodal Programs



#### *Multimodal Freight Network*

To preserve and improve the state's multimodal freight transportation network, the department funds diverse, mode-specific programs to support investment in freight infrastructure. These programs receive a combination of state and federal funds and target Wisconsin's state highways and bridges, local roads and bridges, railroads, waterways and airports. In recognition of the need for more coordination, the department has created an interdepartmental freight transportation committee to serve as a forum for sharing freight-related activities across the department, monitoring project commitments, and providing policy guidance.

## Aeronautics Program



Wausau Downtown Airport

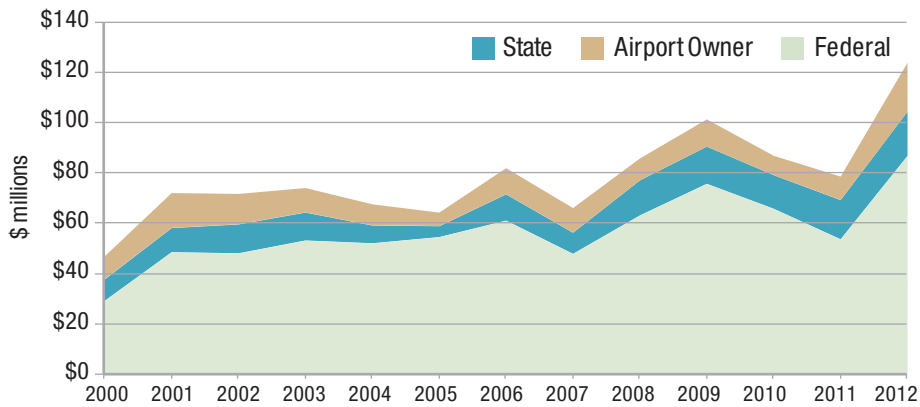
Wisconsin airports serve commercial passengers; charter, private and corporate operations; mail and other cargo services; and agricultural, recreational and emergency responders. Ninety-eight Wisconsin airports are eligible for federal and state airport improvement aid; eight provide scheduled passenger service. These

eight Air Carrier airports and 78 other Wisconsin airports are eligible for federal airport improvement aid. The same 86 airports plus an additional 12 airports are eligible for state airport improvement aid. A map of the state airport system is available in Appendix D.

All airport development funds are channeled through the department. The Federal Aviation Administration's (FAA's) federal Airport Improvement Program (AIP) funds 72 percent of the program through individual federal grants for Air Carrier airports and through a block grant for General Aviation airports. The Advance Land Acquisition Loan Program provides short-term funding for land acquisition in anticipation of a future federal grant. Airport owners share in the cost of all of these projects. In addition, they undertake projects with local funds. Air Carrier airports use passenger facilities charges (PFCs) to help pay for airport improvements.<sup>11</sup>

Chart I-F illustrates Wisconsin's AIP funding levels from 2000 through 2012. As federal AIP funds increase, so does the need for state and airport owner matching funds.

Chart I-F: Airport Improvement Program, 2000 to 2012



<sup>11</sup> PFCs are locally collected but FAA-controlled. The department does not administer this program. All Wisconsin airports will soon charge the current maximum PFC allowed, which is \$4.50.

Wisconsin also offers a state aid program, which is 80 percent state funded and 20 percent airport owner funded. State funds are first set aside for the AIP match. Airport owners prefer federal AIP funds over state aid because their funding share is lower. State aid is often requested only when federal funding is denied, complicating long-range planning for state aid.

The FAA Modernization and Reform Act of 2012, a four-year federal authorization act, capped the federal match for the AIP at 90 percent, down from 95 percent of the previous 10 years. Many airport owners are challenged to meet the larger cost-share requirement.

FAA is implementing the Next Generation Air Transportation System (NextGen), a 10-year federal initiative to move the nation's air traffic control system from ground-based radar to a modern satellite-based system.

NextGen's long-term objective is to achieve a more efficient and precise air traffic control system yielding increases in fuel economy, utility and safety. The FAA is systematically establishing global positioning system-based runway approaches around the country. Funding to clear runway approaches of obstructions, such as trees, will need to come from federal, state or local aid.

Airport owners are responsible for making their airports compatible with NextGen. Wisconsin's Air Carrier airports have most of the needed infrastructure in place, but many General Aviation airports do not. Some airports need to acquire land in their runway approaches. Other requirements will surface as the system is further developed. All aircraft participating in the National Airspace System (NAS) under NextGen will need updated electronics on board by January 1, 2020. This equipment is currently not included in FAA's NextGen budget and remains the responsibility of the aircraft owner.



## Harbor Assistance Program



*Canadian Olympic loading at Superior Midwest Energy Terminal*

The original objective of the Harbor Assistance Program (HAP) was to assist local governments in maintaining publicly owned commercial harbor facilities. Eligibility to participate in HAP was expanded in 2007 to include owners of private commercial harbor facilities. To receive grant funding, owners of privately owned facilities must agree to hold their facilities open for public use for at least 10 years following completion of a harbor

improvement or project. Some commercial ports in Wisconsin are owned and operated by municipalities. The port's land may be owned by a municipality and leased to others for daily operations. Other ports are privately owned. Municipalities with navigable waters within their boundaries may also raise funds through special assessments, bonding, use of available state funds, or local government taxation.

The three-year harbor plans submitted for FY 2012–2014 included grant requests of \$39.9 million, while only \$11.7 million was available in FY 2012 and 2013 program funds. Due to the low water levels of the Great Lakes, more dredging of harbors and channels is needed to maintain an appropriate depth for commercial vessels. This comes at a time of funding constraints for local governments providing the local share and for the U. S. Corps of Army Engineers performing the dredging. In addition, the disposal of dredge materials is challenging as the disposal facilities constructed in the 1970s and 1980s are reaching capacity. See Appendix E for a map of Wisconsin's harbors.

## Freight Rail Assistance Program



The mileage on the state's rail system peaked in the early 1900s with over 8,000 miles of rail corridors. Changes in industry demand and the construction of better roads led to a decline in the rail system to about 3,600 miles today. Of this total, 604 miles are publicly owned and the state has an interest in another 87 miles under the Freight

Rail Preservation Program (FRPP). The map in Appendix F shows the primary operators of Wisconsin's rail lines.

The FRPP provides grants to local units of government, industries, and railroads for preserving rail lines and rehabilitating them following purchase. Under FRPP, the state purchases the underlying real estate and typically provides 80 percent of the cost of track and other improvements. Rail transit commissions provide the remaining

20 percent. The state's goal is to rehabilitate publicly owned rail lines to operate at speeds up to 25 miles per hour and carry rail cars with a gross weight of 286,000 pounds. The rail transit commission enters into an operating agreement with a freight railroad for service.

The department received freight rail project requests totaling \$84.6 million in FY 2012, with \$15 million in program funds available. A significant number of railroad bridges need upgrading to carry modern loadings. Existing and proposed mining operations in the state will put increased demand on the system and will require infrastructure upgrades. Wisconsin's short-line system has a critical need to accommodate heavier car loadings used by Class I railroads. Of particular concern are the 267 bridges on the publicly owned system, many of which are not up to the standards for handling today's heavier rail cars.

The Freight Rail Infrastructure Improvement Program (FRIIP) is a loan program for construction of facilities that will increase the use of a rail line. Loans are made to private industries, railroads, and local governments to improve rail infrastructure and to construct new facilities, with the overall goal of supporting economic development and jobs. Principal and interest is repaid to a revolving fund for subsequent loans. The program provides up to 100 percent of loans for rail projects that:

- connect an industry to the national railroad system;
- enhance transportation efficiency, safety, and intermodal freight movement;
- rehabilitate a rail line; or
- assist economic development.

The interest rate charged is based on the return on investment calculated for the project; currently, the minimum interest rate is two percent. FRIIP loan repayments fund approximately \$5 to \$8 million in new projects each year.

A benefit/cost summary of the 2012 and 2013 grants and loans is provided in Appendix G.

### *Passenger Rail Assistance Program*



*Milwaukee Airport Station*

Wisconsin and Illinois share the cost of supporting the seven daily round trips (six on Sunday) between Milwaukee and Chicago on the Amtrak-operated Hiawatha service. The intercity passenger rail service provides an alternative for travel between the largest cities in each state. In FY 2011, the Hiawatha operating contract was \$6.9 million. Wisconsin's share of that contract was \$5.2 million. Ridership on the Hiawatha service has grown from fewer than 300,000 rides in 1989 to over 838,000 rides in the FY 2012.

## 4. Debt service

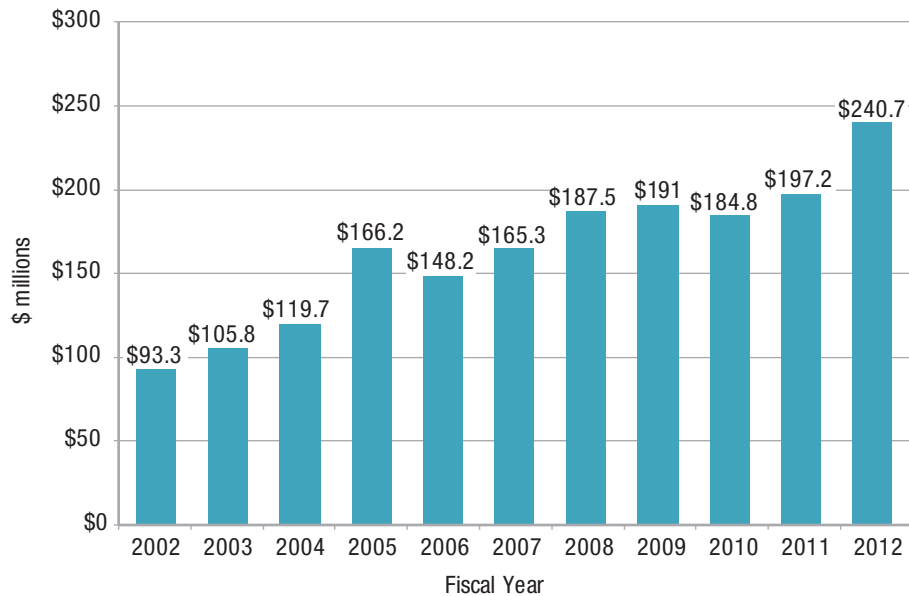
Debt service is the payment of principal and interest associated with the use of bond revenues. The 2011–13 biennial budget includes \$762.2 million for estimated debt service payments for bonds issued that are used to pay for transportation programs. Wisconsin issues bonds to finance projects in the following programs: Southeast Freeway Megaprojects, Majors, SHR, Harbor Assistance, Freight Rail Assistance, and department administrative facilities. The related debt service payments on these bonds are detailed in Table I-B. The Transportation Fund supports 73 percent of the total payments in the biennium.

**Table I-B: Estimated Debt Service in 2011–13 Biennium (\$ in millions)**

Purpose	Fund	Amount
Transportation Revenue Bonds	Transportation Fund	\$415.5
Freight Rail, Harbors and Highways	Transportation Fund	\$50.2
SE Freeway Mega Projects	Transportation Fund	\$91.1
State Highway Rehabilitation	General Fund	\$205.4
	<b>Total:</b>	<b>\$762.2</b>

Bond issuance has grown over the past decade, resulting in higher debt service payments. Commissioners are concerned these payments are becoming a significant, ongoing expenditure in the transportation program because bond repayment of principal and interest is generally a 20-year commitment. Transportation Fund resources devoted to debt service increased from \$93.3 million in FY 2002 to \$240.7 million in FY 2012, an increase of 158 percent. Chart I-G shows the growth in debt service payments over the past 11 years.

**Chart I-G: Debt Service Payments Supported by the Transportation Fund**



## 5. Department operations

The administrative functions of the department include support for the modal and non-modal programs, law enforcement activities of the State Patrol, operations of the Division of Motor Vehicles and the department's internal business management functions. Using FY 2013 as the base year and applying an average annual inflationary adjustment of 0.5 percent, administrative costs are projected to be \$2.5 billion from FY 2014 through FY 2023. Without inflation, the 10-year amount is \$2.4 billion.

## Revenue sources to meet targeted spending levels



*Sturgeon Bay, Door County*

Transportation Fund revenues support all modes of transportation in the state—highways, transit, rail, aviation, harbors, bicycle and pedestrian facilities. The fund also pays the department's costs of administering the various transportation programs.

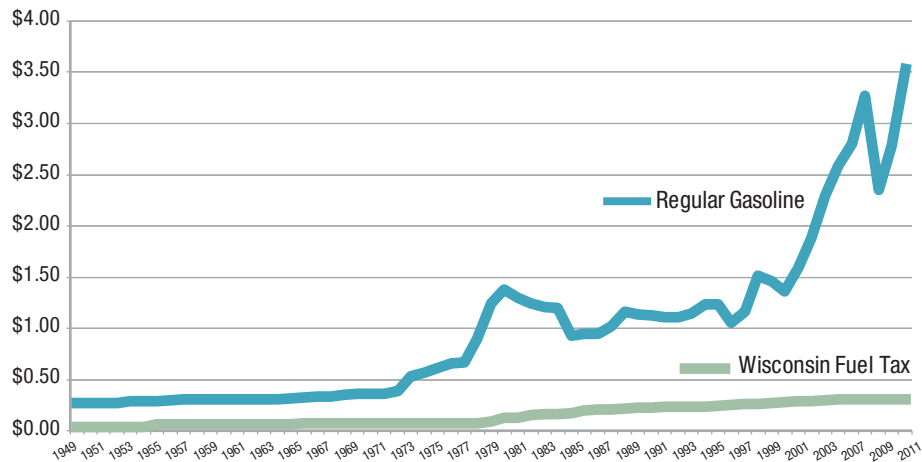
As shown in Table I-C, of the \$3.4 billion collected in state revenues from FY 2010–12, more than 90 percent came from motor vehicle fuel taxes and vehicle registration fees.

**Table I-C: State Transportation Fund Revenues by Source, FY 2010–FY 2012 (\$ in millions)**

Source	FY 2010 Amount	FY 2011 Amount	FY 2012 Amount	Average Annual	% of Total
Motor Vehicle Fuel Taxes	\$971.79	\$988.26	\$983.86	\$981.30	56.1%
Vehicle Registration Fees	\$610.25	\$602.92	\$634.08	\$615.75	35.2%
Driver License Fees	\$41.72	\$41.81	\$40.80	\$41.44	2.4%
Motor Carrier Fees	\$0.91	\$4.18	\$2.45	\$2.51	0.1%
Other Motor Vehicle Fees	\$26.20	\$26.90	\$25.18	\$26.09	1.5%
Aeronautics Taxes and Fees	\$5.91	\$8.14	\$7.62	\$7.22	0.4%
Railroad Ad Valorem Taxes	\$24.06	\$24.81	\$28.09	\$25.65	1.5%
Miscellaneous Revenues	\$33.27	\$42.90	\$70.08	\$48.75	2.8%
<b>Totals:</b>	<b>\$1,714.11</b>	<b>\$1,739.92</b>	<b>\$1,792.16</b>	<b>\$1,748.71</b>	<b>100.0%</b>

As Chart I-H illustrates, for each gallon of gasoline or diesel sold in Wisconsin, 30.9 cents goes to the Transportation Fund, regardless of the total price per gallon. An additional two cents per gallon goes to the Wisconsin Petroleum Inspection Fund. Another 18.4 cents goes to the federal government, a percentage of which is later returned to the state for purposes defined at the federal level.

**Chart I-H: Comparison of the State Gasoline Tax to the Total Price of Gasoline**



Federal funds come into the state from federal agencies associated with each transportation mode. In the 2011–13 biennium, federal funds contributed nearly 26 percent of the state’s total transportation funding. Those federal funds represent:

- 25 percent of the transit program,
- 81 percent of alternative transportation programs such as bike/ped,
- 18 percent of freight, passenger rail and harbor programs,
- 57 percent of the aeronautics program,
- 40 percent of the state highway program, and
- 53 percent of local road and bridge programs.

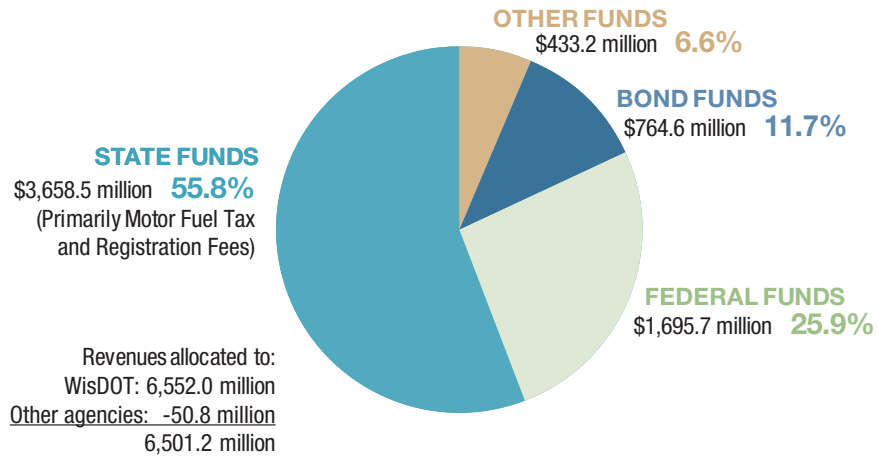
In addition to state and federal revenues, Wisconsin issues two types of bonds for transportation improvements: Transportation Revenue Bonds and General Obligation Bonds. Revenue bonds have been a funding source for the Major Highway Program since 1984. The state pledges vehicle registration and related fees for repayment of the bonds issued. For General Obligation Bonds, a specific repayment source is not identified. The bonds are backed by the full faith, credit, and taxing power of the state. Debt service payments may be made from either the General Fund or the Transportation Fund. The use of General Obligation Bonds has increased in the last several years, particularly for state highway improvement projects.





Chart I-I illustrates the two-year snapshot of transportation revenues in Wisconsin from all sources—state funds primarily from state gas taxes and vehicle registration fees; federal transportation funds; bond funds; and other funds such as transfers from the General Fund.

Chart I-I: 2011–13 Transportation Revenue Sources  
(Total Budget \$6.50 Billion, 2011 Wisconsin Act 32)

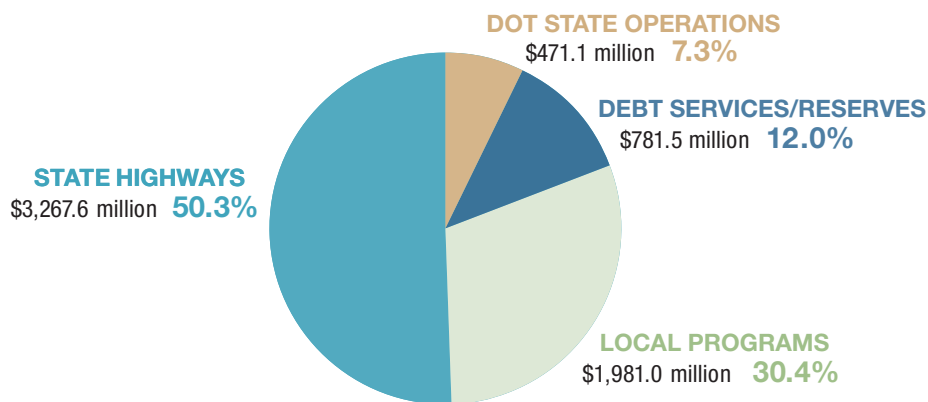




WIS 60, Crawford County

Chart I-J shows how the Legislature allocated spending authority in the 2011–13 biennium. Note that total revenue (\$6.5 billion) in Chart I-I equals total spending authority (\$6.5 billion) in Chart I-J.<sup>12</sup>

Chart I-J: 2011–13 Transportation Budget, All Funds  
(Total Budget \$6.50 Billion, 2011 Wisconsin Act 32)



<sup>12</sup> The **State Highways category** includes State Highway Rehabilitation, Major Highways, Southeast Wisconsin Freeway Megaprojects, Major Interstate Bridge Construction, and High Cost Bridge Construction.

The **Local Programs category** includes General Transportation Aids, Local Road Improvement/Local Transportation Facility Improvement Assistance, Highway and Local Bridge Improvement Assistance, Special Highway Aids, Transit, Elderly and Disabled Transportation Aids, Aeronautics, Rail, Harbors, Congestion Mitigation and Air Quality Improvement, Transportation Enhancements, Transportation Facilities, Economic Assistance and Development, and Bicycle and Pedestrian Facilities.

## Bonding used to move projects forward

Bond financing allows the state to realize the economic benefits of a project more quickly, particularly when a project would otherwise be delayed because of insufficient cash resources. Bond financing for improvements with a significant useful life spreads the improvement costs to users who benefit from the construction over a longer period of time, through the payment of principal and interest. Wisconsin issues bonds to support a variety of transportation programs: freight rail, harbor improvements, and various improvements to the state trunk highway system.

The 2011–13 biennial budget includes almost \$764.6 million in bonding for various programs. Table I-D identifies the bonding provided and the source for repayment of the bonds issued.

Table I-D: General Obligation Bond Uses		
Program	2011–13 Biennial Budget	Debt Service Repayment
State Highway Rehabilitation	\$115,351,500	General Fund
State Highway Rehabilitation <sup>i</sup>	\$81,000,000	Transportation Fund
Major Highway Development	\$50,000,000	Transportation Fund
Southeast Mega Projects	\$151,200,000	Transportation Fund
Freight Rail Improvements	\$30,000,000	Transportation Fund
Harbor Improvements	\$10,700,000	Transportation Fund
<b>Total</b>	<b>\$438,251,500</b>	

Transportation Revenue Bond Uses		
Program	2011–13 Biennial Budget	Debt Service Repayment
Major Highway Development	\$314,443,200	Pledged Transportation Fund Revenues
DOT Administrative Facilities	\$11,880,000	Pledged Transportation Fund Revenues
<b>Total</b>	<b>\$326,323,200</b>	

<sup>i</sup> Restricted to reconstruction and bridge and pavement replacement projects

In the past, Transportation Fund revenues of nearly \$1.4 billion were transferred to the General Fund to support non-transportation-related programs. In return, the department was given General Obligation bond authority to protect against significant program reductions.

As shown in Table I-E, the net loss to the Transportation Fund of these transfers was \$135.2 million.

	<b>2003–05</b>	<b>2005–07</b>	<b>2007–09</b>	<b>2009–11</b>	<b>2011–13</b>	<b>Total</b>
Transfers and Appropriations	(682.6)	(431.7)	(162.0)	(125.6)	0.0	(1,401.9)
Less General Obligation Bonds	565.5	250.0	50.0	204.7	115.4	1,185.6
Transfers to the Transportation Fund	0	0	0	0	125.0	125.0
Transportation Fund Debt Service	(43.9)	0	0	0	0	(43.9)
<b>Totals</b>	<b>(\$161.0)</b>	<b>(\$181.7)</b>	<b>(\$112.0)</b>	<b>\$79.1</b>	<b>\$240.4</b>	<b>(\$135.2)</b>

Debt service must be paid on bonds and is a “first draw” on the Transportation Fund. While bonds can be used to expand funding available for transportation projects in a given year, debt service on the bonds will create a draw on the funds for decades after the bond revenue is available.

## Unmet transportation needs by program

Without additional funding for Wisconsin’s transportation programs over the next decade, network conditions and safety will deteriorate and system needs will grow in all modes. The Scenario One (Disinvestment) needs analysis assumes funding for the department’s modal programs from all sources is held constant at FY 2013 levels and funds are allocated among modes as they are today. Over the next 10 years, purchasing power is reduced 15.7 percent to reflect the impact of annual inflation.<sup>13</sup> The table in Appendix H illustrates the loss of purchasing power that contributes to deterioration of the transportation network when the mix of program expenditures is held constant at FY 2013 levels over the upcoming decade.

The overall result of disinvestment, under which modal program funding is held constant at \$2.45 billion each year through FY 2023, is a deteriorating transportation network. The loss of purchasing power negatively impacts department services and the individuals and businesses that rely on those services.



On the state highway system, deferred surface maintenance and repair results in pavement conditions deteriorating, road surfaces becoming rougher, pot holes and cracking taking longer to repair, and roads currently in “good” or “better” condition decreasing by 35 percent.

<sup>13</sup> Inflation rates used vary by program and are consistent with national economic forecasts and department experience.

Many safety improvements are delayed, resulting in more crashes, fatalities and injuries. Currently enumerated major highway projects are not completed until the end of the decade; the Zoo Interchange project is delayed; the I-94 North-South project is delayed five years; and congestion worsens. Bridge conditions are unchanged as they are considered a top priority. Funds are inadequate to maintain the electronics associated with warning and informational signs; over time, these signs fall into disrepair. Snow removal and other routine maintenance activities are slowed.



*US 41, Winnebago County*

There is pressure on local property taxes to absorb a greater portion of transit operating costs. Unless local governments can raise transit taxes and fares to make up for shortfalls, transit service declines and the percentage of the population served by transit decreases. Populations dependent upon transit for transportation to jobs, medical appointments, and other daily functions are at increased risk. Bicycle facilities deteriorate and new bicycle accommodations are delayed. Local highway pavement and bridge conditions deteriorate, needed safety improvements are delayed and routine maintenance activities curtailed. Snow removal continues but at reduced service levels.

In addition, service frequencies are cut on the Hiawatha passenger rail line between Chicago and Milwaukee, and standing-room-only conditions increase, as do fares. Upgrading 50 percent of the state-owned freight rail system that is currently limited to operating speeds of 10 miles per hour or less is slowed. The rate at which deteriorating bridges can be replaced is also slowed. Rail-dependent industries are paying higher shipping costs, and freight that could be diverted from the highway system with a more efficiently operated state-owned rail system remains on the highways longer, waiting for necessary rail investments and increasing highway congestion.

Aviation priorities are focused on federal safety mandates and keeping runways in good condition. There is increasing pressure to fund projects for commercial airports since fees generated by their operations are the source of much of the FAA budget; funds for General Aviation airports are reduced. Wisconsin is unable to construct the infrastructure improvements needed to implement the NextGen satellite-based air control system on schedule.

The Commission believes that Wisconsin citizens and businesses deserve more than the disinvestment scenario can provide. In reality, if funding were held at FY 2013

levels over the next 10 years, the department, the Legislature and the Governor would need to work together to impose new priorities. Ultimately, the Commission believes this scenario would result in a transportation network that is less reliable than what is necessary to keep Wisconsin moving.

## Current imbalance between available funding and program needs

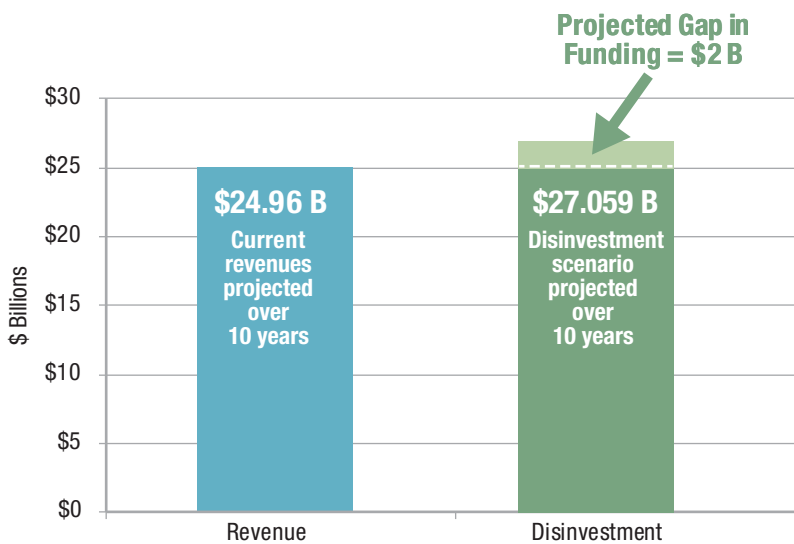


As noted, without additional funding over the next decade, 15.7 percent of the state's current purchasing power for transportation infrastructure will be lost. Other factors point to the need for new funding sources to support the transportation network. As needs grow for all modes, the state cannot rely on its narrow motor vehicle fuel tax and

vehicle registration fee base to provide natural funding growth when both statewide vehicle miles traveled (VMT) and the number of vehicle registrations are essentially flat. Further, a reliance on bonding at current levels is not sustainable into the future.

Chart I-K illustrates the \$2 billion gap between projected revenues and spending outlined in Scenario One (Disinvestment) over the next decade, assuming no changes over the FY 2013 base or in the allocation of those funds to programs. The Commission agreed this scenario is an unacceptable outcome for the state's transportation network.

Chart I-K: Projected Revenues versus Expenditures in Disinvestment Scenario



## Accountability—department efforts to manage resources, measure performance and report results

### Stewardship and best practices

In their review of the department's program administration, commissioners emphasized the need to survey other states to identify best practices and to adopt efficiencies resulting in cost savings or improved service.<sup>14</sup> They agreed to focus on the department's stewardship of its existing dollars and to review other department stewardship efforts.

The Commission found that the department has initiated asset management processes and practices to promote responsible stewardship. High-level policies, long-term goals, and general priorities based on system condition and safety are in place to guide system investment. Over 20 years, the department has increased its reliance on data-driven asset management processes to inform its decision-making. Asset management models integrate and prioritize pavement, bridge, safety, and congestion data. The department's goal is to maintain serviceability in a way that maximizes long-term system health at the lowest cost.

### Project delivery



*Hwy 40 bridge construction, Chippewa County*

On every highway project, the department strives to improve the quality of design and construction and efficiency of project delivery. A particular focus is directed to higher cost major projects as their overall complexity provides greater opportunities for innovative solutions that can bring substantial cost savings. Major projects typically involve reconstruction of in-place facilities and finding novel approaches to minimize disruption to users during construction. New techniques and cost saving measures tried and implemented on major projects often find their way into use on smaller, more routine projects. See Tables 1, 2 and 3 in Appendix J for project information highlighting the success of the department's efforts over the past two years to save costs, improve efficiency in delivery, and accelerate project completion.

<sup>14</sup> Commission issue papers include information on other states' practices. Links to those papers are provided in Appendix A.



The department works to implement new technologies and advance innovations that make economic sense, improve safety, and reduce construction time. Tables 1 and 2 in Appendix J highlight technologies such as three-dimensional modeling, height modernization, adaptive signal controls, intelligent transportation systems and the use of recycled materials.

Value engineering (VE) studies to promote innovation and cost savings are conducted on all improvement projects on the federal-aid National Highway System with an estimated total cost of \$25 million or more. A multi-disciplinary team of persons not involved in the project systematically reviews the project concept and design, developing ideas and recommendations to improve value and quality and reduce overall costs and time for completion. In 2011, the department conducted four VE studies that resulted in design changes with cost savings of nearly \$25 million dollars. Another eight VE studies were conducted in 2012. Recommendations from these VE studies will be incorporated into future major projects as designs are completed and construction is started.

The department partners with the Federal Highway Administration (FHWA), the Wisconsin Department of Natural Resources (DNR), and industry representatives to further streamline processes and promote innovation, research and development.

Under the Construction Cost Reduction Incentive (CRI) program, construction contractors are encouraged to submit cost reduction ideas to reduce direct project construction costs. The contractor and the department share equally in savings generated—\$950,000 in FY 2011.

Table 1 in Appendix J lists cost saving initiatives implemented on a program basis. These changes are significant as they are being implemented across all projects and will continue into the future. Examples include:

- The department uses recycled highway materials on its projects. Reclaimed asphalt pavement, recycled asphalt shingles, and recycled concrete aggregate are now used routinely, saving approximately \$17.4 million in FY 2011.



- The department provides the oversight and quality assurance to allow civil engineering students from the state's universities to perform bridge ratings for local bridges. The initial round of surveys resulted in savings of approximately \$5 million; the ongoing annual savings is approximately \$135,000. This initiative provides students with valuable engineering training to help advance their professional careers.



*I-94 North-South Project, Milwaukee County*

Table 2 in Appendix J provides a list of the cost saving measures developed and implemented on projects. Examples include:

- An alternative bridge foundation type was proposed and investigated for the Zoo Interchange in Milwaukee. The use of drilled shafts instead of conventional driven piles is expected to save in excess of \$4 million. In addition to cost savings, this type of foundation reduces the project footprint and the need for temporary roadways to carry traffic during construction.
- On the Mitchell Interchange in Milwaukee, a creative approach using cut-and-cover tunnels for three interchange ramps eliminated the need for seven bridges, producing a savings of approximately \$40 million. In addition to cost savings, use of the cut-and-cover tunnels allowed the overall height of the interchange to be lowered, improving roadway safety.
- On the US 41/WIS 29 Interchange project, an early and separate letting was proposed to procure steel and fabrication of girders for bridges in the interchange to take advantage of low steel prices at the time. Typically, steel girders are procured as part of the overall construction contract, which was to be let two years later. The early letting for steel saved \$5.4 million.
- On the I-94 North-South project and the US 41 project, construction cost reductions due to revised cost estimates, implementation of cost saving ideas, and excellent safety records on the construction projects led to renegotiation of the premiums for the Owner Controlled Insurance Program (OCIP). Renegotiated premiums saved over \$29 million.

Minimizing construction time and inconvenience to roadway users and the community is an important component of effective project delivery. Table 3 in Appendix J lists project actions to minimize those impacts and to save on long-term costs or ongoing operations and maintenance costs. Examples include:

- On the I-94 North-South project, the department required the contractor to build a replacement bridge off alignment, then remove the existing bridge and move the new bridge into place using a self-propelled modular transporter. This unique construction technique limited lane closures on I-94 to just 12 hours.
- On the I-43 project, two construction contracts were advanced to allow contracts to be let early, saving approximately eight weeks of full-time lane closures. To further reduce lane-closure time, the contracts required an accelerated construction schedule to reduce lane closures by another 12 weeks, for a total reduction of approximately 20 weeks compared with traditional approaches.

Deployment of numerous new technologies and innovative practices shorten project delivery time, save on costs and improve safety.

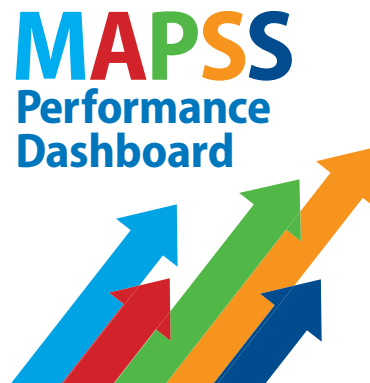
## MAPSS—the department’s performance measurement system

The Commission also reviewed the department’s comprehensive performance measurement system, which focuses on the core goals of mobility, accountability, preservation, safety and service. This system, known as the MAPSS Performance Dashboard, provides a visible way of measuring the department’s performance and publishes the results on its web site at [www.mapss.wi.gov](http://www.mapss.wi.gov).

MAPSS was developed to inform citizens and policy makers of how the department is doing in fulfilling its mission; to provide transparency and accountability for the performance of the transportation system; and to prepare for national performance measures that have been under consideration for several years and are now mandated in MAP-21. The department sought to create a results-driven environment that would maximize performance of the transportation system and improve decision-making.

The department identified 23 performance measures of highest interest to the public for demonstrating responsible stewardship of transportation funds. The measures provide a snapshot of the current state of the transportation network and how it is trending in the goal areas.

For example, the mobility goal, which focuses on transportation reliability, is defined as “delivering transportation choices that result in efficient trips and no unexpected delays.” Measures include urban freeway congestion, transit availability, bicycle



accommodation, incident response and winter response. Since its inception, the program has been expanded to include additional strategic measures important to external stakeholders.

The first MAPSS Performance Dashboard Report was published in January 2012. Each quarter, the department provides updates showing how the department is trending in each goal area and whether the quantitative targets are being met for each measure. The department is achieving the desired outcomes in some areas and is focusing its efforts to improve in the areas in which it is not yet meeting targets. For example, one specific measure under the mobility goal relates to urban freeway congestion. The October 2012 update reports that 15.2 percent of urban freeways are congested,<sup>15</sup> a slight increase over 2010 congestion levels when 14.7 percent of the state's urban freeways were congested. The measure is showing a downward, unfavorable direction at this time, but the department is implementing improvements in southeast Wisconsin and studying additional urban projects that will have tangible benefits for users of the system.

In support of the Governor's Lean Government Initiative, the department is also tracking a number of internally focused metrics and completing process improvements aimed at improving customer satisfaction, reducing the cost of government, improving work environments and changing government culture. These projects are focused on improvements that have a positive impact on the core goals of MAPSS.

The Commission believes reporting on performance is a critical element of the trust that must exist between citizens who support the system and the department. It is also consistent with the statewide requirement for cabinet agencies to continuously improve operations and operate efficiently.

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<sup>15</sup> The measure is based on the percent of urban freeway miles at a mid-level of service (LOS D) or worse. LOS D is further described in Appendix I.

## Section II: Transportation Funding and Policy Needs from 2014–2023

*The basis of the Commission’s policy and funding recommendations is a shared understanding of Wisconsin’s existing transportation programs, program challenges, projected needs, current revenues and spending. Commissioners evaluated program alternatives and considered the transportation impacts of demographic and economic shifts. Their focus was to assure that existing resources are used wisely and that future investments occur in program areas that best support the state’s economy and improve citizens’ quality of life.*

### Changing demographic needs



### Population trends

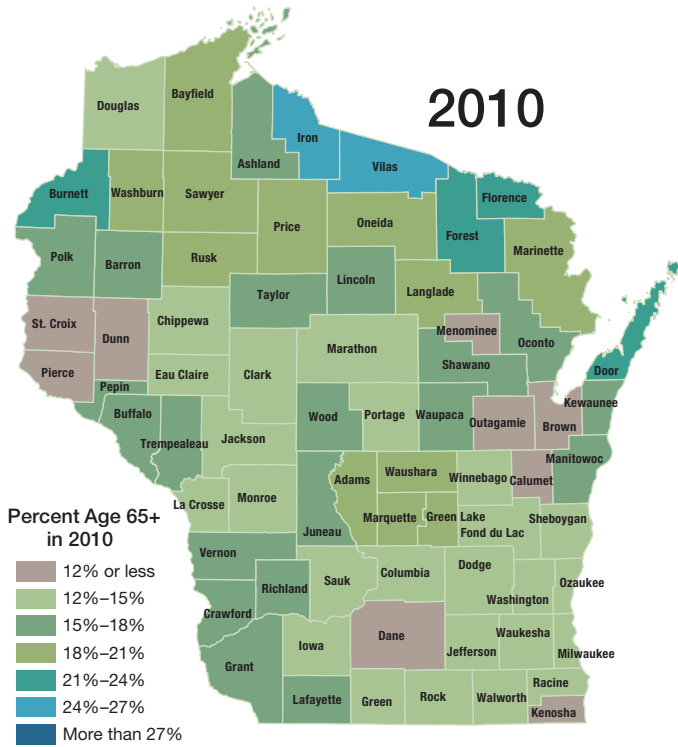
**A**ny recommendation for smart investments and measurable results must consider the implications of changing demographics. The state’s population growth is moderate, and the distribution and ethnicity of its 5.7 million people is changing. In the last census, 19 Wisconsin counties (mostly rural) lost population, while development occurred on the fringes of medium sized cities, and some urban areas grew.<sup>1</sup> By 2020, the population is projected to grow to 6.0 million and by 2025 to nearly 6.1 million people.<sup>2</sup> The need to upgrade state and county highways and “last mile” local highway connections to deliver products and to mitigate traffic congestion in urban areas will grow.<sup>3</sup>

<sup>1</sup> Commission presentation by Dan Veroff, Applied Population Laboratory, University of Wisconsin–Madison, December 2011: <http://www.dot.wisconsin.gov/about/tfp/docs/mtg2-poptrends.pdf>.

<sup>2</sup> State Total Population Estimates and Projections, <http://proximityone.com/st0030t.htm>.

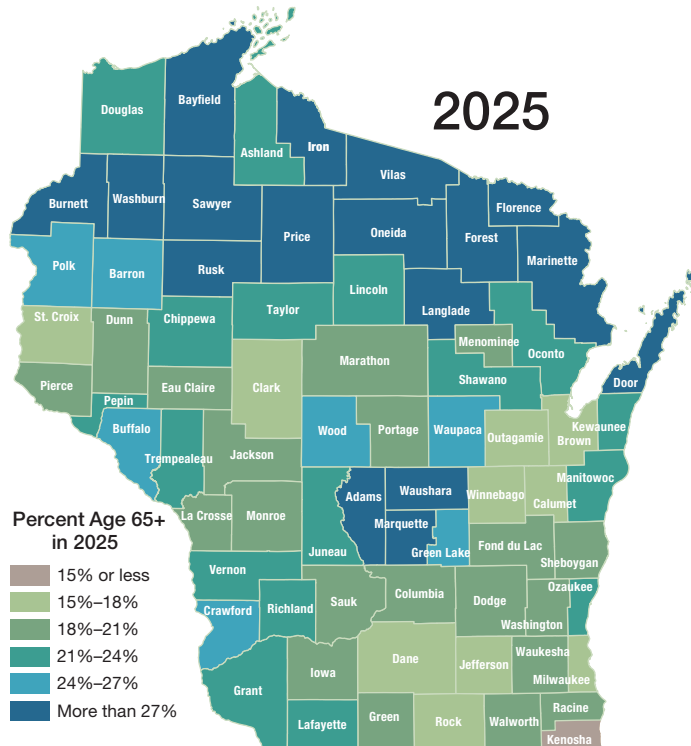
<sup>3</sup> Local roads and bridges are the “first and last mile” connectors that link local businesses, manufacturers and agricultural producers to the transportation network.

A significant demographic change is the continued growth of Wisconsin's elderly population. As of 2011, over 790,000 people (13.9 percent of the state's population) were 65 years of age or older.<sup>4</sup> The following maps project the growth of Wisconsin's 65-or-older population from 2010 through 2025 by county.<sup>5</sup> The lightest color gradation depicts a 65-or-older population of 12 percent or less while the darkest represents a 65-or-older population of over 27 percent. By 2025, over 27 percent of Wisconsin residents in 17 counties will be 65 or older.



*“Will seniors drive as much as they age? Many will want to drive less. Many will use good judgment and try to drive only when they feel comfortable driving. Some of us will no longer be able to drive. Lack of good public transit is only penalizing seniors for trying to use good judgment and growing older.”*

AARP Advocate



<sup>4</sup> <http://quickfacts.census.gov/qfd/states/55000.html>.

<sup>5</sup> Wisconsin Department of Health Services, Division of Long Term Care, *Wisconsin's Elder Boom*, October 2009.

In rural and suburban settings, the elderly and disabled can become isolated in their homes without access to transit or paratransit services. Wisconsin's mostly rural northern counties are becoming older. Milwaukee County's transit-dependent population and employment centers are becoming more evenly dispersed throughout suburban service areas. At the same time, the provision of fixed-route and paratransit services to rural and suburban areas is becoming more costly due to distances traveled and low density ridership.

*"In agricultural regions...the roads should be upgraded to support equipment over 80,000 pounds. Rural roads with asphalt overlays do not meet these needs."*

Wisconsin Farm Bureau Federation

## Rural road safety

Safety is a priority on the rural roads that support the agriculture, forestry and mining sectors of the state's economy. The Commission heard a common theme from the Wisconsin Farm Bureau Federation, Wisconsin Counties Association, and Wisconsin Towns Association—that the state's rural roads are not meeting industry needs. Town governments are pressured to build town roads to handle larger equipment and heavier loads.

Fracture sand mining and processing is a rapidly growing industry. The combined number of operational mines, processing plants, and railroad transfer locations dedicated to the fracture sand industry includes approximately 90 facilities in 18 Wisconsin counties.<sup>6</sup> The demand for fracture sand has tripled over the last three years and is now a 40-million-tons-per-year market, with an increased number of trucks and trains hauling industrial sand.

*"Our local roads and bridges cannot withstand increased weight limits. The capacity of our local roads and bridges to withstand heavy loads varies by age and method of construction."*

Wisconsin Counties Association



Fracture sand, Rusk County

Both intrastate and interstate freight is important to Wisconsin's economy. The Commission recognizes the need to improve the "last mile" of freight transport, when products are delivered to their final destination. This need is often on the local system and may include access to a transloading terminal for another transportation mode.

<sup>6</sup> Barron, Buffalo, Burnett, Chippewa, Clark, Dunn, Eau Claire, Green Lake, Jackson, Juneau, La Crosse, Monroe, Pepin, Pierce, Polk, Portage, Taylor and Wood. Source: Dennis Winters, Department of Workforce Development, December 2011 presentation to the Commission.



Mitchell interchange, Milwaukee County

## Balancing metropolitan and rural investments

Commissioners recognize the need for a reasonable balance in state, local, metropolitan and rural transportation investment, and they believe more funding is needed for both state and local transportation needs. They understand that citizens want to see the results of investment where they live, where it has an impact on the economic growth of their communities and improves the quality of their lives. It is important to consider that even if people don't travel on a road outside their larger community, they still rely on the Wisconsin transportation network to access the products they use in their daily lives.

*“Madison and Milwaukee are the big sponge for the fund...if a lot of the money is diverted there...I don't need to fund that.”*

Focus group participant

Urban area projects are the most complex and costly projects the department undertakes. The size of the GTA program, which reimburses counties and municipalities for a portion of their local transportation costs, is among the largest of the department's programs, second only to the state highway program. Urban and rural STP programs and the LRIP program fund local projects; some state highway projects in the Majors and SHR programs are located in rural counties where they benefit area citizens. The modal programs—aviation, rail, harbors, transit, bicycle and pedestrian programs—all provide services to rural and urban counties, though some services are more limited in rural areas.

## What Wisconsin needs and why

The department's mission is to provide leadership in the development and operation of a safe and efficient transportation network. Commissioners understood their responsibility for discerning the department's level of accountability for the funds it is already entrusted with to accomplish its mission. Before making any recommendations for future funding, commissioners reviewed the department's performance measurement system (MAPSS Performance Dashboard).

## Highway safety

Wisconsin has achieved several milestones in terms of fatality and non-fatal injury reduction. However, far too many people still lose their lives or suffer injuries every year on our highways. The department's Strategic Highway Safety Plan (SHSP) is a statewide, comprehensive, data-driven plan for reducing fatalities, injuries, and crashes.

The Commission supports the department's continued focus on the issue areas set out in the Strategic Highway Safety Plan.<sup>7</sup>

The top 10 issue areas under the SHSP include:

- Improving design and operation of intersections;
- Improving traffic incident management and improving safety in inclement weather conditions;
- Reducing speed-related crashes;
- Preventing and mitigating lane departure crashes;
- Providing safe work zones;
- Reducing head-on and cross-median crashes;
- Improving motorcycling safety;
- Curbing aggressive driving;
- Making truck travel safer; and
- Improving driver alertness and reducing driver distraction.



The SHSP identifies specific actions to be taken to meet issue area goals. Progress on several of the SHSP goals is reported in MAPSS. The performance indicator for the 2011 traffic injury rate on Wisconsin roads was 68.6 per 100 million vehicle miles traveled, the lowest recorded at 12.5 percent below its five-year rolling average of 78.3 percent. Wisconsin's seat belt use

is increasing, at 79.9 percent usage; however, Wisconsin lags behind states like Illinois and Michigan, which report rates of more than 90 percent. Safety statistics related to traffic fatalities and crashes are below targets, indicating more work is needed in this area. The SHSP lays out steps to be taken to reduce fatalities and crashes in several issue areas, and the department is working toward these objectives.

The Commission believes the department is effectively monitoring highway safety in the SHSP issue areas, is reporting on its performance, and is focused on making improvements where needed.

<sup>7</sup><http://www.dot.wisconsin.gov/library/publications/topic/safety/hwy-strategic-safety-plan.pdf>.



## State highway program



The state highway program has several components, all of which have unmet needs. SHR program funds are used to improve over 11,000 centerline miles of state trunk highway and over 500 centerline miles of connecting highway. The program funds resurfacing projects that maintain a smooth ride and protect the underlying base of state highways; reconditioning projects that include

resurfacing and minor improvements such as adding turn lanes at intersections; and reconstruction projects that rebuild existing highways. A large portion of the state trunk highway system will need major rehabilitation over the next 10 years. The department manages SHR highway improvements in two categories. Backbone highways connect major population and economic regions of the state, and non-backbone highways are referred to as 3R highways.<sup>8</sup>

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Sixty-eight percent of residents surveyed think keeping highways smooth and free of potholes should be a top department priority.<sup>9</sup>

The Majors program funds the state's large capacity expansion projects and high-cost rehabilitation projects. A rigorous process is used to review high-cost highway projects for inclusion in the program; considerations

include: safety, economic, environmental, community and traffic flow impacts, and benefit-cost data.

The Southeast Wisconsin Freeway Megaprojects Program funds projects on a southeast freeway of more than \$535 million. Two projects are enumerated in state statutes: the I-94 North-South Corridor project and the Zoo Interchange project.

To better understand how the department evaluates and prioritizes project needs within the context of its constrained budget, the Commission asked:

- Is the department making good decisions about where to use limited funds?

Over the past 20 years, the department has increased its reliance on data-driven asset management processes to assist with decision-making. The department's goal is to maintain serviceability in a way that maximizes long-term system health at the least cost. The department's asset management framework parallels best practice recommendations of the National Cooperative Highway Research Program's Transportation Asset Management Guide.

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<sup>8</sup> Resurfacing, Reconstruction and Reconditioning

<sup>9</sup> WisDOT 2012 Statewide Customer Satisfaction Survey



*West Bend, Washington County*

The department’s asset management system, Meta-Manager, uses data and models to provide information for highway system planning and programming. Using Meta-Manager, planners and engineers are able to answer important questions, such as:

- What pavements and bridges need improvements?
- When are the improvements needed?
- What fix is recommended?
- Are there safety and capacity issues to address?

Using this tool for project scoping and prioritizing investments, the department maximizes system service life for the dollars invested and maximizes the percentage of the system in good condition, long term. In addition, Meta-Manager helps planners and engineers measure program performance since it reports compliance data of an actual program compared with a modeled program. The department’s asset management models integrate and prioritize pavement, bridge, safety, and congestion data.

Wisconsin’s local governments report pavement condition data to the department every two years. The condition data reported is almost exclusively PASER<sup>10</sup> rating data. While not as robust as the department’s rating system, PASER is an excellent planning level rating system. PASER offers a cost-effective way to collect pavement condition data on Wisconsin’s 103,000 miles of local roads—about 10 times more mileage than the state trunk highway system. Through its local road database, WISLR,<sup>11</sup> the department offers each local government free access to pavement management tools. WISLR’s pavement analysis tools include a five-year budget planning tool to assist with pavement management decision-making. The tool is intended to provide a responsible starting point for local maintenance and improvement programming.

<sup>10</sup> Pavement Surface Evaluation and Rating System

<sup>11</sup> Wisconsin Information System for Local Roads

To address the needs and expectations of the public, the Commission asked:

- What level of service do Wisconsin citizens expect from the state highway program, and how does that level of service translate into a funding level for highway improvements?

The Commission's recommendation for improvements in the Majors program adds \$100 million annually over 10 years to enhance the department's ability to address the state's most congested and dangerous corridors in a timely manner. This proposal delivers traffic flow, safety, and economic benefits six years sooner than would be delivered without a funding increase.

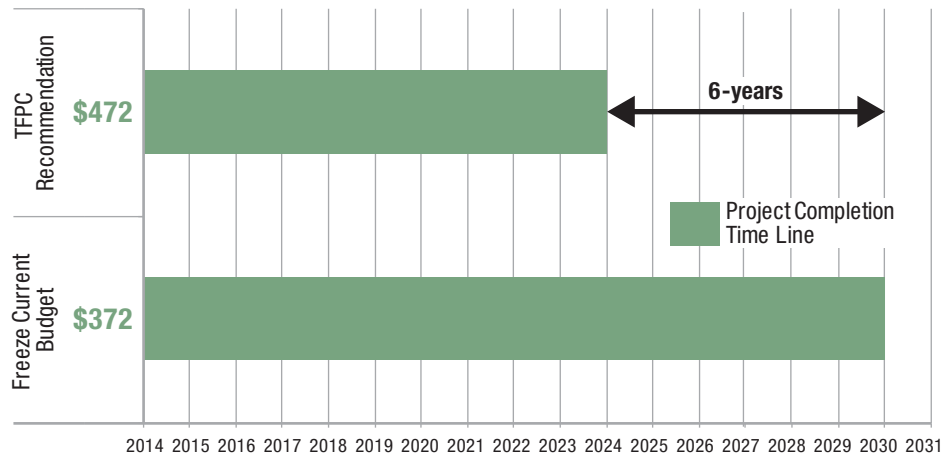
*"I think I only notice when it's [road surface] excellent—'oh, this is so smooth'—or when it's horrible. I don't think I take notice when it's right in the middle."*

Focus group participant

Eighty-two percent of residents surveyed believe reducing traffic congestion is important, and seventy-five percent believe the department should add lanes to increase capacity.

Chart II-A compares the timeline for completion of projects in the Majors program under the Commission's recommendation with the timeline that will result without an increase of \$100 million annually over 10 years.

**Chart II-A: Major Highway Development Program Recommendation (Project Completion Time Line) (\$ in millions)**





*I-94, Milwaukee County*

The Commission recommends adding \$75.1 million annually to the FY 2013 base of \$188 million for the Southeast Wisconsin Freeway Megaprojects program. This recommendation provides sufficient funding to complete the Zoo Interchange and the I-94 North–South projects on their original schedules, while also providing funds for preliminary work on the next megaproject.

The Commission recognizes the magnitude of system needs and recommends sufficient funding in the SHR program to maintain conditions on the premier Backbone system, which carries the majority of traffic on state highways. The recommendation would also stem the rate of deterioration on 3R highways to a more tolerable 28 percent increase in poor condition pavements rather than the 100 percent increase in poor conditions that would occur in the freeze budget scenario. The Commission’s funding recommendation leads to a more manageable needs backlog at the end of 10 years.

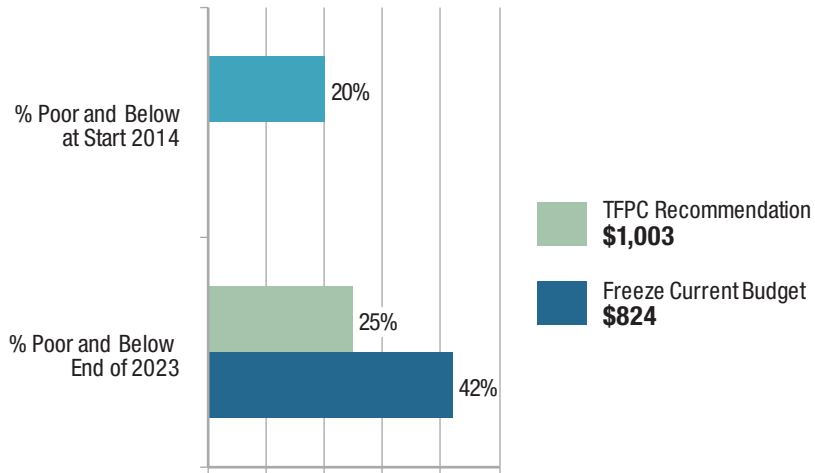
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Ninety-five percent of Wisconsin residents surveyed believe repairing and maintaining existing highways is important.

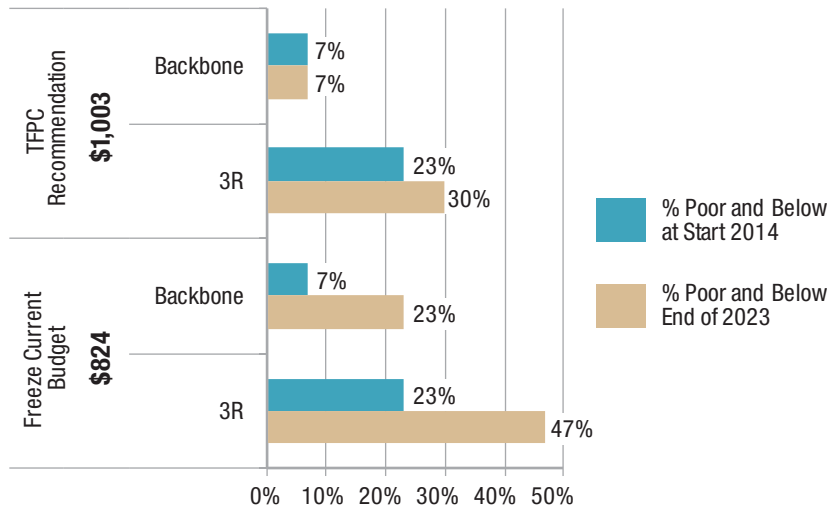
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Chart II-B compares conditions on the State Trunk Network (STN) under the Commission's recommendation with a no-funding-increase scenario. An additional \$179 million annually for the SHR program would decrease the percentage of state trunk highways in poor condition by the end of FY 2023 from 42 percent to 25 percent for Backbone and 3R highways in the SHR program.

**Chart II-B: State Highway Rehabilitation Program Recommendation—  
Total STN System (\$ in millions)**



**STN Categorized (Backbone and 3R) (\$ in millions)**



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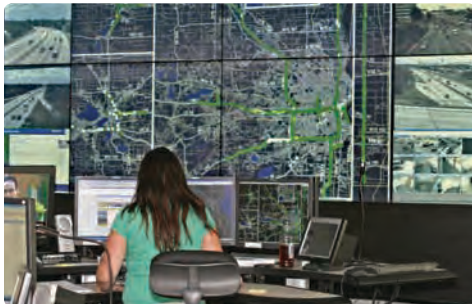
➡ **THE COMMISSION RECOMMENDS** a total funding increase of \$354.1 million annually to address needs in the Majors, SHR and Southeast Wisconsin Freeway Megaprojects programs.

To provide a more complete picture of the total cost of building and operating new highways, the Commission recommends a required life cycle cost analysis for each project in the Majors program. When recommending projects to the Legislature for enumeration, the Transportation Projects Commission should be required to include an estimate of both the capital and life-cycle costs of these projects.

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The Commission is aware that addressing the needs identified for state highway infrastructure will require significant financial resources. Its recommendation is based on a data-driven cost-benefit analysis. Without this investment, the state's highways will deteriorate—the miles of pavement in poor condition will double, encompassing 42 percent of the system. The poor condition of the highway system will be detrimental to safety, commerce, wear and tear on motor vehicles, and time lost due to roadway incidents and traffic congestion. In addition, jobs that could be generated with this investment will not materialize.

### State highway maintenance and traffic operations program



*State Traffic Operations Center, Milwaukee*

The 33,800 lane miles of the state trunk highway system are primarily maintained by 72 county highway departments under contract with the department. The counties perform both routine and winter maintenance. The traffic operations program is critical to the free flow of traffic on our highways and the safety of motorists and workers in construction zones

and emergency situations. Through installation of guidance and warning signs, ITS, pavement markings, lighting and other services, the program manages public safety and performance of the state highway system. In the future, innovations such as connected-vehicle technology may increase the need for ITS infrastructure in Wisconsin.

The Commission asked:

- Should the state consider alternative models of providing maintenance services?

Wisconsin's service delivery model relies on the ability of county governments to maintain the capacity of the highway system and, in return, receive payment for actual costs incurred. The department establishes an annual budget for each county, which sets the preferred limit for county reimbursements. State statutes

require the department to pay actual costs for maintenance activities when the work is done under contract with counties or municipalities. Costs include an allowance for materials and the use of county or municipal machinery and overhead expenses agreed upon in advance.

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**THE COMMISSION RECOMMENDS retaining the state highway maintenance model with the counties performing work under contract with the state.**

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WIS 19, Dane County

The Commission's review of other state highway maintenance programs found no demonstrated private contracting models in operation at the scale of the statewide maintenance services Wisconsin requires. They found no benefit in shifting the road maintenance function from the counties to the state.

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**THE COMMISSION RECOMMENDS that opportunities for regionalization of some county maintenance functions be evaluated for efficiency.**

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Under the broad umbrella of regionalization, the Commission is interested in piloting certain activities:

- Jurisdictional cooperation (establishing seamless county borders) to deliver specific maintenance services could improve efficiency and save money. By making route assignments between adjacent counties for winter snow-plowing, cycle times could be standardized, minimizing travel times to replenish salt, reducing the overall number of statewide plow routes and drivers needed, and employing larger plows or plowing attachments more effectively.
- Operational rearrangements could be made for specialized equipment or skill sets. The department is already employing county pavement-marking crews outside their home borders so that every county is not required to obtain painting equipment and provide staff training to operate it. Other routine maintenance activities could be coordinated. Finally, standard sets of responsibilities could be developed for the counties.
- Administrative program changes could be explored related to alternative cost-reimbursement practices, introducing uniform productivity rates, unit cost pricing, or other performance-based methods for containing and monitoring cost increases.

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**THE COMMISSION RECOMMENDS that consideration be given to improving the model to make it more performance-driven.**

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The details of this recommendation are provided under *Policy recommendations to improve performance and efficiencies and reduce costs*.

The Commission asked:

- Does the department appropriately consider the cost of maintenance in its budget?

The Commission found that life cycle costs for projects are not included in all cost estimates. As noted in discussion of the *State Highway Program*, the Commission recommends a required life cycle cost analysis for each project in the Majors program to give the Transportation Projects Commission a more complete picture of total project costs.

The Commission asked:

- Is current funding for highway maintenance adequate to prudently manage Wisconsin's highway assets?

Ninety-five percent of residents surveyed believe repairing and maintaining existing highways is important.

The department evaluates the condition of the state highway system through several means. Pavement conditions are surveyed every two years; half the state is driven and surveyed each year. Bridge conditions are monitored through routine inspections.

Information on routine sign replacement is stored in the Sign Information Management System (SIMS). SIMS data identifies replacement needs based on the age and useful life of signs. The condition of most other state roadway assets is tracked through the department's quality assurance and asset management program (Compass). Compass provides condition data on roadway shoulders, drainage elements, roadside features and traffic control and safety devices. Compass data provides a graded level-of-service condition "A" through "F" for highway segments and helps determine funding priorities.

Weather variations make it difficult to estimate the number and duration of snowplowing and deicing events that will be needed to keep state highways safe in the winter months. Unplanned, high-cost roadway repairs, incident response, congestion management, and the use of technology to monitor and manage traffic all contribute to maintenance costs in a given year. The increasing demands on the maintenance and traffic operations budget have required maintenance program supplements from the SHR program four times in the last decade.

*"The formula...to estimate funding needs in the maintenance program consistently shows maintenance funding falls short of established need...Increasing lane miles, additional safety measures, and the need to modify work hours to minimize traffic disruptions all contribute to increased maintenance costs."*

Wisconsin Counties Association

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**➡ THE COMMISSION RECOMMENDS an increase to the Maintenance and Traffic Operations budget of \$33 million annually or \$330 million over 10 years.**

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The Commission's recommended investment level for maintenance and traffic operations would extend current maintenance service levels, allowing a Compass grade of "C" to be realized.

Many services are currently rated at a "C" grade level or worse. Areas with lower than desirable service levels include pavement marking, shoulder drop-off repair, sign repair and replacement, lighting and traffic control system maintenance, guardrail repair, and vegetation control.

Adequate funding could facilitate a proactive maintenance schedule and stretch the life of existing roadways, delaying the need for major rehabilitation projects and potentially reducing the costs of eventual reconstruction. Should the Commission's request for an additional \$330 million over 10 years not be implemented, traveler warning and road weather management systems would be increasingly compromised. Routine maintenance activities on significant portions of the system would be further curtailed. Snow removal would continue, but at reduced service levels, resulting in an increasing portion of the system being snow-covered and slippery for longer periods of time after winter storms. The department would likely need to request supplemental funding each year from the SHR program for basic maintenance activities.



## Local road and bridge programs

The department funds an array of local road and bridge programs with a combination of federal and state dollars, targeting Wisconsin's 103,000-mile locally owned network of county highways, city and village streets, town roads and bridges.

To assess these programs, the Commission asked:

- Is the current level of funding for the state and local road network appropriate?



County A, Burnett County

The Commission recognizes that local governments have limited options for generating revenue for transportation needs. Local revenue sources include general property taxes, special assessments, debt through borrowing, tax incremental financing, local motor vehicle registration fees, special fees (such as utilities), impact fees and sales taxes. Current Wisconsin law limits the

authority to implement a sales tax to Wisconsin counties, which can adopt up to a 0.5 percent sales tax. Many counties have already enacted the optional sales tax and are spending the revenues from those taxes now for locally determined purposes.

2009 Wisconsin Act 28 included provisions for the creation of several Regional Transit Authorities (RTAs), with tax or fee authority within their jurisdictions. The legal authority to create RTAs in Wisconsin was subsequently repealed. Public officials and residents in Milwaukee, Appleton, Eau Claire and Madison approached the Commission requesting support for RTAs as one solution for raising funds and allocating resources to address regional transportation needs.

*“An RTA would bring financial and operational stability back to public transit in the Fox Cities.”*

Chuck Rundquist, Fox Cities Transit Commission

The Commission considered local support for Regional Transit Authorities and concluded there would be more support for Regional Transportation Authorities, where a portion of funds raised could be used for non-transit-related transportation purposes.

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**➡ THE COMMISSION RECOMMENDS allowing Regional Transportation Authorities to raise funds through a one-half-cent maximum sales tax, with voter approval, to be used exclusively for transportation purposes.**

**For counties with populations less than 100,000, the Commission recommends authority for a maximum one-half-percent local option sales tax to be used exclusively for transportation purposes.**

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If the Commission's RTA and local option sales tax recommendations are not allowed to become part of the transportation funding solution for local governments, their options for raising revenue will continue to be limited. They will look increasingly to the state government for assistance.

The Commission asked:

- Should additional measures or incentives be tied to the local highway, bridge and aid programs to ensure that state funds are used effectively by local units of government?



*La Crosse, La Crosse County*

Commissioners heard from public officials who requested a higher percentage of their local transportation expenses be reimbursed through general transportation aids (GTA). GTA funds are distributed to all Wisconsin counties and municipalities (cities, villages and towns) based on a six-year spending average (share of eligible expenditures/share of costs) or a statutorily set rate per mile. These funds, combined with local funds, supply a stable financing base for a

portion of local road transportation costs. Commissioners believe that any increases in local aid should be made through the Local Roads Improvement Program (LRIP) rather than GTA. The Commission would like to see a modest increase to assist local public agencies in meeting their unfunded capital needs while simultaneously requiring them to contribute an increasing share of costs for their capital projects.

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**➡ THE COMMISSION RECOMMENDS a \$400 million increase over 10 years for LRIP.**

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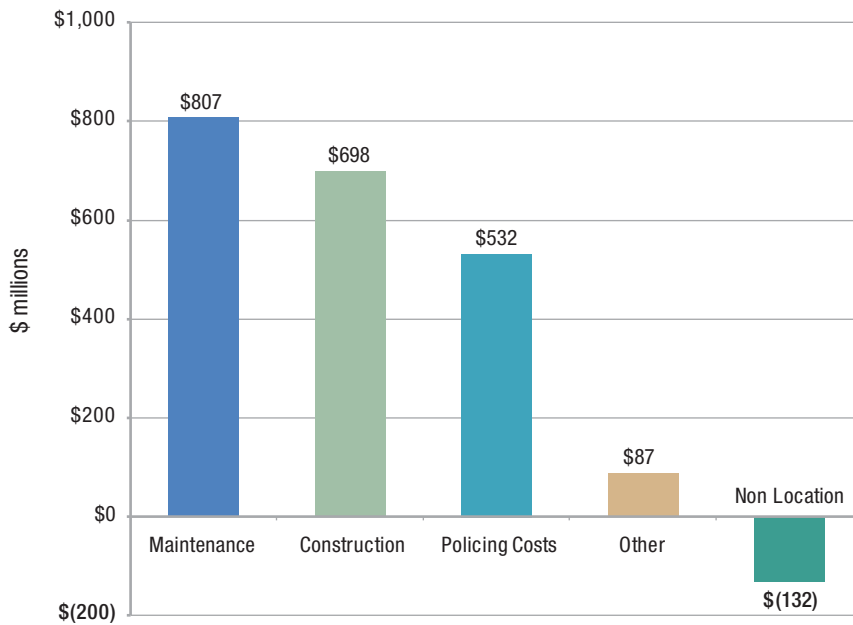
Without additional funding to improve local roads, pavement and bridge conditions will deteriorate unless local governments can make up for reductions in the combined purchasing power of state and federal assistance. Local governments will find it increasingly difficult to address the damage caused by overweight vehicles and the increasing number of heavy legal loads on roads and bridges not constructed to adequately accommodate them. Needed safety improvements will be delayed as fewer projects are completed. Routine maintenance activities will be curtailed on portions of the local system, and service levels for snow removal will be reduced.

Commissioners asked:

- Is the current method for allocating General Transportation Aids the most cost-effective way to assist local governments with their transportation costs?

Each year, local governments report their transportation-related costs to the Department of Revenue in five categories: construction, maintenance, non-location, policing costs and other costs.<sup>12</sup> These reports are used to calculate local aids under the GTA formula. In 2010, local governments reported \$3.7 billion in transportation spending, \$2.6 billion of which was determined to be eligible. The final net eligible costs were equal to nearly \$2 billion after considering revenues. Chart II-C identifies the percentages of net eligible costs in 2010 in the five categories:

**Chart II-C: Reported Net 2010 Local Road and Bridge-related Costs, (\$ in millions)**



A comparison of net eligible cost percentages by category shows a shift in costs from “maintenance,” “construction,” and “policing” to “other” and “non-location” categories over the past 15 years. A 1997 legislative audit of the GTA program indicates that in 1995, maintenance accounted for 39.6 percent; construction 32.6 percent; and policing 27.3 percent. The remaining categories accounted for 0.5 percent of eligible costs reported.

<sup>12</sup> Appendix A, *Local Transportation Expenditures*, December 8, 2011.

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**III → THE COMMISSION RECOMMENDS** modifying the GTA cost-reporting formula to emphasize the costs to construct, maintain and operate transportation facilities. Specifically, the Commission recommends refocusing the eligible GTA cost categories on reimbursement for transportation-related purposes only (construction, rehabilitation and maintenance).

The Commission further recommends that the Department of Transportation Secretary should convene a group of local officials to address implementation issues associated with modifications to greatly simplify the GTA cost-reporting formula.

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Commissioners reviewed the share-of-costs (SOC) and rate-per-mile (RPM) formulas as they function today. Each city, village, and town receives the greater of the amount calculated under the two formulas, and all counties receive funding under the SOC formula. Per-mile costs (after being reduced to include infrastructure construction, rehabilitation and maintenance only) are fairly proportional to functional classification. For example, it takes more resources to plow, seal, or resurface a four-lane divided highway than it does a two-lane town road. The Commission would like to see more emphasis placed on higher functioning roads that carry more traffic.

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**III → THE COMMISSION RECOMMENDS** that the following modifications be made to better align the SOC formula and the RPM:

- Reduce the RPM to \$1,990—the level prior to the 2011–2013 budget; and
  - Keep alignment between the RPM and SOC reimbursement methods in all changes to the GTA formula.
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Municipalities are limited to receiving state aid equal to no more than 85 percent of their three-year average eligible costs under either the RPM or SOC formula. In 2011, the RPM reimbursement rate exceeded 85 percent of total costs for 96 townships.

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**III → THE COMMISSION RECOMMENDS** that the maximum reimbursement rate be reduced from 85 percent to 75 percent of municipalities' three-year average eligible costs. A transition period may be needed to implement the reduction in the maximum reimbursement rate due to minimum cushions provided in the current GTA formula.

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The Commission believes its GTA recommendations will assure that funding provided by the department to local governments will be used for transportation purposes only and will give relative priority to improving the higher functioning roads of the state.

The Commission asked:

- Can improvements be made to the local highway and bridge programs to help local governments manage the programs?

In 2010, approximately 15 percent of the state’s federal highway funds were devoted to funding local projects.<sup>13</sup> For projects using federal funds, the Federal Highway Administration requires compliance with financial and administrative requirements. Some local governments believe that implementing and reporting on these federal requirements adds cost and time to their projects.

The Commission believes that eliminating federal funds from local road programs and replacing them with state funds would reduce the magnitude of oversight and allow projects to be designed and constructed faster and at a lower cost. The state could more appropriately use federal funds on its larger, more complex projects. Local projects would still be required to comply with the state facilities development process, specifications, and other state laws and regulations such as the Wisconsin Environmental Protection Act. The Commission also recommends that compliance with the Brooks Architect-Engineers Act of 1972 (Brooks Act) be required.

The Brooks Act is the basis of qualifications-based selection (QBS) of engineers. QBS is a method of selecting consultants based on qualifications, skill, and experience rather than price. Design professionals determine construction costs, financial and functional feasibility, and operation and maintenance costs during the life of a project. QBS has been required by law for all federal projects since 1972. The process is endorsed by the American Public Works Association and is included in the American Bar Association’s Model Procurement Code for State and Local Governments. It is also used by many states in public procurements.

*“Delivery costs for the federal STP are in the range of 35 percent. Delivery costs in the state LRIP are less than 10 percent. STP is an example of complexity. LRIP is an example of simplicity.”*

Wisconsin County  
Highway Association

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**► THE COMMISSION RECOMMENDS that federal funds be removed from the local road programs, not including the local bridge replacement program, and be replaced with state funds to reduce the cost, complexity and time associated with project delivery.**

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**► THE COMMISSION RECOMMENDS that the requirement for qualifications-based selection (QBS) of consultants currently used on all federal-aid projects be required for all local transportation facilities program projects.**

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<sup>13</sup> Federal Highway Administration, *Federal Highway Administration and Wisconsin Department of Transportation Stewardship Agreement*, September 2010.


It should be noted that the Federal Highway Administration’s “Every Day Counts” program is initiating a local program certification process for local public agencies (LPAs) and a master contract process for LPAs that are hiring consultants to assist with local projects.

If the decision is made not to eliminate federal funds from local highway programs, with the exception of local bridge replacement funds, the need for project oversight will remain high; projects will continue to be designed and constructed at higher costs and slower rates; and the need to retain management consultants will be greater.

Private consulting firms, under contract with the department in each of its five regions, currently provide direct oversight on local projects. Management consultants work directly with LPAs and report to regional project managers. They notify LPAs when the federal authority to incur costs is approved and assume a dual role to enforce federal and state requirements and to assist LPAs with project design and construction issues. They are the first point of contact on project delivery questions and are authorized to approve certain project actions. Funding for consultant oversight is defined in the state-municipal agreement and is a component of the overall federal funding package.<sup>14</sup>

It is the Commission’s view that eliminating regional management consultants would free up more money for local highway projects. With fewer requirements to be met when state-only funds are provided for local projects, delivery would be simplified and local agencies could take more direct responsibility for their projects.

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 **THE COMMISSION RECOMMENDS** elimination of regional management consultant firms in the local facilities program and providing local agencies the opportunity to manage their local improvement projects.

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It is the Commission’s view that management consultants add an unnecessary layer of bureaucracy to the local program. Without removing federal funds, most federal requirements, and management consultants from the local program, opportunities for efficiencies and cost savings may be lost.

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<sup>14</sup> Wisconsin Department of Transportation, *Sponsor’s Guide to Non-Traditional Transportation Project Implementation*, September 2012.

## Transit programs

Public officials, transit agencies and associations, and transit riders reported that the cuts made to public transit funding in the 2011–13 biennium led to reduced transit service in their communities. In combination with reduced shared revenue payments, tax levy limits, repeal of the statutory authority to create Regional Transit Authorities (RTAs), and the lack of a dedicated source of local funding for public transit, some transit systems cut services and increased fares, eliminating services to some populations entirely.

In public listening sessions held in Madison, Milwaukee, Appleton and Eau Claire and in a focus group held in Stevens Point, participants shared their stories related to the need for expanded transit and paratransit services. For example, effective January 1, 2012, in the Wausau area, transit service to three neighboring municipalities was eliminated.<sup>15</sup> By November 2012, negotiations were underway to develop a compromise for restoring service to some of these routes.

*“...That bus stops right in front of my door and picks me up... that’s what I love about it. In the winter time, I’m very leery because I have problems with my legs...”*

Focus group participant

*“I usually take the [paratransit] bus to work, to college, I take it to doctors and dentist appointments, wherever I have to go.”*

Focus Group participant

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### **COMMISSIONERS CREATED** a policy purpose for transit to assist them in their evaluation:

- **Mobility takes many forms. For increasing numbers of Wisconsinites who cannot, should not, or choose not to drive, transit is their link to jobs, family and friends, shopping and culture.**
- **Transit is important to our state’s employers and workers to get members of the community to and from their jobs.**
- **People choose transit for different reasons. Some are choice riders; they prefer transit to using a personal automobile. Other riders are transit-dependent. These riders range from those who cannot afford a car to the truly transit-dependent—the elderly and disabled.**
- **Transit is important to our aging population. Nationally, 77 million baby boomers are approaching their retirement years. We need to keep this generation active, engaged and healthy. Our elderly population needs mobility through transportation choice so that they can age in place.**
- **Regional mobility authorities work through municipal boundaries to connect people and jobs and to keep the cost of transit affordable.**

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<sup>15</sup> <http://www.dot.wisconsin.gov/about/ftp/docs/mtg3-seubert.pdf>

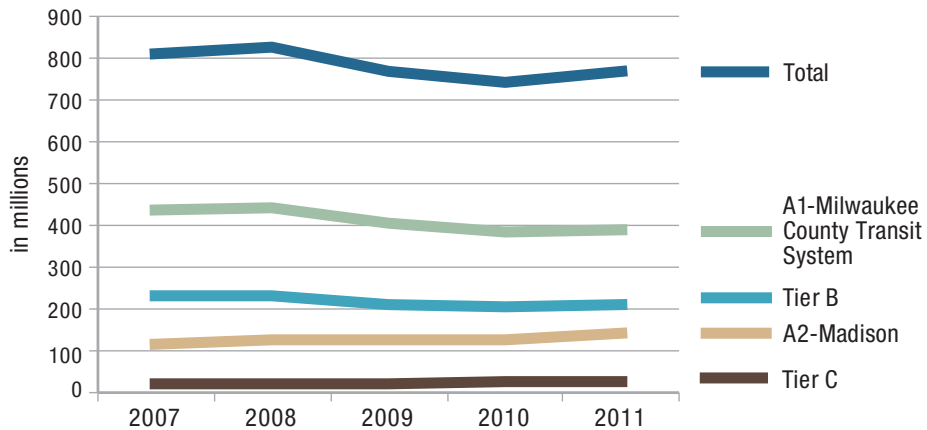


Commissioners agree that transit occupies an important role in the state's transportation network. They asked for information on ridership and how funds are allocated among transit agencies today. Since 2002, the level of state funding for transit has varied. Some years saw no funding increase; in one year, transit funding increased by three percent. Overall, most funding increases—when they occur—do not keep pace with inflation, which averages about three percent for transit systems.

Seventy-seven percent of residents surveyed believe it's important to expand transit for seniors and people with disabilities.

Chart II-D shows ridership levels for Wisconsin transit systems from 2007–2011. Total ridership has gone down somewhat since 2007 due to service cuts and fare increases.

Chart II-D: Transit Ridership Levels



Commissioners asked:

- ▶ Is the state's tiered funding structure the best way to support transit in Wisconsin? At what level should the state support transit operating costs?

State law requires a uniform percentage distribution of state and federal operating assistance for transit systems serving communities between 50,000 and 200,000 people (known as Tier B) and those serving from 2,500 to 50,000 people (known as Tier C). With the exception of public transit systems serving over 200,000 people, the day-to-day operations of public transit systems in Wisconsin are funded by passenger fares, state, federal and local funds.



*Menominee Regional Public Transit*

An advantage of the tiered system is equity among all stakeholders within each tier. La Crosse, for example, gets the same share of state and federal aid as Wausau or another medium-sized urban counterpart. This level of equity limits competition among communities and regions of the state. It engenders cooperation and support for the tier

system among transit providers. Transit funding levels may be increased or decreased, but those changes are shared equitably as the benefit or loss is spread among the transit systems.

Each fall, public transit systems submit detailed budgets projecting their operational costs for the coming calendar year. State and federal funding is provided based on estimated costs. The department oversees distribution of state and federal funds for specialized transit projects.<sup>16</sup> Its role is to solicit applications and select and oversee projects to ensure compliance with federal regulations. State programs for specialized transit are formula-based, and state and local funds are often combined to provide the requisite match for federal programs.

Over the last eight years, the percentage of operating costs covered by state and federal funding has declined within each tier. State funding declined from 38 percent in 2008 to 36.6 percent in 2010. In 2012, with the state funding cut to operating assistance, the percentage will fall to an estimated 32.9 percent.

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**➡ THE COMMISSION RECOMMENDS restoration of the annual \$9.3 million cut to public transit implemented as part of the 2011–13 biennial budget and restoration of an additional \$9.5 million annually to bring transit tier funding back to historic levels.<sup>17</sup>**

**The Commission further recommends the department be provided the administrative flexibility to adjust the transit tiers in accordance with changes in federal law that would alter the allocation of funds to transit systems.**

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The Commission asked department staff for information on the impact of their recommendation to increase operating assistance. The 2011–13 biennial budget decreased funding for public transit by 10 percent or \$11.8 million. The decrease was partially mitigated by the addition of \$2.5 million for paratransit fixed route bus systems, resulting in an overall decrease of \$9.3 million (an 8 percent cut).

<sup>16</sup> Specialized transit is provided to the elderly and disabled through a number of coordinated programs.

<sup>17</sup> As far back as 2002, Tier A systems were funded at 50 percent, Tier B systems at 60 percent, and Tier C systems at 65 percent of their operating expenses.

Table II-A shows the impact of restoring the \$9.3 million 2011–13 public transit cut and adding \$9.5 million to return tier percentages to the 2002 historic goals.

**Table II-A: Percent of State and Federal Funds to Transit Tiers After Restoration of Funds in CY 2014**

Tier	Description	Restore \$9.3 million cut in 2011–13 biennial budget	Restore an additional \$9.5 million to meet historical goals
A1	Milwaukee	48.8%	50%
A2	Madison	46.4%	50%
B	Other urban systems	55.3%	60%
C	Rural systems	59.8%	65%

Table II-B shows the dollar amounts needed to restore these funds.

**Table II-B: Dollar Amounts of State and Federal Funds to Transit Tiers After Restoration of Funds in CY 2014 (\$ in millions)**

Tier	System	2014 estimated costs	Estimated federal assistance under MAP-21	State operating assistance including paratransit assistance	Additional state operating assistance to restore cuts	Resulting funding percentage	Additional state operating assistance to restore funding to historic goals	Resulting funding percentage
A1	MCTS	\$178.4	\$18.5	\$63.2	\$5.4	48.8%	\$2.1	50%
A2	Madison	\$54.7	\$7.4	\$16.6	\$1.4	46.4%	\$1.9	50%
B	Other Urbans	\$86.5	\$21.9	\$23.9	\$2.0	55.3%	\$4.1	60%
C	Rurals	\$25.7	\$9.5	\$5.3	\$0.5	59.8%	\$1.3	65%
Totals					\$9.3		\$9.4	
Grand Total							\$18.8	

Table II-B assumptions:

- » A three percent annual increase in operating costs from 2012
- » 2010 Census changes are in place:
  - Hartford and West Bend are now Tier B systems.
  - Appleton and Green Bay remain in Tier B and Tier B is held harmless.
- » Elimination of one-time federal funding<sup>18</sup>
- » Elimination of the Job Access Reverse Commute (JARC) program and its separate funding under MAP-21. The scenarios assume that Milwaukee and Appleton’s transit systems will continue to fund their 2012 JARC-funded bus routes using state Urban Mass Transit Operating Assistance and federal Urbanized Area formula funding in 2014.
- » Federal Transit Administration funding estimates under MAP-21.

<sup>18</sup> Federal funding remaining from dissolution of Kenosha–Milwaukee–Racine project is currently being used to support two bus routes in Milwaukee.

The Commission asked:

- At what level should the state support capital costs?

Wisconsin has no capital assistance program for public transit systems. Since funding for capital items is comprised of federal funding and local match, the department has no opportunity to address the composition of the statewide bus fleet. Decisions regarding capital spending are made on an individual system level and depend on the amount of local and federal funding available. The current reported capital need is approximately \$35 million annually.

The Commission believes an adequate and consistent funding source is needed to allow transit systems to regularly replace buses and bus facilities and allow for some expansion. Federal funding is extremely limited. MAP-21 provides capital funding by formula and eliminates competitive grant programs. Dedicated federal funding for urban buses and bus facilities for the 2013 federal fiscal year is estimated at \$6 million—far less than the \$11.8 million Wisconsin received in 2012 from the last round of competitive grants.

MAP-21 requires individual transit systems to report on the condition of their capital assets and set investment priorities. The federal government will define the term “state of good repair” through rulemaking. Over the next few years, Wisconsin policy makers will have an opportunity to set priorities for the average age of the state’s transit vehicle fleet and the overall condition of transit facilities.

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**III ➔ THE COMMISSION RECOMMENDS a state transit capital program of \$15 million annually or \$150 million over 10 years.**

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Without funding for transit capital needs, Wisconsin’s transit systems will be faced with increased annual maintenance and operating costs, and they may be unable to replace their aging buses and facilities.



*Janesville, Rock County*

## Retaining Transportation Fund support for transit

In comments from public officials, transit agencies and riders, the Commission heard opposition to moving transit funding to the General Fund where transit programs would risk losing funds in competition with other statewide needs. Even within the Transportation Fund, however, transit programs will compete with other transportation needs; there is no guarantee of stability.

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**THE COMMISSION RECOMMENDS that transit assistance continue to be funded from the Transportation Fund.**

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*“Removing transit funding from the Transportation Fund and moving it to the General Fund makes our transit system funding vulnerable. We need certainty to plan thoughtfully and spending on transit is not something that should be discretionary.”*

Chris Abele, Milwaukee County Executive

The transit community has repeatedly asked the Commission not to recommend removing transit funding from the Transportation Fund to the General Fund where it would compete with other general fund programs for funding.

The Commission asked:

- ▶ Would policy changes better support the unique needs of urban and rural systems?

## Shared-ride taxi service



Westby Cab, Vernon County

It is the Commission’s philosophy that all modes of transportation that serve local communities should contribute a local share to the transportation program or service, including shared-ride taxi service. They support this policy for two reasons. First, a small contribution of local funds would further encourage local governments to take responsibility for the oversight of shared-ride taxi systems. Second, it would help provide an additional source of local funding.

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**THE COMMISSION RECOMMENDS a 20 percent local match for shared-ride taxi systems.**

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Without a local share for shared-ride taxi service, the Commission believes local governments do not make an adequate contribution to service outcomes.

## Mobility managers



*Badger Bus, Dane County*

Two key population groups for whom transit is especially important are the elderly and people with disabilities. The low-income segment of this population is often limited to using transit options available through government programs in state departments of Health Services (DHS), Veterans Affairs (DVA), Workforce Development (DWD) and Transportation (the department). The department's elderly and disabled transit program supports county service providers. The DHS program combines federal and state funds to provide \$60 million annually, with Medicaid as its largest funding source.<sup>19</sup> In total, more than \$73 million was spent for specialized transportation in 2010, yet there were no assurances that everyone who wanted a ride could get one.

Commissioners support a statewide, comprehensive approach to mobility management. Each program has different eligibility criteria, routes, program goals, and funding sources. Mobility managers coordinate services to reach the largest population and make the best use of each program dollar. Through a statewide network of mobility managers, services can be coordinated on a larger scale, avoiding duplication and gaps in coverage. The Commission supports development of a decentralized, one call-one click system for coordination of services. Ideally, mobility managers would be physically located in the region of the state they serve, with each being responsible for providing regional services.

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**➡ THE COMMISSION RECOMMENDS \$2.5 million annually to support a network of statewide mobility managers and the operation of a statewide one call-one click information system.**

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Without the recommended funding, mobility managers will not have the support to put in place a comprehensive system to provide information and rides.

<sup>19</sup> Disability and Aging Transportation Group, *How Mobility Management and Coordination Increase Access for Elderly, People with Disabilities and Others*, August 2012.

## Regional Transit Authorities (RTAs)

Regional Transit Authorities (RTAs) are public bodies authorized to provide public transportation services, such as bus transit, in a specific region. Legislation is needed to authorize the creation of an RTA, to establish the conditions under which it can be created, and to define or limit its taxing authority.

*“That [RTAs] scares me... we might end up without a system here...they might vote it in or vote it out.”*

Focus group participant

Transit-dependent focus group participants were leery of an RTA as the primary support for transit, as they feared that voters might eliminate their current service.

*“Without the flexibility afforded by an RTA, public transportation in the Fox Cities is likely to cease to exist by 2013.”*

Appleton Mayor Tim Hanna

On the other hand, public officials felt their service could be compromised without an RTA.

The property tax is the only source of local funding for the Milwaukee County Transit System. Unlike most communities of similar size, it has no dedicated source of local funding, and its transit needs compete with the needs of other county-run services each budget cycle.

Public officials, transit and paratransit providers, and riders in Milwaukee County all expressed support for an RTA with taxing authority.

Table II-C shows the availability of dedicated local funding for transit in cities similar in size to Milwaukee.

**Table II-C: Dedicated Local Funding for Transit**

Metropolitan Area	2000 Population (in millions)	Source of Local Dedicated Funding
St. Louis, MO	2.08	0.25 percent sales tax
Denver, CO	1.98	1.0 percent sales tax
Cleveland, OH	1.79	1.0 percent sales tax
Pittsburgh, PA	1.75	sales tax
Portland, OR	1.58	0.6618 percent payroll tax
Cincinnati, OH	1.50	0.3 percent payroll tax
Sacramento, CA	1.39	0.5 percent sales tax
Kansas City, MO	1.36	0.375 percent sales tax
San Antonio, TX	1.33	0.5 percent sales tax
Las Vegas, NV	1.31	0.25 percent sales tax
Milwaukee, WI	1.31	--
Indianapolis, IN	1.22	--
Providence, RI	1.18	6.25 cents per gallon gas tax
Columbus, OH	1.13	0.25 percent sales tax
New Orleans, LA	1.01	1.0 percent sales tax
Buffalo, NY	0.98	0.125 percent sales tax
Memphis, TN	0.97	--
Austin, TX	0.90	1.0 percent sales tax

Commissioners agree that local governments need predictable and stable revenues to fund transportation and that regional systems could help resolve funding and access issues across boundaries. Based on what they heard from Wisconsinites and on past attempts to create RTAs in the state, they believe that by authorizing the creation of “Regional Transportation Authorities” and allowing 25 percent of revenues raised to be used for non-transit-related transportation purposes, more support would be forthcoming in a public referendum.

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**III → THE COMMISSION RECOMMENDS the authorization of Regional Transportation Authorities, to help raise local revenues for transportation, including:**

- an elected RTA board;
- voter approval;
- flexibility for 25 percent of RTA-collected revenues to be used for transportation modes other than transit; and
- the authority to impose a maximum one-half percent sales tax.

In conjunction with its RTA recommendation, **THE COMMISSION RECOMMENDS** a local option sales tax for counties of less than 100,000 in population. The sales tax should be limited to one-half-percent and be used for transportation purposes only.

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The Commission heard countless requests in support of providing local governments with options for funding their own transportation needs. Without implementation of the Commission’s recommendations for local revenue options, these local governments will be unable to meet the increasing demand for transit services in their jurisdictions.

## Bicycle and pedestrian programs



*Bicyclist in traffic, Dane County*

*“I have ridden my bike to work, but it’s scary because there’s very little shoulder...I don’t trust the drivers.”*

Focus Group participant

The Commission developed a vision for transportation programs supporting bicycle and pedestrian projects with the intent of making people feel safer while bicycling and walking. The ultimate goal is to encourage projects that increase modal choice and increase the number of people who choose to bike or walk. Meeting this goal would improve the overall transportation system by reducing cars on the road, reducing wear and tear and congestion on roads, reducing the need for parking, and providing health benefits.





Dedicated funding programs are needed to support bicycle and pedestrian projects. The consideration of bicycle and pedestrian facilities as incidental components of larger street and highway projects under Trans 75, Wisconsin Administration Code, has already been beneficial.

With assistance from the bicycle community, the Commission developed a proposed program to meet critical objectives for implementing state bicycle and pedestrian goals. Challenges to be addressed by the program include:

- improving bicycle and pedestrian safety while increasing usage;
- improving connectivity between bikeways and walkways and across highways; and
- routinely considering bicycle and pedestrian accommodations in highway projects.

The Commission believes that requiring program applicants to maintain a plan would facilitate a process of informed consent necessary to achieve objectives. The new program would emphasize commuter benefits and not recreational bicycling, which is already supported by other state programs such as the Recreational Trails program managed by the Department of Natural Resources. The Commission's draft proposal is provided in Appendix K.

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**➡ THE COMMISSION RECOMMENDS an increase of \$10 million annually for creation of a state-funded bicycle and pedestrian program, a competitive local program to fund bicycle and pedestrian projects.**

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Under the Commission's recommendation, new bicycle and pedestrian accommodations would continue to be implemented as part of state and local highway projects, increasing the percentage of state and local highways that accommodate bicycles. Currently, 64.8 percent of state highways and 91.5 percent of local highways accommodate bicycles.

Projects eligible for funding in the proposed new Bicycle and Pedestrian Facility program would add pavement width, acquire real estate, sign, mark, and otherwise improve bicycle and pedestrian facilities. Local governments would be responsible for 50 percent of costs as well as maintenance of the improved facilities.

## Priority freight corridor network

Wisconsin supports freight projects in single modes, as do other states, since federal funding is provided by mode. Wisconsin and other states are evaluating the need for a more formal freight coordination and decision-making structure. The department's review of activities in four surrounding states has not identified any clear best practices or model organizations that might apply to Wisconsin.

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Seventy-eight percent of residents surveyed want the department to make it easier to move freight in Wisconsin.

A freight analysis is underway to prioritize Wisconsin's short-term freight transportation needs and help integrate freight factors into transportation investment decisions. The study is collecting and analyzing data, creating a

state network, and developing freight network corridors. Commodities important to Wisconsin's economy are being profiled, such as the outbound tonnage for food products. The goal of the study is to create a multimodal system to accommodate freight movement based on freight-specific data. The Commission supports the state's efforts to establish a priority freight corridor network and appreciates the ongoing dialogue with the freight community necessary to the success of this initiative.

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**III → THE COMMISSION RECOMMENDS that the department's freight policy-setting activities explicitly include external stakeholders in the manner most appropriate for the policy under consideration.**

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Without the continued input of Wisconsin's freight stakeholders, the department's efforts to create an efficient and competitive freight network would not achieve its intended outcome.

## State-owned freight rail program

Commissioners view freight rail as having two components—preservation and acquisition. They support an emphasis on upgrading existing state-owned lines, and they also recognize the need to acquire lines that would otherwise be abandoned in order to preserve a mobility option for those lines in the future.

Current railroad contributions to the system include an annual ad valorem tax of approximately \$28.1 million; a 20 percent project match; maintenance responsibilities; railroad-generated improvements; and rail commission fees.

In the current biennium, only a small portion of funds is being used for acquisition. The current freight rail program is focused on rehabilitation projects to improve the condition of the entire state-owned system, such that operating speeds can be increased to 25 miles per hour. While acquisition projects can be large, they do not occur every year. Average annual acquisition costs have been approximately 11 percent of total funds available over the last 10 years.

Table II-D shows how much of the state-owned rail system could be upgraded to 25 miles per hour in a given number of years based on different funding levels.

Table II-D: Cost to Meet 25-mph Goal based on Funding		
Annual Budget (in 2012 dollars)	Percent of System Meeting the Goal after 10 Years	Years to reach 100% of Goal
\$15,600,000	74%	23
\$22,500,000	83%	16
\$30,000,000	93%	11
\$32,000,000	100%	10

**III → THE COMMISSION RECOMMENDS that freight rail preservation be funded at the current base-funding level of \$15.6 million annually.**

At the end of the 10-year period, this funding recommendation would result in a state-owned rail infrastructure condition level such that 74 percent of the system would reach 25 miles per hour in operating speeds in 23 years.

**III → THE COMMISSION RECOMMENDS that freight rail operators who use the state-owned network be charged a fee of \$10 per rail car for using the state-owned rail network.**

Based on 75,000 cars annually and the experience of other states, this recommendation is estimated to generate \$750,000 annually or \$7.5 million over 10 years in new revenue.

**III → In addition to its preservation recommendation, THE COMMISSION RECOMMENDS an increase of \$1.5 million annually or \$15 million over 10 years for the acquisition of abandoned rail lines.**

In the current biennium, only a small portion of freight rail funds are used to acquire abandoned rail lines. Without an increase in freight rail funding, potential line abandonments could cut off access to the national network for some carload rail shippers and dozens of rural communities around the state. Abandonments are driven by high capital costs, low rates of return on invested capital, low rates of cargo diversification, and the inability to tap into growing markets.

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**III → THE COMMISSION RECOMMENDS** that the department’s freight rail policy-setting activities explicitly include external stakeholders in the manner most appropriate for the policy under consideration.

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The continued input of Wisconsin’s freight rail stakeholders is an important component in determining where rail infrastructure investments should be made—both rehabilitation and acquisition investments.

### Passenger rail program

Two efforts are underway to improve passenger rail service in the state. On the Hiawatha service between Milwaukee and Chicago, the department is analyzing the feasibility of increasing train frequencies from seven to ten each day. The department is also studying the feasibility of adding a second frequency for the Empire Builder service between Milwaukee and St. Paul. Cost estimates for the Hiawatha and Empire Builder initiatives are incomplete.

The Commission chose not to make a recommendation for passenger rail. Without additional funding for passenger rail transportation over the next decade, the number of scheduled service frequencies on the Hiawatha line may need to be cut to reduce operating costs; fares may increase faster than the rate of inflation.

### Rail safety

Investments in state-owned rail facilities are needed to rehabilitate rail lines to operate at speeds up to 25 miles per hour and carry rail cars with a gross weight of 286,000 pounds. Nearly 50 percent of the state-owned rail system is currently limited to operating at speeds of 10 miles per hour or less, and many bridges are old and incapable of handling the heavier carloads that typify the freight rail industry. Improvements to the rail system could reduce derailments and divert traffic from the highway system, improving traffic flow, reducing delays, and improving the efficiency of freight movements. Commissioners believe that the \$15.6 million provided annually for freight rail should give priority to projects that improve safety on freight rail lines.

## Aeronautics program

The aviation program in Wisconsin is primarily federally funded. Commissioners asked department staff for an update on the changes brought by the 2012 Federal Aviation Administration's reauthorization bill. The new authorization decreased overall funding for the airport improvement program (AIP) and decreased the federal share for airport improvement projects from 95 to 90 percent. The 10 percent AIP match is shared 50/50 between the department and the airports. The new authorization left the \$4.50 maximum passenger facility charge (PFC) in place for commercial service airports, further limiting their revenue options.

NextGen is a 10-year federal initiative to move the nation's air traffic control system from ground-based radar to a modern satellite-based system. Among its benefits are fuel savings, reduced congestion, improved safety, shorter flights and fewer flight delays. To comply with NextGen, all aircraft must be equipped with updated on-board electronics by January 1, 2020. Some Wisconsin airports may need to acquire land to expand their runway approaches. At General Mitchell International Airport in Milwaukee, for example, some runways are non-compliant. Commissioners recognize the need for additional funding to address NextGen.

## Aviation safety

For aviation, priority is given to addressing federal safety mandates and keeping runways in good condition. Additional investment is needed to comply with NextGen.

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**➡ THE COMMISSION RECOMMENDS an additional \$2 million annually to cover the state match associated with NextGen implementation.**

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The funding recommended for aviation is required to match federal funds.

## Harbor assistance program



*Superior, Douglas County*

Wisconsin is surrounded on three sides by commercially navigable waterways, and the 29 commercial ports and harbors that line its shores are the state's most direct link to world markets. Cargo that funnels through Wisconsin's ports includes high value metallic ores bound for the steel industry, coal for power plants, heavy machinery, salt

and asphalt for roads, concrete for the construction industry, and agricultural products for the world. Water transportation is the most fuel-efficient way to move bulk commodities. A typical bulk carrier travelling the Great Lakes is more than three football fields in length. The amount of cargo it holds would fill more than 1,300 large trucks.

The Commission believes the state's harbors are an economic asset requiring increased investment to maximize economic activity. Wisconsin projects do not compete well for federal funding, which tends to go to high-volume harbors in other regions of the United States. From 2012 through 2016, for example, Great Lakes harbors reported only one percent of port and private capital expenditures compared with high-volume harbors.<sup>20</sup> While the state does not own any harbors, the department works with the Coastal Management Council and Harbor Advisory Council to manage its harbor assistance grant program. Safety projects such as a dock wall collapse are generally funded while economic development projects tend to be too expensive. Dredging is necessary to keep the harbors open, especially with low lake levels. Better coordination of statewide harbors and more attention to "last mile connections" would improve the program.

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**III → THE COMMISSION RECOMMENDS an additional \$2.6 million annually or \$26 million over 10 years for investment in the state's harbor assistance program.**

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Without increased harbor investment, conditions at Wisconsin's commercial ports will continue to deteriorate as dock, dock wall, dredging and other needed investments are delayed. The state's ability to attract and retain industries that rely on efficient bulk freight movement will be negatively impacted by decaying and inefficient harbor infrastructure and a lack of coordinated harbor plans. The potential of the state's commercial ports as a source of economic development will remain significantly underutilized as the pace of needed investment slows.

### Support for constitutional amendment

In November 2010, the residents of 54 of Wisconsin's 72 counties had the opportunity to vote on the question, "*Should the Wisconsin Constitution be amended to prohibit any further transfers or lapses from the segregated transportation fund?*" The answer was "yes" in every one of those counties, with an average 70 percent "yes" vote statewide. After passage of those referenda, the Legislature passed first consideration of the proposed constitutional amendment on an overwhelmingly bipartisan basis: the Wisconsin State Assembly voted 82–11 in favor and the Wisconsin State Senate voted 26–6 in favor. Focus group members also expressed support for protecting transportation revenues.

*"I believe it would [make a difference in my willingness to pay if I knew the money would go only for transportation]. We don't know where our money is going."*

Focus group participant

The next Wisconsin Legislature will need to pass second consideration of the proposed constitutional amendment in order for the question to go on a statewide ballot. If the Legislature elects to do so, the statewide vote will be "yes" or "no." If a simple majority votes "yes," then the Wisconsin Constitution will be amended to protect revenues in the Transportation Fund.

<sup>20</sup> American Association of Port Authorities.

The proposed amendment specifies that taxes or fees for licensing motor vehicle operators; titling, licensing or registering motor vehicles; using roads; imposed on motor vehicle fuel or on aircraft, airlines, aviation fuel, or railroads shall be deposited only to the Transportation Fund or used for transportation revenue bonds;<sup>21</sup> and that these funds cannot be lapsed, transferred or appropriated to any program not directly administered by the department of transportation in furtherance of the department's responsibility for the planning, promotion, and protection of all transportation systems in the state.<sup>22</sup>

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**III → THE COMMISSION SUPPORTS an amendment to the Wisconsin Constitution to protect the integrity of the state Transportation Fund.**

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Commissioners believe a proposed constitutional amendment to protect Transportation Fund revenues is critical for users of Wisconsin's transportation network to have confidence that their user fees will be spent for transportation purposes.

## **Policy recommendations to improve performance and efficiencies and reduce costs**

### **State highway maintenance**

The Commission finds that the department has made significant strides in recent years toward a more performance-based method of operation. This is exemplified by the increased use of specific metrics to measure, assess and improve the speed, quality, and cost-effectiveness of services delivered by the department. The department's ability to implement these metrics in the area of state highway maintenance is hampered by both long-standing practices and statutory restrictions on the use of performance targets in the delivery of maintenance services.

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**III → THE COMMISSION RECOMMENDS that statutory provisions that limit the department's ability to enter into performance-based maintenance contracts with individual counties be repealed and that practices that hamper the development of regionalized maintenance services be changed.**

**The Commission further recommends that the department work cooperatively with county highway departments, and with their statewide association, to create policies and procedures for performance-based contracts.**

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<sup>21</sup> The amendment would exempt any revenue collection in existence on a specified date that was not deposited to the Transportation Fund on that date.

<sup>22</sup> The amendment would exempt non-DOT appropriations in existence on a specified date.

## Project delivery methods

Commissioners asked for information on highway and bridge project delivery methods used by other states to meet increasing demands for better quality, decreased costs and compressed project delivery schedules. Current state law requires the department to engage in a low bid process for selecting construction contractors. Under its current project delivery method known as Design-Bid-Build (DBB), the department contracts with separate entities for construction and design.<sup>23</sup> The traditional DBB model takes the longest time for project delivery because each step is undertaken in sequence and with no overlap. Two methods used by other states that show promise for Wisconsin are Construction Management/General Contractor (CMGC) and Design-Build (DB).

Under CMGC, the owner (the state) enters into two contracts, one with a designer and one with a contractor. The contractor acts as the owner's agent and works with the designer throughout the design process. Once the design is substantially complete, the owner typically enters into a negotiated contract with the contractor for construction of the project. In CMGC, the design phase can actually be longer to accommodate contractor input to the ultimate design.

The collaboration between designer and contractor in CMGC generally results in a better design constructed in less time compared to DBB. DB is a two-phase procurement method in which a single contract is executed for design and construction. The DB model allows overlapping steps because the design and construction phases are undertaken or controlled by the same entity. While DB can expedite project delivery time, it can also increase costs beyond the traditional DBB method. CMGC has the advantage of saving time and reducing costs.



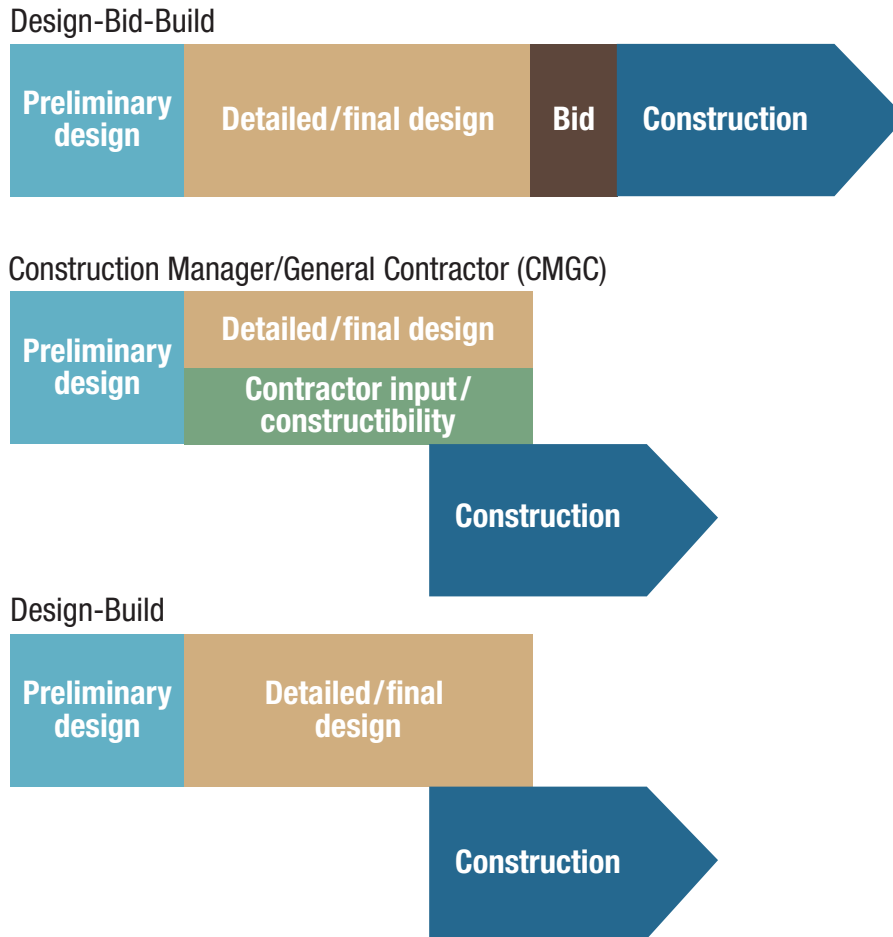
*Port of Prairie du Chien, Crawford County*

<sup>23</sup> The Legislature has granted exceptions for specific local bridge projects in the past. In addition, the department sought and received a confirmatory ruling in 2010 that a low-bid DB process (LBDB) is legally permissible under Wisconsin's current statutes. This ruling provided the mechanism for rebuilding two lift bridges (Juneau and Wisconsin Avenue) in the City of Milwaukee.



In Chart II-E, the Federal Highway Administration provides the following comparison.<sup>24</sup>

Chart II-E: Design-Bid-Build versus CMGC and Design Build



➡ **THE COMMISSION RECOMMENDS** the department be given authority to use Construction Manager/General Contractor (CMGC) and Design-Build (DB) as methods of project delivery.

The Commission further recommends that the department be required to report to the Legislature on its performance under DB and CMGC.

Without the authority to use alternative project delivery methods, Wisconsin will be unable to take advantage of the opportunity to save time and money on the delivery of transportation projects. For some projects, CMGC or Design Build could provide safety, accessibility, and economic benefits to the public sooner than would be possible today.

<sup>24</sup>Source: <http://www.fhwa.dot.gov/everydaycounts/projects/methods/description.cfm>.

## Economic benefits of the Commission's recommendations

Transportation is the life blood of Wisconsin's economy. It provides an efficient means of transporting raw materials to factories and job sites; transporting products to market; and transporting people to work, school, the marketplace, medical facilities, or other destinations where they can participate in the economy, buying and selling the goods and services produced in the state. Without transportation, the economy would be at a standstill.

An efficient transportation network supports the activity of every economic sector by reducing the price of consumer goods and decreasing the cost of doing business. Predictable and reliable travel times are important in a state economy that relies on manufacturing with its tightly scheduled supply-chain and distribution systems. An integrated and seamless network of highways, airports, harbors and railroads links Wisconsin businesses and consumers to the global economy. Without investment in the freight network, that link will be lost.

Wisconsin's Gross Domestic Product (GDP) has grown slightly in recent years. In current dollars, its preliminary 2011 GDP is reported at \$254.8 billion or 1.7 percent of total U.S. GDP.<sup>25</sup> The largest share of the state's GDP is produced by businesses and industries in counties surrounding the city of Milwaukee and along the Highway 41 corridor between Milwaukee and Green Bay. Wisconsin's mid-sized cities such as Superior, Wausau, Eau Claire, La Crosse, Stevens Point and Janesville balance the economic activity across the state.

However, economic activity is not limited to urbanized centers. Forestry is dominant in the northern part of the state while agriculture and dairy farming blanket the state's central and southern regions. Fracture sand mining and processing is an important new industry in western counties. Abundant natural resources and year-round outdoor recreation opportunities underpin Wisconsin's substantial tourism industry, primarily in northern counties. The tourism industry draws extensively from the Chicago and Minneapolis–St. Paul metropolitan areas. Approximately 75 percent of Wisconsin tourists are from Minnesota, Illinois or Wisconsin.

State manufacturers and producers rely on truck, rail, air, and water transportation to receive raw materials and ship finished products around the world. The competitive nature of a global market increases the pressure on manufacturers and producers to reduce the costs of transporting inbound raw materials and outbound finished products.

*“With over \$59 billion in annual economic activity from food production and processing, this is a key way to foster job creation and economic growth for the entire state. Wisconsin agriculture plays an important role in feeding people throughout the world, but it all starts with that trip from the farm field to the first point of delivery, which often takes place on a rural Wisconsin road...”*

Wisconsin Farm Bureau Federation

<sup>25</sup>[http://www.bea.gov/newsreleases/regional/gdp\\_state/2012/pdf/gsp0612.pdf](http://www.bea.gov/newsreleases/regional/gdp_state/2012/pdf/gsp0612.pdf)

The state's diverse agricultural economy requires a wide range of transportation services. Lower value and bulk products, such as grain and fertilizer, require low-cost rail and water transportation. Highly perishable and high-value items such as fruits, vegetables, cheese and meats require specialized handling and equipment, and they rely upon a dependable highway system.

The Commission proposes increased funding for state and local highway programs to maintain and improve the state's competitiveness in the production and transportation of goods and services. From an economic development perspective, highway rehabilitation provides many benefits to manufacturers, retailers and service businesses in the state. These improvements reduce transportation costs by limiting the wear and tear on trucks and other vehicles while limiting product damage or spillage for companies handling fragile and flammable materials such as glass, chemicals, electronic components and time sensitive commodities such as agriculture and food products.



The Commission recommends increased funding for the Major Highway and Southeast Wisconsin Freeway Megaprojects programs. These programs increase highway capacity and reduce congestion, thereby avoiding increases in travel time and making travel speeds more reliable. Corridors improved by these programs are vital to the state's economy. They carry a large portion of the state's freight shipments and serve as important connections that link employees to job centers and visitors to the major tourism destinations in the state. A single major highway project, I-39/90 from Madison to the Illinois state line, will increase the state's economy by nearly \$1 billion over a 10-year period.



Farther east, 43 percent of freight tonnage and 55 percent of all freight value carried on the state trunk highway system originates from, terminates in, or passes through the I-94 freeway corridor. Major commodities include concrete, clay, glass and stone products, food and related products, primary metal products, chemicals, fabricated metals, non-metallic minerals, and warehouse and distribution freight.

An analysis of the southeast freeway system concludes that a region-wide reduction in travel times of only 10 percent decreases industry travel costs by 2.5 percent throughout the southeast region. Travel cost savings mean increased efficiency, competitiveness, and profitability. Consequently, regional industries can increase employment, and people's incomes increase with employment. Statewide, businesses that *supply* those regional industries sell more and increase employment and incomes. Similarly, businesses throughout the state that buy from those regional industries benefit from lower prices, more reliable delivery, and/or higher quality. This makes them more productive and competitive nationally. Over a 10-year period, output in the rest of the state outside the southeast region would increase by over \$362 million, personal incomes in the rest of the state would increase by over \$202 million (both in current dollar terms), and 2,300 jobs would be added to the labor force.

The Commission proposes \$40 million annually to maintain and improve the local roads and bridge system. Local roads and bridges are the “first and last mile” connectors that link local businesses, manufacturers and agricultural growers and producers to the transportation network. Local roads serve as access points for new or expanding manufacturing plants, retail centers and medical facilities. Local roads are the connectors when raw materials and finished goods are transferred from one transportation mode to another such as from highways to rail, water transport, and air cargo facilities.

The Commission’s proposal to sustain adequate investment aimed at preserving highway infrastructure and addressing highway congestion through increased highway capacity will also reduce the number of motor vehicle crashes that would otherwise occur on highways with sub-standard geometrics and higher levels of congestion. According to a 2009 National Safety Council estimate, the calculable costs of motor vehicle crashes in terms of wage and productivity losses, medical expenses, administrative expenses and motor vehicle damage exceeded \$68,000 per disabling injury and exceeded \$1.2 million per fatality. Improving the safety of Wisconsin’s highways will directly benefit the economy through the reduction of these costs, and will have an untold impact in terms of improving the quality of life for those who travel our network.



Rail provides a low cost alternative transportation mode for industry. Low-value, high-volume commodities are typically handled by rail. Rail cars transport millions of tons of coal for the state’s energy generating plants. Train cars serve as rolling warehouses, which reduces inventory and warehousing costs, making Wisconsin manufacturers and producers more competitive in the global marketplace. Heavy machinery, manufacturing, auto assembly, pulp and paper product manufacturing are some of the state’s key industrial sectors that are dependent upon rail to deliver finished goods to domestic and foreign markets.

Rail improvements directly benefit industries using rail. The four most recent freight rail improvements undertaken by the department are estimated to generate over \$500 million dollars in additional industrial output over the next two decades and over \$190 million in additional personal income as a result of transportation efficiencies created by the improvements. Overall, the freight rail industry is associated with 2,833 direct jobs and 1,250 indirect jobs.



Wisconsin’s airports integrate our people and businesses into the global economy and promote an international exchange of ideas, products, and investment opportunities. Airports enable small communities and rural populations to participate in domestic and global commerce by linking such communities with larger metropolitan areas, manufacturing facilities, and educational and cultural centers.

Wisconsin aviation serves businesses in other ways. Aviation allows businesses to quickly move key personnel from one site to another, increasing their productivity. It allows businesses to quickly ship crucial high-value commodities. In 2011, Wisconsin airports handled over 116 million pounds of air cargo and 6.4 million passenger arrivals and departures. The aviation industry is responsible for 19,054 direct and 2,869 indirect jobs in the state.



Wisconsin's harbors and ports serve as hubs of economic activity for manufacturing, shipbuilding, cargo handling, passenger ferry services, transportation logistics, commercial fishing, and as recreational centers. Water transportation is the least costly mode for moving low value bulk commodities such as coal, agricultural products, and petroleum and construction materials. Freight rates per ton-mile for waterborne modes are as much as 60 percent lower than rates for other types of overland shipments.

Each year, Wisconsin's 29 commercial ports handle some 40 million tons of cargo worth an estimated value of over \$8 billion. The bulk of this is exported to destinations outside Wisconsin. With the recent federal government award to build off-shore patrol vessels for the U.S. Coast Guard, Wisconsin's ports continue to serve as centers for the construction and maintenance of waterborne vessels. Over 1,200 employees are working at the commercial ports in the state. In addition, the ports generate another 1,700 indirect jobs.



Transit includes private and public bus services, trolleybuses, shared-ride taxi services, heavy and light rail, van pools, and demand response services (dial-a-ride services). Besides simply offering an alternative means of transportation, transit has a significant impact on the state economy, including timesaving benefits to travelers and transportation cost savings to firms. In addition, transit increases consumer access to retail businesses, services, and medical facilities.

Transit services improve job accessibility for workers who do not own a vehicle, benefiting firms in reduced worker absentee rates and improved punctuality, both of which improve labor productivity. Transit can also connect areas of higher unemployment with areas in need of labor, providing access to jobs in addition to a mobility option for residents.

Transit services provide seniors, the disabled, and people who do not own vehicles with access to retailers, service providers, entertainment, and medical centers. Efficient transit services serve as a marketing tool for businesses both by expanding their customer base and by making it easier for potential employees to commute. The resulting increases in revenues from individual sales taxes and businesses' property taxes contribute to the local economy.

In 2004, \$252 million in transit funding generated \$870.5 million in output and sales in the Wisconsin economy.<sup>26</sup> Health and social services, retail trade, and manufacturing were among the largest beneficiaries of this economic boost. A study funded by the Department of Transportation found that every additional \$1 million in transit funding generates over \$3 million in economic activity.



Bicycling and pedestrian facilities are critical in creating an integrated and balanced transportation network. Investments in facilities that support them support more efficient land use, provide transportation equity for those who do not drive, improve our communities and citizens' quality of life, and improve the safety of our roadways for all users. Investments in these facilities also yield environmental and economic benefits. In 2012, the League of American Bicyclists ranked Wisconsin the sixth most bike friendly state in the nation.

Another example of how the activity associated with creating the transportation network itself contributes to the state economy is the employment generated by state highway construction, rehabilitation, and maintenance programs. The Commission's

recommendation to add \$387.1 million annually for highways, maintenance and traffic operations will generate an estimated net 2,130 jobs each year and will mean an estimated \$3.8 million annually in additional state tax revenue.

*“Wisconsin could easily qualify as the bicycle capital of the United States. It is home to Trek, Pacific Cycle, Schwinn, Saris and a handful of other companies. The bicycle industry generates over \$1.5 billion annually and employs over 13,000 Wisconsinites.”*

John Burke, Trek Bicycle Corporation

By making business more productive and competitive, transportation investments can help sustain and improve the state's economy. It is important that state and local governments play an active role in assisting businesses to become more competitive and productive. Transportation infrastructure is one means of assisting businesses to transport goods more efficiently in an increasingly competitive environment.

## Commission recommendations on programs—revenue impacts

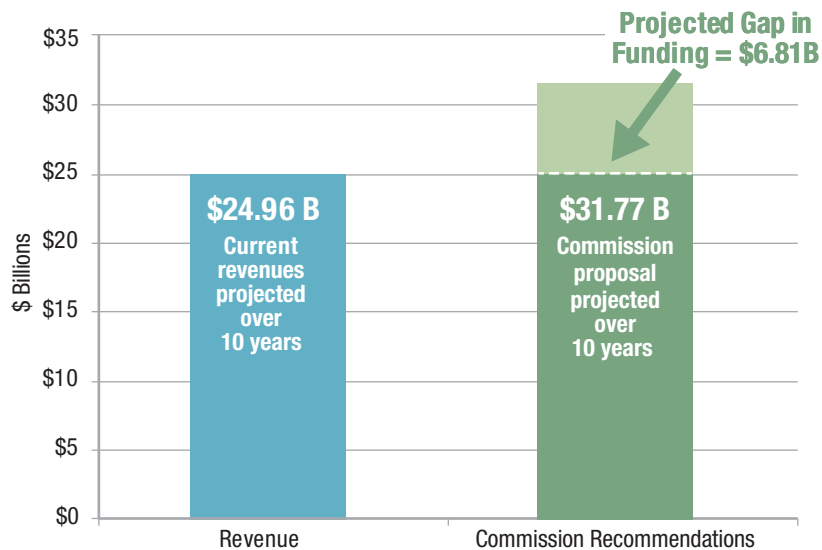
Commissioners spent considerable time and effort evaluating Wisconsin's multi-modal transportation needs for the coming decade. They evaluated the estimated costs and benefits of their recommendations to address critical needs and compared them with available revenues. As discussed throughout this report, Wisconsin's transportation needs and the benefits of investing in the programs that support them are both substantial.

<sup>26</sup> HDR/HLB Decision Economics, *The Socio-Economic Benefits of Transit in Wisconsin, Phase II: Benefit Cost Analysis*, May 2006.

## Current projected revenues versus Commission recommendations

Implementation of the Commission's recommendations for transportation investment from FY 2014 through FY 2023 starts with adjusting base year FY 2013 expenditures by the amounts the Commission recommends for each program. Over the 10-year period, the resulting need for revenues is \$31.77 billion. Projected revenues for the period total \$24.96 billion, leaving a \$6.81 billion gap, as depicted in Chart II-F.

Chart II-F: Revenue Gap-Current Revenues versus Commission's Program Recommendations



The Commission's recommendations for filling the \$6.81 billion gap are discussed in Section III.

## Section III: The Payment Plan for the Next Decade

*The Legislature asked the Commission to “examine issues related to the future of transportation finance in this state, including various options for increasing transportation fund revenues or adjusting transportation fund expenditures over the 10-year period...to achieve a stable balance between expenditures, revenues, and debt service.”*



*Work at the WIS 54 bridge over Duck Creek in Brown County*

**T**he Commission recognizes that Wisconsin is faced with mounting challenges on many fronts—aging physical infrastructure that needs repair, replacement, or expansion; demographic changes; unmet needs in all transportation modes; stagnant or declining motor fuel tax collections; and cost inflation that further erodes the purchasing power of reduced revenues.

All drivers share in the cost of maintaining the state’s highway system. In Wisconsin, motor fuel taxes are paid at the point of wholesale distribution, and these costs are typically passed on to drivers by including the cost of the tax in the price per gallon at the pump. Vehicle registration fees and motor fuel taxes are the primary means by which residents and travelers support the transportation network.

When asked about their willingness to pay for highway system improvements, the reaction of focus group participants was mixed. Some felt they already paid enough in motor fuel taxes, while others expressed a willingness to pay more to prevent roadway deterioration. Most agreed they received value for the taxes and fees they paid. Focus group participants estimated their annual cost of driving on Wisconsin highways to be anywhere from \$500 to \$1000, including motor fuel taxes and vehicle registration fees but not including insurance payments.<sup>1</sup> Their actual costs are considerably less.

<sup>1</sup> Edward Nelson and Jordan Petchenik, University of Wisconsin Survey Center, *Focus Group Assessments of Transportation Financing Options*, January 2013.



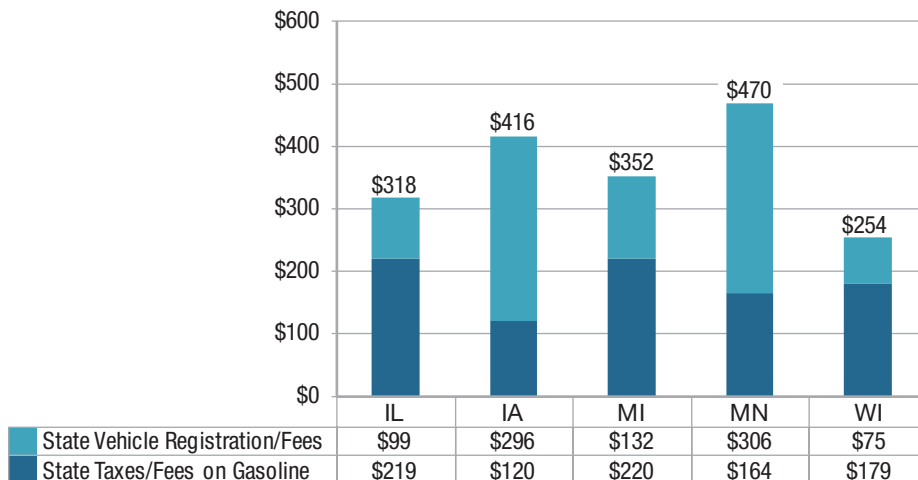
## Existing highway use taxes and fees— a five-state comparison

Commissioners reviewed motor fuel tax costs in surrounding states as part of their review of existing revenues. The total state tax on fuel in Wisconsin is higher than Iowa and Minnesota but lower than Illinois and Michigan as these two states add a state sales tax to the cost of fuel. All states charge an environmental tax as well, though rates vary among the midwest states.

Similarly, the Commission compared Wisconsin's vehicle registration fees with those of its neighboring states, using the assumptions noted in Chart III-A. While the annual cost of registering a passenger vehicle increased in Wisconsin in 2008, Wisconsin's flat fee is still the lowest of the states in the five-state region when comparing registration fees for a model year 2010 mid-size passenger vehicle. Illinois is the only other state with a flat registration fee. Iowa, Michigan and Minnesota have variable registration fees based on vehicle age and value.

Chart III-A compares Wisconsin's fuel tax and vehicle registration fee with those of its neighboring states. The department's analysis showed that Wisconsin drivers, when compared with neighboring states, contribute the smallest annual payment towards support of the transportation system.

**Chart III-A: Five-State Comparison of Vehicle Registration Fees and Motor Fuel Taxes**



**Chart III-A Assumptions:**

- » The variable registration rate in Iowa, Michigan and Minnesota is based on the first renewal cost of a 2010 mid-size sedan that has a Manufacturer Suggested Retail Price (MSRP) of \$27,170.
- » Each state's excise tax on motor fuel is based on a vehicle driven 12,000 miles and has a fuel efficiency rating of 22 miles per gallon.
- » The sales tax levied on gasoline in Illinois and Michigan assumes an annual average retail price of \$3.60 per gallon.
- » State totals do not include local fees and taxes, which are not applied uniformly to all vehicle owners.

The Commission identified multimodal recommendations for infrastructure investment that increase mobility options and support safer and more efficient transportation of people, products and services throughout the state.<sup>2</sup> Commissioners understood that program and funding recommendations were only part of their charge. They also committed to identifying sufficient revenues to support their recommendations to assure a “stable balance between revenues and expenditures.”

## Summary of revenue options



*Madeline Island Ferry*

The Commission directed department staff to develop analyses for revenue and finance proposals<sup>3</sup> and ruled out the options they considered unworkable for Wisconsin. For example, while tolling raises significant revenues in some states, commissioners believe that federal regulations remain the primary obstacle to implementing tolling in Wisconsin.<sup>4</sup>

Revenues can be collected in a variety of ways—through fuel consumption, in the vehicle registration process, or by other means. Commissioners explored a variety of funding options, noting the advantages and disadvantages of each. For example, an increase in the motor fuel excise tax is equitable across both state residents and out-of-state drivers who use Wisconsin’s highway system. However, an increase in the motor fuel excise tax is not equitable across all vehicle types since vehicles with high fuel efficiency consume less fuel and pay less than vehicles with low fuel efficiency. Conversely, increasing the late fee for license plate renewal (i.e., the vehicle registration fee) would be easy to implement, but the late fee has no direct relationship with actual use of Wisconsin’s transportation network. Appendix L describes the advantages and disadvantages of various state revenue options, both existing funding mechanisms and some new concepts.

The Commission explored a range of revenue options to keep Wisconsin moving—increasing existing transportation fees, considering new fees or programs, increasing the motor vehicle fuel tax, reintroducing fuel tax indexing, exploring various types of sales tax transfers, new sales tax options, and debt management options. Commissioners categorized these options as paying by the gallon, paying by the vehicle, paying by the mile, or paying by other means.

<sup>2</sup> Section II presents transportation funding and policy needs from 2014–2023.

<sup>3</sup> See Appendix A.

<sup>4</sup> See Section IV for further discussion of tolling.

## Paying by the gallon

### Sales tax on motor fuel

Under current law, motor vehicle fuel for on-road use purchased in Wisconsin is exempt from the state sales tax. The exemption on motor fuel could be lifted and 100 percent of these revenues sent to the Transportation Fund. Under the current five percent Wisconsin state sales tax, imposing a sales tax on motor fuel generates approximately \$529.8 million in the first full year.



### Motor fuel excise tax increase

The state excise tax on motor fuel was created in 1925 at a rate of \$0.02 per gallon. The Legislature increased the rate periodically; the last statutory increase of the motor fuel excise tax rate was in November 1997, which raised the rate to \$0.248 per gallon. Annual adjustments have resulted in the current motor fuel tax rate of \$0.309 per gallon.

A one-cent increase in the motor fuel excise tax generates \$32 million annually.

*“I’m good with the gas tax. Even if it went to the highest one. I’m still okay with it...”*

Focus Group participant

### Motor fuel excise tax indexing

As an alternative to continual requests to increase the motor fuel excise tax and to address inflation, the Legislature created an annual fuel tax indexing adjustment beginning in 1985 as the means to maintain purchasing power. Over the ensuing 21 years, the motor fuel excise tax was annually adjusted to reflect changes in consumption and/or the Consumer Price Index (CPI). Twice the excise tax was adjusted downward. Annual indexing was repealed in 2005.<sup>5</sup> The last index adjustment in 2006 added one penny to the tax, which raised the excise tax to its current level of \$0.309 per gallon. If indexing were simply reinstated in fiscal year 2014 with the same provisions as previously enacted, based on current inflation estimates, the department estimates the motor fuel tax rate would increase \$0.011 per gallon by fiscal year 2015, to a rate of \$0.320, generating \$21.2 million of additional revenue in the second year of implementation.

### Motor fuel excise tax; indexing restored with catch-up provision

A proposal to “catch up” to motor fuel excise tax indexing adjustments that would have taken place each year since 2006 would increase the Wisconsin motor fuel tax rate from

*“Bring back the annual gas tax increase.”*

Public Listening Session  
in Milwaukee

<sup>5</sup> 2005 Wisconsin Act 85

\$0.309 per gallon to an estimated \$0.366 per gallon, or an overall increase of \$0.057 per gallon. If annual indexing of the motor fuel tax were restored in addition to enacting a catch-up provision in fiscal year 2014, these factors together would raise the Wisconsin motor fuel excise tax to \$0.379 by fiscal year 2015. As a result, \$211.1 million of additional revenue would be generated in fiscal year 2015.

## General aviation fuel excise tax and alternative fuel excise tax increases

State excise taxes are also collected on other types of fuel: general aviation, liquefied petroleum gas (LPG), and compressed natural gas (CNG). The general aviation fuel excise tax was last changed in fiscal year 1982, while LPG and CNG were last changed in fiscal year 2006. A one-cent-per-gallon increase on these fuels would raise \$217,000 and \$21,000, respectively, annually.

## Paying by the vehicle

### Registration fee increase for passenger vehicles and light trucks

Registration fees are assessed on motor vehicles for the right to operate on state roadways. The annual registration fee for passenger vehicles and light trucks with a vehicle gross weight under 8,000 pounds was last changed in January 2008.<sup>6</sup> For every \$1 increase in registration fees for these specific vehicles, additional revenues of \$4.4 million would be raised annually.

### Registration fee increase for weight-based vehicles



*WIS 60, Crawford County*

Heavy trucks pay higher annual registration fees based on gross vehicle weight because they inflict significant wear to pavements and bridges. The annual registration fee for heavy trucks with a gross weight over 8,000 pounds was last changed in January 2008. For every one percent increase in the weight-based registration fee schedule, approximately \$913,000 of additional revenue would be generated each year.

<sup>6</sup> See Table III-B for excerpts from current registration fee schedule.

## Registration fee increase for International Registration Program (IRP) vehicles

Motor carriers who travel across state lines register their vehicles through IRP, whereby their registration fees are calculated on the percentage of miles they travel in each state or jurisdiction. A one percent increase in the fee for Wisconsin-based carriers would raise approximately \$767,000 each year.

## Registration fees indexed to inflation

Annually, existing vehicle registration fees for autos, vans, SUVs, light and heavy trucks could be adjusted or indexed to forecast changes in the CPI. Over a 10-year period, indexing of the annual vehicle registration fee would result in an estimated increase from the current \$75 fee to a \$90 registration fee for most autos, vans and SUVs. In the first full year of implementation, the revenue raised from indexing would be approximately \$15.7 million.

## Value-based registration fee system

Wisconsin is one of 19 states that assess a flat passenger vehicle registration fee. Alternatively, registration can be a variable fee based upon the vehicle's weight, age, horsepower, or fuel type. The border states of Iowa, Michigan and Minnesota all charge passenger vehicle registration fees based, all or in part, on vehicle value. The Commission discussed the idea of phasing in the Michigan model and applying a value-based fee only to new model year passenger vehicles, while maintaining the current flat fee for vehicles already in operation. Value-based registration provides some protection against inflation because revenues increase with the price of new, more expensive vehicles. Given assumptions regarding new vehicle prices and renewal rates, in the first full year of implementation, an estimated \$9.1 million would be realized by adopting this new registration system. Over 10 years, an estimated \$434.6 million would be realized as new model year vehicles were subjected to the value-based registration fee system.

## Biennial registration fee increase for farm vehicles, motorcycles and mopeds



Farm trucks with a gross vehicle weight under 12,000 pounds are registered on a biennial basis and the fee is reduced to one-quarter of the regular gross weight schedule. The fee for this type of light truck was last changed in December 1997. For every \$1 increase in registration fees for farm trucks, additional revenues of \$64,000 would be

raised every other year. Motorcycles and mopeds also have biennial registration and the corresponding fees were last raised in May 1998. For every \$1 increase in registration fees for motorcycles and mopeds, additional revenues of \$353,000 would be raised every other year.

## Registration fee surcharge on hybrid electric vehicles



Hybrid electric vehicles (HEVs) offer a “green” alternative to traditional vehicle ownership by addressing environmental concerns. However, these vehicles consume significantly less fuel and, thus, do not contribute to the Transportation Fund in proportion to their use of the highway system. The

Transportation Fund currently does not collect approximately \$86 in state motor fuel taxes for every vehicle with a fuel efficiency rating of 45 miles per gallon traveling 12,000 miles annually, compared with a conventionally powered passenger vehicle traveling the same number of miles with a fuel efficiency rating of 22 miles per gallon. Given the number of HEVs now in operation in Wisconsin, these vehicles contribute an estimated \$2.4 million less in state motor vehicle fuel taxes compared with an equivalent number of conventionally powered vehicles.

Future growth of HEV registrations in Wisconsin is subject to a number of economic and policy-related variables. Changes in overall economic growth, employment, vehicle price, purchase incentives, policy changes, and personal and disposable income would result in different registration revenue projections. Increasing CAFE standards will raise the fuel efficiency of our nation’s fleet. If a new \$75 annual registration surcharge were created for HEVs, approximately \$4.5 million in additional revenue would be generated in the first full year of the surcharge.

## Title fee increase

Vehicle ownership is documented through the Certificate of Title. The fee to obtain the initial vehicle title or to show ownership change was last increased in July 2011. For every \$1 increase in the original vehicle title fee, approximately \$1.2 million would be raised annually.

## Driver license fee increase

Wisconsin’s eight-year driver license provides the authority for drivers to operate commercial and non-commercial motor vehicles. The original and renewal fee for these licenses was last increased in 1998. For every \$1 increase in the original and renewal of all driver license product transactions, additional annual revenues of \$825,000 would be realized.

## Driver license issuance fee increase

The driver license issuance fee was created to provide funds to maintain a secure license issuance system including anti-counterfeiting measures. For every \$1 increase in the issuance fee, additional annual revenues of \$1.1 million would be raised.

## Sales tax on motor vehicles, parts and accessories

Tax receipts from the sale of new and used motor vehicles and auto-related parts and accessories are currently subject to the state sales tax. These revenues could be entirely redirected from the General Fund to the Transportation Fund. Under the current five percent Wisconsin state sales tax rate, this change would generate approximately \$465 million in the first full year. It should be noted that 2011 Wisconsin Act 32 included a provision that partially accomplished this option. Act 32 requires an ongoing annual General Fund transfer to the Transportation Fund of an amount equal to 0.25 percent of General Fund taxes, but this amount may not be less than \$35.1 million—estimated to represent 7.5 percent of sales tax collections on motor vehicles and related parts and accessories in FY 2013.

## Paying by the mile

### Mileage-based registration—self-reported odometer reading

In response to declining state and federal revenues from the motor fuel excise tax, some economic analysts are beginning to advocate moving to fees based on actual miles driven rather than gallons of fuel consumed. The Congressional Budget Office released two related studies in 2011.<sup>7</sup> The Commission reviewed the results of pilot projects and other state efforts.

Studies indicate that mileage-based revenue collection systems have the potential to replace or supplement state and federal motor fuel tax collections.<sup>8</sup> Such systems could conceivably correct inequities among users and provide additional revenues. The new technology has been considered on a small scale by several states:

- The University of Iowa installed on-board computers into participants' cars; participants supported the technology the more they used it.
- Oregon used several options for reporting mileage and had a variable fee structure for miles driven; participants drove less during higher peak-hour pricing.
- The state of Washington evaluated a GPS-based system for use on their toll ways; participants altered their driving patterns in response to variable toll rates.
- Minnesota's current pilot project uses Smartphone technology to assess mileage-based user fees electronically each month. The study recommends that any mileage-based collection system should assure that all drivers pay based on their use of the system and that all vehicles using the roadway system are assessed fees.

<sup>7</sup> Congressional Budget Office, *Spending and Funding for Highways, Economic and Budget Issue Brief*, January 2011; and *Alternative Approaches to Funding Highways, A CBO Study*, March 2011.

<sup>8</sup> Vehicle miles traveled (VMT), mileage-based user fee (MBUF), and road usage charge are synonymous terms used by states; they describe similar systems.

A high-tech, mileage-based user fee involves several components—a unit to collect mileage data, a unit or technology to transmit mileage data to a collection point, and a billing mechanism based on the transmitted mileage data. Mileage data can be ascertained through a GPS unit, On-Board Diagnostic (OBD) Unit-II, or another type of automated vehicle identifier installed in the participating pilot study vehicle.



Commissioners considered the introduction of a similar mileage-based fee for Wisconsin. Based on studies in other states, a technology dependent mileage-based user fee is a viable option to replace motor fuel taxes in the future and to restore stability to the state's transportation revenue collection method. However, due to the lack of national or other state support, the uncertainty regarding the actual technology of future mileage-based fee systems, and the significant implementation and cost issues, commissioners do not believe a high-tech option is a reasonable alternative for Wisconsin at this time.

The Commission believes the low-tech, mileage-based registration fee (MBRF) is a viable alternative for Wisconsin to pursue as a near-term supplement for declining or stagnant revenues from the motor fuel tax. A low-tech MBRF does not require the installation of new technology—no additional equipment need be purchased by the vehicle owner, on-board technologies or tracking systems are not necessary, and the privacy concerns presented by a high-tech approach are mitigated. A low-tech option can be incorporated into the annual registration process. A low-tech fee requires the determination of miles driven each year through self-reported odometer readings, odometer inspections, or using an assumed mileage for each vehicle coupled with optional odometer inspections. The Commission recommends a mileage cap to aid high-mileage drivers and a credit for the first several thousand miles driven to aid low-mileage drivers and drivers who travel in other states.

The low-tech option would position the state to more easily adopt a high-tech solution when other state or federal agencies are ready to do so. In addition, mileage-based registration fees could become another source for pledged revenues to support debt service payments.

Chart III-B indicates how revenues from a low-tech, mileage-based registration fee could grow following an implementation period, based on the department's analysis.<sup>9</sup> For illustrative purposes, in the first full year of implementation, revenues at a rate of 1.5 cents per mile would provide nearly \$390 million. Mileage-based registration fees would provide a new funding mechanism to augment stagnant or declining revenues from the motor fuel tax, in lieu of pursuing more traditional increases in vehicle registration and title fees to provide increased revenues.

<sup>9</sup> See Appendix A, *Mileage-Based Registration Fee Update*, September 2012.



Chart III-B: Projected Revenues from Motor Fuel Tax and Low-Tech Mileage-Based Registration Fee (MBRF)

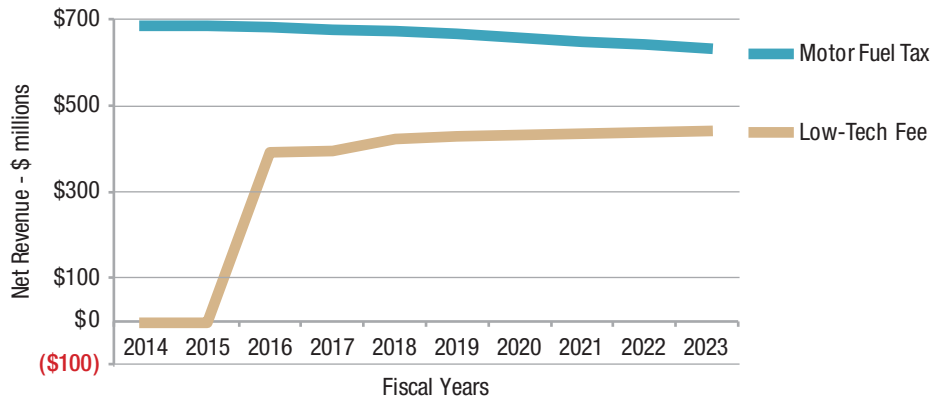


Chart III-B Assumptions:

- » The first two years would be dedicated to modifying the current registration system to include a registration fee component based on vehicle odometer readings and developing adequate enforcement policies.
- » An illustrative rate of 1.5 cents per mile was used.
- » Net revenue reflects a reduction for a first-3,000-mile credit and an annual mileage cap of 20,000 miles.

Focus group participants and others expressed concerns about the MBRF revenue option. They discussed administrative issues; the potential for under-reporting of odometer mileage and other forms of evasion; the inability to distinguish out-of-state miles already taxed or tolled; the larger fee burden on people or businesses that incur significant mileage as part of their daily activities; and out-of-state users of the transportation system not sharing in this expense.

*“I don’t like the vehicle miles one because I drive a lot...I shouldn’t have to be paying for driving in state when I’m out of state.”*

Focus Group participant

- THE COMMISSION RECOMMENDS** a low-tech, mileage-based registration fee as a near-term alternative to supplement declining or stagnant revenues from the motor fuel tax. This alternative would apply to passenger vehicles and light trucks. Commissioners developed mitigating strategies to address the public’s concerns.<sup>10</sup>
- Implement an exemption for the first 3,000 miles to limit additional fees on very low mileage drivers and to provide an offset for some out-of-state miles;
  - Implement a 20,000-mile cap to provide some offset for high mileage drivers and reflect the need to maintain the motor fuel excise tax; and
  - Implement actual mileage enforcement strategies at title transfer, vehicle inspection and other convenient transaction points.

<sup>10</sup> The estimated revenues in Chart III-B reflect these general adjustments and assumptions.

## Mileage-based registration fee indexed to inflation

The mileage based registration fee could also be indexed to inflationary changes in the CPI. For purposes of this estimate, assume an illustrative rate for the MBRF of 1.5 cents per mile and that the new fee would begin in FY 2016. If mileage-based registration fee indexing were to begin in FY 2017, additional revenue of approximately \$7.7 million could be generated in FY 2017 and \$15.9 million in FY 2018. This revenue projection is in addition to the revenue estimates previously provided and depicted in Chart III-B.

## Paying by other means

### Repeal of motor vehicle trade-in sales tax exemption

Vehicle trade-in allowances are currently deducted from the sales price of a motor vehicle to calculate the taxable cost of a motor vehicle. The Commission reviewed practices of other states. Michigan and 12 other states do not deduct the trade-in value from the sales price of a vehicle for sales tax purposes. The sales tax exemption on the trade-in allowance could be repealed or lifted and 100 percent of the additional revenues sent to the Transportation Fund. Given the current five percent Wisconsin state sales tax rate, this change would generate approximately \$94 million in the first full year of implementation.

### Motor fuel excise tax loss allowance

Motor fuel suppliers are given a 1.35 percent allowance under current law as compensation for evaporation and other losses on motor fuel. Suppliers share portions of the allowance throughout the supply chain and do not retain the entire 1.35 percent loss allowance. Eliminating the entire 1.35 percent allowance and subjecting the additional fuel to the current motor fuel excise tax would generate approximately \$13.5 million in additional revenue annually.

## Bonding as a financing option



*Koeller St, Oshkosh, Winnebago County*

Government entities often choose to finance projects that acquire or build assets having a long useful life through debt. Bond issuance provides an immediate source of cash in the form of bond proceeds, allowing projects to be constructed or undertaken without the costs of delay—inflation, lost travel

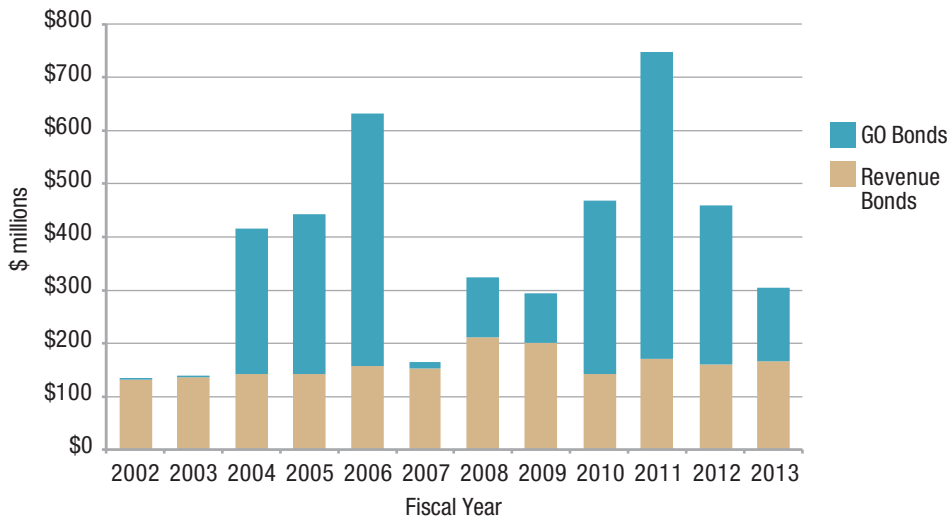
time, freight delays, wasted fuel, and foregone or deferred economic development. The issuance of bonds assures that future highway users will share in paying the infrastructure costs of a project with a long life of as much as 50 years. The benefits of constructing a project on an expedited schedule, however, must be balanced with the costs of servicing the debt; future revenues must be applied to principal and interest payments of the debt.

Commissioners reviewed the history of debt financing in Wisconsin, its costs and prospects for the future, and bond policies in other states. The issuance of bonds—Transportation Revenue Bonds (TRBs) and General Obligation (GO) Bonds—for transportation projects and programs is a traditional financing mechanism used by 47 states and the District of Columbia, though some states restrict its use more than others. Wisconsin first issued bonds for state highway, bridge, and administrative facility projects in 1969 and has issued TRBs for the Majors program and administrative facilities since 1984.

Today, Wisconsin issues bonds to finance harbor assistance, freight rail assistance, department administrative facilities, southeast Wisconsin megaprojects, and to preserve annual funding levels within the Majors and SHR programs.

Chart III-C shows how bonding to finance transportation improvements in Wisconsin has varied over the past 12 years. The FY 2010 and 2011 increases account for bonding authorized for the Stillwater Bridge (St. Croix River Crossing) between Minnesota and Wisconsin and the I-94 North–South Freeway in southeast Wisconsin. The continued reconstruction of the southeast Wisconsin freeway system and the need to maintain consistent funding levels in the SHR program is reflected in the level of authorized bonding in FY 2012. In past biennia, bonding was also authorized to replace funds transferred from the Transportation Fund to the state’s General Fund.

**Chart III-C: Authorized Transportation Revenue Bonds and General Obligation Bonds**

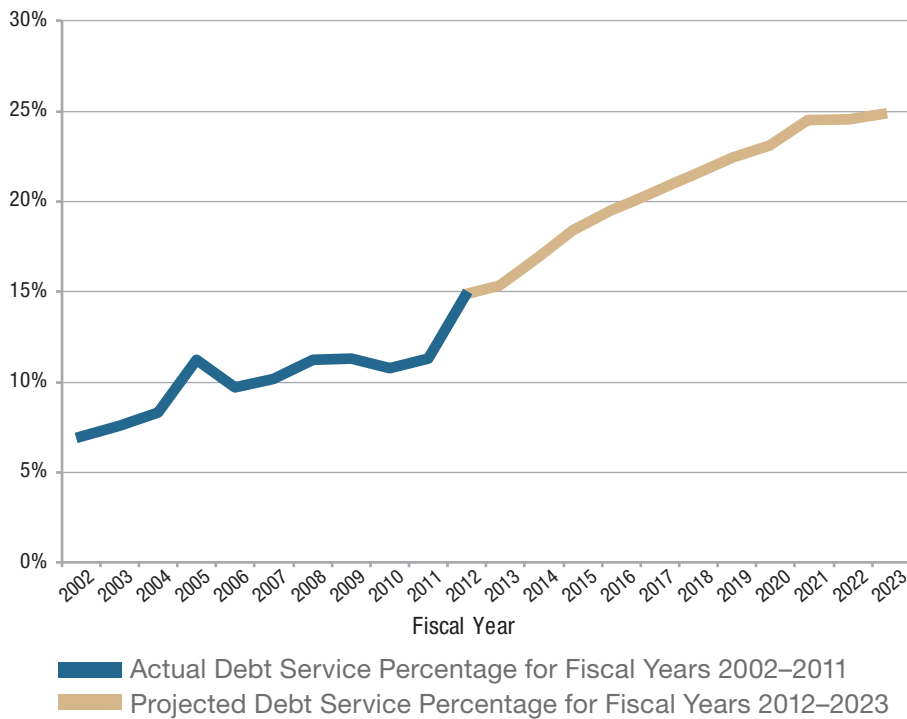


Commissioners understand the need to manage the state’s future debt responsibly. Bond repayment is typically a 20-year commitment. Transportation Fund revenues must be allocated to repay the principal and interest, commonly referred to as debt service. By law, the state pledges revenues from vehicle registration and title fees as the source of funding for debt service on TRBs. The source of revenues to repay GO bonds is not specific; it can be other Transportation Fund revenues or general income or sales tax dollars.

The blue line in Chart III-D shows the growth in debt service payments as a percentage of state transportation revenues over the past 10 years. The amount of state Transportation Fund revenues devoted to debt service is expected to increase. This is due to the long-term repayment schedule; future issuance of bonds already authorized by the Legislature for specific projects; and the continued use of bonding to fund specific highway improvement projects, harbor, rail, and facility improvements.

Assuming the use of bonding is held at the FY 2013 level, the department expects the percentage of Transportation Fund revenues devoted to debt service to grow to nearly 25 percent of revenues by FY 2023, as shown by the tan line in Chart III-D.

**CHART III-D: Percentage of Transportation Revenue Devoted to Debt Service**



One way to reduce the debt service ratio is to raise additional state revenues. Assuming the same level of bond proceeds, the ratio would decrease if new fees were implemented or existing fees were raised and pledged to debt service. This could be accomplished by a one-time fee increase or by raising revenues incrementally over the 10-year period.

The Commission's review of other states' debt issuance policies and practices revealed the following:<sup>11</sup>

- Twenty-seven states prepare a written financial plan that establishes or forecasts future debt issuance or debt levels.
- Many states used a common benchmark—level of debt service as a percentage of available revenues.
- Minnesota, Missouri and Ohio have adopted a policy that no more than 20 percent of revenues should be devoted to debt service.

A debt management policy provides assurance to the public that the department will operate within appropriate borrowing guidelines. The Commission supports such a policy and believes it would result in a more rigorous consideration of the long-term implications of borrowing and the state's ability to repay the debt. Bonds are a useful financing tool for projects with a long useful life. However, the state must assure that a steady source of revenue is available to repay the debt over the ensuing 20 years. Without bonding, some projects would likely be delayed regardless of perceived need, and priorities would need to be reconsidered to assure the delivery of a balanced program within available resources.

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**THE COMMISSION RECOMMENDS** creation of a policy statement that debt service on bonding should not exceed 25 percent of state transportation revenues. At the same time, the Commission recommends that the department, to the extent possible, should take advantage of low interest rates in the near term. The Commission further recommends that longer term debt instruments be used for projects having a long useful life—typically over 20 years.

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US 12/18, Dane County

<sup>11</sup> National Cooperative Highway Research Program (NCHRP) Synthesis 395, *Debt Finance Practices of Surface Transportation*, 2009.

## Commission's recommended funding package

Section I of this report describes the base budget for the transportation program (FY 2013). Section II outlines the Commission's recommendations for additional network investments across all modes and services. The resulting funding gap is detailed in Table III-A.

**Table III-A: Available Revenue to Fund Base Budget and Commission Investment Recommendations, FY 2014–FY 2023 (\$ in millions)**

<b>Revenues:</b>		
State (available after debt service)	14,272	
Federal	7,800	
Bonding <sup>i</sup>	2,886	
<b>Subtotal Revenues</b>		<b>\$24,958</b>
<b>Expenditures:</b>		
Administrative	2,446	
Highway Program (SHR, Majors, Mega)	17,375	
Highway Maintenance	2,387	
General Transportation Aids (GTA)	4,201	
Local Highway/Bridge	1,731	
Transit	2,051	
Aeronautics	890	
Freight Rail	171	
Passenger Rail	85	
Harbors	85	
Bicycle/Pedestrian	348	
<b>Subtotal Expenditures</b>		<b>\$31,770</b>
<b>Funding Gap (over 10 years)</b>		<b>(\$6,812)</b>

The Commission considered several factors as they deliberated their recommendations:

- All types of drivers in Wisconsin should share in solutions for funding the transportation network, as all highway users contribute to wear and congestion on the highway system.
- Wisconsin's highway system is used by both residents and out-of-state travelers, and all users should share in the cost of system preservation and development.
- The immediate need for revenues requires that new revenue sources should contribute revenue within two years; and a multi-biennia implementation period prior to collection of revenues is not desirable.
- Innovative options that are easy to understand, produce sufficient revenue within the near term, and have low implementation costs should strongly be considered.

<sup>i</sup> Bonding level includes additional up-front bonding in FY 2014 for projects of immediate priority and funding the TFPC recommended program levels for harbors and freight rail.

- To effectively manage future debt payments, the state’s future use of bonding should be constrained to more critical projects or needs that have a longer life.
- To accomplish these goals, it will be necessary to restore the integrity of the Transportation Fund and assure residents that their transportation taxes and fees are being used solely to support Wisconsin’s transportation network.

## The Commission’s preferred funding package



*US 53 and County B, Douglas County*

After careful consideration and discussion of the costs and benefits of various revenue approaches, the Commission agreed to an approach to raise revenues to a level that supports their policy recommendations. This approach puts the state on a sound financial footing through FY 2023. These recommendations do not change the current flat registration fee for Wisconsin vehicles.

The Commission’s preferred funding package includes the following elements:

- ▶ **MOTOR FUEL EXCISE TAX**—Increase the state excise tax on motor fuel by \$0.05 per gallon. This change would raise the rate for gasoline and diesel fuel to \$0.359 per gallon and generate \$1.59 billion in additional revenue over the next 10 years.
- ▶ **MILEAGE-BASED REGISTRATION FEE**—Adopt a new low-tech, mileage-based registration fee (MBRF) for passenger vehicles and light trucks using a constant rate of 1.02 cents per mile. Taking into account the first-3,000-mile credit presented in Chart III-B, the effect of this new fee on a passenger vehicle driven 12,000 miles is an additional \$92 annually. The MBRF is projected to generate \$2.28 billion in new revenue over the next 10 years.
- ▶ **REGISTRATION FEE FOR WEIGHT-BASED VEHICLES (HEAVY TRUCKS)**—Increase the registration fee for vehicles having a gross vehicle weight exceeding 8,000 pounds by 73 percent, a comparable increase to the MBRF’s impact on passenger vehicles and light trucks. This change is projected to generate \$848 million in additional revenue over the next 10 years.

➤ **REGISTRATION FEE FOR INTERNATIONAL REGISTRATION PROGRAM (IRP)**

**VEHICLES**—Increase the registration fee for Wisconsin-based motor carriers participating in IRP by 73 percent, a comparable increase to the MBRF's impact on passenger vehicles and light trucks. This change is projected to generate \$591 million in additional revenue over the next 10 years.

➤ **DRIVER LICENSE FEE**—Increase the driver license fee for all original and renewal driver license products by \$20. This change would raise the base eight-year regular license to \$44 and the base eight-year commercial driver license to \$84; it is projected to generate \$161 million in additional revenue over the next 10 years. This recommendation would not affect the \$10 driver license issuance fee.

➤ **MOTOR VEHICLE TRADE-IN SALES TAX EXEMPTION**—Repeal the exemption for a vehicle trade-in allowance to calculate state sales tax on motor vehicle purchase transactions, and distribute these new revenues to the Transportation Fund. The repeal would generate an estimated \$917 million in new revenue over the next 10 years.

➤ **BOND ISSUANCE**—With the additional revenues in the preferred funding package and the bond issuance level noted below, debt service as a percentage of state transportation revenue will be kept under 20 percent for the 10-year period. Two elements are involved:

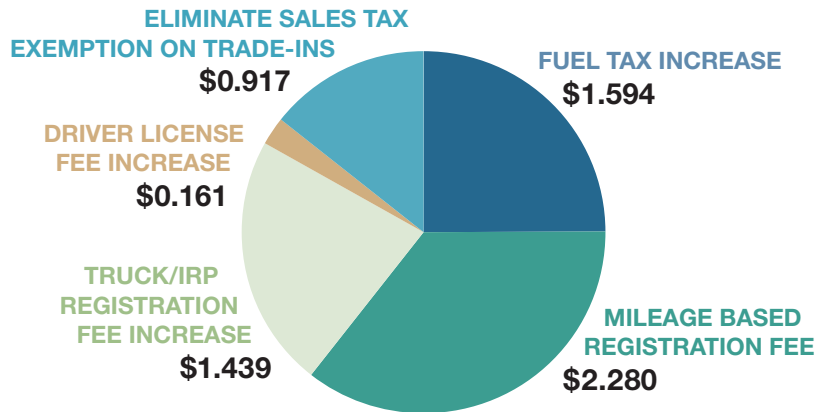
- » Over the 10-year period, revenues from bond issuance would increase to \$3.54 billion.
- » With the increased bonding level, debt service payments would increase to \$4.23 billion over the 10-year period resulting in a debt service to revenue percentage of under 20 percent. This level of debt service in each of the next 10 years is well under the 25 percent cap recommended by the Commission.

To allow for flexibility in the future, it is the Commission's recommended bonding policy that debt service payments should not exceed 25 percent of state transportation revenues.



The Commission’s preferred funding package presents a balanced approach to funding transportation programs and the Commission’s recommendations for additional network investments across all modes and services. Chart III-E illustrates how these funding components compare and the additional revenue to be generated over the 10-year period from 2014 through 2023. Funds from expected bond issuance over the 10-year period are not included in Chart III-E.

Chart III-E: A Balanced Funding Approach—  
Additional Revenues FY 2014 through 2023 (\$ in billions)



### The Commission’s alternative funding package

The Commission acknowledges that the Legislature may determine that the new mileage-based registration fee (MBRF) recommended in the preferred funding package is not the right solution for Wisconsin at this time. In lieu of the \$2.28 billion of revenue the new MBRF would generate over 10 years, the following traditional vehicle registration fee changes would be required for passenger vehicles and light trucks to provide the same level of funding:

- **MOTOR FUEL EXCISE TAX**—Increase the state excise tax on motor fuel by \$0.05 per gallon. This change would raise the rate for gasoline and diesel fuel to \$0.359 per gallon and generate \$1.59 billion in additional revenue over the next 10 years.
- **REGISTRATION FEE FOR PASSENGER VEHICLES AND LIGHT TRUCKS**—Increase the registration fee for passenger vehicles and light trucks with a gross vehicle weight up to 8,000 pounds (commonly known as A, B, C pick-up trucks) by \$55. This change would raise the registration fee for automobiles to \$130, and the new fee for pick-up trucks would be \$130, \$139, and \$161, respectively. Together, these fees would generate \$2.28 billion in additional revenue over the next 10 years.



► **REGISTRATION FEE FOR WEIGHT-BASED VEHICLES (HEAVY TRUCKS)—**

Increase the registration fee for vehicles having a vehicle gross weight exceeding 8,000 pounds by 73 percent, an increase comparable to the registration fee's impact on passenger vehicles and light trucks. This change would generate \$848 million in additional revenue over the next 10 years.

► **REGISTRATION FEE FOR INTERNATIONAL REGISTRATION PROGRAM**

**(IRP) VEHICLES—**Increase the registration fee for Wisconsin-based carriers participating in IRP by 73 percent, an increase comparable to the registration fee's impact on passenger vehicles and light trucks. This change would generate \$591 million in additional revenue over the next 10 years.

► **DRIVER LICENSE FEE—**Increase the driver license fee for all original and renewal driver license products by \$20. This change would raise the base eight-year regular license to \$44 and the base eight-year commercial driver license to \$84, generating \$161 million in additional revenue over the next 10 years. This recommendation would not affect the \$10 driver license issuance fee.

► **MOTOR VEHICLE TRADE-IN SALES TAX EXEMPTION—**Repeal the exemption for a vehicle trade-in allowance to calculate state sales tax on motor vehicle purchase transactions, and distribute these new revenues to the Transportation Fund. The repeal would generate \$917 million in new revenue over the next 10 years.

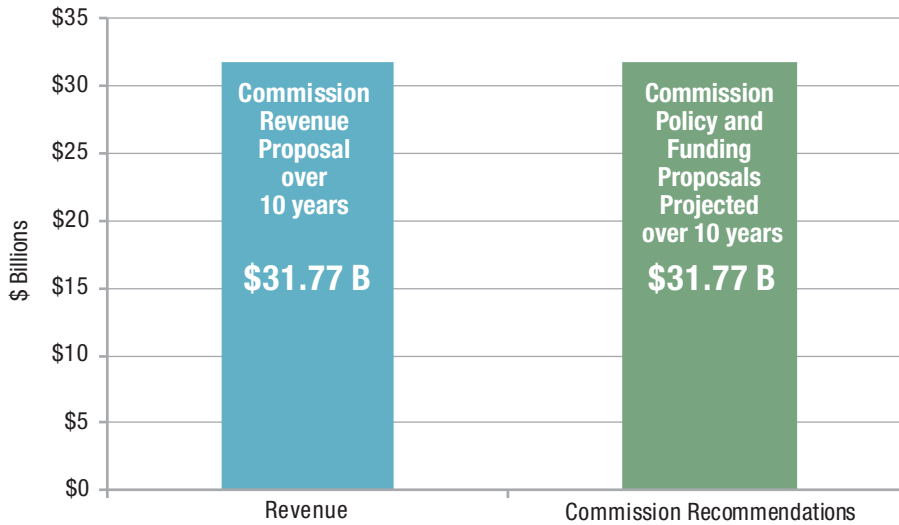
► **BOND ISSUANCE—**With the additional revenues in the alternative funding package and the bond issuance level noted below, debt service as a percentage of state transportation revenue will be kept under 20 percent for the 10-year period. Two elements are involved:

- » Over the 10-year period, revenues from bond issuance would increase to \$3.54 billion.
- » With the increased bonding level, debt service payments would increase to \$4.23 billion over the 10-year period resulting in a debt service to revenue percentage of under 20 percent. This level of debt service in each of the next 10 years is well under the 25 percent cap recommended by the Commission.

To allow for flexibility in the future, it is the Commission's recommended bonding policy that debt service payments should not exceed 25 percent of state transportation revenues.

Chart III-F shows the effect of the Commission’s recommendations as discussed in Section II and the preferred revenue package to address the funding needs of the efficient transportation network commissioners envision. The recommended funding package fully funds the needs and recommendations identified by commissioners.

**Chart III-F: Total Revenues from Funding Package and Commission’s Program Recommendations**



## Impact of recommendations on Wisconsin vehicle owners

The Commission believes it is critical to translate its revenue recommendations into a clear summary of how passenger and commercial drivers will be affected. While it is not possible to address all driver scenarios, the Commission chose some broad parameters to give policy makers and citizens a clearer sense of their recommendations’ impact.

The driver impact analysis considers changes to current vehicle registration fees and motor fuel taxes—\$75 and \$179 annual fees respectively, for a mid-sized sedan.<sup>12</sup> As noted, the Commission recommends the motor fuel excise tax be raised five cents, from \$0.329 per gallon to \$0.379 per gallon which includes \$0.02 per gallon for the Petroleum Inspection Fund.

With regard to vehicle registration fees, studies have shown that the heavier the vehicle, the greater the damage to transportation infrastructure with repeated use.<sup>13</sup> Transportation agencies typically reflect the increased level of wear and tear within their registration fee schedules—the heavier the vehicle, the higher the fee. This

<sup>12</sup> See Chart III-A.

<sup>13</sup> Cambridge Systematics, Inc. and National Center for Freight and Infrastructure Research and Education (CFIRE) at the University of Wisconsin–Madison, *Wisconsin Truck Size and Weight Study*, June 2009.




general correlation is evident in the current registration fee structure. The fee for a passenger vehicle (car, van, SUV) is a flat fee regardless of its size or weight because it inflicts less wear and tear on infrastructure. Truck fees, on the other hand, vary by weight. Table III-B displays some of the more common vehicle types and their current registration fees; the list is not all-inclusive.

Vehicle Type	Annual Registration Fee
Car, van, SUV	\$75
Light truck not over 4,500 lbs., "A" plate	\$75
Light truck not over 6,000 lbs., "B" plate	\$84
Light truck not over 8,000 lbs., "C" plate	\$106
Heavy truck not over 26,000 lbs.	\$475
Heavy truck not over 56,000 lbs.	\$1,209
Heavy truck trailer not over 80,000 lbs.	\$2,560

The Commission's recommendations would increase the current flat fee for passenger vehicles and light trucks not over 8,000 pounds by either \$55 or introduce a new MBRF of 1.02 cents per mile with an exemption for the first 3,000 miles and a cap of 20,000 miles. Heavy trucks exceeding 8,000 pounds would experience a comparable increase of 73 percent. Thus, all vehicle types would experience an increase in fees, recognizing that all vehicles use the transportation system and should provide funding in support of that system. Following is a discussion of specific driver impacts.




### Passenger vehicle impact

The financial impact of vehicle registration fee and motor fuel excise tax increases for the owner of a mid-size sedan depends on the vehicle's fuel efficiency rating and the number of miles driven each year. Based on the current \$75 registration fee and \$0.329-per-gallon state motor fuel excise tax (including \$0.02 per gallon for the Petroleum Inspection Fund), the impact on various Wisconsin drivers is shown in Table III-C.

Fuel Efficiency (MPG)	Miles Driven Annually		
	4,000	12,000	24,000
 <b>Low (16 mpg)</b>	<b>\$157</b>	<b>\$322</b>	<b>\$569</b>
 <b>Average (22 mpg)</b>	<b>\$135</b>	<b>\$254</b>	<b>\$434</b>
 <b>High (30 mpg)</b>	<b>\$119</b>	<b>\$207</b>	<b>\$338</b>

The impact of the Commission’s revenue recommendations on various owners or drivers of a passenger vehicle can be similarly calculated. The Commission’s preferred funding package includes a five-cent-per-gallon increase to the state motor fuel excise tax (\$0.379 per gallon, including \$0.02 per gallon for the Petroleum Inspection Fund); and the creation of a new mileage-based registration fee (\$0.0102 per mile) for passenger vehicles and light trucks, in addition to the current flat rate registration fee. For purposes of estimating revenues, the department assumed drivers would receive a first 3,000-mile credit and that a cap of 20,000 miles would be used to determine the adjusted miles traveled each year. These details are reflected in Table III-D.




**Table III-D: Impact on Various Types of Drivers—Preferred Funding Package\***

Fuel Efficiency (MPG)	Miles Driven Annually		
	4,000	12,000	24,000
 <b>Low (16 mpg)</b>	\$180	\$451	\$817
 <b>Average (22 mpg)</b>	\$154	\$374	\$662
 <b>High (30 mpg)</b>	\$136	\$318	\$552

\*Impacts noted in table only pertain to auto, vans, SUVs, and light trucks with a vehicle gross weight rating under 4,500 pounds—these vehicles have a \$75 registration fee. The impact includes the cost of motor fuel tax at \$0.379 per gallon, plus MBRF of \$0.0102 per mile, plus the current \$75 registration fee.

The Commission’s alternative funding package includes a five-cent-per-gallon increase to the state motor fuel excise tax and a \$55 increase to the flat registration fee for passenger vehicles and light trucks. The financial impact of these revenue changes is reflected in Table III-E.

**Table III-E: Impact on Various Types of Drivers—Alternative Funding Package\*\***

Fuel Efficiency (MPG)	Miles Driven Annually		
	4,000	12,000	24,000
 <b>Low (16 mpg)</b>	\$225	\$414	\$699
 <b>Average (22 mpg)</b>	\$199	\$337	\$543
 <b>High (30 mpg)</b>	\$181	\$282	\$443

\*\*Impacts noted in table only pertain to auto, vans, SUVs, and light trucks with a vehicle gross weight rating under 4,500 pounds—these vehicles have a \$75 registration fee. The impact includes the cost of motor fuel tax at \$0.379 per gallon, plus a \$55 increase to the current registration fee, plus the current \$75 registration fee.

For ease of comparison, summary Table III-F shows the financial impact on passenger vehicles under the current fee structure, the Commission’s preferred funding package, and the Commission’s alternative funding package. The annual costs for auto, vans, and SUVs include the vehicle registration fee and state motor fuel excise tax. The table shows the combined annual cost of the additional fuel tax and registration fees vehicle owners or drivers would pay, compared to what they currently pay, under the Commission’s preferred and alternative funding packages.

**Table III-F: Miles Driven Annually**

Fuel Efficiency (MPG)	Current Fee Structure			Preferred Funding Package: Additional Cost			Alternative Funding Package: Additional Cost		
	4,000	12,000	24,000	4,000	12,000	24,000	4,000	12,000	24,000
Low (16 mpg)	\$157	\$322	\$569	\$23	\$129	\$248	\$68	\$92	\$130
Average (22 mpg)	\$135	\$254	\$434	\$19	\$120	\$228	\$64	\$83	\$109
High (30 mpg)	\$119	\$207	\$338	\$17	\$111	\$214	\$62	\$75	\$95

A Wisconsin vehicle owner of a mid-size sedan that has a fuel efficiency rating of 22 miles per gallon and drives an average of 12,000 miles each year would experience an annual increased cost of operation of \$120 under the Commission’s preferred revenue package. Under the Commission’s alternative revenue package, this same vehicle owner would experience an annual additional cost of \$83.



These alternatives can be viewed in another way for the owner described above. Owners now pay 70 cents per day under the current registration fee and motor fuel tax structure. The Commission’s preferred funding approach would cost owners an additional 33 cents per day over what they currently pay for registration fees and fuel taxes. The alternative approach would cost owners an additional 23 cents per day.

## Commercial vehicle owner impact



The financial impact of the Commission's revenue recommendations on commercial vehicle owners or drivers is more difficult to evaluate due to variables such as weight of the power unit and trailer; whether the vehicle operates solely in Wisconsin or travels to other states; the number of miles operated in Wisconsin; and the average miles per gallon for the power unit.

To prepare a similar comparison for commercial vehicle owners, the following assumptions were made:

- Truck tractor (combined tractor, trailer and load) vehicle gross weight over 80,000 pounds
- Current annual registration fee for unit is \$2,578
- State motor fuel excise tax is \$0.329 per gallon, including \$0.02 per gallon for the Petroleum Inspection Fund
- Total miles driven are all in Wisconsin

Under either revenue package recommended by the Commission, the state diesel fuel excise tax rate is increased five cents per gallon and registration fees for vehicles with a vehicle gross weight exceeding 8,000 pounds are increased by 73 percent.

Table III-G compares the annual financial impact on a commercial vehicle with varying levels of fuel efficiency that is driven varying miles each year. The comparison assumes all miles are driven in Wisconsin.

**Table III-G: Miles Driven Annually—Commercial Truck**

Fuel Efficiency (MPG)	Current Fee Structure			Recommendation		
	35,000	70,000	130,000	35,000	70,000	130,000
<b>6 mpg</b>	\$4,497	\$6,416	\$9,706	\$6,671	\$8,882	\$12,672
<b>8 mpg</b>	\$4,017	\$5,457	\$7,924	\$6,118	\$7,776	\$10,619

Table III-H presents the current registration fee and diesel fuel tax structure and the impact of the increased annual registration fees and motor fuel taxes under the Commission’s recommendation.

Table III-H: Miles Driven Annually—Commercial Truck						
Fuel Efficiency (MPG)	Current Fee Structure			Recommendations: Additional Cost		
	35,000	70,000	130,000	35,000	70,000	130,000
6 mpg	\$4,497	\$6,416	\$9,706	\$2,174	\$2,466	\$2,966
8 mpg	\$4,017	\$5,457	\$7,924	\$2,101	\$2,319	\$2,695

The Wisconsin driver of a commercial truck tractor that has a fuel efficiency rating of 8 miles per gallon and drives 70,000 miles each year in Wisconsin would experience an annual increased cost of operation of \$2,319 under either of the Commission’s revenue packages. The Commission’s funding approach would cost this commercial driver an additional \$6.35 per day, on top of the nearly \$15 per day under the current registration fee and motor fuel tax structure.

The Commission also identified several issues on which they chose to provide findings and not recommendations. These issues and a summary of all previous commission recommendations are presented in Section IV.





## Section IV: Findings and Recommendations



*WIS 35 along the Mississippi River at Alma*

*The Commission's review of issues related to the future of transportation finance resulted in a number of actions. Specifically, commissioners:*

- ▶ evaluated current transportation programs and future challenges for each program;
- ▶ reviewed the revenue and finance outlook for the Transportation Fund;
- ▶ considered a broad variety of policy and funding alternatives, including a “no action” alternative;
- ▶ created a set of transportation program policy and funding recommendations; and
- ▶ created revenue and debt management recommendations to support the Commission's program policy and funding recommendations.

This section summarizes the Commission's findings and recommendations for:

- ▶ policy changes;
- ▶ program funding levels; and
- ▶ revenue to address the funding gap identified between the funding needed to address transportation network needs and projected revenues over the 10-year timeframe.

This section also includes recommendations for legislators and policy makers to address inflation over the period.

The commissioners chose to provide findings on several issues rather than recommendations. While commissioners devoted a good deal of time and thoughtful discussion to these issues, they either did not reach consensus or could not make a recommendation at this time.

## Commission Findings

### Tolling



In some states, tolling has raised significant revenues for the maintenance and reconstruction of high-volume highways and bridges; provided funding for additional lanes to increase capacity; and funded transit services in congested corridors. Tolling provides a direct method of paying for the highway network—highway users pay for the use of tolled highways. Toll rates

are generally established by a tolling authority at levels sufficient to fund the life cycle costs of the facility—including operation, maintenance, and reconstruction. However, federal regulations that restrict the broad use of tolling by states that used federal funds on the original construction of their highways and bridges remain a primary obstacle to implementing tolling in Wisconsin.

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**III → THE COMMISSION FINDS that the department should continue monitoring federal regulations that define the use of tolling and other restrictions that have inhibited Wisconsin's pursuit of this highway financing option. Commissioners encourage the Wisconsin Congressional Delegation to support legislation that allows states more flexibility to toll on the National Highway System.**

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### Public-private partnerships (P3s)

Public-private partnerships (P3s) are contractual agreements between public agencies and private sector entities that enable greater private sector participation in project finance and delivery. The degree to which the private sector assumes responsibility and financial risk varies by project. Typically, participation involves the private sector taking on additional project risks, such as design, finance, long-term operation, and user fees. States look for P3s that transfer risk from the public agency to private investors who expect profits on their investments. These partnerships require careful analyses to protect the public interest while also providing adequate profit opportunities for the private investor.

As a procurement option, P3s can increase financing capacity and/or reduce project costs related to project design, construction and maintenance. They can provide reasonable value to the public because a project can be built more quickly than when using traditional public sector revenue and finance approaches; however, the financial aspects of P3 projects are extremely complex and, in all cases, require significant legal and financial expertise.



WIS 60, Crawford County

The Congressional Budget Office notes that although the cost of financing a highway project privately is roughly equal to the cost of financing it publicly, P3s have built highways slightly less expensively and slightly more quickly than under traditional forms of public financing in some cases.<sup>1</sup> The Commission carefully reviewed the P3 alternative, heard presentations from national experts, and considered how other states have benefitted from P3 arrangements.

Wisconsin currently lacks the project characteristics, such as a revenue stream to attract private investment, to use a P3 financing approach. At this time, the Commission does not believe a P3 approach is a feasible financing alternative to address the state's imbalance between transportation needs and revenues.

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**III → THE COMMISSION FINDS that opportunities for successful P3 project financing will continue to be limited in Wisconsin, mostly because Wisconsin has no tolled highways to provide a revenue source to a potential private-sector partner and will have limited opportunities to implement tolling in the near future. However, the Commission encourages the department, to the extent possible by law, to seek out project-specific opportunities where a P3 could be a useful tool for delivering a project more quickly, or where the use of a P3 could provide a useful pilot opportunity to evaluate this financing mechanism.**

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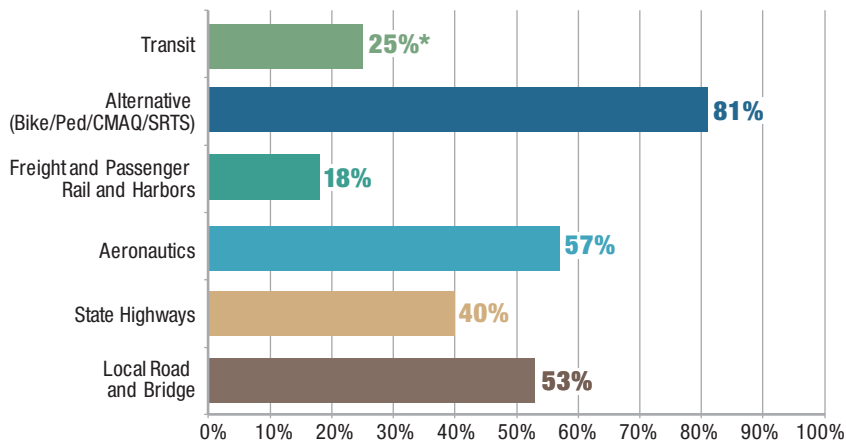
<sup>1</sup> Congressional Budget Office, *Using Public-Private Partnerships to Carry Out Highway Projects*, January 2012.

## Federal funding

The federal Highway Trust Fund (HTF) is comparable to the state's Transportation Fund where more than half of transportation user fee revenues are derived from federal motor fuel taxes. The federal motor fuel tax has experienced a similar loss of purchasing power—33 percent since 1993 when the federal motor fuel tax was last raised.<sup>2</sup> Since 2008, transportation user fee revenues deposited into the HTF have been insufficient to cover authorized federal transportation program funding levels. As a result, Congress has transferred funds from the federal General Fund to the HTF to bridge the gap between spending and revenues.

The 2012 enactment of MAP-21 (the two-year federal transportation authorization) did not provide a long-term solution to the federal funding imbalance. Projected federal revenues remain insufficient to cover program outlays, and the unfunded gap was again covered by the transfer of dollars from the federal General Fund to the HTF. Of particular concern to the states is the impact on specific state programs if federal funding is significantly reduced in response to the HTF revenue to expenditure imbalance. As noted in Section I of this report, federal funds provide nearly 26 percent of current revenues to support transportation spending in Wisconsin. Chart IV-A shows how Wisconsin's transportation programs rely on federal funding for a source of revenue based on the mode.<sup>3</sup>

**Chart IV-A: Federal Funding Contribution to each Transportation Mode  
2011 Wisconsin Act 32 (2011–13 Biennium)**



\*Does not reflect federal transit formula funds that are sent directly to Milwaukee and Madison, which totaled \$28 million in FFY 2012.

<sup>2</sup> National Cooperative Highway Research Program, Contractor's Final Task Report for NCHRP Project 20–24(69), *Implementable Strategies for Shifting to Direct Usage-Based Charges for Transportation Funding*, June 2009.

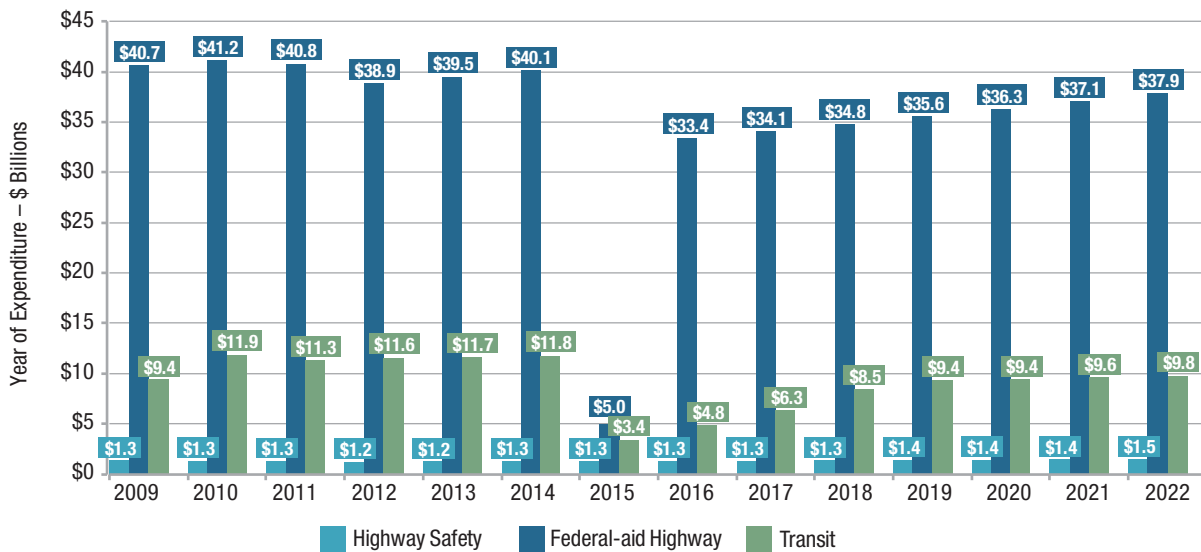
<sup>3</sup> Aeronautics receives federal dollars from the Airport and Airways Trust Fund; harbors receive funds from the Harbor Maintenance Trust Fund; passenger rail and transit receive funds from the federal General Fund.

For some transportation programs, federal dollars represent a significant portion of the annual budget for their respective efforts, particularly for pass-through grants to other entities or units of government. As an example, forty percent of the state's highway funding comes from federal sources. Within the transit community, bus systems rely on federal funds received as grants from the department. In 2011, the Stevens Point Bus System received 45 percent of its funding from federal funds.<sup>4</sup>

If Congress does not reach a resolution on funding the growing gap between revenues and expenditures in the federal HTF, states will face the continued risk of a large decrease in federal funds. A variety of critical decision points lie ahead—some as soon as FFY 2015 when the provisions of MAP-21 expire. At that time, the federal HTF balance is projected to drop from \$40 billion in FFY 2014 to \$5 billion in FFY 2015. Federal transit funding is projected to drop from \$11.8 billion in FFY 2014 to \$3.4 billion in FFY 2015.

Chart IV-B<sup>5</sup> shows historical federal funding levels for highways, transit and highway safety. It outlines the impact of the “funding cliff” that is projected for federal fiscal year (FFY) 2015.

Chart IV-B: Highway Trust Fund—Funding Cliff



Based on these estimates, Wisconsin's share of federal highway formula funding in FFY 2015 would be approximately \$87.2 million and the state's share of federal transit funding would be approximately \$22.5 million. This compares to current federal funding levels; in FFY 2012, the state received approximately \$692.6 million in federal highway formula funding and \$76.8 million in federal transit funding.

<sup>4</sup> See Appendix A for the transit policy issue paper.

<sup>5</sup> AASHTO, Joung Lee, November 2012.

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III➔ **THE COMMISSION FINDS** that federal funding levels could be reduced significantly in the future if the U.S. Congress fails to adopt legislation to address the lack of user fee revenue in the federal Highway Trust Fund. Across-the-board or targeted cuts could be made by Congress in its efforts to reduce federal spending with little time for the states to respond. The Commission encourages the Wisconsin Congressional Delegation to support ongoing federal revenue sources, not one-time fixes, to stabilize federal funding in the Highway Trust Fund.

In light of the continued risk associated with federal transportation funds, Wisconsin should develop a state response to the potential loss. One or a combination of the following actions must be taken:

- stop or delay transportation projects;
- reallocate funding among transportation modes;
- increase taxes or fees that support state Transportation Fund revenues;
- issue additional bonds to replace the lost federal revenue; and/or
- transfer funds from the state General Fund or another state fund to the Transportation Fund.

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## Landowners with property abutting highway improvements



*WIS 54 bridge, Brown County*

A safe and efficient highway system generates economic growth, with opportunities for properties located near the highway. Economic growth, in turn, brings additional traffic and the potential need for improvements to assure acceptable safety and operational performance levels. While any infrastructure project has costs, the cumulative benefits must ultimately be positive.

The Commission was specifically charged with examining the impact of the highway project planning process on landowners with property abutting proposed improvements. Commissioners learned that the department has a documented process for interacting with landowners with this type of land.

Specifically, the department conducts project studies involving property owners and area residents. As a result of these studies, the department may recommend a minor project alteration, such as shoulder widening or improving an intersection, or it may recommend relocating a highway to an entirely new location. A directly impacted property owner has opportunities for compensatory damages. An owner is generally

not eligible for compensatory damages when a property is indirectly impacted. For example, it may be located near a project but not within the actual project's footprint.

Since planning studies influence how people perceive the properties impacted by a highway project, the department schedules its studies to minimize the gap between study completion and potential construction—a time when landowners feel a degree of uncertainty. However, waiting too long can result in increased congestion levels and crash frequencies that delay the ability of the highway to provide safe, efficient transportation or serve as a positive factor for economic growth in communities and the state.

The Commission recognizes the competing interests and views in balancing the rights of property owners with the needs of the transportation network and is confident of the department's compliance with statutes, rules and regulations concerning the rights of landowners affected by projects.

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**THE COMMISSION FINDS that the department appropriately balances the needs of property owners with the process for highway system planning and development.**

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## Maintenance and traffic operation



The Highway Maintenance and Traffic Operations program provides a wide range of activities to support operations, maintenance and functionality of the state's highway system—routine maintenance such as snow plowing, mowing, shoulder repair, pavement marking, traffic sign installation and repair; non-routine maintenance such as emergency repairs for washouts,

pavement blowouts and buckling, preventative actions to extend pavement life, bridge inspections and repairs; and traffic operations such as highway lighting and signing, signal installation and maintenance, traffic incident and congestion management.

Funding for these diverse yet critical activities has been constrained since a law change in 2001. State law now requires that the installation and maintenance of assets such as traffic signals, traffic signs, street lighting, and intelligent transportation systems (ITS) must be funded from the maintenance and traffic operations budget unless these features are incidental to a highway improvement project. Section II described the inability of the maintenance budget to meet the diverse and growing highway maintenance needs as well as these capital expenses and the resulting decline in the level-of-service rating of the state's roadways.





*Merrimac Ferry, Columbia County*

The current statutory definitions for “maintenance” and “improvement” limit the department’s ability to employ optimal asset management strategies with respect to some lower level treatments. For example, patching and crack sealing are maintenance activities that must be funded by maintenance dollars, yet these activities have the lowest funding priority when competing with other demands such as signal installation.

The Commission finds that since 2001, state law has prohibited the use of funds in the highway improvement program for certain maintenance and traffic operations-related capital expenses such as traffic signals and traffic operations infrastructure unless those expenses are incidental to a highway construction project. Consequently, many capital expenses are currently funded from the maintenance and traffic operations budget, leaving fewer dollars for actual maintenance efforts.

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**III ➔ While the Commission recommended funding increases for state highway maintenance and traffic operations, THE COMMISSION FINDS that policy makers should recognize these funding increases are not adequate to address all future capital needs related to traffic operations. Under this finding, the Commission encourages policy makers, during each biennial budget process, to carefully consider the capital needs outlined in the department’s maintenance and traffic operations budgets in order to provide adequate funding to address those needs.**

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## Commission Recommendation on Inflation Impacts

The Commission's program, policy and funding level recommendations in Section II are based on the Commission's decisions related to the condition of the transportation network for the next 10 years. The revenue and bonding recommendations in Section III address the funding needs outlined by the Commission.

The revenue package contains elements that commissioners believe will put Wisconsin's transportation network on a sound footing for the next 10 years. They want to emphasize, however, that their funding recommendations are expressed in 2012 dollars. Over time, inflation will erode the purchasing power of the Commission's recommendations and will require the Legislature to reconsider the funding needs for specific programs and adjust revenues to meet those needs. To that end, the Commission makes an additional recommendation related to program inflation.

### Inflationary increases to programs

All transportation programs will experience inflation or an erosion of purchasing power as the cost of construction material, labor and other costs increase over time. Appendix H demonstrates how projected cost inflation diminishes the Transportation Fund's purchasing power over the next 10 years. Without additional funding, by FY 2023, the department estimates an average 15.7 percent decline in purchasing power over the funds provided in FY 2013.

The effect of inflation can be seen in Table IV-A. For illustrative purposes, flat annual inflation rates of 0.5 percent, 1.5 percent, and 2.5 percent were used to arrive at lost purchasing power due to inflation.

	<b>0.5% Inflation Rate</b>	<b>1.5% Inflation Rate</b>	<b>2.5% Inflation Rate</b>
Total Expenditures (Commission recommendation of \$31.77 billion + inflation)	\$32.66	\$34.51	\$36.48
Less Projected State, Federal and Bonding Revenues <sup>i</sup>	-\$25.38	-\$25.38	-\$25.38
Less Total Revenue from Commission Recommendations <sup>ii</sup>	-\$6.39	-\$6.39	-\$6.39
Additional Funding Needed to Maintain Purchasing Power	\$0.89	\$2.74	\$4.71

<sup>i</sup> Projected state revenue after debt service payments, federal revenue not adjusted for MAP-21, and bond issuance.

<sup>ii</sup> See Chart III-E for details.

The Commission recognizes the importance of maintaining the full purchasing power of every transportation dollar, but given the uncertainty over the rate of inflation over time, the Commission believes the decision to fund inflation would be better considered within future budget cycles. Two-year inflationary estimates would be more accurate than inflationary estimates projected 10 years into the future.

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**III → THE COMMISSION RECOMMENDS that the Legislature address inflation impacts with the most current forecast data in every biennial budget process.**

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The Legislature could consider several revenue options to address funding needs caused by inflation. For example, motor fuel tax indexing would provide a steady growth in revenue that could partially address inflationary needs over a number of years.

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**III → THE COMMISSION RECOMMENDS consideration of any of the following revenue sources to address the loss of purchasing power due to future inflation:**

- **Motor fuel tax indexing**
  - **Base vehicle registration fee indexing**
  - **Mileage-based registration fee indexing**
- 

### *Motor fuel tax indexing*

Motor fuel tax indexing was repealed in 2005, and the last indexing adjustment occurred in 2006. For this estimate, the department assumes that indexing is reinstated with the same provisions to reflect changes in the Consumer Price Index (CPI). Using current inflationary estimates and an April 1 adjustment date, the motor fuel tax rate would increase by an estimated one-half cent to \$0.314 per gallon on April 1, 2014. This would provide an additional \$4 million in revenue in FY 2014.<sup>6</sup> In the following year, the April 1, 2015 adjustment would conceivably raise the rate to \$0.320 and raise \$21.2 million of additional revenue—nine months<sup>7</sup> at \$0.314 and three months<sup>8</sup> at \$0.320.

The Legislature may also wish to regain the lost purchasing power by raising the motor fuel tax to the level it would be today had indexing not been repealed in 2005. The current motor fuel tax rate would increase to \$0.366 on October 1, 2013. Annual adjustments to reflect changes in the CPI would resume on April 1, 2014. At that time, the motor fuel tax rate is projected to be \$0.372, generating \$140.5 million of additional revenue in FY 2014. Assuming continued inflation, the April 1, 2015 adjustment would likely raise the motor fuel tax to \$0.379, generating \$211.1 million in FY 2015—nine months at \$0.372 and three months at \$0.379.

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<sup>6</sup> The state fiscal year is July 1 to June 30. If indexing begins on April 1, then revenue is collected at the new rate for three months in that fiscal year.

<sup>7</sup> July 1–March 31

<sup>8</sup> April 1–June 30

### *Base vehicle registration fee indexing*

The Legislature could also consider indexing base vehicle registration fees. For example, indexing the \$75 registration fee for autos, vans, and SUVs would increase the fee to a \$90 registration fee over 10 years. If registration fee indexing were to begin in FY 2014 for all class and weight vehicles, additional revenue for nine months of approximately \$5.2 million would be generated in FY 2014 and \$15.7 million in FY 2015 after a full year of implementation.

### *Mileage-based registration fee indexing*

If adopted, the mileage-based registration fee (MBRF) could also be indexed to inflationary changes in the CPI. Under the Commission's preferred revenue package, the rate for the MBRF is 1.02 cents per mile. If mileage-based registration fee indexing were to begin at the start of FY 2017, additional revenue of approximately \$5.3 million would be generated in FY 2017 and \$10.8 million in FY 2018.



*WIS 35, Crawford County*

## Summary of recommendations

The policy and funding recommendations presented in Section II for the various transportation programs and modes are summarized in Table IV-B.

Table IV-B: State Policy and Funding Impacts (\$ in millions, in 2012 dollars)			
Program	Current Base Funding FY 2013	Additional Commission Funding Recommendation (annual dollars)	Program Recommendation
<b>State Highway Program</b>			» Provide funding to maintain current conditions for preservation and congestion management on the state highway network
» SHR	\$823.8	\$179.0	
» Majors	\$371.6	\$100.0	» Require life cycle costing for new projects in the Majors program
» Megas	\$188.0	\$75.1	» Introduce new design and construction processes to speed up project delivery
<b>Maintenance and Traffic Operations</b>	\$205.7	\$33.0	» Fund maintenance and traffic operations to maintain a "C" compass grade
			» Regionalize county highway maintenance where it supports program efficiency
			» Introduce performance metrics to the county highway maintenance program
<b>Local Programs</b>			» Focus GTA reimbursement on maintenance and construction
» GTA	\$420.1	\$0.0	» Focus GTA on higher functioning roads
» Local Highway and Bridge (STP and LRIP)	\$133.1	\$40.0	» Increase funding for the LRIP program to support local projects
			» Take federal funds out of the local road improvement program
» Transit	\$168.8	\$36.3	» Reinstate department oversight of the local program
<b>Bicycle/Pedestrian</b>	\$24.8	\$10.0	» Create a state-funded bicycle and pedestrian program that addresses commuter needs
<b>Multimodal</b>			» Assure adequate funds for acquisition in the state freight rail program
» Freight Rail	\$15.6	\$1.5	
» Harbors	\$5.9	\$2.6	» Support adequate funds for harbor improvements
» Aeronautics	\$87.0	\$2.0	» Assure adequate state funds to match federal funds associated with NextGen implementation
<b>Constitutional Amendment</b>			» Support the constitutional amendment to assure that Transportation Fund revenues are spent on transportation programs

The Commission's preferred funding package is described in detail in Section III. Annual revenue that could be generated from each component is summarized in Table IV-C.

**Table IV-C: Preferred Funding Package (\$ in millions, in 2012 dollars)**

State Revenue Recommendation	Revenues Raised (annual dollars)
Motor Fuel Excise Tax (5-cent increase)	\$159.4
Mileage-based Registration Fee (1.02 cents per mile)	\$228.0
Registration Fee for Weight-based Vehicles (Heavy Trucks Only)	\$84.8
Registration Fee for International Registration Program (IRP) Vehicles	\$59.1
Motor Vehicle Trade-in Sales Tax Exemption	\$91.7
Driver License Fee	\$16.1

Commissioners also recommend the continued use of bonds as a financing tool for projects with a long life. Over the next 10 years, the Commission recommends a total bond issuance of \$3.5 billion to fund base program needs identified in Section II and the additional network investments identified in Section III. The resulting debt service payments on this level of bonds is under 20 percent of state transportation revenues.

In addition to the Commission's recommendations on state revenues, the Commission makes the following recommendations on local revenue options:

- Provide statutory authority for Regional Transportation Authorities to be created and to raise funds through a one-half-cent maximum sales tax, with voter approval, to be used exclusively for transportation purposes.
- Provide statutory authority to counties with populations less than 100,000 to consider a maximum one-half-percent local option sales tax to raise revenue that can only be used for transportation purposes.

## Concluding Remarks

The Commission worked diligently to address each of the provisions contained in its charge from the Governor and the Legislature. The commissioners are honored to have had this opportunity to serve the citizens of Wisconsin.

The state's residents, businesses, industries, farmers and tourists have long enjoyed access to a safe and efficient transportation system. The future of that system is now at risk due to declining revenues and inadequate investment. The Commission hopes that its work, and this report, will lead to an enthusiastic discussion of the future of transportation and a renewed commitment for an adequately funded transportation system that will allow Wisconsin to remain competitive in the global economy and support the mobility needs of its citizens.





## Appendix A: Links to Commission Issue Papers

Wisconsin Department of Transportation staff provided the following issue papers to commissioners for their review and discussion. Links to additional background papers, presentations and meeting minutes are available on the Commission's web site at: [www.dot.wisconsin.gov/about/tfp/index.htm](http://www.dot.wisconsin.gov/about/tfp/index.htm).

### State Highway Programs

State Highway Improvement Program

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg8-issue-improve.pdf>

State Highway Project Delivery Methods

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg8-issuepap.pdf>

State Traffic Operations Program

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg8-issue-traf.pdf>

State Highway Maintenance Program

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg7-maint-pol.pdf>

Highway Planning Studies and Landowner Issues

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg6-hiwayplan.pdf>

### Local Programs

Local Road and Bridge Programs

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg6-localroad.pdf>

Transit Programs

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg7-transit-pol.pdf>

Bicycle and Pedestrian Programs

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-bike-pol.pdf>

### Freight and Multimodal Programs

Freight Network

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-beaupre-multi-pol.pdf>

State Freight Program Comparisons

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-beaupre-pol.pdf>

Aviation Programs

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-greene-pol.pdf>

Freight Railroad Assistance

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-boardman-pol.pdf>

Harbor Programs

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-boardman-harbor-pol.pdf>

### Revenue and Finance Issues

10-Year Transportation Needs Analysis

» Scenario 1: <http://www.dot.wisconsin.gov/about/tfp/docs/mtg4-scen1.pdf>

» Scenario 2: <http://www.dot.wisconsin.gov/about/tfp/docs/mtg4-scen2.pdf>

» Scenario 3: <http://www.dot.wisconsin.gov/about/tfp/docs/mtg4scen3.pdf>

» Scenario 4: <http://www.dot.wisconsin.gov/about/tfp/docs/mtg4-scen4.pdf>



#### State Transportation Revenues

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg2-revenue.pdf>

#### 10-Year Transportation Revenue Outlook

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg4-revpaper.pdf>

#### Current Condition: Expenditures vs. Revenues

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg2-conditions.pdf>

#### Local Transportation Expenditures

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg2-expend.pdf>

#### Transportation Fund Integrity

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg8-issue-fund.pdf>

#### Transportation Finance Mechanisms

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg5-fin-paper.pdf>

#### Bond Financing for Transportation Programs

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg2-bond.pdf>

#### Debt Management

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg10-richter-alt-pol.pdf>

#### Debt Management Alternative

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg10-hammer3.pdf>

#### Federal Transportation Revenues

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg2-federal.pdf>

#### Motor Fuel Taxes

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-fuel-pol.pdf>

#### Existing Transportation Fees

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-fees-pol.pdf>

#### State Infrastructure Banks

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg10-leong-pol.pdf>

#### Federal Funding Replacement Alternatives

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg10-richter-funding-pol.pdf>

#### Revenue Alternatives

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-rev-pol.pdf>

#### New Value-Based Registration Fees

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-value-pol.pdf>

#### Vehicle-Miles-Traveled (VMT) Revenue Approaches

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-hammer-pol.pdf>

#### Mileage-Based Registration Fee Update

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg10-hammer4.pdf>

#### Public-Private Partnerships

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg5-partner.pdf>

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg10-coleman-pol.pdf>

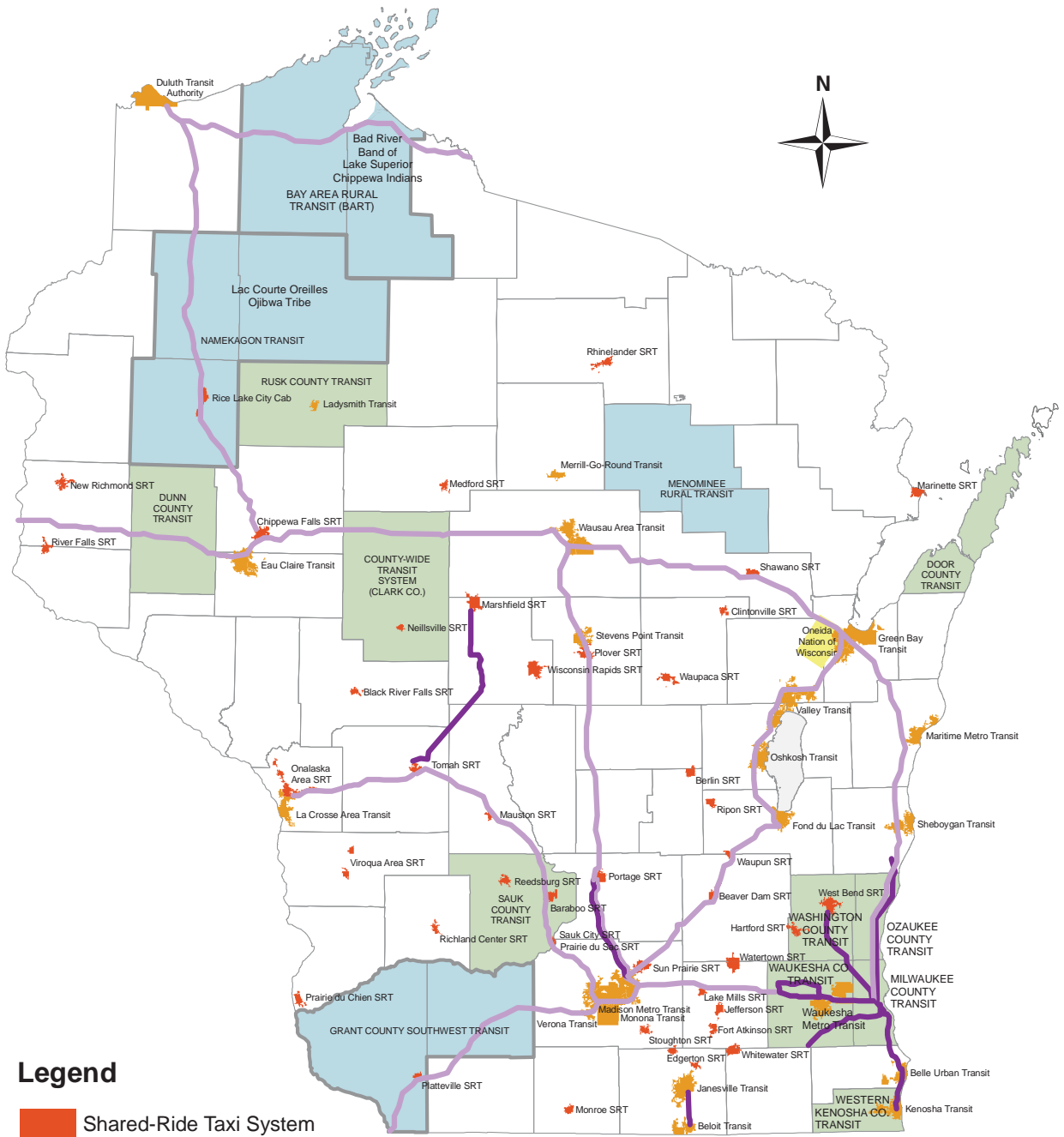
#### Tolling

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg5-tolling.pdf>

<http://www.dot.wisconsin.gov/about/tfp/docs/mtg9-coleman-pol.pdf>



# Appendix C: 2012 Public Transit Systems



## Legend





- Shared-Ride Taxi System
- Municipal Bus System
- Reservation-Wide Transit System
- County-Wide Transit System
- Multi-County Transit System
- Publicly Funded Inter-City Service
- Shuttle/Commuter Service

Wisconsin Department of Transportation  
Bureau of Transit, Local Roads, Railroads & Harbors



# Appendix D: State Airport System



## Airport Type

-  Commercial Service
-  Large General Aviation
-  Medium General Aviation
-  Small General Aviation

## Major Roads

-  Interstates
-  Highways



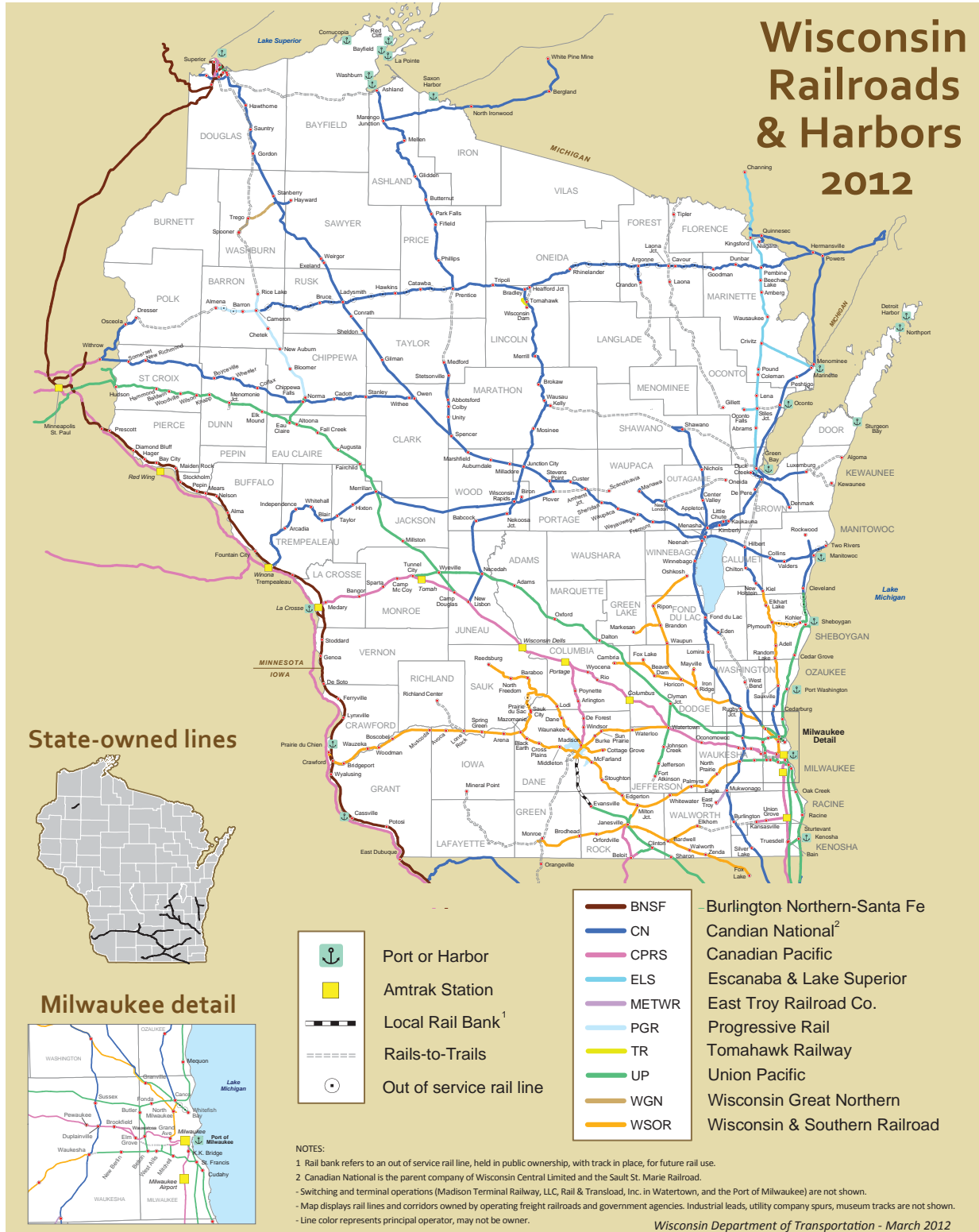
0 12.5 25 50 Miles

Source: Wis DOT, ESRI, WisDNR

## Appendix E: Commercial Ports



# Appendix F: Railroad System




## Appendix G: Benefit/Cost Summary FRPP Grant and FRIIP Loan Programs

SFY	Program	Recipient	Project	Total Cost	State Grant	State Loan	RR/Local Share	Total Calculated Benefit	Project Score	B/C Ratio
2012	FRRP	E&LS	Marinette Marine Spur	\$1,557,421	\$1,245,937		\$311,484	\$1,879,710	56	1.21
2012	FRRP	WSOR	Bridge Study	\$1,329,000	\$1,063,200	\$132,900	\$132,900	\$1,873,890	53	1.41
2012	FRRP	WSOR	System Wide Bridge Repair	\$5,000,000	\$4,000,000	\$500,000	\$500,000	\$7,050,000	53	1.41
2012	FRRP	WSOR	Elkhart Lake to Saukville	\$8,671,814	\$6,937,451	\$867,181	\$867,181	\$21,599,299	43	2.49
2013	FRRP	E&LS	GB-Niagara, 6 Bridge Replacements	\$2,295,954	\$1,836,763	\$229,595	\$229,595	\$4,706,706	49	2.05
2013	FRPP	WSOR	System Wide Bridge Repair	\$5,000,000	\$4,000,000	\$500,000	\$500,000	\$7,050,000	53	1.41
			<b>Sub Total</b>	<b>\$23,854,189</b>	<b>\$19,083,351</b>	<b>\$2,229,676</b>	<b>\$2,541,160</b>	<b>\$44,159,605</b>		<b>1.85</b>
2012	FRIIP	United Cooperative	Sauk City Grain Loading Facility	\$1,862,000		\$1,862,000		\$3,738,774	43	2.01
2012	FRIIP	Zenda Grain	Zenda Grain Storage Bins	\$1,500,000		\$1,500,000		\$2,201,521	36	1.47
2013	FRIIP	Zenda Grain	Zenda Grain Storage Facility	\$1,500,000		\$1,500,000		\$2,046,829	36	1.36
2013	FRIIP	Landmark Cooperative	Evansville Storage Bin	\$1,645,000		\$1,500,000	\$145,000	\$2,112,178	36	1.28
2013	FRIIP	Agroliance	Avalon Rail siding, liquid fertilizer storage	\$610,000		\$610,000		\$1,575,467	34	2.58
2013	FRIIP	Sharrott Warehousing	Reedsburg Rail siding, loading facility	\$5,089,000		\$1,779,000	\$3,310,000	\$10,737,571	34	2.11
			Sub Total	\$12,206,000	\$0	\$8,751,000	\$3,455,000	\$22,412,340		1.84
			<b>Total</b>	<b>\$36,060,189</b>	<b>\$19,083,351</b>	<b>\$10,980,676</b>	<b>\$5,996,160</b>	<b>\$66,571,945</b>		<b>1.85</b>

## Appendix H: Equivalent Purchasing Power in Future Biennia

Assuming annual program funding is held constant at FY 2013 levels (Millions of Dollars)

Equivalent FY 2013 Purchasing Power 								
Program Area	FY 2013 Base X 2	FY 14/15 Biennium	FY 16/17 Biennium	FY 18/19 Biennium	FY 20/21 Biennium	FY 22/23 Biennium	10-Year Purchasing Power	FY 2013 Base X 10
<b>State Highways</b>								
State Highway Rehabilitation	\$1,647.60	\$1,555.40	\$1,435.10	\$1,363.50	\$1,314.50	\$1,272.80	\$6,941.30	\$8,238.00
Maintenance and Operations	\$411.40	\$386.70	\$355.70	\$326.90	\$300.40	\$275.60	\$1,645.30	\$2,057.00
Major Highways	\$743.20	\$701.60	\$647.30	\$615.00	\$592.80	\$574.10	\$3,130.80	\$3,716.00
SE Mega Projects	\$376.00	\$355.70	\$329.20	\$313.30	\$302.10	\$292.80	\$1,593.10	\$1,880.00
<b>Local Programs</b>								
GTA + Other Aids	\$840.20	\$789.70	\$731.10	\$696.50	\$671.80	\$653.00	\$3,542.10	\$4,201.00
Highway + Bridge	\$266.20	\$250.20	\$231.70	\$220.70	\$212.90	\$206.90	\$1,122.40	\$1,331.00
Bike/Ped + Other	\$49.60	\$46.70	\$43.10	\$39.80	\$36.70	\$33.90	\$200.20	\$248.00
Transit	\$337.60	\$326.70	\$312.20	\$299.40	\$287.60	\$275.70	\$1,501.60	\$1,688.00
<b>Multimodal Programs</b>								
Aeronautics	\$174.00	\$164.20	\$151.50	\$144.00	\$138.80	\$134.40	\$732.90	\$870.00
Freight Rail	\$31.20	\$30.00	\$28.40	\$26.80	\$25.50	\$24.10	\$134.80	\$156.00
Passenger Rail	\$17.00	\$16.60	\$15.80	\$15.20	\$14.60	\$13.90	\$76.10	\$85.00
Harbors	\$11.80	\$11.40	\$10.70	\$10.10	\$9.70	\$9.10	\$51.00	\$59.00
Total Purchasing Power	\$4,905.80	\$4,634.90	\$4,291.80	\$4,071.20	\$3,907.40	\$3,766.30	\$20,671.60	\$20,671.60
Total Actual Funding	\$4,905.80	\$4,905.80	\$4,905.80	\$4,905.80	\$4,905.80	\$4,905.80	\$24,529.00	\$24,529.00
Lost Purchasing Power		\$270.90	\$614.00	\$834.60	\$998.40	\$1,139.50	\$3,857.40	\$3,857.40
Lost Purchasing Power %		5.5%	12.5%	17.0%	20.4%	23.2%	15.7%	15.7%

Funding includes state, federal and departmental bond funds. For transit, some federal funds flow directly to local systems. Local funds are excluded for all program areas.

Actual funding in each biennium is equal to the FY 2013 base doubled.  
The purchasing power of that funding declines due to inflation.

GTA + Other Aids includes General Transportation Aids, Connecting Highway Aids, Lift Bridge Aids, County Forest Road Aids, Flood Damage Aids and Expressway Policing Aids.







Highway + Bridge includes Highway and Local Bridge Assistance, Discretionary and Non-Discretionary Local Roads Improvement Programs and Local Transportation Facility Improvement Assistance.

Bike/Ped + Other includes Transportation Enhancement Activities, Bicycle and Pedestrian Facilities, Safe Routes to School and Congestion Mitigation and Air Quality Improvement.



# Appendix I: Freeway Level of Service

Freeway Level of Service (LOS) is a nationally recognized measure used to describe how traffic is operating on a given highway. LOS on a freeway is characterized by the traffic speed, proximity to other vehicles, and freedom to maneuver within the traffic stream.

LOS	Definition	Typical Illustration
Uncongested	A Represents excellent conditions where traffic is flowing freely.	
	B Represents very good conditions where traffic is flowing reasonably well. The ability to maneuver and change lanes is only slightly restricted. The effects of minor incidents are still easily absorbed.	
	C Represents good conditions with drivers able to maintain their desired speeds. The ability to maneuver and change lanes requires more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but backups can be expected to form behind significant incidents.	
Congested	D Represents moderately congested conditions. Traffic at this level experiences moderate reductions in operating speeds. The ability to maneuver and change lanes is noticeably reduced. Minor incidents will begin to cause backups in traffic.	
	E Represents severely congested conditions. Traffic at this level experiences operating speeds that are well below the posted limits, and there is little room to maneuver and change lanes. Traffic operations are highly volatile and unstable and even minor incidents can cause substantial backups in traffic when congestion reaches this level.	
	F Represents extremely congested conditions. Traffic at this level could experience breakdowns to stop-and-go or bumper-to-bumper conditions. Extreme delays in travel occur when congestion reaches this level.	

## Appendix J: Programmatic Cost Savings Measures

Table 1: Programmatic Cost Saving Measures		
Title	Estimated Cost Saving	Description
Recycling of Highway Materials	\$17,385,000	Maximizing use of recycled materials is a key component of the department's Preservation goal, which is one of its five core strategic goals. Use of reclaimed asphalt pavement (RAP), recycled asphalt shingles (RAS) and recycled concrete aggregate (RCA) on highway projects is standard practice statewide. In FY 2011, 1,339,100 tons of RAP, 36,600 tons of RAS, and 1,716,600 tons of RCA were recycled. These quantities are expected to continue to grow in future years.
Bridge Rating Team	\$4,995,000 for 1st Phase; \$135,000 annually thereafter	The department has developed a program in which civil engineering students now perform bridge ratings for local bridges with oversight and quality assurance from department staff. Initial savings are from the first round of updating the rating on approximately 7,400 bridges statewide. After the initial rating, approximately 200 bridges need to be re-rated annually. In addition to the cost savings, students receive valuable engineering training for their professional careers.
Wisconsin Height Modernization Program	\$1,375,000 annually for the department; \$750,000 annually for counties	The Wisconsin Height Modernization Program (HMP) is a network that provides surveying efficiencies for highway and transportation improvement projects statewide. It allows the department, counties, municipalities, private engineers, agriculturists and surveyors to take advantage of a GPS network that results in significant time and cost savings through acquisition of latitude, longitude and elevation positions to 2-cm accuracy in real time. The network is in use but is only 75 percent complete. When finished, department savings are projected to be \$1,825,000 annually and \$1,000,000 annually for counties plus substantial savings in improved accuracy for design and development of flood-plain maps. Use of the system is currently free to all, providing countless savings to the private sector.
Electronic Distribution of Plans	\$117,600 annually	The department has created a system under which construction plans and specifications are distributed electronically via an internet web site to contractors, eliminating the need for distributing plans via compact discs. The results are savings in CD printing, mailers, labels, postage, staff time for mailing CDs, tracking accounts receivable, and costs associated with extra mailings.

**Table 2: Project Cost Saving Measures**

Highway	County	Estimated Cost Saving	Description
US 10	Wood	\$946,000	Use of a single contract for completing all concrete paving in one construction contract vs. multiple contracts led to significant savings given the overall length and large quantities of base aggregate and concrete pavement.
I-94 US 41	Milwaukee Racine Kenosha Brown Winnebago	\$29,083,400	Reduction in project estimates and project costs coupled with the excellent construction safety record provided the opportunity to renegotiate the Owner Controlled Insurance Program (OCIP) premiums. Favorable market conditions at the time resulted in insurance program savings.
US 141	Marinette	\$350,000 to \$696,000	Reduction of overall structure width from 85 feet (minimum) to 61 feet under a roundabout alternative.
US 41/ WIS 29	Brown	\$5,400,000	Early contract letting for the fabrication of steel tub girders for this interchange when steel prices were low at \$1.42/pound as compared with the \$1.83/pound that occurred when the construction contract was bid two years later.
I-94	Dane	\$1,000,000	The staging options evaluated and implemented eliminated some temporary crossovers and allowed some structures to be built at one time versus half at a time.
I-94	St. Croix	\$3,000,000	Original traffic control concept was restrictive and did not allow flagging operations for hauling across interstate ramps. Work hours were expended and larger areas were allowed to be graded continuously, thus increasing efficiency.
I-94	Dunn	\$3,000,000	Construction staging was streamlined and retaining walls eliminated by using other alternatives.
I-94	Eau Claire Trempealeau	\$7,000,000	Original concept for this pavement replacement project was temporary roadway and structure work done over the entire nine miles and to maintain two lanes of traffic each direction. Changed concept to construction of four miles under bi-directional traffic control in the spring when traffic volumes were lower.
I-94	Eau Claire Trempealeau	\$439,000	Original concept was to keep all interchange ramps open for ramp pavement replacement with temporary widening. Changed concept to closing one ramp at a time and allowing a specified short term closure instead.
I-94 N-S	Milwaukee	\$760,000	Original concept called for use of Stone Matrix Asphalt (SMA) pavement. Project team re-evaluated the benefits of SMA and determined the 30 percent cost increase for the pavement would not produce a 30 percent increase in service life for this specific project. Pavement type was changed to normal Hot Mix Asphalt.
I-94, I-894 and US 45	Milwaukee	\$4,000,000 to \$10,000,000	Used drilled shafts for the Zoo Interchange. Cost savings included material costs as compared with traditional pile foundations, reduction in sheet pile walls for ground support, reduction in interchange footprint and reduction in temporary roads.
I-94/I-43	Milwaukee	\$40,000,000	Used three cut-and-cover tunnels, eliminating the need for seven bridges. The overall height of the interchange was lowered due to a decrease in structure depths. This allowed for improved roadway grades and a safer facility.
WIS 50	Kenosha	\$2,400,000	The scope on WIS 50 resurfacing project was re-evaluated and changed from four-inch to two-inch mill and overlay. With the reconstruction of WIS 50 now scheduled for five years later, the thicker overlay was not necessary.

**Table 3: Impacts Other Than Cost Savings on Projects**

Highway	County	Impact	Description
USH 41/WIS 21	Winnebago	Interchange South Bound ramps completed 77 days early and North Bound ramps completed 17 days early	Used design scheduling software and analysis to accelerate the construction schedule. Also used incentive payment clauses for early completion, resulting in the interchange being available for use earlier than initially proposed.
US 51	Marathon	Unknown cost savings due to uncertainty of future property values and level of development that will occur in this area in the future	Purchasing right of way with the project to protect existing land and ensure a future intersection improvement on CTH K can be built. This will result in significant cost savings when existing interchange needs to be upgraded.
I-94 N-S	Dane	Lane closures on I-94 limited to just 12 hours.	Contractor was required to build the replacement bridge off alignment, remove the existing bridge, and move the new bridge into place using a self-propelled modular transporter.
Numerous	Statewide	Reduction or elimination of travel delays due to construction activities	<p><b>Intelligent Transportation System (ITS) related strategies:</b> Video cameras to help monitor work zones and traffic queues generated, microwave detection to determine travel speed and travel time leading up to work zones, portable changeable message signs to relay traveler information and delay information to the traveling public.</p> <p><b>Travel demand related strategies:</b> Staging changes to avoid reductions in capacity unless absolutely needed. Off peak and nighttime work requirements to reduce/eliminate work during high peak commuting times, Crossovers required to be constructed prior to Memorial Day and after Labor Day to avoid continuous lane closures during peak summer travel. Planning for special events to avoid having lanes closed during times of increased travel demand related to the events.</p> <p><b>Other strategies:</b> Implementation of freeway service teams to patrol work zones and reduce impacts of broken down/stalled/out-of-gas vehicles on work zones. Development of incident management plans with State Patrol to better plan for handling incidents within the work zones. Law enforcement mitigation to reduce impacts on bridge construction (i.e., beam sitting/ launching and delivery) by using rolling stops.</p>
I-43	Milwaukee	Reduction of 20 weeks of full lane closures and user delays	Advancement of contracts allowed early lettings, saving in construction time. Use of a required accelerated construction schedule by the contractor saved 12 weeks from traditional schedule.
WIS 40	Chippewa	<ul style="list-style-type: none"> <li>» Reduced construction time and cost</li> <li>» Ease of design/ construction</li> <li>» Ease of field modifications to fit varying site conditions</li> <li>» Can be built with readily available labor, materials and equipment</li> <li>» Can be built in variable weather conditions</li> </ul>	Geosynthetic Reinforced Soil (GRS) replaces conventional bridge support technology and bridge abutments by using alternating layers of compacted granular fill material and fabric sheets of geotextile reinforcement to construct a reinforced fill and provide bridge support. GRS provides a smooth transition from the bridge onto the roadway and minimizes the “bump at the bridge” problem caused by uneven settlement between the bridge and approaching roadway. The technology offers unique advantages in the construction of small bridges. With this design, a modular block facing is constructed and bridge girders are founded directly on a small bearing pad located directly on the reinforced fill material.

**Table 3: Impacts Other Than Cost Savings on Projects**

Highway	County	Impact	Description
Numerous	Statewide	<ul style="list-style-type: none"> <li>» Higher quality designs</li> <li>» Improved clash detection prior to construction</li> <li>» Visualization tools for designers and public</li> <li>» Efficiencies in inspection and contract administration</li> </ul>	The department is implementing use of three-dimension modeling in design and construction. Producing roadway designs in three dimensions produces higher quality designs and allows contractors to use GPS machine guidance technology, directly resulting in 20–30 percent increases in efficiency and savings for earthwork and grading and 5–7 percent savings for highway paving operations.
Numerous	Statewide	<ul style="list-style-type: none"> <li>» Less fuel used in production</li> <li>» Fewer greenhouse gasses produced</li> <li>» Less emissions</li> <li>» Extended paving season</li> <li>» Potential for lower costs</li> </ul>	The department is implementing use of warm mix asphalt (WMA). WMA allows hot mix asphalt paving contractors to mix and place the material at temperatures from 50° to 100° lower than conventional paving mixes with the same durability and performance.
Numerous	Statewide	<ul style="list-style-type: none"> <li>» Continuously distribute green light time for all traffic movements</li> <li>» Improve travel time reliability</li> <li>» Reduce congestion by creating smoother flow</li> <li>» Prolong effectiveness of traffic signal timing</li> </ul>	Adaptive signal control technology (ASCT) adjusts the timing of red, yellow and green lights to accommodate changing traffic patterns and ease traffic congestion. By receiving and processing data from strategically placed sensors, ASCT can determine which lights should be red and which should be green. Conventional signal systems use pre-programmed, daily signal timing schedules that can result in poor traffic signal and traffic congestion and delay. Special events, construction, or traffic incidents such as crashes wreak havoc on traffic conditions, and time-of-day signal timing cannot accommodate these events; they are easily dealt with using ASCT.
Numerous	Statewide	<ul style="list-style-type: none"> <li>» Expedited construction</li> <li>» Concurrent demolition and off site construction</li> <li>» Improved quality with controlled fabrication conditions</li> <li>» Reduced traffic Impacts</li> <li>» Reduced environmental impacts</li> </ul>	Prefabricated bridge elements and systems (PBES) provide major time savings. With PBES, bridge pier columns and caps can be fabricated concurrently with the construction of foundations for piers and abutments and shipped to the site when needed, reducing time for placement of beams and deck. PBES also permits a more effective use of work time. Prefabricated elements are typically constructed in a climate-controlled environment, so weather only affects the portion of the work done onsite. PBES can be constructed offsite and brought to the project location, ready to erect. Formwork erection, formwork removal, steel reinforcement and concrete placement, and concrete curing can all be done offsite improving constructability and safety.
Numerous	Statewide	<ul style="list-style-type: none"> <li>» Eliminate vertical drop-off at pavement edge</li> <li>» Vehicles can safely return to roadway</li> <li>» Effective for small and high speed vehicles</li> <li>» Easy and inexpensive to construct.</li> </ul>	Safety edge is a paving detail for roadway pavement that calls for constructing the outside pavement edge at a 30° angle slope to mitigate the impact of pavement-edge drop-offs. Drop-offs can occur over the life of the pavement as the material adjacent to the pavement settles, erodes or is worn away. Pavement-edge drop-off creates problems after a vehicle drifts off the pavement, drops onto the unpaved surface, and tries to re-enter the roadway.

# Appendix K: Proposal-Bicycle and Pedestrian Facility Program

## 1.0 The Program

The Bicycle and Pedestrian Facility Program provides financial assistance to local units of government for projects that grow bicycle and pedestrian usage. The Wisconsin Department of Transportation (WisDOT), Bureau of Transit, Local Roads, Railroads and Harbors, administers the Bicycle and Pedestrian Facility Program, under the authority of the Wisconsin statutes and administrative code. Funding recommendations will be made by a council of practitioners appointed by the Secretary of WisDOT. Recommended projects will be approved by the Secretary of WisDOT.

## 2.0 Eligible Projects

Eligible projects include adding pavement width, real estate acquisition, signing, marking, and other improvement activities that facilitate and improve bicycle and pedestrian usage. Projects must have been identified in the bicycle and pedestrian plan. When funding is available, project applications are accepted on a biennial basis on August 1st. Maintenance activities are not eligible. Local commitment to maintain facilities is required.

## 3.0 Eligible Applicants

An eligible applicant must first be a county, municipality, town or federally recognized tribal governing body; and, second, must have a current local bicycle and pedestrian plan covering a 10-year planning period formally endorsed by the appropriate governing body or board of directors and submitted to WisDOT on or before each April 1st prior to the application date. To be eligible for the program, an applicant must submit its current bicycle and pedestrian plan to WisDOT. As part of the application process, WisDOT must review plans for the following key criteria:

1. Bicycle mode share goal (for example, increase from two percent today to five percent over the life of the plan).
2. Specific projects must be identified in the plan.
3. Cost estimates and funding sources must be identified.
4. Plans must be formally adopted.

## 4.0 Grant Amounts

The Bicycle and Pedestrian Facility Program shall be funded from the state segregated transportation fund at \$10 million each year. Funds from this program may be used to finance up to 50 percent of eligible project costs. The applicant must construct the project, after which it will be reimbursed up to 50 percent of total eligible costs. Program funds will be capped at the time of award. The maximum project size is \$2 million (with a \$1 million state share). Applicants may petition the Secretary for projects totaling more than \$2 million in extraordinary cases.

## 5.0 Key Provisions of the Program

1. The objective of this program is to provide local units of government with funding to grow bicycle and pedestrian usage.
2. A project must pass a rigorous analysis and will compete against other projects.
3. Using a scale of excellent, good, fair, poor or ineligible, applications will be evaluated according to how well the applicant has demonstrated that the project:
  - » Improves bikeways and/or amenities that support growth in bicycle usage —e.g., bicycle parking, and bicycle safety education programs; and
  - » Provides or improves bikeway continuity to activity centers such as public buildings, transit terminals, business districts, shopping centers, schools.

## Appendix L: Advantages and Disadvantages of Various Revenue Options

### State Revenue Options \$175 MILLION AND ABOVE

Revenues can be collected in a variety of ways—through taxes on motor fuel, during the vehicle registration process, or by other methods. The Commission considered a number of funding options under each of these collection categories. Most revenue options require an implementation period, which could be three months, one year, or longer. The annual revenue from the following options reflects what could be realized in the first full year of implementation.

Revenue Option	Annual Revenue Raised (millions)	Advantages and Disadvantages
<i>Related to Fuel Use:</i>		
Sales Tax on Motor Fuel <sup>i</sup>	\$529.8	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Strong relationship between tax collected, use of, and benefit from the transportation system.</li> <li>» Relatively low implementation and administrative costs since tax mechanism is already in place.</li> <li>» Relatively low tax rate applied to high volume of taxable gallons resulting in high revenue potential.</li> <li>» Revenues rise with increasing motor vehicle fuel price.</li> <li>» Paid by both Wisconsin and out-of-state residents.</li> <li>» The Wisconsin state sales tax rate (5 percent) is lower than neighboring states (Illinois: 6.25 percent, Michigan: 6.0 percent) that currently collect sales tax on motor fuel transactions.</li> <li>» Low to medium potential for tax evasion.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Demand for motor vehicle fuel is volatile and could result in significant unanticipated revenue losses during economic downturns.</li> <li>» Revenues decline when price falls.</li> <li>» States with sales or variable taxes on motor vehicle fuel are pressured to cap these collections when prices rise.</li> <li>» New tax burden for individuals and businesses dependent on motor vehicle travel.</li> <li>» Resistance to increasing General Fund taxes for transportation purposes.</li> <li>» Sales tax considered by some to be regressive.</li> </ul>
Sales Tax on Motor Vehicles, Parts and Accessories <sup>ii</sup>	\$465.0	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Moderately strong relationship between tax collected, use of, and benefit from the transportation system.</li> <li>» Relatively low tax rate applied to high dollar value transactions results in significant revenue potential.</li> <li>» Revenues rise with increasing price of new and used motor vehicles, parts and accessories.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Vehicle sales are volatile and economic downturn could result in significant unanticipated revenue loss;</li> <li>» There may be strong resistance to transferring significant General Fund revenues for transportation purposes.</li> </ul>



## State Revenue Options \$175 MILLION AND ABOVE

<p>Motor Fuel Tax Increase—Indexing Restored with Catch-Up Adjustment</p>	<p>\$211.1</p>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Reinstatement of indexing mechanism is simple to administer.</li> <li>» Preserves buying power of motor fuel tax revenue over time.</li> <li>» Tax base is broad and includes out-of-state motorists.</li> <li>» Clear relationship between revenue source and use of the Wisconsin highway system.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No regular review and approval by the Legislature.</li> <li>» Increases tax burden on Wisconsin residents but shared with out-of-state drivers.</li> </ul>
<p>Motor Fuel Tax Increase—Index Catch-Up<sup>iii</sup></p>	<p>\$185.9</p>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Reinstatement of indexing mechanism is simple to administer.</li> <li>» Preserves buying power of motor fuel tax revenue over time.</li> <li>» Tax base is broad and includes out-of-state motorists.</li> <li>» Clear relationship between revenue source and use of the Wisconsin highway system.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No regular review and approval by the Legislature.</li> <li>» Increases tax burden on Wisconsin residents but shared with out-of-state drivers.</li> </ul>

### *Related to Owning and Operating Vehicles:*

<p>Mileage Based Registration—Self-Reported Odometer Reading<sup>iv</sup></p>	<p>To be determined</p>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Least expensive distance-based approach, no additional on-vehicle equipment required.</li> <li>» Incorporate into vehicle registration renewal process.</li> <li>» Few privacy concerns.</li> <li>» Concept is simple or straight-forward.</li> <li>» Relatively low implementation and administrative costs (compared to high tech approach).</li> <li>» Position Wisconsin for future national or regional approach.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Only Wisconsin residents pay the fee to use road system.</li> <li>» Difficult to enforce compliance or catch under-reporting.</li> <li>» Incentives for evasion or under-reporting, without aggressive enforcement and audit mechanism.</li> <li>» May change established mail-in renewal process.</li> <li>» Applies to only light vehicles, not entire fleet.</li> <li>» Two-year implementation before fee collections commence.</li> <li>» Difficult to distinguish in-state versus out-of-state miles for Wisconsin resident. Consequently, vehicle owners double pay for out-of-state miles.</li> </ul>
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Source: August 15, 2012 Policy Issue Papers

## State Revenue Options LESS THAN \$175 MILLION

Revenues can be collected in a variety of ways—through taxes on motor fuel, during the vehicle registration process, or by other methods. The Commission considered a number of funding options under each of these collection categories. Most revenue options require an implementation period, which could be three months, one year, or longer. The annual revenue from the following options reflects what could be realized in the first full year of implementation.

Revenue Option	Annual Revenue Raised (millions)	Advantages and Disadvantages
<b>Related to Fuel Use:</b>		
Motor Fuel Excise Tax Increase <sup>v</sup>	\$32.0	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Small rate increase generates significant amounts of tax revenue.</li> <li>» Tax base is broad and includes out-of-state motorists.</li> <li>» Clear relationship between revenue source and use of the transportation system.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Increases tax burden on Wisconsin residents but shared with out-of-state drivers.</li> </ul>
Motor Fuel Excise Tax Indexing	\$21.2	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Reinstatement of indexing mechanism is simple to administer.</li> <li>» Preserves buying power of motor fuel tax revenue over time.</li> <li>» Tax base is broad and includes out-of-state motorists.</li> <li>» Clear relationship between revenue source and use of the transportation system.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No regular review and approval by the Legislature.</li> <li>» Increases tax burden on Wisconsin residents but shared with out-of-state drivers.</li> </ul>
General Aviation Fuel Excise Tax Increase <sup>vi</sup>	\$0.217	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» All modes of travel share in generating revenues for transportation programs.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Increases tax burden on Wisconsin users.</li> </ul>
Alternative Fuel Excise Tax Increase <sup>vii</sup>	\$0.021	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Clear relationship between revenue source and use of the transportation system.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Increases tax burden on Wisconsin residents but shared with out-of-state drivers.</li> </ul>

## State Revenue Options LESS THAN \$175 MILLION

### Related to Owning and Operating Vehicles:

Registration Fee Indexed to Inflation	\$15.7	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Relies on a stable source of department revenue.</li> <li>» Preserves buying power of revenue since fees rise with the consumer price index.</li> <li>» Stabilizes the real cost of vehicle registration for Wisconsin motorists.</li> <li>» Removes fee decisions from the political arena.</li> <li>» Has a low potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No additional fees imposed on out-of-state travelers who use the Wisconsin transportation system.</li> <li>» Consumer price index does not necessarily keep pace with rising costs of transportation facility building materials.</li> <li>» Annual information technology programming and customer notification process as a result of annual changes will add to the department's yearly administrative costs.</li> <li>» No relationship with actual use of the Wisconsin highway system.</li> <li>» No regular legislative review and approval of fee increases; in part, the State Legislature repealed motor fuel tax indexing for this reason.</li> </ul>
Value-Based Registration Fee <sup>viii</sup>	\$9.1	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» If the vehicle fleet increases in size and value, a value-based registration system could have greater revenue-generating potential over time than a flat fee structure.</li> <li>» If the rate of new vehicle sales is flat or increases, revenues for each new model year would grow and serve as a hedge against inflation due to rising new vehicle prices.</li> <li>» Owners of low value vehicles would be held harmless by maintaining a low (\$75) fee for vehicles with MSRPs under \$15,000.</li> <li>» Implementation and administrative issues have been overcome in other states.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» The department would need a full year to implement a value-based registration system.</li> <li>» Value-based registration is a more complicated methodology to implement and administer, thereby creating additional administrative costs compared to a flat fee.</li> <li>» Implementation may generate resistance from vehicle owners impacted by higher fees.</li> <li>» Significantly higher annual registration fees could potentially distort new vehicle buying choices for consumers.</li> <li>» Vehicle owners might object to paying registration fees based on MSRP if they actually paid less than MSRP for their vehicles.</li> <li>» Value-based registration may be more difficult for customers to understand than a flat fee structure.</li> <li>» Private resale of vehicles (sales not handled through motor vehicle dealers) would be more confusing for new owners to determine the correct registration fee for their purchase. Errors could result in a greater incidence of customer underpayments and subsequent delays in the receipt of registration products.</li> <li>» Higher value-based fees could discourage vehicle owners from purchasing personalized plates, causing a loss of revenue to the Transportation Fund.</li> <li>» Higher value-based fees could discourage vehicle owners from purchasing fund-raising special group license plates, causing a loss of revenue for the fund-raising group.</li> <li>» Value-based registration has little or no relation to vehicle wear on a highway facility.</li> </ul>

## State Revenue Options LESS THAN \$175 MILLION

Registration Fee Surcharge on Electric and Hybrid Vehicles <sup>ix</sup>	\$4.5	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Helps restore financial equity between owners of HEVs and conventionally powered vehicles that inflict an equivalent amount of highway damage.</li> <li>» Moderate implementation and administrative costs since basic registration fee mechanism is already in place.</li> <li>» Low potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No cost imposed on out-of-state motorists who drive HEVs and use the Wisconsin transportation system.</li> <li>» No additional cost imposed on conventionally powered vehicles that are also highly fuel efficient.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>
Registration Fee Increase <sup>x</sup>	\$3.5	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>
Title Fee Increase <sup>xi</sup>	\$1.2	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>
Driver License Issuance Fee <sup>xii</sup>	\$1.1	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>

## State Revenue Options LESS THAN \$175 MILLION

Registration Fee Increase—Heavy Trucks <sup>xiii</sup>	\$0.913	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motor carriers who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No direct relationship with actual use of the Wisconsin transportation system.</li> </ul>
Registration Fee Increase—Light Duty Trucks <sup>xiv</sup>	\$0.887	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>
Driver License Fee—Original and Renewal <sup>xv</sup>	\$0.825	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>
Late Vehicle Registration Fee <sup>xvi</sup>	\$0.503	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>

## State Revenue Options LESS THAN \$175 MILLION

Biennial Registration Fee Increase—Motorcycle and Moped <sup>xvii</sup>	\$0.353 every other fiscal year	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>
Biennial Registration Fee Increase—Farm Trucks <sup>xviii</sup>	\$0.064 every other fiscal year	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Low volatility.</li> <li>» No new implementation or administrative costs.</li> <li>» No increased potential for evasion of fees.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» No costs imposed on out-of-state motorists who use the Wisconsin transportation system.</li> <li>» Relatively high fee increases needed to generate significant additional revenues.</li> <li>» No relationship with actual use of the Wisconsin transportation system.</li> </ul>
<b>Other Means:</b>		
Motor Vehicle Trade-in Sales Tax Exemption	\$94	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» Moderately strong relationship between tax collected, use of, and benefit from the transportation system.</li> <li>» Relatively low implementation and administrative costs since sales tax mechanism is already in place.</li> <li>» Relatively low tax rate applied to low dollar value trade-in results in minimal tax increase to consumers with older, low value motor vehicles.</li> <li>» Revenues rise when trade-in value of used, late model year motor vehicles increases.</li> <li>» Broadens the base of funding for transportation needs.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Vehicle sales are volatile and economic downturn could result in significant unanticipated revenue loss.</li> <li>» Increases overall motor vehicle cost to consumer and could potentially distort retail market for new and used motor vehicles along borders of states that offer a tax exemption for trade-in value. Currently, it appears that Illinois, Iowa and Minnesota exclude the trade-in value from the sales price for tax purposes.</li> <li>» To support the change, DMV would need a minimum of 60 to 90 days to revise its computer software.</li> <li>» Reduced incentive for trade-ins could impact growth of sales tax collections from motor vehicle sales.</li> </ul>
Motor Fuel Excise Tax Loss Allowance <sup>xix</sup>	\$13.5	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» All consumption taxed.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Increases tax burden on businesses that experience financial losses due to motor fuel evaporation and other losses, and various other affected industry groups, agencies and individuals.</li> </ul>

## State Revenue Options LESS THAN \$175 MILLION

Motor Fuel Excise Tax Refunds <sup>xx</sup>	\$10.8	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» All consumption taxed.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Increases tax burden on businesses, and various other affected industry groups, agencies and individuals.</li> </ul>
Motor Fuel Excise Tax Refunds; limited group <sup>xxi</sup>	\$7.9	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>» All consumption taxed.</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>» Increases tax burden on businesses, and various other affected industry groups, agencies and individuals.</li> </ul>

Source: August 15, 2012 Policy Issue Papers

- <sup>i</sup> Sales Tax on Motor Fuel—Currently, motor vehicle fuel for on-road use purchased in Wisconsin is exempt from the state sales tax. The exemption on motor fuel could be lifted and 100 percent of these revenues could be distributed to the Transportation Fund. The revenue estimate is based on the current five percent Wisconsin state sales tax.
- <sup>ii</sup> Sales Tax on Motor Vehicles, Parts and Accessories—Tax receipts from the sale of new and used motor vehicles and auto-related parts and accessories are currently subject to the state sales tax. All of these revenues (100 percent) could be distributed to the Transportation Fund.
- <sup>iii</sup> Motor Fuel Tax Increase—Index Catch-Up—This variation only reflects the “catch-up” portion of lost revenue that would have been received with an annual adjustment of motor fuel excise tax each year since 2006.
- <sup>iv</sup> Mileage-Based Registration—Self-Reported Odometer Reading—Revenue is projected for first full year of operation and reflects reduction for annual ongoing operating costs. Stated revenue assumes 100 percent compliance, which is unattainable even with aggressive audit and enforcement mechanisms. Revenue based on 1.5-cents-per-mile fee.
- <sup>v</sup> Motor Fuel Excise Tax Increase—\$0.01-cent-per-gallon increase applied to gasoline and diesel fuel.
- <sup>vi</sup> General Aviation Fuel Excise Tax Increase—\$0.01-cent-per-gallon increase applied to aviation fuel.
- <sup>vii</sup> Alternative Fuel Excise Tax Increase—\$0.01-cent-per-gallon increase applied to alternative fuel.
- <sup>viii</sup> Value-Based Registration Fee—Also known as “value-based registration,” revenues will increase each year as new model year vehicles are purchased and registered. The first year revenue assumes Wisconsin would maintain a dual-registration system for a number of years and that only new vehicles would be subject to the value-based system.
- <sup>ix</sup> Registration Fee Surcharge on Electric and Hybrid Vehicles—Impose a \$75 annual surcharge fee.
- <sup>x</sup> Registration Fee Increase—\$1.00 increase applied to auto, SUV, van passenger vehicles, which currently display \$75 license plates.
- <sup>xi</sup> Title Fee Increase—\$1.00 increase on original titles.
- <sup>xii</sup> Driver License Issuance Fee—\$1.00 increase applied.
- <sup>xiii</sup> Registration Fee Increase—Heavy Trucks—1% increase on gross weight rates schedule is applied to vehicles greater than 8,000 pounds but does not include vehicles registered through IRP.
- <sup>xiv</sup> Registration Fee Increase—Light Duty Trucks—\$1.00 increase to trucks weighing less than 8,000 pounds; known as A, B, C plates.
- <sup>xv</sup> Driver License Fee—Original and Renewal—\$1.00 increase applied.
- <sup>xvi</sup> Late Vehicle Registration Fee—\$1.00 increase applied.
- <sup>xvii</sup> Biennial Registration Fee Increase—Motorcycles and Mopeds—\$1.00 increase applied.
- <sup>xviii</sup> Biennial Registration Fee Increase—Farm Trucks—\$1.00 increase applied.
- <sup>xix</sup> Motor Fuel Excise Tax Loss Allowance—Eliminate the 1.35 percent allowance that motor fuel suppliers receive for fuel evaporation. That portion of fuel would become subject to excise tax.
- <sup>xx</sup> Motor Fuel Excise Tax Refunds—Eliminate all fully refunded use of motor fuel by agriculture, industry and construction, taxi cabs, Native Americans.
- <sup>xxi</sup> Motor Fuel Excise Tax Refunds; limited group—Eliminate all fully refunded use of motor fuel by Native Americans.

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