

CHAPTER 12: Funding Wisconsin's Transportation System

To deliver the *Connections 2030* vision, transportation funding must be adequate, sustainable and equitable for all users. In addition, the budget process will need to be flexible to fund initiatives like corridor management and implement multi-jurisdictional, multimodal projects to meet Wisconsin's 21st century needs.

Achieving a sustainable revenue stream is a challenge. In the near future, Wisconsin's traditional reliance on motor fuel taxes to fund transportation will be tested.

As in other states, Wisconsin's transportation needs have routinely exceeded available dollars. The state's budgeting process and allocation of dollars for transportation cannot always respond to the pressures affecting the costs of doing business, including rising construction costs, real estate acquisition needs and environmental requirements.

The following chapter is divided into three parts. The first part offers background information on Wisconsin revenue sources and the 2007-2009 transportation budget. The second part examines trends and pressures affecting Wisconsin, and presents mid-term revenue forecasts. The third

part summarizes the findings and recommendations from the National Surface Transportation Policy and Revenue Study Commission report that will serve as a framework for future policy direction in Wisconsin.

Part 1: Background

Funding for Wisconsin's transportation system comes from several sources:

- » State revenue
- » Federal funding
- » Bonding
- » Other funds, local and service funds, program and general purpose revenue

State transportation revenue

Motor fuel taxes, driver license fees and vehicle registration fees generate the majority of state transportation revenue. These fees are combined with federal funding proceeds from bonds, and revenue

Tax rates for motor fuel in Wisconsin

The current tax rate for gasoline and diesel fuel is \$0.309 per gallon. In addition, \$0.02 per gallon is collected for the state's Petroleum Environmental Clean-up Fund Award, not the Transportation Fund.

Although commonly referred to as "alternative fuels" for tax purposes, Wisconsin statutes treat gasoline-ethanol blends such as gasohol and E-85, and "biodiesel" as gasoline and diesel fuel. As such, they are taxed at the same rate as gasoline and diesel fuel. Under the definition of "alternate fuels" currently used in the statutes, the state's principal alternate fuels are compressed natural gas (CNG), and liquid propane gas (LPG). These fuels are taxed at lower rates than gasoline, gasoline-ethanol blends, diesel fuel and biodiesel. The current rates are \$0.247 for CNG and \$0.226 for LPG. These rates are intended to reflect these fuels' lower energy content compared to gasoline.

Gasoline used for general aviation is recognized in the statutes for tax purposes as distinct from gasoline used to power motor vehicles. It is taxed at \$0.06 per gallon.



The impact of stimulus funding

An economic stimulus spending package that includes investments in surface transportation, while helpful, will not solve the immediate or the longer-term problems of funding system needs. The current investment shortfall is just too great.

The Highway Trust Fund will continue to need significant augmentation beyond whatever an immediate short-term stimulus plan can provide. For instance, the stimulus package included nearly \$35.9 billion for highway and transit infrastructure. While important in addressing the short-term economic crisis, it will pay for only about two months of the identified annual national funding gap to maintain and improve the system – a gap that repeats itself and compounds year after year.

Wisconsin is receiving \$529 million for highway projects as part of the American Recovery and Reinvestment Act of 2009, and millions more for transit and aeronautics. These stimulus funds will be used to accelerate start dates on highway, transit and aeronautics projects. In addition to the stimulus funds, the American Recovery and Reinvestment Act provides grant programs for passenger rail, harbors and surface transportation projects. WisDOT will apply for \$500 million to \$600 million to implement high speed passenger rail service from Milwaukee to Madison.

~ *Paying Our Way: A New Framework for Transportation Finance*,
February 2009

generated from communities (when they share in the costs), to fund state transportation projects.

The state has taxed motor vehicle fuels since 1925, when the first tax was introduced at a rate of \$0.02 per gallon. Since then, approved tax increases have been

How are federal funds allocated?

Federally funded transportation programs typically are governed through multi-year authorization bills, which provide the policy and funding structure for the programs.

Actual federal transportation funding is allocated annually through the congressional appropriations process.

Most federal funding is provided to states through various formulas established in the authorizations.

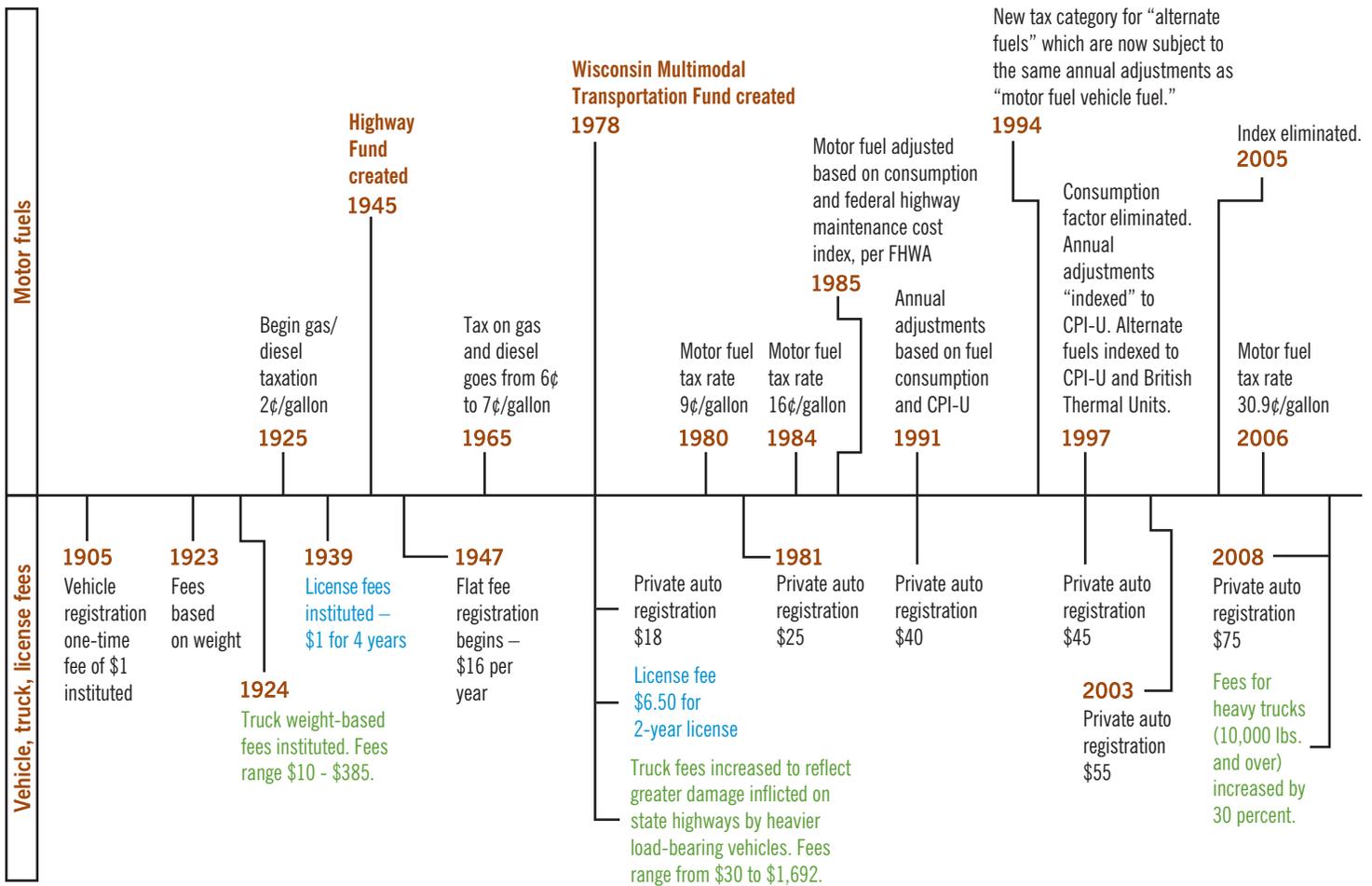
States, however, also receive federal funding through a competitive, discretionary process and from earmarks by Congress in annual appropriations bills and in multi-year authorization bills.

intermittent and sporadic. When the Transportation Fund was created in 1978, a tax increase had not occurred since 1965, when the state legislature increased the rate from \$0.06 to \$0.07 per gallon.

The legislature subsequently raised the rate to \$0.09 per gallon in 1980, and during the next five years adopted three additional statutory increases, resulting in a tax rate of \$0.16 per gallon in 1984.

In addition to tax increases, the legislature experimented with “indexing,” a method used to help keep transportation funding in line with inflation through regular, automatic adjustments.

- » In 1985, the Executive Budget Act (1983 Act 27) established a procedure for annually recalculating the tax rate on gasoline and diesel fuel based on fuel consumption and the federal highway maintenance cost index, as determined by the Federal Highway Administration.
- » In 1991, the Executive Budget Act (1991 Act 39) altered the method of adjusting gasoline and diesel fuel rates. Instead of adjusting rates to reflect fuel



▲ Figure 12-1: Development and growth of Wisconsin user charges

Notes:

- > Not all increases are illustrated. Details on motor fuel rate increases can be seen on WisDOT's Web site: Gas Tax Facts.
- > CPI-U: Consumer Price Index for urban consumers, determined by U.S. Department of Labor.
- > British Thermal Units: Adjustment used as a factor based on the standard number of British Thermal Units per gallon generated by each kind of alternate fuel sold in Wisconsin compared to the number of British Thermal Units generated by gasoline.
- > Indexing was suspended in 1992 and reinstated in 1993.

consumption and highway maintenance costs, adjustments would be calculated annually based on fuel consumption and the U.S. consumer price index for all urban consumers, as determined by the U.S. Department of Labor.

- » In 1997, the Executive Budget Act (1997 Act 27) eliminated the consumption factor used to calculate the annual rate adjustments for "motor vehicle" and "alternate" fuels.

In 2005, Wisconsin eliminated the annual indexing adjustment. The last adjustment occurred on April 1, 2006, when the motor fuel tax rate was raised to its current level of \$0.309 per gallon. In addition to motor fuel taxes, automobile registrations have been in place since 1905 and license fees have been in place for all Wisconsin drivers since 1939. Figure 12-1 reflects the development and growth of the state's motor fuel tax rates, and vehicle and driver license fees.



Federal transportation funding

Before 1956, federal transportation funds were allocated from the U.S. General Fund out of revenues derived from transportation-related user charges and other General Fund revenue sources. In 1956, the Highway Trust Fund was created with dedicated revenues. Initially, the purpose of the Highway Trust Fund was to provide funding for the “Federal-Aid Highway Primary and Secondary Systems,” including the Interstate.

In 1970, the Airport and Airway Trust Fund was created with dedicated funding for airports and other aeronautics purposes. In 1983, the Mass Transit Account was created in the Highway Trust Fund to provide dedicated funding for mass transit. Both of these funds have sources of dedicated revenue, but a U.S. General Fund component remains for federal aeronautics and mass transit funding.

Passenger and freight rail programs have no federal, dedicated funding; however, certain rail activities are eligible for funding from the Highway Trust Fund. Funding for certain rail activities is also provided from the U.S. General Fund.

The dedicated revenue sources for transportation at the federal level are similar to those in Wisconsin. The primary federal sources of transportation funding are excise taxes on motor and aviation fuels. Other federal revenue sources include excise taxes on tires, heavy truck and trailer sales, heavy vehicle use taxes, and an air passenger ticket tax. The rates for these fees and taxes have varied over the years. For example, the federal excise tax on gasoline was \$0.03 per gallon in 1956; it is now \$0.184 per gallon. The federal motor fuel excise tax has not been increased since 1993.

There is much discussion among states and in Congress about financial equity – the ratio of federal funding received to federal revenues attributed to a state such as fuel taxes collected. A state can receive either more, less or the same amount as the dollars attributed to it. The level of equity among various transportation programs varies greatly, and it can be difficult to measure for some programs. Historically, Wisconsin has been a “donor” state, meaning it contributes more in federal transportation revenues than it gets back in federal transportation funding. In recent years, however, Wisconsin’s equity position has improved within the highway program, and it now receives more



▲ Figure 12-2: State and federal funds are used to help finance many state highway rehabilitation projects.

Local government funding challenged

Strained transportation funding resources at all levels will continue to be a challenge. Limited availability of funding sources and revenue caps will continue to challenge local government's ability to generate additional revenues, and their ability to fund the community share of transportation needs.

federal funding than its attributed revenues. Despite successes in the highway program, Wisconsin remains a significant donor-contributor for transit. Equity for aeronautics and rail is difficult to determine, and therefore is generally not measured or tracked.

Bonding

Wisconsin uses two types of bonds to fund transportation projects:

- » General obligation bonds
- » Transportation revenue bonds

The state has used general obligation bonds since the late 1960s. Most recently, general obligation bonds helped finance the construction of the Marquette Interchange reconstruction project in southeastern Wisconsin; harbor and railroad projects; and various state highway rehabilitation projects. These bonds are repaid from the Transportation Fund or the state's General Fund.

Since 1983, transportation revenue bonds – bonds that are repaid from specific, pledged Transportation Fund revenue sources – have been used to pay for the Major Highway Development program. All vehicle-related registration and titling fees have been pledged for transportation bond revenue debt service since 2004. Previously, automobile and truck registration fees were the only pledged sources of revenue for these debt service payments. The biennial budget established by the state legislature and governor limit the amount of transportation revenue bond proceeds used to finance projects.

Historically, transportation revenue bonds have provided as much as 72 percent (in the 1992 fiscal

year) of Major Highway Development Program funding, before decreasing to 57 percent in 1998. During the past decade, transportation revenue bonds have funded about 55 percent of allocated major highway program dollars.

Other funds, local and service funds, program and general purpose revenue

Local units of government have been a principal source of transportation funding for as long as, or longer than, the state and federal governments. The majority of transportation infrastructure and services in Wisconsin are locally owned and provided. Many local transportation projects are not eligible for state or federal funding. In cases where the communities are eligible, state and federal funding provides only a small share of the total costs. Local governments also share a small cost of state highway projects when local amenities are included.

The revenue for local funding of transportation projects comes mainly from two sources: the local property tax, including both the general property tax and special assessments; and debt through bonding or borrowing.

Fiscal Year 2007- 2009 transportation funding

Transportation funding for the fiscal year 2007-2009 totals \$5.9 billion. Figures 12-3 through 12-6 depict:

- » All WisDOT revenue sources
- » The way WisDOT distributes state revenues



General Transportation Aids program

WisDOT administers the General Transportation Aids program, its second largest program, which helps to offset the cost of county and municipal road construction, maintenance, traffic and other transportation-related costs. General transportation aid payments are based on either a share of eligible transportation-related expenditures, or a per-mile payment.

- » Programs that will be financed from bond proceeds
- » The way WisDOT distributes federal funds

All revenues

The total state transportation budget for fiscal years 2007-2009 is derived from four main sources: state funds, federal funds, bond proceeds and other funds (Figure 12-3). This distribution of approximately 59 percent state, 26 percent federal revenue has been consistent with other biennial budgets.

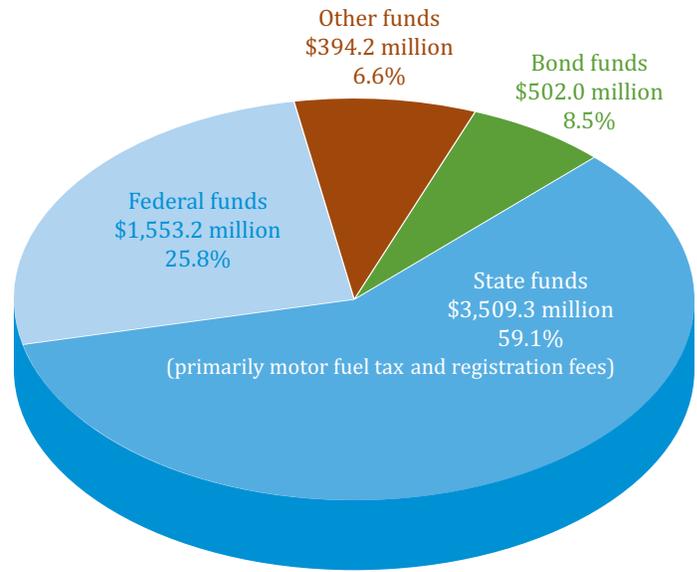
Other funds include local government cost shares and state general purpose revenues.

Distribution of state revenue

As indicated in Figure 12-3, 59 percent of WisDOT's budget revenue, \$3.5 billion in 2007-2009 biennium fiscal period, is generated from state fees.

Figure 12-4 shows the distribution of these funds among WisDOT's programs. The department's state operations include administrative costs such as salaries, as well as funding the Wisconsin State Patrol and motor vehicle services.

Debt service and reserves largely consist of funds that are used to repay bonds. The amount



▲ Figure 12-3: All WisDOT revenue sources (reflects 2007 Wisconsin Act 20). 2007-2009 total is \$5.9 billion

allocated to local programs covers a variety of programs including General Transportation Aids, bridge rehabilitation and transit. The remaining 41 percent funds state highway programs.

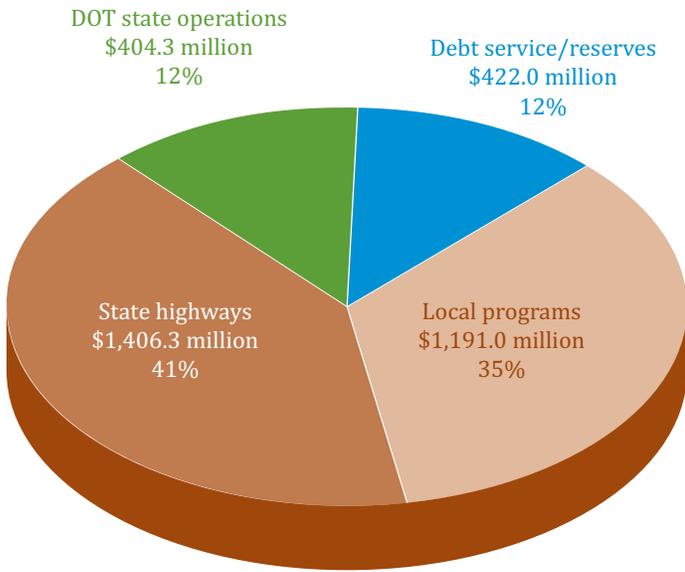
Bond authority

The state legislature authorized general obligation and transportation revenue bonds totaling \$502 million during the 2007-2009 biennium for transportation. These bonds accounted for 8.5 percent of WisDOT's budget revenue.

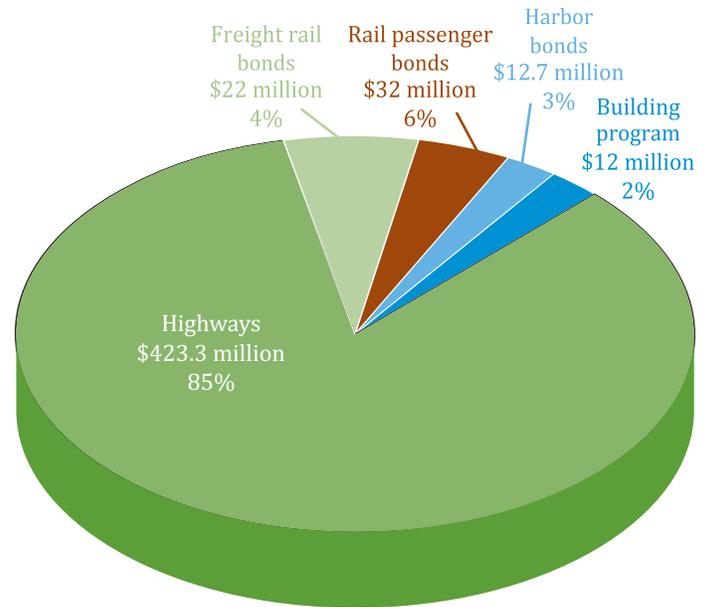
About 85 percent of these funds were used to finance highway programs, including the Marquette Interchange reconstruction project and the I-94 North-South Corridor study in southeastern Wisconsin. The remaining 16 percent of bonding authority is allocated for buildings, harbors and rail projects.

Distribution of federal funding

During the 2007-2009 biennium, federal funds accounted for almost 26 percent of WisDOT budget revenues (\$1.5 billion).



▲ Figure 12-4: Distribution of state revenues (reflects 2007 Wisconsin Act 20). 2007-2009 total is \$3.5 billion



▲ Figure 12-5: Bond authority (reflects 2007 Wisconsin Act 20). 2007-2009 total is \$502 million

Federal funding is primarily used for highway construction programs, although the state also receives federal funds for transit, aeronautics, motor carrier safety and other transportation programs.

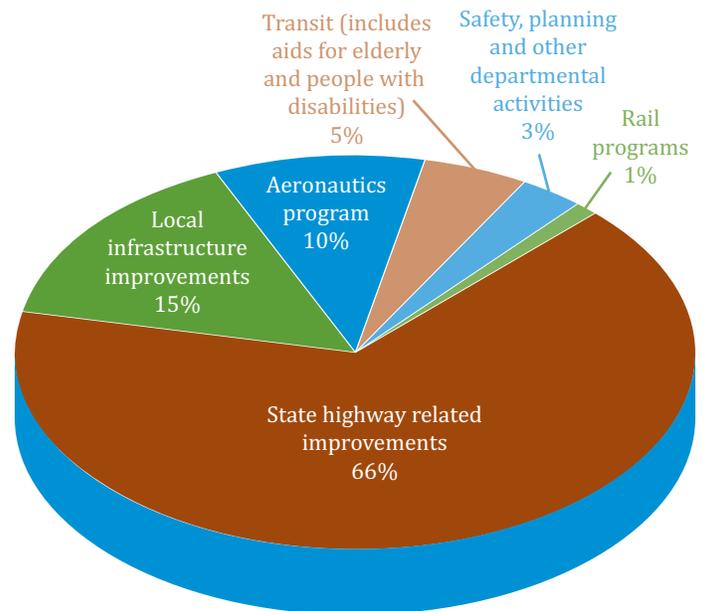
Figure 12-6 shows how WisDOT's federal funds were allocated in the 2007-2009 biennial budget.

Vehicle registration fees

Increases were also adopted for automobile and light truck registration fees. Auto fees were raised from \$55 to \$75, generating an estimated \$35.3 million in the 2008 fiscal year and \$71.9 million in the 2009 fiscal year.

Fees for light trucks also increased. This will generate an estimated \$12 million in the 2008 fiscal year, and \$24.7 million in the 2009 fiscal year.

Registration fees for heavy trucks (more than 8,000 pounds) increased 30 percent, generating an estimated \$7.7 million in the 2008 fiscal year, and \$49.2 million in the 2008 fiscal year.



▲ Figure 12-6: Distribution of federal funds (reflects 2007 Wisconsin Act 20). 2007-2009 total is \$1.5 billion



For the 2007-2009 biennium, allocated amounts for vehicle registration fees are \$558.3 million in the 2008 fiscal year and \$589.4 million in the 2009 fiscal year.

Part 2: Funding transportation beyond 2009

This section examines trends, pressures and key topics affecting Wisconsin's transportation system and presents mid-term revenue forecasts. The findings and recommendations emanating from the National Surface Transportation Policy and Revenue Study Commission report serve as a framework for future policy direction in Wisconsin.

Some of the key areas include:

- » Eroding revenue base
- » Increasing costs
- » Funding for corridor management and freight projects

Eroding revenue base

Wisconsin's transportation revenue base is highly reliant on motor vehicle fuel consumption. Between 1985 and 2007, consumption of taxable motor fuel grew at a rate of about 1.6 percent annually, and motor fuel revenues grew at an average rate of 4.7 percent annually. These growth rates were partly sustained by Wisconsin's expanding working age population; generally rising incomes; increasing industrial production; relatively low unemployment and inflation; relatively low and stable gasoline prices; and stagnant to declining fuel efficiency within the light vehicle fleet. These trends have supported increasing motor vehicle fuel consumption and, in turn, rising motor vehicle fuel revenues.

Looking forward to 2030, the growth rates that have sustained Wisconsin's transportation revenue base will be eroded by several trends affecting motor vehicle fuel consumption.

- » Although Wisconsin's population will continue to expand, much of this growth is expected in

Challenges to sustainable revenue

Wisconsin's vision to have a sustainable revenue stream is challenged by a number of trends and pressures. In the years ahead, Wisconsin's traditional reliance on motor fuel taxes will be tested as federal transportation policy is aligned to work with a recently enacted (December 2007) national energy policy and a pending carbon emissions policy. These forces may accelerate the adoption of new ways of funding transportation.

segments of the population beyond the peak driving years of 18 to 64 years old (also see Chapter 3, *Trends*).

- » Significant and sustained increases in fuel prices are expected to have a negative effect on consumption during the long term.
- » The introduction of new technologies that improve motor vehicle fuel efficiency will slowly reverse years of stagnant or declining fuel efficiency within the vehicle fleet.

In the past, factors that contributed to the erosion of the state's revenue base were mitigated by the motor vehicle fuel excise rate, which responded to changes in the Consumer Price Index. However, the annual indexing of fuels was repealed in December 2005, with the last annual adjustment occurring on April 1, 2006.

Revenue forecast

WisDOT uses a model to annually predict the taxable consumption of motor vehicle fuel in Wisconsin. This information is used to forecast revenues based on current state tax levels.

According to the department's spring 2008 forecast, taxable consumption of gasoline in Wisconsin is expected to increase 7.5 percent, and diesel fuel,

12 percent, between the 2008 and 2015 fiscal years, for a total 8.5 percent increase in taxable motor vehicle fuel consumption. Figure 12-7 depicts the forecast consumption of taxable gasoline and diesel fuel through the 2015 fiscal year.

Although the forecast predicts relatively flat state motor vehicle fuel tax revenue growth through 2015, even at current tax rates it may not fully account for the potential loss of revenues due to rapidly changing vehicle technologies, particularly in the later years of the forecast. In addition, the retail price of gasoline, along with other forecast variables such as population, personal and disposable income growth, industrial activity and annual unemployment rate also influence fuel consumption, and in turn, the department's motor vehicle fuel revenue forecast. Recent spikes in pump prices for gasoline and diesel may be harbingers of reductions in future fuel consumption and erosion of Wisconsin's transportation revenue base.

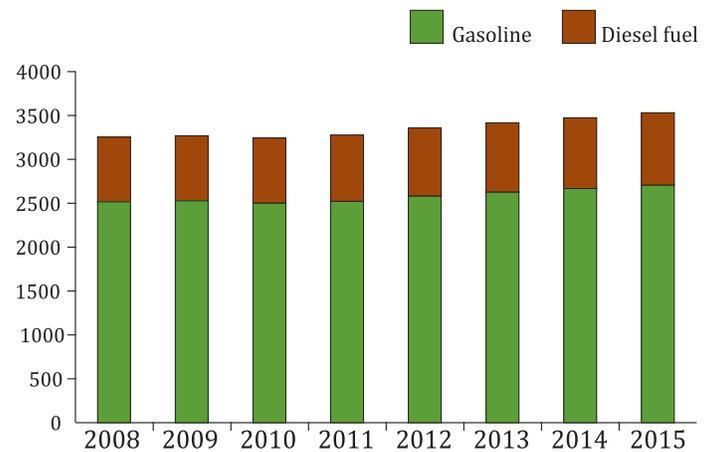
According to the U.S. Energy Information Administration:

“Concerns about oil supply, fuel prices and emissions will drive development and market penetration of vehicles that make use of alternative fuels, or employ electric motors and advanced electricity storage, advanced engine controls, or other new technologies.”¹

Alternative fuel technologies, including alcohol fuel (ethanol and methanol blends), natural gas (CNG and LPG), electric (including gasoline-electric hybrids), and fuel-cell powered light vehicles comprised about 4 percent of all light-duty vehicles nationally in 2008, and will rise to about 10.4 percent in 2015 and 26.9 percent in 2030.² Much of this growth is expected among vehicles using ethanol as fuel. Since ethanol fuels are currently taxed at the same rate as gasoline and diesel fuel under Wisconsin law, this trend has limited impact on future Transportation Fund revenues.

¹ EIA (February 2007), Annual Energy Outlook 2007, p. 81.

² Data derived from Supplemental Tables to the Annual Energy Outlook 2008, Table 48, www.eia.doe.gov/oiaf/aeo/supplement/pdf/sup_tran.pdf.



▲ Figure 12-7: Forecast consumption of motor vehicle fuel through 2015 fiscal year

However, vehicles using electric technology (including gasoline-electric hybrids) are forecast to increase their share nationally from about 0.6 percent in 2008, to 2.8 percent in 2015 and 11.2 percent in 2030. If the percentage of hybrid technology vehicles increases more quickly than anticipated, the cumulative effect on WisDOT's revenue stream will be significant.

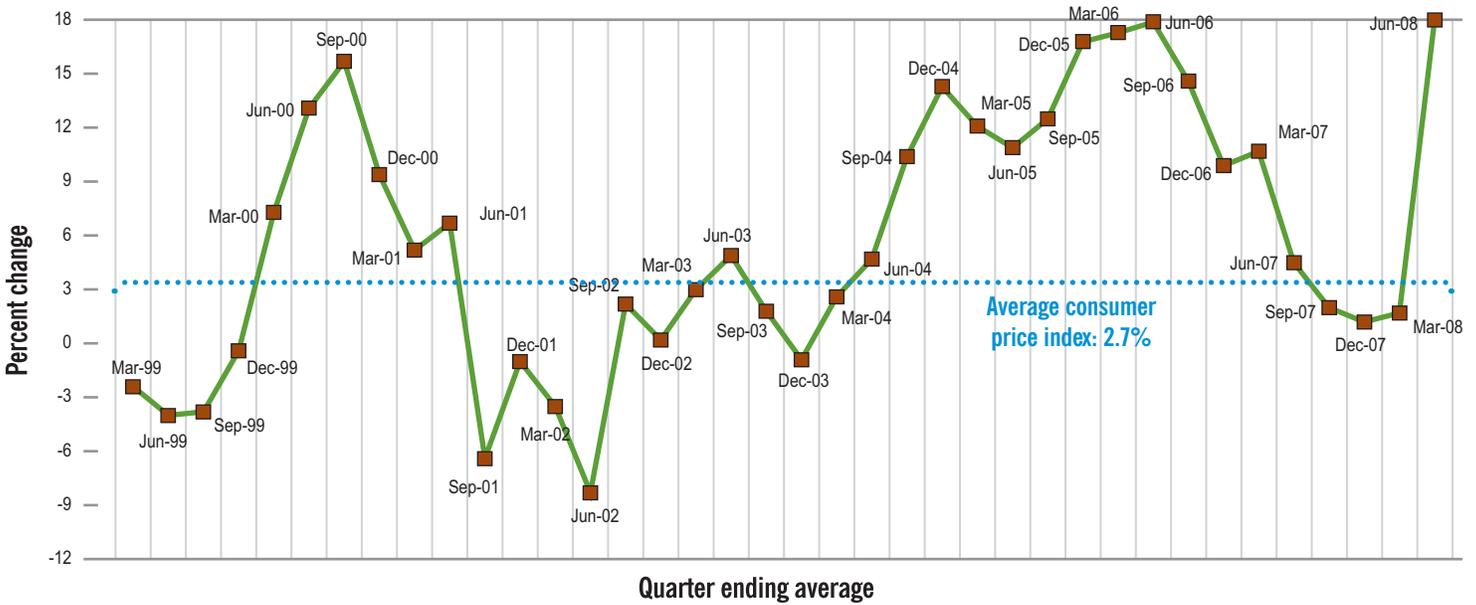
When hydrogen fuel-cell-powered vehicles become commercially available, they might have an even more dramatic impact on state revenues. The U.S. Energy Information Administration currently forecasts that fuel-cell-powered vehicles will comprise less than 1 percent of light vehicles in 2030; however, rising fuel prices might encourage consumers and businesses to use fuel more efficiently, either by driving less or by using more fuel-efficient modes of transportation.

Increasing costs

During the next two decades, transportation costs are expected to fluctuate widely. It is difficult to forecast these changes with precision, but the impacts of unplanned increases are raising the costs of scheduled highway projects, thereby limiting the department's ability to address additional needs with existing revenues. In other cases, projects are simply delayed.

Similar to the state, local units of government are also facing funding challenges related to roadway





▲ Figure 12-8: Wisconsin quarterly roadway construction costs (1999-2008)

maintenance and preservation, which are compounded by increased construction costs. Increases in the cost of transportation projects can generally be attributed to three areas: highway construction, project delivery and real estate acquisition.

Highway construction

A number of factors contribute to the cost of highway construction, including size of the construction contract, project location, and project duration. Project duration can be influenced by environmental regulation or plan changes.

The most influential factor, however, is the cost of materials, including concrete and steel, which have increased significantly with rising global demand, labor and equipment. Inherent in the cost of material is a fuel component through either the fabrication or delivery of the materials.

Wisconsin is located close to some of the raw materials needed for highway construction; however, costs have fluctuated due largely to global supply and demand (Figure 12-8).³ These fluctuations

may indicate that a different trend for highway construction costs is emerging – one that does not track inflation – and there may be better indicators of price volatility. Initial studies have indicated that diesel fuel prices closely track highway and street construction costs.⁴ If diesel fuel prices increase, construction costs increase accordingly.

The gap for funding emerges as funding increases are not always in line with actual costs of delivering transportation projects.

Project delivery and environmental regulation

One of the key issues addressed by the National Surface Transportation Policy and Revenue Study Commission was the amount of time it takes to develop transportation infrastructure projects and the impact the process has on the ultimate cost of a project.

Information compiled by the Federal Highway Administration indicates that the national average time for major highway projects to advance from project initiation to completion is approximately 13 years. Freight rail, passenger rail and transit projects face similar or even longer periods to complete.

³ Wisconsin DOT Price Index, Yearly Moving Average Base Year 2000, January, 2008 data.

⁴ Florida Department of Transportation, Construction Cost Indicators, February 7, 2007.

1	2	3	4	5	6	7	8	9	10
Planning studies		Environmental studies							
Determine existing conditions	Purpose and need	Preliminary design			Final design				
Traffic forecasts	Traffic analysis	Floodplain/hydrologic	Geometric design	60% plans	Right of way engineering and acquisition				
Analysis needed	Preliminary alternatives	Energy	Typical sections	90% plans	Right of way setting				
Conceptual solutions	Public outreach	Land use	Drainage	Specifications and estimates	Right of way engineering				
Preliminary cost estimates	Air quality	Economic	Structural	Final plans	Appraisals				
Cost estimation validation	Noise analysis	Wetlands	Traffic/ITS		Purchase offers				
	Traffic analysis	Visual effects	Signing/Striping		Counter offers				
	Socio/economic	Environmental justice	Lighting		Relocation				
	Cultural resources	Indirect and cumulative impacts	Utilities		Asbestos clearing				
	Biological resources	Cost-benefit analysis	30% plans		Demolition				
	Hazardous materials	Refine alternatives			Condemnation (if necessary)				
	Water quality	Alternative selection			Federal regulations				
		Section 4(f) evaluation							
		Record of Decision							

BEGIN CONSTRUCTION

▲ Figure 12-9: Approximate timeline, in years, for EIS development and other activities leading up to construction
 Note: Not all WisDOT EIS analyses take the same amount of time. Duration depends on project scope and complexity.

During this process, a project initially estimated to cost one amount could increase significantly in cost, changing finance plans and construction schedules.

In Wisconsin, a project can take up to 10 years depending on its scope (project size, number of lanes) and complexity.

Some of this time is associated with the environmental review process. In recent years, the median time to complete environmental impact statements (EISs) for highway projects has varied nationally from 54 to 80 months. Changes in project concepts, which typically include design changes, mean that the department must re-evaluate environmental impacts, and project



delivery is delayed. WisDOT's EIS process (Figure 12-9 for Major Highway Projects – WisDOT's complex and large projects) details starting preliminary design activities before the EIS process is completed. This helps to streamline the process. WisDOT will continue to work on improving the process. See Chapter 10, *Preserve Wisconsin's Quality of Life*, for a discussion of WisDOT's policies and strategies that continue to meet environmental requirements but also identify ways to further streamline processes.

Real estate acquisition

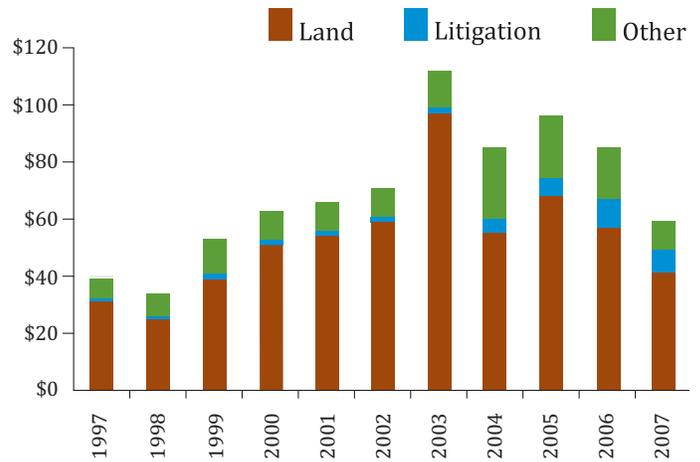
The department invests a significant amount of money in project-related real estate acquisitions. Typically, there are three categories of related costs: land purchase, litigation and "other" costs such as contractual fees, salaries, payments to local governments and additional categories (Figure 12-10 and Table 12-1).

Real estate acquisition costs represent a significant portion of a project's costs: \$40 million in 1997, \$65 million in 2001 and \$60 million 2007. These costs are relatively volatile and difficult to estimate for a variety of reasons such as land speculation and changing project requirements.

The volatility of real estate acquisition costs can impact the stability of the transportation program because the dollars needed to acquire real estate must be allocated before construction can begin.

If real estate for one project is more expensive than initially estimated, decisions must be made to either change the scope of the project or delay other projects to reallocate the necessary funds. While most project costs are associated with land acquisition, litigation costs also have increased significantly in recent years. Some of the factors driving real estate costs and volatility are appreciation in land values, compression, design changes and fear of litigation.

- » Land value appreciation is driven in large part by highway improvements. Other likely factors include: proximity to urban areas where land prices tend to rise more rapidly; time (as more time passes, the cost of the land will increase more); and land speculation.



▲ Figure 12-10: Dollars spent per fiscal year by WisDOT on real estate acquisition, 1996 to 2006 (in millions)

- » Poor appraisals and fear of litigation have a large ripple effect as both raise administrative revision costs and settlement amounts
- » Compression (the time between when real estate needs are identified and the project is "let" to a contractor) can also increase total project costs. With less time, real estate agent costs may increase as agents work to get the land cleared faster.
- » Facility design changes may also increase a project's costs; they often are the result of local changes, changes in design standards, new or updated information about acquisitions, project staff changes and internal coordination needs.

A number of efforts are underway to improve the department's cost estimating techniques. These include improving staff expertise regarding the appropriate application of eminent domain authority and focusing on the major highway development projects where differences in cost estimates between the initial and the final plat have been found to have the largest discrepancies.⁵

Funding corridor management and freight projects

Connections 2030 is based on a multimodal planning framework implemented around a corridor

Table 12-1: Real estate acquisition expenditures on land and litigation

Fiscal Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Dollars in millions											
Land	\$31	\$25	\$39	\$51	\$54	\$59	\$97	\$55	\$68	\$57	\$42
Litigation	\$1	\$1	\$2	\$2	\$2	\$2	\$2	\$5	\$6	\$10	\$8
Other	\$7	\$8	\$12	\$10	\$10	\$10	\$13	\$25	\$22	\$18	\$10
Total	\$40	\$34	\$53	\$63	\$65	\$71	\$112	\$86	\$96	\$84	\$60
Percent of total expenditures											
Land	79%	73%	75%	81%	82%	83%	86%	64%	71%	67%	70%
Litigation	3%	4%	3%	3%	3%	2%	2%	6%	6%	12%	13%

management approach. As some of *Connections 2030's* key initiatives (such as corridor management and freight planning) are implemented, it will be necessary to have a budget process in place that is flexible and able to fund multi-jurisdiction, multimodal projects to meet Wisconsin's 21st century needs.

The ability to implement a multimodal corridor management approach requires significant statutory and programmatic changes at both the state and federal levels. Currently, funding and programs are generally limited to a particular mode and make multimodal and intermodal projects very difficult if not impossible to undertake in an efficient manner. In addition, administrative structures, especially at the federal level, are nearly incapable of overseeing such projects, creating significant and costly barriers to this approach. In its deliberations, the National Surface Transportation Policy and Revenue Study Commission recognized this and suggested a complete restructuring of both federal surface transportation programs and the federal transportation system of government to facilitate a multimodal corridor management approach.

In Wisconsin, the administrative structure allows for such projects, but statutory funding eligibility and program definitions largely do not. If these budgetary

⁵ A final plat is used to define the project right of way land needs prior to land acquisition.

and programmatic changes are not made, WisDOT will have difficulty coordinating corridor management activities and ensuring a multimodal approach to implementation. Despite these challenges, WisDOT will continue to proceed with plan implementation and identify strategies and solutions to overcome these challenges.

Part 3: Funding transportation beyond 2015: National Surface Transportation Policy and Revenue Study Commission

During the last surface transportation authorization, Congress recognized that since the completion of the Interstate Highway System the United States has lacked a clear and comprehensive strategic vision to guide transportation policy-making at the national level. Congress also recognized that transportation infrastructure is crucial to the nation's well-being because of its role in the economy, national defense and mobility. Congress noted that the nation's infrastructure has many needs that current resources cannot meet.

To address these issues, Congress created the National Surface Transportation Policy and Revenue Study Commission in Section 1909 of the Safe Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU). The policy commission was charged with conducting



National Surface Transportation Policy and Revenue Study Commission members

- › **Mary Peters, Chair**
Secretary, US Department of Transportation
- › **Jack Schenendorf**
Vice-Chair, Counsel Covington and Burling, LLP
- › **Frank Busalacchi**
Secretary, Wisconsin Department of Transportation
- › **Maria Cino**
Former Deputy Secretary, US Department of Transportation
- › **Rick Geddes**
Associate Professor, Cornell University
- › **Steve Heminger**
Executive Director, San Francisco Metropolitan Transportation Commission
- › **Frank McArdle**
Senior Advisor, General Contractors Association of New York
- › **Steve Odland**
Chairman and CEO, Office Depot, Inc.
- › **Patrick Quinn**
Co-Chairman and President, U.S. Express Enterprises, Inc.
- › **Matt Rose**
Chairman and CEO, BNSF Railway
- › **Tom Skancke**
CEO, The Skancke Company
- › **Paul Weyrich**
Chairman and CEO, Free Congress Foundation

a thorough review of the nation's transportation assets, policies, programs and revenue mechanisms, and to create a plan that could serve as a long-term transportation vision.

The policy commission comprised 12 members including representatives from state, local and federal transportation organizations, transportation users, transportation builders, and representatives from private industries, academia and the political arena. The president appointed four members, and the majority and minority leaders in the U.S. House of Representatives and the U.S. Senate each appointed two members. WisDOT Secretary Frank Busalacchi participated on this policy commission.

The policy commission's report and recommendations were presented to Congress on January 15, 2008.⁶ The policy commission made several recommendations for financing the nation's surface transportation needs. Given the immediate concern of a possible deficit in the Federal Highway Trust Fund and the long-term nature of the policy commission's report, the finance recommendations were categorized into immediate, mid-term (through 2025), and long-term (beyond 2025).

The mid-term and long-term recommendations are summarized below. Given the focused nature of the immediate recommendations on the Federal fiscal year 2009 condition of the Federal Highway Trust Fund and the long-term horizon of *Connections 2030*, they are not included.

Mid-term finance recommendations (through 2025)

The policy commission report stated the following opinions:

- » Significant additional investment is needed by all levels of government and the private sector to provide transportation infrastructure for a growing population, to support economic growth and for international competitiveness.

⁶The commission report can be viewed at www.transportationfortomorrow.org/final_report/

Transportation for Tomorrow: Report of the National Surface Transportation Policy and Revenue Study Commission, recommendations for public-private partnerships

The commission recommends the following conditions be met when states use public-private partnerships:

- › Transparency is a key element in all aspects of the process and the arrangement, including all terms and conditions in the agreement.
- › There should be adequate public participation and all applicable planning and environmental requirements should be met.
- › Confidentiality should be limited only to those instances where it is legally required.
- › The terms of the agreement should include the following:
 - The condition and performance of the facility are adequately maintained over the life of the concession agreement and at the end of the agreement the facility is returned to the state in a state of good repair.
 - There are no non-compete clauses that prohibit the construction or improvement of adjacent facilities; however, provisions that require the public entity to compensate private operators for lost revenues when improvements are made to adjacent facilities would be acceptable.
 - Should the private partner enter into bankruptcy, become insolvent, or fail to meet all terms and conditions of the agreement, the facility will revert to the state.
 - Customers' interests are protected by capping the rate of increase in tolls at the level of the Consumer Price Index minus an adjustment factor for productivity improvements.
 - Revenue sharing provisions should be included in the lease agreement to ensure that the public sector shares in the rewards if toll revenues are higher than projected during the valuation process. Alternatively, the lease agreement could include rebalancing provisions to bring the agreement terms back into the financial balance achieved in the original negotiation.
 - Concession agreements should not exceed a reasonable term. Following the termination of a concession agreement, public input and review must be undertaken before any renewal of the agreement.
- › Concessions or other payments to public entities should not be used for non-transportation purposes or to subsidize transportation improvements in other parts of the state or metropolitan area, but rather should be used to improve and expand the tolled facilities and to expand capacity on transportation alternatives within the same corridor.
- › No conflicts of interest exist involving any parties to the agreement.

- » Transportation funding should rely on the principal of user financing.
- » While the fuel tax may not be a viable long-term source of transportation revenue, it is likely to remain the main source of transportation revenues during the next 20 years.

The policy commission report included two mid-term finance recommendations: increase federal revenues,

and remove barriers to options for increasing state and local revenues. Recommendations for increasing federal revenues:

- » The federal government should continue to contribute approximately 40 percent of total surface transportation capital outlay.
- » A federal freight fee, such as a container charge, freight waybill charge or other fee, should



be created to help finance freight-related infrastructure improvements.

- » Federal truck taxes should be adjusted proportionally to increases in fuel taxes.
- » Federal investment tax credits should be granted to transportation facility owners for freight capacity expansion.
- » The Federal Highway Trust Fund should be restructured and renamed as the Surface Transportation Trust Fund, for compatibility with the recommended new program structure based on functional lines rather than individual modes.
- » Federal fuel taxes should be increased from \$.05 to \$.08 per gallon per year over the next five years.
- » Federal fuel taxes should be indexed to inflation.
- » The federal General Fund should continue to provide 20 percent of the funding for transit.
- » A federal ticket tax should be levied on all transit trips to supplement transit funding.
- » Intercity passenger rail should be funded — like transit — with an 80 percent share from surface transportation revenues and 20 percent from the federal General Fund.
- » A federal ticket tax should be levied on intercity passenger rail users to supplement other funding.
- » Transportation activities that reduce greenhouse gas emissions should receive a proportional share of any revenue generated from any carbon taxes or carbon cap-and-trade system that may be enacted.
- » A portion of customs duties should be dedicated to freight-related infrastructure improvements.

To remove barriers to options for increasing state and local transportation revenues in the mid term, the policy commission report recommended:

- » Provide states with more flexibility to implement tolling or congestion pricing on new capacity of the Interstate system.
- » Encourage the use of public-private partnerships as a financing tool for state and local governments as long as the same strict criteria related to tolling and congestion pricing are followed, and the public interest is protected.

Wisconsin mid-term recommendations

Wisconsin supports many of the national policy commission's mid-term recommendations, but currently does not support the concept of tolling on any facility in Wisconsin. WisDOT will continue to follow the evolution of public-private partnerships; it will consider short-term options that do not require tolling arrangements, and provide necessary public protections identified by the policy commission.

Table 12-2, developed by the national policy commission, provides a high-level, subjective evaluation of a wide range of revenue sources used by states around the country to fund transportation. The evaluation is based on a set of criteria, including ease of implementation, to determine their potential viability as revenue sources. Wisconsin uses many of these criteria when evaluating potential state revenue sources.

When it is determined that a request for increased resources is necessary, Wisconsin will evaluate the traditional revenue sources identified in Table 12-2 as part of the biennial budget process. Some of those sources are the fuel tax, registration fees, indexing and sales tax options.

The criteria used by WisDOT to select and recommend resource increases will be determined during each budget cycle. It is expected that WisDOT would continue to rely on these traditional revenue sources until a new national financing system can be developed and implemented. Innovative techniques, such as public-private partnerships, will be pursued if they meet Wisconsin's criteria.

Public-private partnerships

Public-private partnerships refer to contractual agreements formed between a public agency and private sector entity that allow for greater private sector participation in the delivery of transportation projects.

Long-term revenue solutions (beyond 2025)

The analysis completed by the national policy commission indicates that mileage-based user fees may be the primary transportation revenue source in the future; however, the policy commission noted that research should not be limited to this option.

Mileage-based fees are a user charge that could depend on any or all of the following: mileage, vehicle characteristics, and traffic conditions. Mileage-based fees use communications and information technology to assess charges according to miles traveled, roads used and other conditions related to the cost of service. Mileage-based or “vehicle miles traveled” (VMT) taxes are also evaluated in Table 12-2.

The policy commission report recommended that the next federal surface transportation act require a national study to develop specific mechanisms and strategies to aid the nation and individual states in transitioning to an alternative to the fuel tax to fund surface transportation programs. Specific recommendations resulting from the study include:

- » A Phase I study should be conducted through the National Academy of Sciences in coordination with the impacted federal agencies, state agencies and stakeholder groups to address the technological and institutional barriers that would need to be overcome to implement a VMT fee. These barriers would include evasion, privacy, the relationship of wear and tear to the highways, and administrative costs. The study should draw upon findings from VMT fee demonstration projects in the United States

THE ANALYSIS COMPLETED BY THE NATIONAL POLICY COMMISSION

indicates that mileage-based user fees may be the primary transportation revenue source in the future; however, the policy commission noted that research should not be limited to this option.

and mileage-based user charge systems that are in place in other countries. An important goal of this study would be to confirm whether a VMT fee is feasible and, if so, to agree upon a system to implement such a fee.

- » The Phase I study should also examine other potential long-term surface transportation revenue options. This analysis should build on the work that has already been done in this area and focus on alternatives to a VMT fee, including ways to equitably tax alternative fuels that cannot be taxed in the same way as existing motor fuels are taxed, annual registration fees for motor vehicles, and other options that were judged to be promising.
- » If Phase I finds that a VMT fee is feasible, a Phase II study involving the same organizations should be conducted to develop a specific plan and timetable for implementing a federal VMT



Table 12-2: Evaluation of potential transportation revenue sources against generally accepted evaluation criteria

	Revenue adequacy	Stability predictability	Responsiveness to inflation	Flexibility	Appropriateness of dedication	Compliance costs	Administrative costs	Equity by vehicle class	Equity by income group	Equity by geography	Relationship to economic efficiency	Point of taxation and incidence	Evasion potential	Ease of implementation	Average
Fuel tax															
Indexed fuel tax															
Motor fuel sales tax															
Value added tax															
Registration fee															
Personal property tax															
Vehicle sales tax															
Traditional tolls															
Tolling new lanes															
Tolling existing lanes															
VMT fees															
Indexed VMT fees															
Congestion pricing															
Local option sales tax															
Impact fees															
Innovative finance*															
Public-private partnerships*															
Container fees															
Customs duties															

* Assumes repayment from tolls

Excellent Very Good Good Not Good Poor Very Poor

This chart provides a subjective evaluation of a series of alternative revenue sources against a set of criteria.

Source: National Surface Transportation Policy and Revenue Study Commission, December 2007

National Surface Transportation Infrastructure Financing Commission Report

Similar to the National Surface Transportation Policy and Revenue Study Commission, Congress created the National Surface Transportation Infrastructure Financing Commission in Section 11142 of SAFETEA-LU. The finance commission examined these specific Highway Trust Fund issues:

- › Current revenues in the federal Highway Trust Fund
- › Projections of how Highway Trust Fund revenues might change
- › Alternatives for funding the Highway Trust Fund
- › Highway and transit needs for Highway Trust Fund funds
- › Potential fuel tax exemptions for states waiving Highway Trust Fund funds

While some of the outcomes of the policy commission overlapped with the finance commission, the finance commission chose to make the question of how transportation revenue should be raised the principal focus of its inquiry and report.

Some of the findings and recommendations of the finance commission are:

- › The national highway and transit system is underinvested and under priced
- › Transportation users are not paying the true cost of using the system, which should include pavement repair and the social costs (traffic congestion & pollution)
- › Motor fuels taxes are not sustainable
- › The most effective way to raise revenue in the short term is to increase and index the federal fuel tax rate. The increase should include a ten cent increase for gasoline fuel and fifteen cents for diesel
- › The Highway Trust Fund mechanism needs to be preserved and measures to ensure its security and sustainability implemented
- › The Commission endorses the growing consensus that transitioning to a funding approach based more directly on use of the transportation system is the right foundation. Commit to deploying a new system by 2020
- › Financing approaches such as tolling can be considered supplementary revenue measures

The report also provides details on financing mechanisms. The report, *Paving Our Way: A New Framework for Transportation Finance*, is available at <http://financecommission.dot.gov/>.

fee and for coordinating that fee with VMT fees levied at the state and local levels. An important part of this Phase II study would be to conduct several large scale pilot programs to test alternative mechanisms for levying a VMT fee. These pilot programs should include both passenger and freight vehicles and should evaluate the full range of potential issues that might arise in the implementation of a VMT fee.

Wisconsin long-term recommendations

Wisconsin supports the policy commission's recommendation to identify an alternative revenue collection system for transportation that is not primarily reliant on the fuel tax. WisDOT will advocate at the federal level to further the policy commission's long-term finance recommendations. In addition, WisDOT will monitor and, when warranted,



seek to participate in the research of alternative revenue systems and analysis of other options.

Public support for the implementation of any new finance system will be critical to its success. Any alternative revenue system must be publicly owned and managed or subject to all the public protections identified by the national policy commission. Due to the interconnected nature of the transportation system, any new financing system will need to be

nationally implemented so Wisconsin and other states can adequately assess fees to all users of the system.

Next steps

In the long term, the viability of the motor fuel tax as an adequate revenue source will impact the delivery of transportation services as we reach 2030. The following actions will be implemented at various stages during the plan and are not necessarily tied to the biennial budget cycle.

► **SUMMARY OF POLICY ACTION ITEMS:** *Funding Wisconsin's transportation system*

Entire planning period (2008 – 2030)

- When deemed appropriate, request additional resources as part of the biennial budget process.
 - Continue outreach with decision-makers to consider a longer-range vision for financing transportation system needs beyond the biennial budget cycle.
 - Continue to support a strong federal role in funding all modes of transportation.
 - Continue to identify emerging and existing needs and educate decision-makers and the public on the importance of maintaining a strong transportation network.
 - Continue to refine project cost-estimating processes within the department.
 - Work with the Wisconsin congressional delegation to implement the recommendations of the National Transportation Policy and Revenue Study Commission.
 - Study long-term revenue options such as a mileage-based user tax and public-private partnerships, identifying the public benefits for each.
 - Monitor and, when warranted, seek to participate in the research of alternative revenue systems and analysis of other options.
 - Continue evaluating traditional revenue sources as part of the biennial budget process.
 - Advocate at the federal level to further the commission's long-term finance recommendations.
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