Final Report

Joint Legislative Committee on Transportation Needs and Finance

December, 2006

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Executive Summary

The "Road to the Future" Committee was formed to review the needs, methods, and financing of Wisconsin's transportation system. The Committee decided that it would focus on four programs that make up the largest part of the state's investment in transportation infrastructure: state highway construction, state highway maintenance, local transportation aids, and urban mass transit assistance.

The Committee began its needs assessment by identifying a benchmark level of effort in each of the four focus areas. The agreed upon benchmarks, and the annual cost necessary to achieve them (expressed as an increase over 2006-2007 spending) were:

- **State Highway Construction ($545 million)**
  Fully fund on-time completion of the 2020 State Highway Plan
- **State Highway Maintenance ($44 million)**
  Restore functions to pre-2001 level and fully fund the "Level of Service" program
- **Local Transportation Aids ($72 million)**
  Return to 1998 formula rates for counties and municipalities
- **Urban Mass Transit Assistance ($38 million)**
  Return to 1994 formula rates and restore services cut since 2001

In the methods phase, the Committee recommends that further consideration be given to four efforts that could significantly reduce program costs:

- **Restructure the scoring process used to recommend major highway projects.**
- **Increase the use of the technique known as "value engineering" to find more cost-effective ways to design and construct projects.**
- **Re-evaluate how risk is managed between the state and contractors.**
- **Create a more centralized bidding process for non-state projects.**

In the revenue phase, the Committee evaluated the fiscal effect of 12 alternative revenue options, but did not make any specific recommendations. However, the Committee does strongly recommend that the practice of transferring transportation revenues to other budgetary purposes should be prohibited in the future, and that those fees should be used only for transportation purposes.

Introduction

A safe, adequate, efficient, and well-maintained transportation system is critical to Wisconsin's economic prosperity and quality of life.

Investment in transportation benefits our economy. The economic benefits of transportation investment include travel time savings, lower vehicle operating costs, and reduced crashes. According to one study, the direct economic benefits of fully funding the 2020 State Highway Plan would be 2.7 times the additional cost. A similar study conducted for WisDOT in 2003 concluded that every dollar invested in public transportation provides six dollars in benefits through lower costs and congestion reduction. Manufacturers rely on the transportation network to access markets and obtain supplies. Transportation related jobs account for ten percent of statewide employment.

> *"A solid transportation infrastructure is critical to the continued economic growth and vitality of Janesville. Manufacturing has long been an important industry here, and we are now emerging as a center for wholesale trade, distribution, and logistics. It's not an exaggeration to say that our ability to retain existing companies and attract new employers in these industrial sectors depends in great measure on the continued development of our system of roads, our rail connections, and our airport."*
>
> *John Beckord, President*
> *Forward Janesville, Inc*
> *(Testimony at Janesville Hearing)*

Investment in transportation enhances safety and efficiency. Investing in transportation saves lives and reduces economic losses due to crashes and congestion. In 2003, 836 people lost their lives on Wisconsin highways. According to Federal Highway Administration data, as many as 30 percent of these crashes could have been avoided by making roadway improvements. In 2003, congestion in the Milwaukee area alone cost travelers $310 million in lost productivity and resulted in 12 million gallons of wasted fuel. Investment in highways and transit helps alleviate this congestion. Table I-1 shows how some recent highway improvements have markedly reduced crash rates.

Investment in transportation improves our quality of life. People today expect mobility. An efficient transportation system can help relieve driver stress, decrease fuel consumption, decrease vehicle maintenance costs, improve air quality, and decrease shipping costs. Investment in transportation creates quality jobs in the transportation industry, which currently employs 220,000 people in the state. These are family supporting jobs that cannot be outsourced and that pay five percent higher wages than the average Wisconsin job. Investment in transit increases access to jobs and services, especially for those with limited transportation options.

TABLE I-1
Vehicle Crash Rates Before and After Widening From Two to Four Lanes
(Rate per Hundred Million Vehicle Miles Traveled)

Highway	Segment	Rate Before Widening	Rate After Widening	Percent Reduction
I-90	USH12/18 to I94	73.0	47.8	35
USH 41	Suamico to Abrams	82.0	48.5	41
USH 151	Belmont to Dodgeville	100.4	32.7	67
STH 57	I-43 to Random Lake	121.4	68.3	44

Source: Legislative Fiscal Bureau (6/15/2006 memorandum)

Despite the important role that transportation plays in Wisconsin's future, four events have placed that future in serious long-term jeopardy:

First, from 2003 to 2007, over $1 billion dollars in transfers and appropriations from the transportation fund were used to support general fund programs. These diversions from a segregated fund were only partially replaced with $815 million in general obligation bonds.

Second, and largely because of the transfers, the state has come to rely increasingly on borrowing to finance transportation programs. In 2001-2002, debt service consumed about one of every fourteen dollars of transportation fund revenue. By 2006-2007, that ratio has increased to about one in nine.

Third, in 2006, legislation was enacted to eliminate the automatic indexing of the motor fuels tax, which supplies over 60 percent of the revenue for the segregated transportation fund. This elimination, coupled with increased vehicle efficiency and greater use of alternative fuels, erodes the state's ability to rely on the motor fuel tax as its primary source of transportation funding. Largely as a result of these two factors, revenue to the transportation fund in the current biennium is now projected to fall short of original estimates by $89.2 million.

Finally, the demands of a growing global economy for energy and construction materials has caused the cost of those items to increase at a remarkable pace, seriously eroding the purchasing power of the state's transportation investments.

The impact of these events is being felt statewide in the delay and postponement of approved highway projects, deferral of needed state highway maintenance, and static funding of aid used to maintain local streets and operate local transit systems. Each of these phenomena will be discussed in greater detail in this report.

The Road to the Future Committee was formed in response to this chain of events. The Committee was directed to conduct a comprehensive survey of the needs, methods, and financing of the major surface transportation systems in the state that are funded in

whole or in part through the segregated transportation fund. The course of the Committee's work followed three phases:

In Phase 1, the Committee discussed the challenges facing the state and local governments in providing and maintaining safe and efficient transportation systems. The costs to maintain and, where appropriate, expand those systems were identified for both the short and long term.

In Phase 2, the Committee explored ways that transportation systems can be built and maintained more efficiently, including an examination of alternative methods of constructing, operating, and maintaining transportation infrastructure.

In Phase 3, the Committee addressed transportation finance, with a focus on creating a secure, adequate, and reliable source of funding for transportation programs.

Chapter 1
Transportation Needs Analysis

The first phase of the committee's work consisted of making an assessment of the state's surface transportation needs. The committee held public hearings in Madison, Eau Claire, Neenah, Janesville, and Milwaukee to receive input from community leaders, the public, and transportation stakeholders about their perceptions of the state's transportation needs. Testimony was taken from over 100 people at these hearings, which lasted over 16 hours. Some of that testimony is included in the body of this report. Some additional testimony submitted in writing to the Committee is contained in the Appendices, as are the reports provided to the Committee by the Legislative Fiscal Bureau.

This report discusses current and future needs in four specific program areas:

- State Highway Construction, including the Major Projects Program, State Highway Rehabilitation Program, and Southeast Wisconsin Freeways
- State Highway Maintenance and Traffic Operations
- Local Transportation Aids; including General Transportation Aids, Local Road Improvement Program, and Connecting Highway Aids
- Urban Mass Transit Operating Assistance

These areas account for approximately 84% of total spending from state transportation fund revenues. Other areas of transportation funding, primarily harbors, rails, and airports, were not considered in this analysis. Although those modes are extremely important to maintaining a strong inter-modal transportation system, the committee's limited time and resources dictated that it focus on those areas that account for the greatest share of state transportation investment. However, it should be noted that future needs in these other modes would be in addition to the amounts described in this report.

For the purposes of this report, needs are expressed not in terms of projects to be completed or programs to be undertaken, but as additional financial investment that would be required, in 2006 dollars, to fund each program to a benchmark level selected by the Committee.

STATE HIGHWAY CONSTRUCTION

> *"This interchange (US 10 and 45), despite a high accident rate and traffic volumes already in excess of capacity, hasn't even been enumerated on the Major Projects List. Now, couple this with the fact that the Transportation Projects Commission hasn't even met in four years, the costs associated with the reconstruction of the Marquette Interchange, the recent raids on the state transportation budget for non-transportation related spending, and increased transportation bonding which could have an adverse effect on future transportation spending,* ***it is conceivable that our concerns could go unaddressed for the next 20 years."***
>
> *Thom Ciske, Vice-President*
> *Fox Cities Chamber of Commerce*
> *(Testimony at Neenah Public Hearing)*

Introduction

The state trunk highway system consists of 11,753 miles of roadways, carrying 60 percent of all vehicle miles traveled in Wisconsin. These are divided by WisDOT into five subsystems:

- **Corridors 2020 Backbone Routes.** This 1,550-mile network of key multi-lane routes connects major population and economic centers, and provides economic links to national and international markets (e.g., Interstates 39, 43, 90 and 94; US Highways 10, 41, 51, 53 and 151; and State Highway 29).
- **Corridors 2020 Connector Routes.** This 2,100-mile system of two- and four-lane highways connects key communities and regional economic centers to the Corridors 2020 Backbone routes (e.g., US Highways 2, 8, 12, 14, 61 and 61; and State Highways 13, 21 and 26).
- **Other Principal Arterials.** These 1,450 miles of roadways provide mobility within a specific region (e.g., US-10, west of Marshfield, State Highway 35 along the Mississippi River) and serve as main thoroughfares in urban areas (East Washington Ave/US-151 in Madison; Bluemound Road/US-18 in the Milwaukee area; and, Clairemont Avenue/US-12 in Eau Claire).
- **Minor Arterials.** These 5,000 miles of roadways are used primarily for trips within smaller geographic regions. They are generally rural two-lane highways that connect places of more than 1,000 people.
- **Collectors and Local Function Roads.** These sub-systems, totaling 1,700 miles, are used for short trips within an area and to access adjacent land.

State highway construction programs are divided into three main categories: Major Projects, State Highway Rehabilitation (commonly called 3R for "resurfacing, reconditioning

and reconstructing), and Southeastern Wisconsin Freeways. Major projects are statutorily defined as those which have a total cost over $5 million and involve any of the following:

- Constructing a new highway 2.5 miles or more in length.
- Reconstructing or reconditioning an existing highway by any of the following:

    1. Relocating 2.5 miles or more of an existing highway.
    2. Adding one or more lanes five miles or more in length to an existing highway.
    3. Improving to freeway standards 10 miles or more of existing divided highway having two or more lanes in either direction.

Before a major project can be constructed, it must be "enumerated" by the Legislature, after having been recommended by the Transportation Projects Commission, a 15-member panel chaired by the Governor. There are currently 27 enumerated major projects in some phase of design or construction, with a total estimated cost of $3.69 billion dollars. Although the majors program is the one most often thought of in a discussion of state highway construction, it currently consumes 24.4 percent of highway program funding. The majority of highway construction funds (54.3 percent) go to the highway rehabilitation program, with the remainder (21.2 percent) in the Southeast Wisconsin Freeways category.

Benchmarking Future Highway Construction Needs

The Committee's first, and most significant, task when assessing the needs of the state highway construction program was to establish a benchmark level of needed highway construction. The Committee selected the *Wisconsin State Highway Plan 2020* (SHP 2020) as its benchmark for evaluating current and future state highway construction needs. The SHP 2020 was developed by WisDOT in 1999 after a public involvement process that included the general public as well as representatives of various transportation stakeholder groups. SHP 2020 has five major areas of emphasis:

- ***Preserving and maintaining*** *the existing highway system*
- ***Reducing congestion*** *through land use planning, traffic management, and highway expansion*
- ***Improving safety*** *through better design, education, and enforcement*
- ***Fostering economic development*** *through increased productivity and job growth*
- ***Protecting the environment*** *by minimizing adverse impacts*

Developing the SHP 2020 involved not only the creation of a sophisticated model of future traffic demand and roadway conditions, but also the making of certain assumptions about the driving public's tolerance for future congestion and roadway deterioration. Traffic engineers use a scale called "level of service" to measure congestion on highways. Under this system, a highway can experience four levels of congestion, "minimal", "moderate", "severe", or "extreme". The SHP 2020 uses a hierarchy of congestion thresholds above which a capacity expanding improvement is triggered. Under the plan, only minimal congestion is allowed on the Corridors 2020 "Backbone" system, with progressively higher levels of congestion ("moderate" or slightly above) being allowed on Corridors 2020 connector routes in urban areas, and on other state highways. This hierarchy differs from the more traditional approach of not allowing any highway to reach the "moderate" congestion level. According to the plan document:

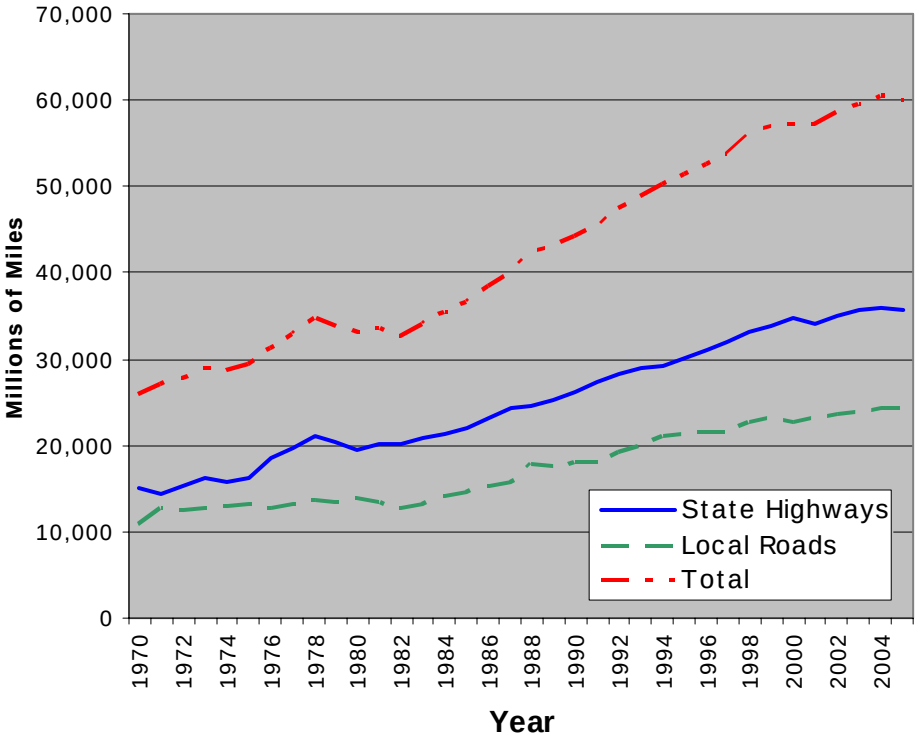
> *"…as Eastern Wisconsin's only adult Level One Trauma Center, we are a critical component in state and regional emergency preparedness planning. We are growing increasingly concerned about the adequacy of the transportation infrastructure. The Zoo Interchange and Highway 45 corridor have become increasingly congested and are becoming a safety concern. We need reliable, safe, transportation routes for our patients, staff members, and emergency vehicles.* ***As it stands today, construction on this stretch will not even begin until 2015. This is simply not soon enough****."*
>
> *John Balzer, Vice President*
> *Froedtert Hospital, Milwaukee*
> *(Testimony at Milwaukee Hearing)*

> *…"WisDOT had to balance the social, environmental, and dollar costs that would be incurred by using the traditional performance target of LOS 4.0 (moderate congestion) against the costs of accepting more congestion on some portion of the State Trunk Highway System. The performance thresholds used in the plan allow higher levels of congestion on some routes than has been WisDOT's policy in the past…SHP 2020 thresholds could be considered a "conservative" approach when contrasted with traditional congestion thresholds because they result in fewer improvements to the system, thereby reducing the plan's overall cost."*

Predictions of future congestion are also dependent on accurate forecasts of traffic growth. The SHP 2020 model supposed an average annual travel growth rate of 1.5 percent for the period 1997-2020. The average annual growth rate in traffic on the state highway system for the period 1997-2005 was actually about 1.3 percent, with the average after 2000 being less than 1.0 percent. It may be argued that future traffic growth will

continue at this lower pace due to reductions in driving caused by higher fuel costs. On the other hand, the current trend may be a temporary interruption similar to what occurred in the late 1970's and early 1980's, where short-term travel reductions were followed by a resumption of faster growth. It should be noted that under the SHP 2020's somewhat relaxed standards, and even after complete implementation of the plan, seven percent of Corridors 2020 route mileage would remain congested, and 31 percent of all state highway mileage would continue to have geometric deficiencies. In conclusion, the Committee believes that the State Highway Plan 2020 strikes a financially responsible balance that makes it the best available benchmark for quantifying current highway construction needs.

Figure 2-1
Vehicle Miles Traveled
1970-2005



Source: Legislative Fiscal Bureau

Highway Construction Needs in the Context of the SHP 2020

The total cost of highway improvements recommended by the SHP 2020 was estimated at $20.42 billion, in 1999 dollars, over the 21-year period covered by the plan.

At the time of its adoption, the amount of annual spending recommended by the plan exceeded what was actually being spent by approximately $230 million.

The state has now budgeted for eight of the 21 years of the planning period. Calculating the current need for highway spending based on the plan requires two corrections: First, an allowance for the cost inflation that has taken place since 1999; and, second, compensation for the amount that the plan has been under funded since its inception. The first adjustment restores the purchasing power of the investment called for when the plan was developed, while the second represents "catch-up" funding for the previous shortfalls.

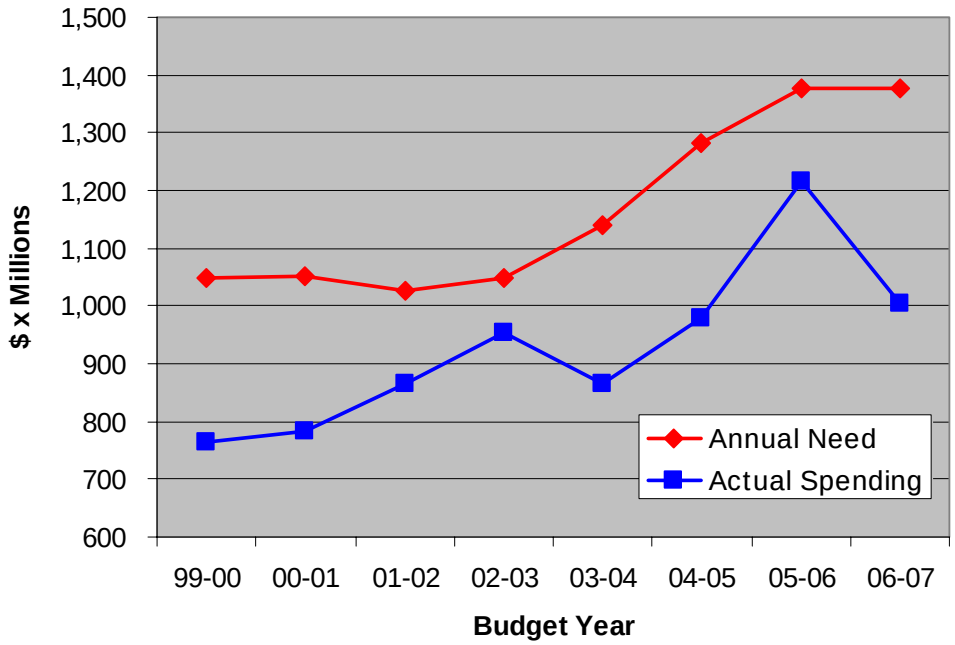
> *"There is a huge disconnect right now between a Transportation Fund that is experiencing NO NATURAL REVENUE GROWTH and a construction industry that is experiencing STEEP PRICE INCREASES in commodities across the board. For example, we have seen a 30% increase over the past year in the main commodity - OIL.*
>
> *Larry Usack*
> *Company Manager*
> *Northeast Asphalt*
> *(Testimony at Neenah Hearing)*

The Committee believes that in order for the first adjustment to fully restore the purchasing power lost to inflation since the inception of the plan, it should be based on a measure of inflation that is closely tied to the cost of building transportation infrastructure. The U.S. Bureau of Labor Statistics (BLS) maintains a producer price index for highway and street construction. According to this index, the cost of highway construction has risen at an average annual rate of 5.1 percent since 1999, far outpacing the consumer price index, which rose at an average annual rate of only 2.7 percent. This greater increase has been particularly pronounced in recent years, with the index rising 8.5 percent in 2004, 12.6 percent in 2005, and a projected 7.4 percent in 2006. This trend is further confirmed by a WisDOT cost index of major highway construction bid items, which increased 10.1 percent in Fiscal 2005 and 17.1 percent in Fiscal 2006.

According to the analysis provided for the Committee by the Legislative Fiscal Bureau, recovering the purchasing power lost since the inception of SHP 2020 would require an additional annual investment of $371.3 million. To recover the value of the underinvestment that has taken place in the plan since 1999 would require additional annual investment of $173.3 million, for a total annual increase of $544.6 million.

Figure 2-2 shows the annual funding shortfall for the SHP 2020 in inflation adjusted dollars for the first eight years of the plan cycle. Because no estimate of the construction inflation rate has been made for 2006-2007, the shortfall in that year will be higher if inflation continues. Considered on a cumulative basis, the SHP 2020 has been under funded by $1.9 billion since its inception.

Figure 2-2
Annual State Highway Construction Shortfalls
1999-2006



Future Unanticipated Needs

Although this analysis provides a good idea of where current funding for the highway improvement program stands in relation to WisDOT's most recent long-range highway plan, it does not necessarily provide an authoritative conclusion on the current state of highway program needs. In the years since the plan was developed, various factors may have changed that could or should alter the plan's conclusions. Perhaps the best example of this is the development, in the intervening years, of a plan for the southeast Wisconsin freeway systems by the Southeastern Wisconsin Regional Planning Commission (SEWRPC). For instance, whereas the SHP 2020 recommended capacity expansion to 57 miles of the southeast Wisconsin freeway system, SEWRPC's freeway study, which was completed in 2003, recommended new lanes on 127 miles. This illustrates that regional transportation plans across the state are periodically updated to include elements that may not be reflected in current plans.

Another example of changes in the factors that have an impact on the assessment of highway needs is the growth in the cost of the proposed Stillwater bridge, which is a

collaborative project between Wisconsin and Minnesota. Wisconsin's share of the cost of this bridge project is now estimated at $144.6 million. Although this project was not explicitly discussed in the Department's highway plan, at the time the plan was completed, DOT estimated the Wisconsin share of the project to be $47.9 million. Even controlling for the effect of highway construction inflation, the current estimate is over $80 million more than the previous estimate.

In summary, the Committee believes that this analysis is a reasonable quantification of the serious highway funding shortfalls facing the state at this time. The Committee recommends that the Legislature continue to carefully monitor future trends in travel demand, safety, and congestion to ensure adequate resources are committed to the state's highway infrastructure needs.

STATE HIGHWAY MAINTENANCE AND TRAFFIC OPERATIONS

There has been a clear disinvestment in maintenance of the State Trunk Highway System in the past decade…These reductions have had a detrimental effect on the condition and functionality of the state highway system. Left unaddressed, the declining service levels will erode the reliability of the state highway system, increase the costs to rehabilitate those roads that prematurely fail due to lack of adequate maintenance, and directly reduce public safety."

"Jeopardizing State Trunk Highway Maintenance"
Wisconsin Local Roads and Street Council, 2005

Introduction

Unlike most other Midwestern states, Wisconsin does not maintain a large in-house workforce to maintain its state highway system. Instead, most highway maintenance is performed by County Highway Departments, which are then reimbursed for their actual costs by the state. In 1992, a "level of service" model was created as a means to establish both the resources needed to provide a given level of maintenance service, and as a way to equitably divide the available funding among the 72 counties. During the public hearings, the Committee heard testimony from county highway agencies that necessary highway maintenance is being deferred due to a shortage of state funding that has existed for many years.

"No discussion of needs can take place without considering maintenance. The tendency in the recent past has been to continue to fund improvements while the maintenance budget has shrunk. That's not a sustainable long-term approach."

Richard A. Bolte, P.E.
Director of Public Works
Waukesha County
(Testimony at Milwaukee Hearing)

Funding for maintenance has been particularly affected by state budget decisions made over the past several biennia, particularly a decision related to the responsibility for funding traffic operations items (highway signs, pavement markings, traffic signals, and highway lighting) and intelligent transportation systems (ITS) projects. The 2001-03 biennial budget modified the statutory definition of "highway improvement" to exclude the installation, replacement, rehabilitation, or maintenance of traffic operations items and ITS projects, unless the work is incidental to a highway construction project. The effect of this change was to prohibit the Department from funding stand-alone traffic operations items and ITS projects from the state highway rehabilitation or southeast Wisconsin freeway rehabilitation program appropriations and instead, require them to be funded from the

highway maintenance and traffic operations program appropriations. At that time, DOT indicated that it had been spending approximately $27 million annually from the highway rehabilitation programs on stand-alone projects of both types. The resulting $27 million dollar shortfall in the maintenance and traffic operations budget was fully backfilled in 2001. However, by 2003, this replacement funding had been eliminated, forcing the Department to fund certain safety-critical traffic operation projects with funds that would otherwise have been used for maintenance.

The 2005-07 budget provided an above-inflationary increase for the maintenance and traffic operations program (4.0% in 2005-06 and 4.3% in 2006-07). However, these increases were not enough to restore the previous funding level for ITS projects and the traffic operation items or to provide counties with the funding needed to restore prior levels of maintenance service provided by counties.

Summary of Needs

The Committee believes that restoring the $27 million in traffic operations funding is a critical first step to providing adequate resources for state highway maintenance. To restore funding to previous levels in this area, increases would be needed to reach the $27 million level, in 2001 dollars. Considering that the Department has already reallocated $9.6 million from other areas, and adjusting for general price inflation, an increase of $21.5 million would be required to reach this level.

The Committee also believes that other areas of deferred maintenance need to be addressed. The Department has identified several areas of highway maintenance that counties, as the result of constrained funding, have either stopped doing entirely or are performing at reduced levels. These include crack sealing of asphalt pavement and repair of concrete distresses; inspections and maintenance of culverts, ditches, under drains, inlets, and other drainage structures; mowing, including control of woody vegetation that may create hazards in clear zones; replacing damaged or missing delineators; removing trees or brush in clear zones; repair of erosion problems; establishing vegetation to serve as snow fences or other measures to prevent drifting; removal of trash and debris from roadsides; maintenance of security fences; and maintenance of bridge drains and other bridge-related maintenance. Overall, the Department indicates that "**most preventive maintenance activities [have been] abandoned**" in order to concentrate effort on reacting to critical failures.

The previously referred to “level of service” model is intended to identify the activities that counties should be performing on the state highway system, depending on

such factors as traffic volume, pavement type, etc. For each highway class, the model specifies the maintenance activities that must be performed and the expected frequency of those activities.

Since the model was established in 1992, the amount allocated to each county has always been less than the amount that the model estimates is needed to perform all of the specified maintenance activities. In 2006, this shortfall amounted to $20.8 million. However, even this amount may not provide a true representation of the gap between actual funding and optimal highway maintenance investment. The Department indicates that the level of service model has been adjusted over the last several years to try to bring it closer into alignment with actual expenditures. Consequently, instead of providing an estimate of the level of maintenance funding needed to provide the lowest life-cycle cost for highways, the level of service model has been deliberately constrained to more closely match available funding. Therefore, the gap between the current funding level and an optimal maintenance funding level under the current method of delivering those services is likely higher than $20.8 million. This gap also does not include the cumulative maintenance shortfall created by years of apparent underinvestment in necessary maintenance. Nonetheless, the Committee believes that this amount, combined with specifically identified shortfalls of $1.0 million for noxious weed control, and $1.0 million for rest area and wayside maintenance, is a useful, and conservative, estimate of additional state highway maintenance needs.

In summary, a conservative estimate of additional needs for state highway maintenance is approximately $44.3 million per year.

LOCAL TRANSPORTATION AID PROGRAMS

> *"...the percentage of local costs that the state reimburses has been in a steady decline. The estimated transportation aid payments for 2006 equal about 18% of municipal highway-related costs. Thus, municipal property taxpayers are being forced to cover more and more of the bulk of the cost of local roads."*
>
> *Curt Witynski*
> *Assistant Director*
> *League of Wisconsin Municipalities*
> *(Written testimony submitted to the Committee)*

Introduction

The state maintains various programs for providing aid to local governments for transportation purposes. The major programs that were examined by the Committee included General Transportation Aids (GTA), the Local Road Improvement Program (LRIP), and Connecting Highway Aids.

General Transportation Aid is paid to counties, cities, villages, and towns to share in the cost of maintaining, improving, and constructing local roads. The aid can only be used for certain transportation related expenditures. In 2005-2006, GTA payments equaled approximately 28 percent of transportation fund appropriations. GTA is distributed under two formulas: (1) share of costs, which covers a percentage of the recipient's six-year average costs; and (2) mileage aid, which is based on a statutorily set amount ($1,862 per mile for 2006) for each mile of road under the municipality's jurisdiction.

> *"The state road aids are an important revenue source to maintain streets. We need to see those road aids increased to continue the partnership between local municipalities and the state to provide safe transportation."*
>
> *Larry D. Nelson, P.E.*
> *City Engineer*
> *City of Madison*
> *(Testimony at Madison Hearing)*

The GTA formula provisions were established in 1988. At that time, those receiving aid on the standard share of costs component of the formula received an amount covering approximately 30 percent of their six-year average cost for counties and 24 percent for municipalities. By 2006, those shares had declined to 22.9 percent and 18.6 percent, respectively. The following changes in costs and state funding have taken place since 1988:

- County costs have increased by 108%
- Funding for counties has increased by 63%

- Municipal costs have increased by 89%
- Funding for municipalities has increased by 105%

- Total local costs have increased by 93%
- Total state funding has increased by 93%

As shown above, total state funding has generally kept pace with costs. Despite this, the percentage of costs aided has declined for both counties and municipalities, for two main reasons: (1) The "per-mile" rate increased faster than overall funding, thus shifting more money to municipalities (mostly townships) receiving the per-mile minimum reimbursement, and (2) some communities were not receiving 24% because of the 15% maximum annual increase provision of the formula. Because of this, only 21.7% of costs were being reimbursed in 1988.

To establish a need level for GTA, the Committee analyzed how much additional funding would be needed to return to the reimbursement rates established in 1988, namely 30 percent of cost for counties and 24 percent of cost for municipalities. This would require an increase of $31.4 million for counties and $61.1 million for municipalities, compared to the current 2007 amounts.

The LRIP program began in 1991-1992. This program provides capital grants that may cover up to 50 percent of the cost of constructing or reconstructing county or municipal roads. The creation of this program has partially offset the decline in the share of local transportation related costs covered by GTA. Subtracting the current level of LRIP program funding from the GTA increases necessary to cover 30 percent of county costs and 24 percent of municipal costs would reduce those amounts by $12.3 million for counties and $11.3 million for municipalities.

The Connecting Highway Aids program reimburses municipalities for accepting jurisdiction over the maintenance of certain state trunk highways that pass through their communities. The reimbursement rates are paid per lane mile, based on a statutory schedule. In 2006, an estimated 122 municipalities will receive $12.9 million under this program. Because the appropriation for the program is insufficient to fund the statutory rate per lane mile, the payments will be prorated to equal 90 percent of the formula amounts.

The Connecting Highway Aid appropriation has not been increased since 1998-1999. To return this program to its 1988 level, adjusted for inflation, would require an additional appropriation of $2.6 million.

Summary of Needs

The major local aid programs provide general and project-specific aid to local governments to assist them in constructing and maintaining the system of local roads that comprises 90 percent of all road miles in the state. These programs can be viewed as a pass-through of a portion of the user fees (motor fuel tax and registration fee) collected by the state to be used for maintaining the 90 percent of all roads that are not under state jurisdiction. In order to compute the funding need for these programs, the Committee has used the reimbursement rates that were set in 1988. The proper rate of cost reimbursement, as well has how the funds are distributed between communities is a policy decision for the Legislature to make. For the purposes of this report, the Committee believes it is at least appropriate for the state to reverse the long-term decline in reimbursement to the levels in effect at the time the current formula program was begun, after adjusting for the additional aid provided by the newly created LRIP program. The estimated annual cost to do this is $71.5 million.

TRANSIT ASSISTANCE

"Transit plays a vital role in the economic health of Milwaukee and in communities throughout our state. For every $1 invested in the Milwaukee County Transit System, $4.75 in economic benefits is returned to the community. Transit makes cents. Transit makes cents because transit means jobs, as 45% of transit trips in Milwaukee are job-related. Transit means retail sales, as 15% of transit rides in Milwaukee are for shopping trips. Transit means education, as 12% of rides in Milwaukee are trips to and from schools and universities. Transit means healthcare, as 12% of transit rides are for medical activities."

Kenneth J. Warren, Managing Director
Milwaukee County Transit System
(Testimony at Milwaukee Hearing)

Introduction

Approximately 100 million trips are made on the state's 71 public transit systems each year. Forty-eight percent of these trips are for work-related purposes, saving transit users $259 million annually. Forty percent of riders who use transit for work purposes indicate they would have to look for a job closer to home or would be unable to work without transit. Recent increases in gasoline prices have led to significant increases in transit system ridership in 2006 when compared to the same months in 2005, including:

- **Fond du Lac UP 15.0 percent**
- **Janesville UP 9.0 percent**
- **Madison UP 7.4 percent**
- **Eau Claire UP 5.5 percent**

"The tremendous growth of paratransit - that is, the ADA-mandated, door-to-door transportation service city bus systems must provide to persons unable to access or navigate the fixed-route system, has only made our systems much more costly to operate...As society continues to age rapidly and people live longer than ever before, this growth will not subside any time soon!

Without public transportation, so many residents of the Chippewa Valley would not have access to jobs, schools, medical facilities, etc. They would not be able to meet their basic needs!"

Gwen Van Den Heuvel
Transit Manager
City of Eau Claire
(Testimony at Eau Claire Hearing)

The Committee believes that as the cost of owning and operating an auto increases, transit ridership and demand for additional transit service will continue to grow.

DOT administers a mass transit operating assistance program that funds a portion of the annual cost of operating bus and shared-ride taxi mass transit systems throughout the state. State operating assistance is available to help finance transit systems in areas of the state with populations of 2,500 or more. All transit systems currently receiving state aid are either bus systems or shared-ride taxicab services, except for Kenosha's downtown, fixed-route, trolley system. Shared-ride taxicab operators provide public transportation service, under contract, in areas of the state with insufficient population to support bus service.

Prior to 1995 Act 113, state aid was provided to mass transit systems in the state so that aid amounts equaled 42% of system operating expenses. In addition, the Madison and Milwaukee systems received supplemental aid so that each system's total state and federal share equaled a uniform percentage of operating expenses. Act 113 created five separate tiers of systems based on the size of system and funded each tier from a separate appropriation. Aid payments were made so that the total of state and federal aid equaled a uniform percentage of operating expenses for each system within each tier. Currently, approximately 73 percent of all state operating assistance goes to the Tier A systems, which are Milwaukee and Madison. The 2005-2007 budget provided a two percent annual increase in state funding for each tier of systems in 2006 and 2007.

> *"Clearly the service we provide is needed and used by our citizens, and our surveys indicate that the need exists for more. For example, we instituted evening bus service in 2000 after a 30 year absence to meet the needs of workers holding second-shift jobs, particularly those just entering the workforce from welfare. It would be advantageous to them if that service operated on Saturday evenings as well, but we don't have the resources for that."*
>
> *David J. Mumma*
> *Transit Director*
> *City of Janesville*
> *(Testimony at Janesville Hearing)*

Since 1994, transit operating costs have increased at an average annual rate of 4.6 percent, compared to an average annual increase in state aid of 3.4 percent. This has resulted in a decline in the state share of funding from 43.4 percent in 1994, to 38.0 percent in 2005.

Summary of Needs

For the purposes of this report, the Committee has established 42 percent as the benchmark level for state support of mass transit systems. Providing a funding level sufficient to cover that percent of costs in 2006 would require an estimated appropriation

level of $112.5 million, assuming that operating costs increase by 3 percent annually. This would be an increase of $11.8 million over the actual 2006 funding level.

Changes in the level of service provided also affect total operating costs. For example, the Milwaukee County Transit System has made service reductions since 2001 that will total an estimated $20.1 million in 2006. Some other systems have decided to defer maintenance costs to cover increases in other areas. Providing for 42 percent of the $20.1 million in operating costs associated with reinstating the 2001 service levels in Milwaukee would require an additional $8.4 million for Milwaukee County in 2007, along with additional county and farebox funding to cover the remaining 58 percent.

Several regions of the state are also in the process of planning for transit service expansions in the form of enhanced bus and paratransit services and fixed guideway or rail transit systems. If these occur, the state will have to decide whether to provide additional operating assistance to cover the additional costs. These expansions will also have significant capital costs, which the state currently does not share. However, in 2003, a commuter rail grant program was created to provide grants up to the lesser of 50 percent of the capital cost in excess of federal funding or 25 percent of the total cost of rail programs.

The bulk of future transit enhancements will take place in the heavily urbanized areas of southeastern Wisconsin, Dane County, and Rock County. The recently completed Regional Transportation Plan for Southeastern Wisconsin recommends a 59 percent increase in express bus service by the year 2035, and a near doubling of total transit service.

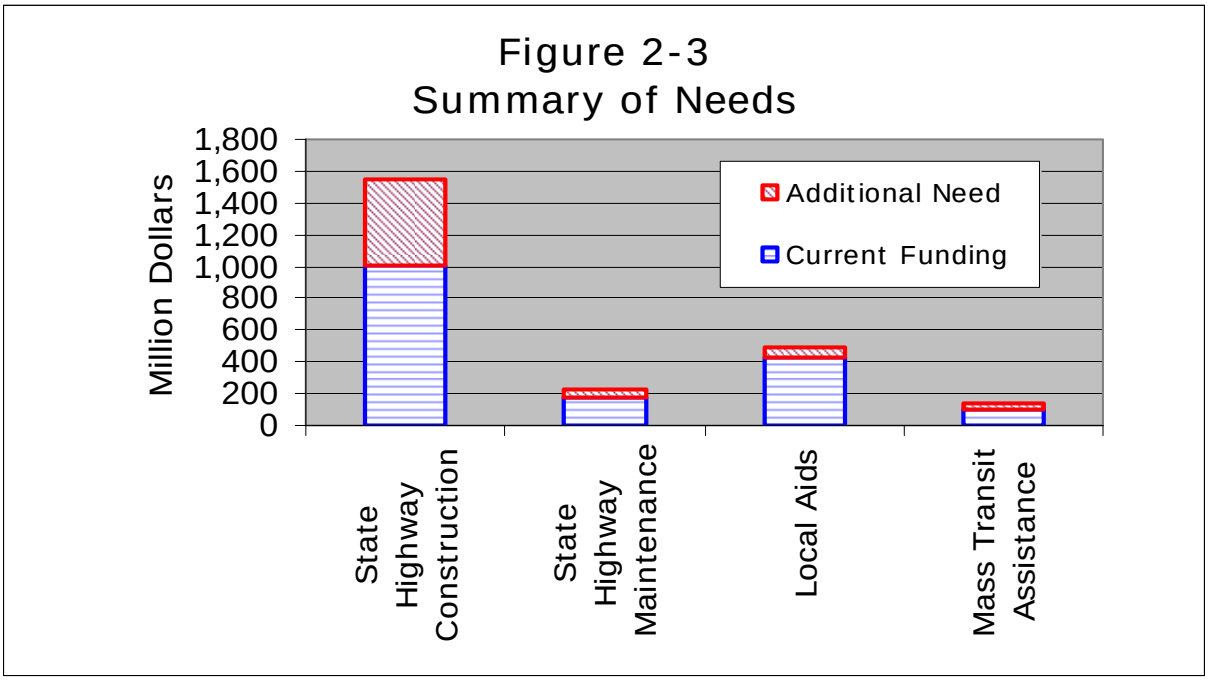
If the State were to provide the funding to restore the 2001 service levels described above, it would likely be sufficient to meet the required funding increases of the regional plan. However, beyond 2007, the state would need to provide annual increases of $1.7 million, plus inflation, to pay 42 percent of the costs associated with the service expansions in the plan.

Conclusions

Table 2-1 provides a summary of the needs identified by the Committee, expressed in terms of the amount of money required to fund the benchmark level of service in each of the four areas discussed. This analysis is based on current methods, practices, and funding formulas for aid programs. Therefore, these amounts are not necessarily the Committee's final recommendations for future funding. They may be modified as a result of changes recommended after the Committee has completed Phases 2 and 3 of its work.

Table 2-1
Summary of Annual Funding Increase Estimates
($ in Millions)

Program Area	2006-07 Funding	Benchmark Funding Level	Increase from 06-07 Level
State Highway Improvement Program	1,005.1	1,549.7	544.6
State Highway Maintenance	177.2	221.5	44.3
Aids to Local Governments	424.9	496.4	71.5
Mass Transit Operating Assistance	102.6	140.4	37.8
Total	**1,709.8**	**2,408.0**	**698.2**



Chapter 2
Methods Review

In Phase 2, the Committee was asked to "explore ways that transportation systems can be built and maintained more efficiently, including an examination of alternative methods of constructing, operating, and maintaining transportation infrastructure." A public hearing was held on August 24, 2006, and memoranda from the Legislative Fiscal Bureau were provided on August 22 and October 17, 2006. Based on the suggestions received from Committee members and the public, public testimony, and analysis by the Legislative Fiscal Bureau, the Legislature should give further consideration to three broad areas.

1. IMPROVING THE PRIORITIZATION AND SELECTION OF MAJOR PROJECTS

a. Restructure the project scoring process.

In order to make the best use of limited resources for major highway projects, it is important that projects providing the greatest benefit in economic growth, congestion relief, and safety improvements receive the highest priority for enumeration. In an attempt to accomplish this, 1997 Act 86 required DOT to promulgate rules that establish criteria for numerically evaluating potential major highway projects. It also required that the rules establish a minimum score that a potential project must meet or exceed for the Department to recommend the project for enumeration to the TPC. The rule evaluates projects on the basis of five components: economic benefit (40%), traffic flow (20%), safety (20%), environmental (10%), and community input (10%).

This process involves each project being scored in relation only to the other projects being considered at that time, and the minimum score required for a project to be recommended is 10 out of 110 points. In order for a project to be recommended, it must also meet one of two criteria: a crash rate or crash severity worse than the average for highways of similar type, or a projected level of service in 20 years that is below "C", or "minimal congestion."

The legislature should consider modifying the scoring rules to require that projects are evaluated against more rigorous fixed minimum standards for congestion relief and crash reduction. A fixed minimum threshold crash rate should be adopted for each type of highway, and the congestion threshold should be such

that meaningful congestion relief will be obtained within the anticipated life of the project.

2. IMPROVING THE DESIGN AND DELIVERY OF PROJECTS

a. Increase the use of value engineering studies.

Value engineering (VE) is a systematic and structured process that is used to maximize value of goods or services by improving function and/or reducing cost. The FHWA defines "value engineering" as "the systematic application of recognized techniques by a multi-disciplined team which identifies the function of a product or service; establishes a worth for that function; generates alternatives through the use of creative thinking; and provides the needed functions, reliably, at the lowest overall cost."

Value engineering is mandated by federal law for all highway projects greater than $25 million, and all bridge projects over $20 million. In the period 2003-2005 the DOT reported net cost savings of over $140 million from 14 VE studies. It is DOT policy to conduct a VE study at three different stages in the development of major highway projects that meet the federal cost threshold. It is not DOT policy to do VE studies for projects costing less than the federal cost threshold.

Nationwide, over the past four years for which data is available, VE recommendations on highway projects have resulted in estimated savings equal to an average of 5.3 percent of total project costs. If Wisconsin were to lower its VE threshold to $10 million, and if savings on those projects were generated at a similar rate, the estimated savings would be $6.4 million per year. This requirement is currently in place in Virginia, which has reported a cost-benefit ratio for VE studies of 39:1. Wisconsin should consider lowering its VE threshold to $10 million if the savings generated would be enough to cover the added costs of performing the additional VE studies.

3. ENHANCING COMPETITION

a. Review Risk Management Practices

The Department has gradually been shifting certain responsibilities related to highway project delivery from DOT to highway contractors. Some of these changes involve the assumption of greater financial risk by contractors for problems that arise

during or after construction. In a competitive environment, it may be difficult for contractors to price the additional costs associated with this risk into their bid, thus minimizing the additional cost to the state. However, there may be other cases where the potential additional costs associated with assuming a particular function are disproportionate with the contractor's ability to control or manage the corresponding risk.

In order to better determine the situations where such shifts are cost-effective for the state, the Legislature should consider creating a pilot program composed of DOT and contractor representatives and report its findings to the legislature.

b. Improve competition for non-state projects.

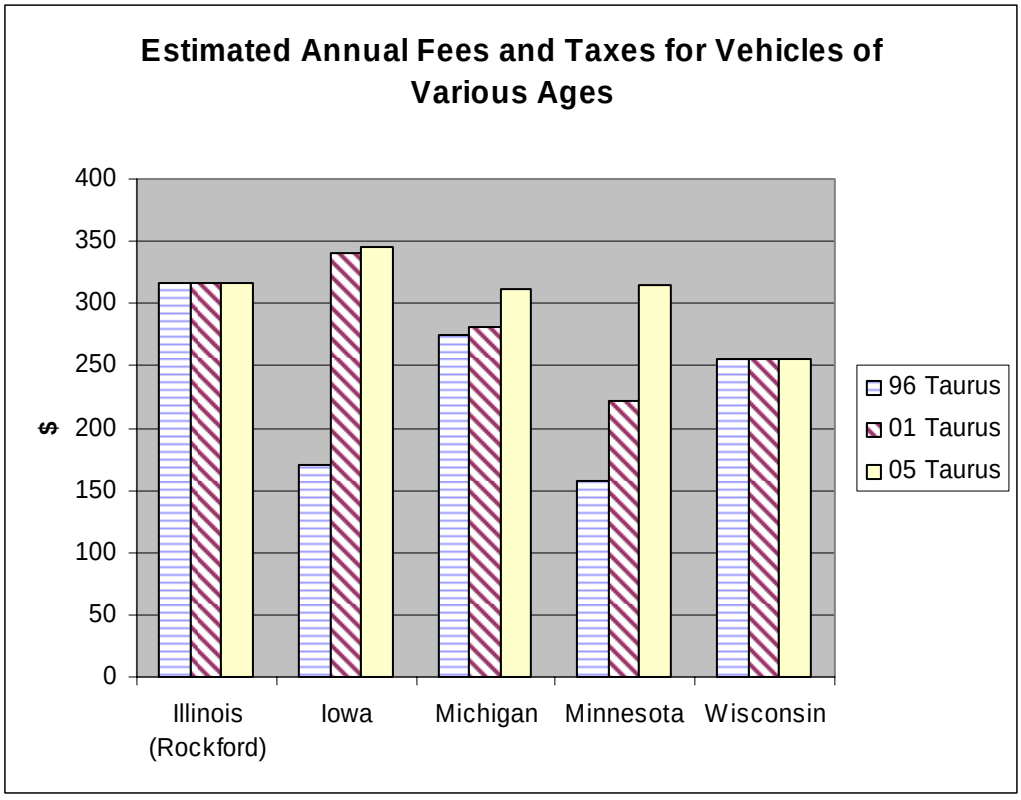
Many hundreds of county highway and local road projects are let out for bids every year. Each of these projects is separately specified, advertised, and let by the owner. It was suggested at one of the committee's public hearings that a website or other central electronic repository for bidding information be created and maintained. Representatives of the Wisconsin Counties Association, League of Wisconsin Municipalities, and Wisconsin Towns Association could work together to implement and maintain such a site.

Chapter 3
Revenue Options

In Phase 3, the Committee was asked to review options for creating a stable and adequate revenue base for transportation. A public hearing to receive testimony was held on December 13, 2006, however few of those who testified recommended any specific revenue options. General recommendations that were made included broadening the funding base, expanding the use of regional transportation authorities, and maintaining the integrity of the segregated transportation fund.

Before discussing other revenue options, it may be helpful to understand how Wisconsin currently ranks compared to other states in the total cost of vehicle ownership and operation. Figure 3-1 shows a comparison of the cost of vehicle ownership and operation between Wisconsin and its neighboring states in the upper Midwest. The variation in the amount for Iowa, Michigan and Minnesota reflects the component of registration fees that is based on the vehicle age and value.

Figure 3-1



The Legislative Fiscal Bureau paper discusses in detail the following potential revenue sources:

Table 3-1

Revenue Options

Option	Possible Annual Revenue ($ million)
Oil Franchise Fee (4.85% net of taxes)	$338
$10 Auto and Light Truck Registration Fee Increase	$44.2
5% increase in heavy truck registration fee	$4.2
Vehicle Title Fee Increase	$15 per $10 increase
Value based registration (first year)	$15.3
Value based registration (7th year)	$128.5
$10 Driver license fee increase (first 2 years)	$22.3
Transfer sales tax for auto sales/repairs to transportation fund	$917.1
Local option sales tax for transit (1/10 percent)	$70.7
Local option sales tax for transit (1/4 percent)	$176.6
Eliminate sales tax exemption on vehicle trade-ins	$123
Move elderly/disabled transit to general fund	$13.4
Move harbor assistance program to general fund	$2.3

In addition to those shown above, the memo also discussed possible combinations of combined sales tax and excise tax on motor fuels, as opposed to excise tax only. For example, at a price per gallon of $2.50, a combination of the 5% sales tax and a 20.5 cent excise tax would generate the same total revenue as the current 30.9 cent excise tax alone.

The Committee believes that ensuring the future integrity of the transportation fund is equally as important as identifying new revenue sources. The practice of transferring transportation revenues to other budgetary purposes should be prohibited in the future, and those fees, however raised, should be used only for transportation purposes.