Funding Surface Transportation in Minnesota: Past, Present, and Prospects

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CTS 10-02
(Replaces Report CTS 08-23)
Transportation systems play an imperative role in enhancing the productivity and the quality of life in the United States. The funding and financing of transportation is a complex process requiring joint efforts of federal, state, and local governments. To meet current and future transportation needs, policymakers must constantly assess the mechanism of transportation finance to ensure adequate and sustainable investment. In recent years, depleting state and local budgets and growing capital and maintenance costs related to transportation have been a common challenge. The state of Minnesota is estimated to have billions in unmet transportation needs to keep up with inflation and the increase in transportation demands. This report reviews the funding of public surface transportation systems (including highways, transit and local roads) in Minnesota. We look at how transportation projects have been funded, identify current and future policy issues likely to affect transportation funding, and go over some of the funding options suggested by other researchers. The aim is to encourage better understanding and management of issues related to transportation funding in Minnesota.
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Final Report

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January 2010

Published by:

Center for Transportation Studies
University of Minnesota
511 Washington Avenue SE, Suite 200
Minneapolis, MN 55455

This report is an update and replacement of CTS 08-23, published in 2008.

This report represents the results of research conducted by the authors and does not necessarily represent the views or policies of the Center for Transportation Studies or the University of Minnesota.
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EXECUTIVE SUMMARY

Transportation systems play an imperative role in enhancing the productivity and the quality of life in the United States. The funding and financing of transportation is a complex process requiring joint efforts of federal, state, and local governments. To meet current and future transportation needs, policymakers must constantly assess the mechanism of transportation finance to ensure adequate and sustainable investment.

In recent years, depleting state and local budgets and growing capital and maintenance costs related to transportation have been a common challenge. The state of Minnesota is estimated to have billions in unmet transportation needs to keep up with inflation and the increase in transportation demands. In 2008, the state legislature passed chapter 152 (HF2800), which made some important changes to existing funding techniques.

This report reviews the funding of public surface transportation systems (including highways, transit and local roads) in Minnesota. We look at how transportation projects have been funded, identify current and future policy issues likely to affect transportation funding, and go over some of the funding options suggested by other researchers. The aim is to encourage better understanding and management of issues related to transportation funding in Minnesota.
LIST OF ACRONYMS

ATIP – Area Transportation Improvement Program
ATP – Area Transportation Partnership
BRT – Bus Rapid Transit
CFR – Code of Federal Regulations
CMAQ – Congestion Mitigation and Air Quality Improvement Program
CSAH – County State-aid Highway
CTIB – County Transit Improvement Board
DNR – Department of Natural Resources
DPS – Department of Public Safety
DTED – Minnesota Department of Trade and Economic Development
EB – Equity Bonus
FAHP – Federal-Aid Highway Program
FTA – Federal Transit Administration
GO Bonds – General Obligation Bonds
HOV – High-Occupancy-Vehicle
HPP – High Priority Projects
HTF – Highway Trust Fund
HUTDF – Highway User Tax Distribution Fund
ISTEA – Intermodal Surface Transportation Efficiency Act
LRT – Light Rail Transit
MG – Minimum Guarantee
Mn/DOT – Minnesota Department of Transportation
MSAS – Municipal State-aid Street
MVET – Motor Vehicle Excise Tax
MVFT – Motor Vehicle Fuel Tax
MVRT – Motor Vehicle Registration Tax
MVST – Motor Vehicle Sales Tax
NHS – National Highway System
PFA – Minnesota Public Facilities Authority
RABA – Revenue Aligned Budget Authority
RALF – Right-of-way Acquisition Loan Fund
SAFETEA-LU – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SFY – State Fiscal Year
SIB – State Infrastructure Bank
STIP – State Transportation Improvement Plan
STP – Surface Transportation Program
TEA-21 – Transportation Equity Act for the 21st Century
TEP – Transportation Enhancements Program
TIF – Tax Increment Financing
TRLF – Transportation Revolving Loan Fund
TUF – Transportation Utility Fee
VMT – Vehicles Miles of Travel
CHAPTER 1: INTRODUCTION

Transportation systems play an imperative role in enhancing the productivity and quality of life in the United States (U.S. Department of Transportation Federal Highway Administration 2002). This report reviews the funding of public surface transportation systems (highway, transit, and local roads) in Minnesota.

In the United States, public surface transportation is funded by the joint efforts of federal, state, and local governments. Taxes and user fees are the primary revenue sources, along with public-private partnerships or other private contributions.\(^1\) To meet current transportation needs and to plan for future development, policymakers need to assess the mechanism of transportation finance constantly to ensure adequate and sustainable transportation investment.

The Minneapolis-St. Paul Metropolitan Council (2004a) projects that the population of the Twin Cities area will grow by 600,000 people or 20% between 2010 and 2030. In addition, the amount and distance traveled on a per capita basis have been steadily increasing since statistics were first tracked about fifty years ago (Metropolitan Council 2001). Increasing population, trips per capita, and trip lengths have led to vehicle miles traveled (VMT) increasing substantially faster than growth in highway capacity. In particular, VMT has increased almost 8% from 2001 to 2007 while the number of centerline miles grew less than 4% (Minnesota Department of Transportation 2009).

Inflation of materials and labor used in the construction of highways has substantially exceeded general inflation. From 1999 to 2009, the Producer Price Index for Highway Construction (the index that tracks steel, concrete, asphalt, and other inputs into highway construction) increased almost 100%. In 2005, 2007, and 2008, inflation for highway construction components was above 10% per year. So even though increased funds were going to highway construction, actual outputs have declined because of the increased cost of materials.

The state’s funding system for transit has similar issues. Demand for transit has been increasing as congestion has grown and incomes have flattened. In 2008, transit ridership was the highest it has been in over twenty-five years. At the same time, however, the largest source of transit operating funding, the motor vehicle sales tax, has declined 30% since 2001. The second-largest source of transit funding, the state general fund, has seen revenues decline significantly in recent years. When demand for transit is at its highest, its funding sources are seeing substantial declines. The transit system has been cut back almost 15% in terms of service hours since 2001 yet still sees extraordinary demand.

The results are that congestion is projected to increase substantially over the next twenty years and alternatives such as transit will be limited. This will substantially affect the movement of citizens and the flow of goods and services throughout the Twin Cities and thus affect the economy and competitiveness of the region.

These findings raise questions about the effectiveness and efficiency of the present funding system for transportation. At the same time, they imply that, without any significant changes in transportation funding, there will be further deterioration of conditions for the traveling public.

\(^1\) Borrowing money through bonds, certificates of participation, and other mechanisms plays an important role in financing transportation programs, but these debts should still be paid back through general or targeted revenue sources.
Therefore, this report aims to delve deeper into the issue of transportation finance in Minnesota, provide an overview of how transportation projects have been funded in Minnesota, identify current and future policy issues that are likely to affect transportation funding, and suggest directions for future research to understand and manage issues related to transportation funding.

To be able to explain transportation finance in Minnesota to the fullest, this report is divided into three sections. The first section deals with transportation finance on the basis of funding sources. It discusses the structure of funding through federal, state, and local sources and also provides insights into changes that have led to the present funding structure. The second section of the report looks at funding by the type of program, i.e., highway, transit, and local roads. This section identifies the main sources of funds for these programs and also looks at how the funding of these programs has changed over the years. Also, the section discusses transportation funding based on geographic location and deals specifically with the funding for the seven county metro area and greater Minnesota. Finally, the third section of the report proposes new and improved funding methods for the future based on the findings of research conducted for this report and on past research project recommendations.
CHAPTER 2: FUNDING BY REVENUE SOURCE

Funding for transportation in Minnesota has three primary sources: federal funds, state funds, and local revenue sources. The federal and state revenues are generated through various taxes and user fees. Federal funds for both highways and transit come primarily from the federal fuel taxes, although general revenues and other sources are also used. State highway revenue sources mainly consist of the motor vehicle fuel taxes (MVFT), motor vehicle sales tax (MVST), and motor vehicle registration tax (MVRT or tab fees). State transit funds include the MVST and state general revenues, both through direct allocations and through the general bonding bill. Trunk highway funds have also been used for transit capital projects. Finally, local revenue sources for roads include property taxes, special assessments, and miscellaneous general income (from traffic fines, investments, etc.). Local transit funds include sales tax revenues, property taxes, and fares. This chapter of the report looks at these three funding sources in detail and explains how money from these three sources is allocated and used.

Federal Transportation Funding

The primary federal source of transportation funding has been the federal fuel taxes, which have been deposited into the Highway Trust Fund (HTF) since 1956. Other funds such as a tax on tires and trucks also contribute to the HTF, but they contribute substantially smaller amounts of money. In recent years, the use of these funds has been set by a series of transportation authorizing legislations such as the Transportation Equity Act for the 21st Century (TEA-21), which was in effect from 1997 to 2003, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was enacted in 2005 and was in effect through September 30, 2009. In this section of the report, we delve deeper into the subject of federal funding by discussing in greater detail the history of federal funding for transportation, various federal surface transportation authorizing legislations, and federal funding in Minnesota, in particular.

History of Federal Funding for Transportation

Federal funding for highways can be classified broadly into two time periods—pre-1956 and post-1956—as the method of revenue use changed significantly after the Federal-Aid Highway Act of 1956 was passed. The system has gone through some significant changes over the years and these changes, along with a brief description of how HTF revenues are collected and distributed, is given below.

Before 1956, funds to pay for the Federal-Aid Highway Program (FAHP) came from the General Fund of the Treasury. Budget authority came through the granting of contract authority, as it does now. Although taxes on motor fuels and automobile products were in existence as early as 1917, they were not linked to funding for highways. At the time, financing for the highway program and revenues from sales of automobiles and related products were included under the public finance principle of "spend where you must, and get the money where you can." Aside from this, the program operated in a manner very similar to how it does today in terms of authorizations, obligations, appropriations, and reimbursements (U.S. Department of Transportation Federal Highway Administration 1998). The problem with the General Fund allocation was that transportation had to compete on an on-going basis with other programs that also had high priorities, such as defense or welfare.
On June 29, 1956, President Dwight D. Eisenhower signed the Federal-Aid Highway Act of 1956 (American Association of State Highway and Transportation Officials 2006). Title I of the act increased the system’s highways proposed length to 41,000 miles and established a new method for apportioning funds among states and also setting the federal government’s share of the project cost at 90%. Title II, or the Highway Revenue Act of 1956, created the Highway Trust Fund (HTF) as a dedicated source of funding for the Interstate Highway System on a pay-as-you-go basis through federal fuel taxes and other motor-vehicle user fees. The Fund also was designed as a mechanism for funding the accelerated highway program (Patashnik 2000). By law, the Trust Fund accounts for tax receipts collected by the federal government that are dedicated or "earmarked" for expenditure on special purposes.

The history of federal involvement in transit is a bit different. Most transit systems in the country were developed as private businesses, starting in the mid-1800s to around the turn of the century. In the 1950s and 1960s, most private companies ran into financial problems due to competition from automobiles, land uses related to suburbanization, influence from General Motors, and outright corruption. Most private transit entities became public during this time.

The federal Urban Mass Transit Act of 1964 was the first large-scale federal effort to provide funding to transit systems around the country. This act provided $375 million for large-scale transit projects. It also created the Urban Mass Transit Administration, which later became the Federal Transit Administration (FTA). The Urban Mass Transportation Act of 1970 and the National Mass Transportation Assistance Act of 1974 extended the Urban Mass Transit Act of 1964 and provided funding to large-scale transit projects, primarily rail. Until 1983, the sole purpose of the Trust Fund was to fund highways. With the Highway Revenue Act of 1982 (Public Law 97-424), Congress determined that portions of the revenues from highway user taxes dedicated to the Trust Fund should be used to fund transit needs. This resulted in a five-cent increase in the fuel tax (to 9¢), of which one¢ would go towards the new Mass Transit Account, effective April 1, 1983 (Northeast Midwest Institute 2008). At present, funds from the Trust are distributed among the Federal Highway Account, the Mass Transit Account, and the Leaking Underground Storage Tank Fund (Minnesota Department of Transportation 2009).

Tax revenues contributing to the HTF are primarily excise taxes on sales of highway motor fuel plus other taxes on sales of truck tires, trucks and trailers, and heavy vehicle use. Most excise taxes credited to the trust fund are not collected directly from the consumer by the federal government. They are, instead, paid to the Internal Revenue Service by the producer or importer of the taxable product (except for the tax on trucks and trailers, which is paid by the retailer, and for the heavy vehicle use tax, which is paid by the heavy vehicle owner). Hence, the 18.3¢ federal gasoline tax and the 24.3¢ diesel tax included in the fuel price at the pump are, in effect, a reimbursement to the producers and distributors of the fuel that is being sold for taxes they have already paid. Another source of revenue for the HTF is interest earned from investing a portion of its balance in non-negotiable U.S. Treasury securities known as special certificates of indebtedness. However, since October 1, 1998, HTF balances have been invested in non-interest bearing Treasury securities.2

2 TEA-21 provided that interest on the investment of HTF balances would no longer be credited to the HTF. The Omnibus Consolidated and Emergency Supplemental Appropriations Act 1999 (Public Law 105-277) specified that the balances would be invested in non-interest bearing Treasury securities.
Revenues are allocated to the various federal accounts before distribution to the states. For example, in 1997 the Mass Transit Account received a portion of the federal motor fuel taxes—2.86¢ per gallon, the General Fund received 2.5¢ per gallon of the tax on gasohol and other alcohol fuels plus an additional 0.6¢ per gallon for fuels that are at least 10% ethanol, and the Highway Account received the remaining portion of the fuel tax proceeds (U.S. Department of Transportation Federal Highway Administration 1998). Once revenues have been allocated to the various federal accounts, distribution of money to various states is regulated through federal surface transportation authorizing legislation. In September 2008, the Fund was bankrupt due to over-commitments and having revenues lower than projected (Weiss 2008).

**Federal Surface Transportation Authorizing Legislations**

Over the last eighteen years, several federal surface transportation authorizing legislations have directed and distributed funds from the Highway Trust Fund to various states. These legislations include: the Intermodal Surface Transportation Efficiency Act (ISTEA), the Transportation Equity Act for the 21st Century (TEA-21), and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). A new bill to replace SAFETEA-LU is in development but has not yet been introduced.

- **ISTEA**
  
  In 1991 the Intermodal Surface Transportation Efficiency Act (ISTEA) was approved. ISTEA was unique in comparison to other federal surface transportation authorizing legislation in several ways. It was the first time that the focus of the authorization was beyond the completion of the interstate highway system. In addition, ISTEA attempted to create an intermodal framework (U.S. Department of Transportation 1994) for transportation policy. ISTEA also emphasized an increased state and local role in transportation planning, representing a major devolution in decision making from the existing federal/state-dominated process. Further, ISTEA provided a significant increase in transferability of funds among highway and transit programs. Finally, the legislation placed a heightened emphasis on new technology solutions to transportation problems (Northeast Midwest Institute 2008). ISTEA was signed into law on December 18, 1991 and expired in 1997.

- **TEA-21**
  
  ISTEA was followed by the Transportation Equity Act for the 21st Century (TEA-21). It authorized highway, highway safety, transit, and other surface transportation programs over a period of six years (October 1, 1997 through September 30, 2003). TEA-21 maintained the basic framework of ISTEA, but sought to improve upon it in certain ways, most notably with regards to funding equity between the states. The TEA-21 act was unique in a number of ways. When enacted, it was the largest public works bill in history, authorizing nearly $218 billion in federal funding. TEA-21 provided a 42% increase in highway authorizations from ISTEA levels, and a 31% increase in transit authorizations from ISTEA levels. TEA-21 changed the federal budget rules to “guarantee” minimum funding levels for federal highway, highway safety, and transit programs. It also assured that each state received a minimum return on the amount of fuel taxes it contributed to the Highway Trust Fund. TEA-21 also introduced Revenue Aligned Budget Authority (RABA), a spending mechanism intended to adjust annual highway program obligations to reflect changes in revenue in the highway trust fund (Fischer, 2005). RABA
involved an annual adjustment upward or downward of the funding levels for various highway programs based on actual and projected receipts of the Highway Trust Fund (United States General Accounting Office 2002). It also promoted the use of innovative financing techniques, including various mechanisms for borrowing funds.

- **SAFETEA-LU**

On August 10, 2005, the President signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which is a six-year federal transportation act set to expire on September 30, 2009. Totaling $244.1 billion, SAFETEA-LU represents the largest surface transportation investment in U.S. history. The two landmark bills that brought surface transportation into the 21st century—the ISTEA of 1991 and the TEA-21—shaped the highway program to meet the nation's changing transportation needs. SAFETEA-LU claims to build on this firm foundation, supplying the funds and refining the programmatic framework for investments needed to maintain and grow vital transportation infrastructure (U.S. Department of Transportation Federal Highway Administration 2005).

During ISTEA, infrastructure needs grew faster than trust fund revenues. This was in part due to the infrastructure that was built in the 1950s and 1960s reaching the end of its useful life, population and travel increases, and also because of increases in the costs of highway projects. In addition, 4.3¢ of federal fuel tax revenue collected was redirected to reducing the federal budget deficit and to other programs outside the area of transportation. TEA-21 created the important precedent (not present at the time of ISTEA) that all highway user fee revenues paid to the Highway Trust Fund would be used solely for surface transportation programs and SAFETEA-LU continued this commitment to the HTF’s budget firewalls. As per the new allocation formulas of SAFETEA-LU, every state should receive at least 92¢ back for each fuel tax dollar it contributes to the federal fund by FY2008, and earmarked projects will count against the state’s share of the funding (U.S. Department of Transportation Federal Highway Administration 2007). This is an increase from TEA-21 where each state was guaranteed a 90.5¢ return. SAFETEA-LU further guaranteed every state shall receive at least 19% more in highway funds between fiscal years 2004–2009 than they received between fiscal years 1998–2003 under TEA-21.

Another significant change brought about by SAFETEA-LU pertained to RABA. Under TEA-21, the RABA provision linked highway spending to past and anticipated future HTF revenues. Due to higher than expected highway revenues in the first three years of TEA-21, RABA provided significant additional spending authority. However, in FY 2003, highway trust fund revenues dropped and the RABA computation called for a major program reduction. Congress chose, through the appropriations process, to hold the highway program harmless from the revenue shortfall, but highway advocates recognized the importance of fixing the RABA mechanism during the reauthorization process. SAFETEA-LU changed how RABA is calculated by using a two-year calculation rather than the single year as called for under TEA-21 (Associated Equipment Distributors 2008; Fischer 2005). SAFETEA-LU also had substantially more earmarks than previous bills. The bill has over $24 billion for more than 5,500 congressionally designated earmarks. (National Park Service 2004) This affected the amount of funding available for non-earmarked needs. The majority of earmarks were for road improvement projects, but other modes were also included. SAFETEA-LU also included innovative finance programs that allowed new methods of borrowing. States were also able to borrow and pay back bonds with future federal funds.
SAFETEA-LU and Federal Transportation Funding in Minnesota

Implementation of a federal surface transportation authorizing legislation such as SAFETEA-LU has many implications for Minnesota in terms of federal dollars available to fund transportation investment needs. To highlight the impacts of SAFETEA-LU on transportation funding in Minnesota, we first briefly look at the national- and state-level implications of the legislation, describe the reasons behind these implications and, finally, look at formula funds and earmark funds available to Minnesota.

From a national perspective, SAFETEA-LU amounts to an inflation-adjusted increase over TEA-21 of about 5% for highways and 16% for transit. SAFETEA-LU’s funding increase is primarily due to the increased federal fuel tax revenues from changes in the treatment of ethanol in the 2004 American Jobs Creation Act. These changes included replacing the reduced tax rates on ethanol with a federal General Fund credit and transferring all ethanol revenue to the federal Highway Trust Fund. SAFETEA-LU’s funding increases also rely on improving fuel tax evasion enforcement and spending down the balance in the federal Highway Trust Fund (Minnesota Department of Transportation 2005a). The distribution of federal funds for highway, transit, and other programs is 77%, 19% and 4%, respectively. The SAFETEA-LU Equity Bonus (EB) Program replaces the TEA-21 Minimum Guarantee (MG) Program; however, the primary purpose still is to guarantee that each state’s share of specified formula highway funding apportionments is a certain percentage of its federal fuel tax contributions to the Highway Trust Fund. Under TEA-21, the minimum guaranteed to each state was 90.5%. Under SAFETEA-LU, it grows from 90.5% in FY 2005–06 to 91.5% in FY 2007 and to 92% in FY 2008–09. States that receive less than 100% of the federal fuel taxes they generate are called “donor” states, and states that receive more are called “donee” states. Historically, Minnesota has been a “donee” state but, with the 2004 federal ethanol changes, Minnesota is now a “donor” state (Minnesota Department of Transportation 2005a).

SAFETEA-LU has been good news for transportation funding in Minnesota. It offers Minnesota a 177% increase in highway formula fund apportionments ($482 million) over the previous authorization act, TEA-21, a 162% increase over TEA-21 in highway earmark funding ($288 million), and a 66% increase in transit formula funding ($168 million). Rural transit sees a significant increase in funding, but formula funding increases for the largest transit systems, such as Metro Transit, are minimal in the first two years and only a little more significant in FY 2008–09 (Minnesota Department of Transportation 2005a). Figure 1 shows the federal highway formula funding under SAFTEA-LU for Minnesota (Apportionments and Obligation Authority). It can be seen that, with its new regulations, SAFTEA-LU promised to increase funding each year. Funding for transit also follows a similar pattern.
Even though Congress has allocated funds to specific transportation needs, they obligated more funds than actually were available. Also, receipts have not grown as projected. As a result, funding has not been fully available to meet the allocations made by Congress; actual funding levels are less than those originally authorized by Congress. Over the life of SAFETEA-LU, it has been estimated that Minnesota will be appropriated spending authority for about 95% of the formula apportionments and 90% of the earmark funding, which are the approximate obligation authority percentages that Minnesota received over the past few years.

The formula highway funding programs for Minnesota include Interstate Maintenance, National Highway System (NHS), Surface Transportation Program (STP), the Transportation Enhancements Program (TEP), Bridge, Congestion Mitigation and Air Quality (CMAQ), Metropolitan Planning, Recreational Trails, and Equity Bonus, as well as new or restructured programs for Highway Safety Improvement, Safe Routes to School, and Coordinated Border Infrastructure (Minnesota Department of Transportation 2005b). Minnesota’s estimated formula highway funding apportionments are expected to represent one of the largest proportional formula funding increases in the nation. This is due primarily to the fact that, until January 2007, ethanol-burning states like Minnesota were not receiving full credit for the 2004 federal ethanol changes. The formula apportionments and the earmark funding are about a 17% increase and a 162% increase over TEA-21, respectively.

There are four major transit programs in the SAFETEA-LU bill that have been used in Minnesota: federal formula funds, which are distributed to the region based on statistics in the National Transit Database; discretionary transit funds, which are allocated based at the discretion of Congress; the New Starts program, which funds large transitway projects; and the 5310/5311 Non-Urbanized and Elderly programs. The Small Starts program is available but has not yet been used in Minnesota. In addition, money has been flexed from highways to transit in the Congestion Mitigation and Air Quality (CMAQ) program. The Jobs Access/Reverse Commute Program and the New Freedoms program also provided funding to transit although they are not solely public transit programs. Minnesota also receives funds for Metropolitan Planning through Title 23 (Highways) and Title 49 (Transit) of the Code of Federal Regulations (CFR).

In the SAFETEA-LU, there are at least 142 specific earmarks for Minnesota totaling more than $465 million. Most of these projects are listed in the High Priority Projects (HPP) of the Highway Title. The state will receive 20% of HPP earmark funding in each year during fiscal
years 2005–09, and the timing and flexibility of these funds will make it necessary for the
Minnesota Department of Transportation (Mn/DOT) and local governments to work together to
determine how and when to use them. Of the total dollar amount of these Highway Title
earmarks, approximately 76% is for road and bridge projects, 13% for transit projects (including
$50 million for the St. Paul Depot), and 10% for bike and pedestrian projects (including $25
million for Minneapolis-St. Paul Non-Motorized Pilot Program) (Minnesota Department of
Transportation 2005c). This does not include earmarks in other areas of SAFETEA-LU, such as
the Transit and Research Titles or multi-state earmarks that include Minnesota. It also does not
include the additional earmarks that will take place each year during the federal appropriations
process (Minnesota Department of Transportation 2005a).

SAFETEA-LU also adjusted its funding formulas so states that require ethanol blends in their
fuel are no longer penalized. By law, Minnesota requires an ethanol and gasoline blend, resulting
in lower trust fund attributions and, therefore, fewer federal highway dollars (Kane 2008).
Federal funds to all states grew by 21% between 1986 and 2006 but fell by 9.4% for Minnesota
(inflation-adjusted dollars). In view of the recent amendment to the federal tax treatment of
gasohol, federal highway funds available to Minnesota have been increasing. For major projects,
federal highway funding covers about 80% or more of the cost, on the condition that the state
and local governments provide matching funds to pay the remaining share. This indicates that the
flow of federal highway funds to Minnesota in the future depends significantly upon the
available state highway dollars (Kane 2008).

2009 Federal Stimulus Bill

In 2009, the Obama Administration developed a funding package to stimulate the economy. This
$787 billion dollar bill contained $29 B for highway projects, $8.4 B for transit and $8 B for
high-speed rail projects. For Minnesota, this meant an additional $502 million in federal funds.
Of this, $345 million was available to Mn/DOT for highways; $155 million for local roadway
projects; and $92 million for transit projects. In addition, Minnesota was eligible to compete for
a portion of the $8 billion in high-speed rail funding, a portion of the $750 million funding for
transitway fixed guideway funding, $750 million in transit New Starts funding, and $1.5 billion
in Surface Transportation Grants. Surface Transportation Grants can be designated for work on
highways or transit or rail, but must be awarded for projects of regional significance that could
be started within 180 days of awarding funding. Transit grants included an additional $73 million
in Urbanized Area Formula funds that can go to the Twin Cities Metropolitan area, Duluth, St.
Cloud, Rochester, Moorhead, and La Crescent, and an additional $19 million was received for
non-urbanized areas. These funding sources are officially for capital projects, although funding
can be flexed to operations by calling some operating activities “capital maintenance.”
Discussions for high-speed rail are focused on the Minneapolis/St Paul to Chicago route (Henkel
2009).

Mn/DOT and the Metropolitan Council went through a selection process. Eighty-three highway
projects were selected and an additional fifteen ancillary projects (rest stops, landscaping, etc)
were selected. Ninety-six projects were selected for the local roadway funding. Most of the
transit money has been used to purchase vehicles, although at the time of writing this report, not
all of the funding had been allocated. Bidding has been let on many of these projects in June
2009.
State Transportation Funding

State funding is a major source of revenue for transportation projects in Minnesota. In this report, we look into state funds for highways as well as for transit. Figure 2 is borrowed from the Metropolitan Council’s 2003 presentation *Minnesota Transportation Finance* and shows Minnesota road and transit revenues for 2003. The chart indicates that nearly 48% of total revenues came from state funding sources, which include motor vehicle sales tax (MVST),\(^3\) registration tax, motor fuel tax, and the general fund. Other than the general fund, the three earmarked revenue sources raised close to $1.29 billion in revenues for state fiscal year (SFY) 2007; the MVST raised 50% of the total, the MVRT raised 38%, and the MVST raised 12% (Minnesota Department of Transportation 2009).

![Figure 2: Minnesota Road and Transit Revenues 2003 (Source: Metropolitan Council)](image)

The main sources of state funding for highways are the state motor vehicle fuel tax, motor vehicle registration tax (tab fees), and the MVST. The fuel tax is levied on the unit sale of gasoline, diesel, and other special motor fuels. Tab fees are charged to all vehicles owned in Minnesota. In Minnesota, the MVST is a levy on vehicle purchases paid at the time of title transfer.\(^4\) Currently, Minnesota’s constitution (Chapter 14) dedicates revenue from the fuel tax (highway use) and the tab fees to the Highway User Tax Distribution Fund (HUTDF), while MVST is used for both transit and highway expenditures. In this section of the report, we will briefly discuss the HUTDF, which primarily acts as a pool for the various state revenue sources, elaborate on the three major revenue streams of the HUTDF (fuel tax, tab fees and MVST), discuss other options used to finance transportation at the state level, such as borrowing in the form of bonds, and, finally, highlight relevant changes brought about by Chapter 152 of the 2007–2008 legislature and the 2006 Transportation Referendum.

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\(^3\) Formerly known as motor vehicle excise tax (MVET).

\(^4\) MVFT, MVRT, and MVST are discussed in detail later in the chapter.
The main sources of state operating funding for transit are the MVST and State General Fund. The state has also used both trunk highway bonds and general revenue bonds from the bonding bill for transit capital projects.

**Motor Vehicle Fuel Tax (MVFT)**

The motor vehicle fuel tax is levied on the unit sale of gasoline, diesel, and other special motor fuels. Fuel tax revenue constitutionally is dedicated to highways and bridges. Minnesota’s fuel tax is paid on fuels used in highway vehicles, aircraft, boats, snowmobiles, and all-terrain vehicles. Usually, the state’s 600 distributors collect and remit the motor fuel tax and, in some cases, the tax is collected by special fuel dealers or bulk purchasers. Nearly 82% of the MVFT comes from gasoline sales and the remainder comes from sales of diesel and special fuels (Minnesota Department of Revenue 2005).

The tax was first introduced in 1925 at 2¢ per gallon. The current rate is 27¢ per gallon, which was raised in 2008. Because the fuel tax is not indexed, it loses buying power between rate hikes. Revenues from the motor fuel tax dropped by nearly one-third from 1986 to 2008; adjusted for inflation, Wisconsin, for example, indexed its fuel tax to avoid this loss in purchasing power. Since 1997, fourteen state legislatures (Arkansas, Indiana, Kansas, Maine, Michigan, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, and Wyoming) voted to raise their state fuel tax for transportation investment purposes a total of seventeen times. The fuel tax rate increases ranged from 1¢ per gallon (North Dakota) to 6¢ per gallon (Ohio). Utah’s increase was phased in over three years and South Dakota’s increase was put in place for only seventeen months and then increased again two years later (Minnesota Transportation Alliance 2007). In terms of fuel taxes, Minnesota is ranked 26th nationally. Many states such as Florida, New York, Hawaii, Illinois, California, and Nevada use additional taxes (local fuel tax and/or local sales tax on gasoline) to generate higher revenues. Minnesota presently has no such provisions (Williams 2005b).

State law also requires transfers of non-highway use (e.g. boats and snowmobiles) fuel tax revenues to accounts managed by the Department of Natural Resources (DNR). About 3% of fuel tax revenues are termed "unrefunded" and transferred from the HUTDF to the Department of Natural Resources accounts each year.

**Motor Vehicle Registration Tax (Tab Fees)**

In Minnesota, all owned vehicles are charged an access fee for the use of public roads. This charge is known as the motor vehicle registration tax (tab fees). The tax originally was introduced in 1911 as a $1.50 per vehicle excise or unit tax. Many changes have occurred in the MVRT since its inception. In 1921, the tax assessment was based on vehicle weight and value. In 1973, tab fees became a two-part tariff with a $10 fixed fee and additional value tax. A number of the tab fee reforms of the early 1970s still apply for both light and heavy vehicles. One of the most important policy reforms came in 2000 when the legislature placed a limitation on the MVRT for passenger vehicles (tax capped at $99). This caused a reduction in the Tab Fee revenue and resulted in a loss to the highway fund of approximately $170 million. This amount was transferred from the sales tax on motor vehicles (32% of MVST) to the highway fund to replace lost funds. This made the funding of roads even more reliant on the motor vehicle sales tax, a single item sales tax that is quite volatile. Tab fees are constitutionally dedicated to the HUTDF. In FY 2006, tab fees (after refunds, collections, and other costs) generated
approximately $488 million. This is nearly one-third of the total revenue of the HUTDF. Passenger class and pickup truck vehicles generated 80% of the total tab fee revenue.

Today, registration taxes are based on the “class” of vehicle. Currently there are twenty-nine vehicle classes including passenger vehicles, pickups, buses, commercial trucks, motorcycles, and trailers. Automobiles are taxed at $10 annually plus 1.25% of base value, meaning the manufacturer’s base price (without options) for a particular make and model. The tax is imposed on 100% of the base value in the first two years of life, with this percent going down to 10% in the tenth year. The auto license tax is capped at $189 in the second year of life and $99 in the third and subsequent years (amended under chapter 152 of the HF2800 legislation). Cars over ten years old pay the minimum tax of $35. Trucks are taxed on the basis of weight and age. The tax on trucks and truck-tractors ranges from a minimum of $120 to $1,760 for a power unit hauling up to 81,000 pounds, with a 25% reduction after eight years of life. Farm trucks pay a reduced weight-based tax. Buses pay tax from $125 to $550 depending on weight, with depreciation beginning in the third year of life, but public transit vehicles are exempt. Motorcycles pay a flat tax of $10 annually (Williams 2005a).

As is the case in Minnesota, thirty-one other states levy a value-based registration tax. Many of these states also allow local governments to levy a personal property tax on the vehicle to increase revenues. Apart from a small wheelage tax collected in some counties, Minnesota does not allow any such local option registration taxes. The wheelage tax is at the option of the county board and does provide a small revenue stream to the county for transportation purposes.

Motor Vehicles Sales Tax (MVST)

The motor vehicles sales tax (MVST) in Minnesota is a levy on vehicle purchases paid at the time of title transfer. The MVST is based on the purchase price of a vehicle; however, some older autos and collector’s vehicles have a flat tax instead of the MVST. MVST primarily is collected by auto dealers or when a vehicle is registered. The MVST first was enacted in 1971 at a rate of 3% and was amended to 4% in a special legislative session in the same year. The current 7% rate is the same as the general sales tax and was increased from 6.5% (by Chapter 152 in 2008) that had been in effect since 1991. Even though it is at the same rate as the general sales tax, it is a separate tax. The application of the tax has not changed much over the years except for an occasional exemption or exclusion. Unlike the motor fuel tax and the tab fees that were solely dedicated towards the HUTDF, only one-third of the MVST statutorily had been dedicated to the HUTDF. A revenue sharing agreement that occurred during the 2000 tax reform between roads, transit, and the state general fund decided the distribution of the MVST.

The 2000 legislature placed limits on registration taxes for passenger vehicles, which reduced the amount of revenue collected in the HUDTF. Registration taxes are dedicated exclusively to streets and highways, and the legislature made up the losses to highway funds by transferring additional MVST revenue.

The 2001 legislature prohibited the use of property tax levies for metropolitan transit operations. It replaced property tax revenue with allocations from MVST for both metropolitan and greater Minnesota transit (Williams 2005a). These changes for transit funding were part of a larger property tax reform effort. Rather than provide new funding for transportation, these MVST allocations to highways and transit were intended primarily to offset reductions in other taxes. One effect was to shift some of the funding from local to state sources.
In 2003, the percentage of MVST revenue going to transit was increased by the legislature without increasing the overall MVST allocation to transportation. The MVST revenue allocated to the HUTDF was decreased and transferred to the metro area and greater Minnesota transit funds. Therefore, in reality, the increased transit funding came from reduction in the revenues going to the state Trunk Highway Fund, county state-aid highway fund, and the municipal state-aid street fund, although this was offset from additional federal funds from TEA-21.

In 2006, a constitutional amendment to dedicate the full MVST revenues to transportation was approved by voters. The amendment specified that 63.75% of the MVST must be dedicated to transportation purposes in fiscal year 2008, growing by 10% per year until it reaches 100% in fiscal year 2012. The constitutional language also required that “no more than 60%” of the revenue go to the HUTDF, and “not less than 40%” go to public transit assistance (Minn. Const. art. XIV, § 13). The 2007 legislative session established a MVST phase-in schedule as shown in Table 1 (Minnesota Department of Transportation 2008). In fiscal year 2012, after the phase-in, the revenues will be distributed 60% to highways and 40% to transit, with the transit portion divided into 36% for the metropolitan area and 4% for greater Minnesota (Minn. Stat. § 297B.09). MVST dedications to the general fund decrease each year until 2012, when MVST is completely dedicated to transportation.

<table>
<thead>
<tr>
<th>Highway user tax distribution fund</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012+</th>
</tr>
</thead>
<tbody>
<tr>
<td>County state-aid highway fund</td>
<td>0.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal state-aid highway fund</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Metropolitan transit</td>
<td>21.5</td>
<td>24</td>
<td>27.75</td>
<td>30</td>
<td>33.75</td>
<td>36</td>
</tr>
<tr>
<td>Greater Minnesota transit</td>
<td>1.43</td>
<td>1.5</td>
<td>1.75</td>
<td>3.5</td>
<td>3.75</td>
<td>4</td>
</tr>
<tr>
<td>General fund</td>
<td>46.25</td>
<td>36.25</td>
<td>26.25</td>
<td>16.25</td>
<td>6.25</td>
<td>0</td>
</tr>
</tbody>
</table>

MVST revenue increased consistently between 1996 and 2002. There were several reasons for this. For many decades, the region had been increasing the number of automobiles per driver. As families became wealthier, they purchased more cars. (United States Census Bureau 2002) The adoption of universal driver’s education has increased the number of drivers per capita. People are active outside of the home younger and later in life, necessitating more cars. Records from the federal 2000 census showed that almost one car being available per driver in the Twin Cities. In many families, there was more than one vehicle per driver. This drove growth in the MVST to be faster than inflation (United States Census Bureau 2002).

But this rapid growth has not been sustainable. Between the years 2002 and 2003, the revenues were almost constant, ranging between $605–$606 million as automobile purchases per capita leveled out and the country was in a recession. After 2002, revenues began to decline as people began to purchase smaller, more fuel efficient, cheaper vehicles. Also the auto industry has been going through changes as more and more vehicles are built in third world countries with lower labor costs. The costs of vehicles have declined substantially in some sectors of the market. When fuel prices were over $4 a gallon, these trends accelerated. The result is that, in FY 2002, the MVST brought in about $625 million while, in FY 2010, it is projected to bring in $396 million, a loss of revenue of approximately one-third, not adjusted for inflation.
dramatically affected funds available both to highways and transit, with transit having fewer alternatives to make up the dramatic losses (Minnesota Department of Finance 2009).

Also, this has created substantial difficulty in the management of programs funded with the MVST. Over the last nine years, every forecast of MVST has been substantially lower than the previous forecast (See Figure 3). This has made it extremely difficult to do mid-range planning for both highways and transit.

![Figure 3: Changes in State MVST Forecasts](Source: Metropolitan Council)

**State Bonds**

Apart from the HUTDF, another source of funding for surface transportation is bonds. One of the ways the state pays for projects is to borrow money by issuing bonds, which are promises to repay the money borrowed at a specified time and interest rate. Bonds are not funding sources in and of themselves, but are mechanisms for spreading out the cost of projects.

There are two main types of bonds: general obligation (GO) backed by the full faith, credit, and taxing powers of the state, and revenue bonds, backed by revenues other than a tax of statewide application. All of the bonds used by the state for transportation purposes are GO bonds. State GO bonds have certain common requirements. They must be for a public purpose, specified in law, and mature in not more than twenty years.

There are two distinct types of bonds used for highways and transit: trunk highway bonds and bonds allocated in the program-wide bonding bill. Both allocation GO bonds but parlance is that bonds allocated in the bonding bill are referred to as GO bonds. Bonds issued for trunk highways are GO bonds, but payable from the Trunk Highway Fund (with a statewide property tax as
backup). Bonds from the bonding bill are paid through general revenues while debt for trunk highway bonds is paid back through trunk highway funds.

Bonds allocated in the bonding bill cannot be used for activities that could otherwise be funded with trunk highway bonds, so the two types of bonds fund distinctly different activities. Trunk highway bonds must be used only for trunk highway purposes while funds from the bonding bill must not. Funds from the bonding bill have been used for transit purposes, mostly transitway projects like Hiawatha LRT, Cedar BRT and Northstar Commuter Rail, although funds have occasionally been used for park and ride and bus garage needs. Trunk highway bonds have also been flexed to transit projects that were adjacent to the highway right-of-way and which directly benefitted trunk highways.

**User Fees/Tolling**

Minnesota charges user fees for highway use through its MnPASS program. When I-394 was constructed, it had a reversible lane built strictly for carpools. It was felt that it was being underutilized, so a tolling system was installed in 2005. Single occupant vehicle drivers are also able to pay a user fee to access the High-Occupancy-Vehicle (HOV) lanes. The fee system is variable based on the demand for service, changing from twenty-five¢ to $8. Variable tolls allow Mn/DOT to ensure uncongested conditions. Currently, the MnPASS lane may carry more people than the other two lanes, in part due to the high transit service using the right-of-way (Metropolitan Council 2008a). Fees are collected automatically so travel times are unaffected by revenue collection. Enforcement is handled by the Highway Patrol. The state’s second tolled lane is scheduled to open in the end of 2009 on I-35W from Burnsville to Minneapolis.

It should be noted that the MnPass program covers or comes close to covering its operating costs, but it does not contribute in any meaningful way to the capital costs of constructing the priced lane. Because of this, tolling or user fees do not appear feasible for funding substantial capital improvements.

**Recent Changes to State Funding**

HF2800 (Chapter 152 of the 2007–2008 legislature) was a transportation finance bill appropriating money for highway maintenance, local roads, and emergency relief related to the I-35W bridge collapse. It also established a bridge improvement program, issued bonds, and modified the motor fuel tax and other taxes. It made several changes to transportation finance, including appropriating $284.4 million for FY 2008–2009 (in addition to the amounts appropriated in the original biennial budget of $3.798 billion) to Mn/DOT and to the Department of Public Safety for transportation (Chapter 143 and 152 of the Minnesota Session Laws).

The bill made significant changes to the fuel tax, tab fees, motor vehicle lease sales tax, sales tax, and bonding authority. The bill increased the fuel tax on gasoline and diesel fuel by 5¢ per gallon. The change was phased in with a 2¢ increase on the first day of the month twenty-one

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5 Before it was passed, the bill went through many revisions and many compromises were made. The wheelage tax increase and fuel tax indexing were taken out of the bill. The increased fuel tax still is below the proposed $.10 tax that was vetoed in 2005. The proposed metro sales tax was decreased from .5% to .25%. In addition, the bill includes some of the bonding that the Governor proposed for non-roadway projects, as well as the Urban Partnership Agreement.
days after enactment and an additional 3¢ increase on October 1, 2008. The tax rates for other
types of fuel were raised proportionally with E85 and M85 fuels being taxed at rates of 17.57¢
and 14.25¢ per gallon, respectively (Minnesota Department of Revenue Tax Research Division
2008). The HF2800 bill also established a fuel tax surcharge. The surcharge provides debt
service for the bonding provisions specified in the bill. The amount of the surcharge is based on
the amount needed to repay trunk highway bonds. The surcharge is set at 0.5¢ from August 1,
2008, to June 30, 2009. The rate changes to 2.1¢ per gallon for FY 2010, 2.5¢ per gallon for FY
2011, and 3.0¢ for FY 2012. The surcharge will be 3.5¢ per gallon through 2039 or a calculated
amount if the 3.5cents per gallon exceeds the amount necessary for debt service (Williams
2005b).

The bill removed the $189 and $99 maximum tax amounts in the motor vehicle registration tax
formula and changed the vehicle depreciation schedule on which the tax is based. The yearly
decrease in a vehicle’s taxable value was accelerated under the bill. The law included a provision
that the annual additional tax must not exceed the smallest amount of annual additional tax that
was previously paid or due on the vehicle.

The bill also authorized $1.8 billion in trunk highway bonds for fiscal years 2009–2018 (Article
2, Chapter 152 of the Minnesota Session Laws). The proceeds of the bonds, except accrued
interest and any premium received from the sale of bonds, must be deposited in the bond
proceeds account in the Trunk Highway Fund. The bill also authorized $60 million in bonding
for state transportation fund bonds to be used in local roads, bridges, or other transportation
projects. The proceeds of the bonds, except accrued interest and any premium received from the
sale of bonds, must be deposited in the bond proceeds account in the state transportation fund
(Minnesota Department of Revenue Tax Research Division 2008).

Other major changes include the establishment of a new trunk highway bridge improvement
program for repair and replacement of bridges (Article 6 Section 5), which is funded through
trunk highway bonds, amending the county state-aid highway fund allocation formula (Article 5,
Section 1); amending allocation requirements for funds in the flexible highway account (Article
6 Section 4); and creating a task force on transportation strategic management and operations
(Article 6 Section 9; Minnesota House of Representatives Research Department 2008).

Local Transportation Funding

Although there is a large focus on the highway system, local roads are an important part of the
transportation system, providing access to people’s homes and businesses. County, municipal,
and township roads make up over 90% of the miles in Minnesota even though they carry only
40% of the vehicle miles traveled. Also, transit service is provided through local governments,
which are funded with some local funds. Because of this, local funding for transportation is
critical.

Local transportation funding is the single largest contributor to transportation funding in
Minnesota. As seen in Figure 2, in 2003 local funding was estimated to be to 33.7% of the total
funding available for transportation (roads and transit) in Minnesota. In this section of the report,
we discuss the local general fund, its main constituents, property taxes, special assessment, sales
taxes, and miscellaneous income, as well as additional methods used to fund transportation
infrastructure such as borrowing in the form of bonds and the impacts on these sources of recent
changes in Chapter 152.
Local General Funds

Local general fund appropriations in 2002 were estimated to be $15.3 billion, the single largest source of U.S. local road revenues. Minnesota ranked sixth in local general fund road spending at $610 million, behind New York, Texas, California, New Jersey, and Wisconsin. For Minnesota, local general funds were 29% of all local road funding (in 2002). Local general funds in public finance terms are fungible general-purpose revenues, ranging from local taxes and fees to state or federal aid (Ryan 2006). Some of the main components of the local general fund are discussed below.

- **Property Taxes and Special Assessments**

Most cities pay for general street improvements and construction from their general fund. A city’s general fund is where all revenues are deposited that can be used for unspecified purposes. Typically property taxes are the largest contributor to general funds, although many other sources can contribute, such as franchise fees, fines, fees, and many other revenues.

Property taxes and property-based special assessments were amongst the largest local road revenue sources in 2002, generating $6.7 billion or 13% of nationwide funding. Minnesota property taxes and special assessments were $502 million, placing it fifth, after Massachusetts, Texas, New York, and Illinois. The combined property taxes and assessments category accounts for 24% of Minnesota's 2002 local road funding (Ryan 2006). For the vast majority of Minnesota cities, the property tax base is the primary source of revenue for all city services, including road and bridge construction, maintenance, and preservation. In short, the costs of local transportation that are not covered by some form of intergovernmental aid must be paid from locally generated sources of revenue. Since Minnesota cities have very limited flexibility to levy non-property tax revenues, the local property tax generally supports transportation infrastructure investments.

Because transportation is funded with general revenues, it has to compete with police, fire, parks, and other popular programs also funded from local revenues. At times, the legislature has also put constraints on how much property taxes can be increased; these restrictions are called “levy limits.” Typically levy limits have been imposed in years where there have been substantial changes to local government aid to control the overall growth of government spending. Levy limits applied to property taxes payable in 2004, but they expired in 2005. The 2007 legislative session did not include levy limits for taxes payable in 2008, giving counties and larger cities more freedom in determining the amount of property taxes they wanted to impose for general fund expenditures.

Special assessments are charges against real property for a specific project that directly benefits the property or properties being assessed. The special assessment cannot exceed the amount by which the property benefits from the improvement. The amount a property benefits from an improvement, called the “special benefit,” is measured by the increase in the market value of the land due to the improvement (Minnesota House of Representatives Research Department 2007). Under Minnesota Statute §429, cities have the authority to assess property owners for certain local improvements based upon benefit received. Special assessments are a major source of funding for initial transportation improvements.

Different types of local governments can use special assessments to pay for different types of local improvements (e.g. streets and roads, storm sewers, street lights, parks, nuisance abatement, district heating systems, and flood control works). Cities, towns, urban towns, and
counties all can use special assessments for the purposes listed in chapter 429 of the Minnesota Statute. The statute does not apply to home rule charter cities if their charters establish other procedures. Special assessments often are chosen to finance road improvements with general property tax levies or bonding because they are viewed as a more equitable way to distribute the costs to those who benefit the most, while minimizing the demand on the city tax levy and statutory debt limitations. The downside is that the progressivity in the property tax system is lost. Unlike the general property tax, special assessments are not tax deductible, so affected property owners must bear the full cost (Minnesota House of Representatives Research Department 2007).

In 2003, Minnesota cities levied 70% of all special assessments, counties levied 24%, and townships and special districts levied the rest. Special assessments were 11.4% of city taxes and 2.7% of county taxes (Ryan 2006). In general, city use of special assessments decreased from 1980 to 2006, both as a percentage of total revenue, from 13.5% to 6.9%, and as a percentage of total property tax levy, from 20.5% to 10.9% (Minnesota House of Representatives Research Department 2007). This may have been attributed to the slowing of construction.

Some cities have begun to use special assessments in lieu of general taxes for transportation improvements or to supplement general taxes. The benefits to this method are that general taxes are not increased and the special assessments are perceived as user fees, not taxes. The City of St. Paul has been especially aggressive in using this method for funding transportation needs, using special assessments for snow removal, road reconstruction, and other roadway-related activities. The result is that St. Paul has the highest special assessments in the state (Citizen’s League 2008).

The history of local funding for transit is different than that for highways. Most transit authorities in the United States started out as private companies. In Minneapolis and St. Paul, the first automated transit was the William Crooks, a train running between St. Paul and Minneapolis starting in 1862. In 1872, the first horse-drawn carriages on rails were established. The first steam-engine service began in 1879 and, in 1889, the first electric streetcar service began. The various services eventually merged into the Twin Cities Rapid Transit Company (Diers and Isaacs 2007). During this time, transit was funded solely from fares and other enterprises of the transit companies like the sale of land. In the 1950s and 1960s, most companies around the country ran into financial difficulties, in part due to the difficulty in competing with the automobile and in part to the pressure of General Motors. In the Twin Cities, interference from General Motors, and outright corruption by and the influence of the Mafia resulted in the Twin City Rapid Transit Company (later the Twin Cities Lines) requiring a property tax subsidy in the 1960s. The company was taken public outright in 1970. It eventually became the Metropolitan Transit Commission and then part of the Metropolitan Council. It remained subsidized by property taxes until 2001 when the property tax was replaced by the Motor Vehicle Sales Tax.

Property taxes for transit operations ended in 2001, when the state substituted MVST revenues for property taxes. Currently, local units of government are prohibited from using property taxes to subsidize transit operations. Property taxes for transit capital funding have continued, however. The Metropolitan Council levies property taxes within the “Transit Taxing District”—a district established in state law that is a subset of cities within the seven county metro area. A property tax is levied to pay Regional Transit Capital bonds that are levied by the Metropolitan Council. These bond revenues are an important source of funding because they represent the sole source of local match to federal funds and the only source of funds without federal or state
constraints. The Transit Taxing District is also important because it represents the traditional boundary of regular route transit service. Typically only cities within the Taxing District have received bus service and the Metropolitan Council has asked cities to join before receiving bus service.

- **Sales Taxes**

Another component of local funding for transportation in Minnesota is local sales taxes. Most are a general sales tax that mirrors the state’s general sales tax. Some cities also tax specific items or events, such as motor vehicles, lodging, food, liquor, or entertainment. Sales taxes are more accurately sales and use taxes, where the use tax mirrors the sales taxes for purchases made outside the tax jurisdiction, closing a tax avoidance loophole.

Thirty-five states allow local governments to levy local sales taxes in support of local roads. Nine states in the Midwest, including Minnesota, have a local sales tax. Local governments in Nebraska can earmark a maximum 1.5% sales tax for roads. Wisconsin can earmark up to a 1% sales tax for transportation projects (Ryan 2006). Iowa sales tax is up to 2% with earmarking. North Dakota allows local sales taxes up to 2.5%. South Dakota local sales taxes are up to 2%. New York has a maximum local sales tax rate of 4.625%. The maximum local option sales tax in Vermont is 1% (Ryan 2006). Aspen, Colorado, and Seattle, Washington have the highest rate of sales tax dedicated solely for transportation at 1.5% and 1.2%, respectively. Atlanta, Austin, Cleveland, Dallas, Houston, Los Angeles, and New Orleans follow them at 1% (Goldman, Corbett and Wachs 2001).

Minnesota authorizes twenty-four cities, counties, and areas to levy sales taxes for specific public improvements, subject to voter’s approval. Most cities use local option sales taxes to fund tourism, convention, or entertainment programs. Cook County has a 1% local sales tax, as does Duluth. Minneapolis has a 0.5% sales tax on general sales, and a 3% tax on lodging, restaurant, liquor, and entertainment. Rochester has a 4% lodging tax, along with a 0.5% sales tax (Ryan 2006). St. Cloud has a 1% food and liquor tax, and a 0.5% sales tax, which extends to neighboring Sartell, Sauk Rapids, and St. Augusta. St. Paul has a (0.5%) local sales tax, as do Hermantown, Two Harbors, Mankato, New Ulm, Proctor, and Winona. While circumstances differ by community, a local voter referendum or council vote typically is required; but, first, every local sales tax must get state legislative approval (Ryan 2006). In practical terms, this means that there are relatively few opportunities to extend the sales tax for transportation-related purposes as other programs have already “claimed” this revenue source.

Rochester is one of the only cities to finance transportation improvements from local option sales taxes. In 1999, Rochester imposed a sales tax that can be used for transportation infrastructure improvements to regional highways and airports, the Mayo Civic Center complex, and regional ground water quality; a municipal water, sewer and storm sewer project; the construction of a regional recreation and sports center and higher education facilities. A portion of Highway 52 improvement has been funded with this source.

The use of sales tax for transportation is more prominent in transit. Nationally, six of ten transit systems which are peers to Metro Transit are funded through local sales taxes. Starting July 1, 2008, counties in the metro area were given authority by the legislature to impose on themselves a 0.25% sales and use tax for transit. The five counties that chose to do so are Anoka, Ramsey, Dakota, Washington, and Hennepin. The tax applies to retail sales and taxable items in the transit

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tax area. Revenues from this tax are restricted to the capital and operating needs of transit. Plans are focused on the construction of major transitways including light rail, commuter rail, and bus rapid transit lines. This tax is overseen by the County Transit Improvement Board (CTIB), a joint powers board comprised of the counties that chose to impose the tax; the board is currently developing long-range plans for these funds.

In 2008, counties in greater Minnesota were given authority to impose a local transportation sales tax of 0.5% on retail sales and uses. The taxes imposed are subject to approval at a general election by a majority of the voters in each of the counties affected who vote to impose the taxes. The proceeds can be used for a specific transportation project or improvement, and the taxes must terminate after the project or the improvement has been completed (Minnesota Department of Revenue Tax Research Division 2008).

- **Fares/User Fees**

  At this point, no fares or user fees are charged for local roads. There are roads within private developments that are funded through homeowner association assessments but these are private and not public funding mechanisms. Transit, however, has been funded with fees since transit service was provided by private companies.

  Fares are a significant portion of the revenues raised for transit. Fares are charged each rider when they enter the bus or the transit fare zone for rail. In the metro area, passengers on regular route buses can get on and off for a two-hour period on one fare. In the metro area, fares are differentiated by the time of day and whether the trip is an express (very few stops) or local (many stops). Fares are also different for seniors, youth, and persons with disabilities.

- **Miscellaneous Revenue Sources**

  Miscellaneous income includes traffic fines, investment income, private contributions, and transfers from other enterprises. Nationwide, local governments raised $5 billion in miscellaneous income, or 8% of all local road revenues (all figures for 2002). California alone accounts for one-third of all miscellaneous road income. Minnesota ranked 16th among the U.S. states, with $65 million in miscellaneous local road income, equal to 3% of the Minnesota local road revenue mix (Ryan 2006).

  Metropolitan counties are allowed to levy a wheelage tax. A wheelage tax is a per vehicle tax on automobiles and trucks (excluding motorcycles and trailers). The counties of Anoka, Carver, Dakota, Scott, and Washington levy a $5 wheelage tax on all vehicles kept in their county that are required by law to be registered annually. Counties in greater Minnesota can impose a $20 excise tax on the sale of motor vehicles if the taxes are approved by a majority of county voters. The proceeds can be used for a specific transportation project or improvement, and the taxes must terminate after the project or the improvement has been completed.

**Local Municipal Bonds**

Cities in Minnesota also have the authority borrow for transportation projects by issuing bonds to support capital construction programs. Bonding does not generate money; instead, bonding to finance public infrastructure improvements results in the cost of an improvement being spread over the expected life of the improvement, rather than up front as the improvement is actually made. Revenues are still needed to pay off the bonds. The total amount of debt Minnesota cities
are authorized to issue is limited by the debt financing policies implemented by city elected officials, by bond rating agencies who examine overlapping debt levels when rating bonds, and by the revenues available to pay off bonds.

The 2002 legislature adopted new legislation (M.S. § 475.58, Subd. 3b) allowing a city to issue general obligation bonds to cover the entire cost of street reconstruction projects without a referendum vote, as is typically required by most city charters. The bond issue can take place as long as the following conditions are met:

1) a public hearing on the issue must be conducted,
2) the city council must adopt a 5-year plan on the reconstruction project,
3) the bond issue, once approved, is subject to reverse referendum, and
4) the bond issue must maintain a total city net debt limit of no more than 2% of general fund spending
CHAPTER 3: FUNDING BY PROGRAM TYPE

The second section of this report looks at transportation finance in terms of program types. The three programs examined are highways, transit, and local roads. In terms of highway funding, the chapter highlights how the Trunk Highway Fund in Minnesota works, recent trends in federal funding, the use of state bonds, and expenditure areas where these revenues are spent. For transit funding, the chapter briefly discusses the three main sources of funding: state funding, federal funding, and fare box revenues. In terms of funding for local roads, the chapter looks at state and federal funding sources. Since Minnesota is divided into two main areas—the metropolitan area and greater Minnesota, with the metro being the urban center with the highest population densities, as well as transportation needs. The chapter also highlights the distribution of transit and local road funding within these areas.

Highway Funding Mechanisms

The main sources of funding for highway purposes (construction, operation, maintenance, etc.) come from the state highway user taxes, federal aid, state highway bonds, and other sources such as license fees and fines, which are deposited into the Trunk Highway Fund. Figure 4 shows the structure of funding for highways in Minnesota.

Highway User Tax Distribution Fund (HUTDF)

In terms of state funding for highways, the HUTDF is the primary source of revenues. Figure 5 shows the contributions of the fuel tax, tab fees, and MVST to the HUTDF in millions of dollars.
It can be seen that fuel tax is the largest contributor because, constitutionally, it is completely dedicated to the HUTDF. The year 2001 marks the reduction of tab fees on passenger vehicles and the 32% dedication of MVST to the HUTDF. The figure shows a trend of steady increase in the funds from 1991 to 2003 and then a slight decrease from 2003 to 2007.

![Figure 5: Revenue Sources Contributed to the HUTDF (Source: Mn/DOT)](image)

In 2009, the revenues from Chapter 152, the increase in funding after the I-35W bridge collapse, and funding from the federal economic stimulus bill begin to be reflected in projections. From the HUTDF, 62% goes to the state (State Trunk Highway Fund), 29% to the counties, and 9% to the cities. This money cannot go into the state General Fund. The constitution further requires that all funds in the HUTDF be used for “highway purposes.”

- **Highway User Tax Distribution Fund**

  The largest source of funds is the state highway user taxes that are deposited in the HUTDF (Burress 2007). The primary contributors to the HUTDF are the fuel tax, MVST, and tab fees, all of which have been discussed in detail in the first section of the report. For highway uses, the HUTDF is further divided among the Trunk Highway Fund, county state-aid highway fund, and the municipal state-aid street fund (Figure 4).

  The Minnesota constitution contains the basic framework for highway funding. It establishes highway user taxes, which are considered user taxes because payment is based on use of the highway system, and requires that the revenue be “used solely for highway purposes.” (Minn. Const., art. XIV, § 5). It also specifies how the revenue must be distributed to the state and local...
units of government (Burress 2007). The tax revenues from MVFT, MVST, MVRT, and investment income go into the HUTDF to be distributed in two parts.

First, a constitutional formula distributes 95% of the revenue. Sixty-two percent goes to the Trunk Highway Fund for the construction, maintenance, and administration of the state trunk highway system. Twenty-nine percent goes to the county state-aid highway (CSAH) fund for construction and maintenance of county state-aid highways. Finally, 9% is reserved for the municipal state-aid street (MSAS) fund for construction and maintenance of city state-aid roads (Burress 2007).

Second, 5% is set-aside to be distributed by statute. It must go to one of the three foregoing funds, and the distribution cannot be changed more than once every six years. The set-aside funds currently are allocated to special accounts within the CSAH fund. Of the set aside funds, 53.5% goes to a flexible highway account that can be used for trunk highway projects or for former trunk highways that have been “turned back” to the jurisdiction of cities or counties, 30.5% to an account for town road construction and repair, and 16% to a town bridge account for bridge replacement and repair (Burress 2007).

State highway revenue collections increased at an annual rate of 2.7% (on an average) between 1990 and 2007. Within this seventeen-year period, the growth was highest between 1990 and 2000, after which growth slowed significantly due to declines in MVST, the choice to cut tab fees in 2001, reductions in driving resulting in less gasoline sold, and reductions in funds available from the federal government (Minnesota Department of Transportation 2009). These revenues are not projected to keep up with inflation over the long-term, although travel is projected to grow due to increased population and travel patterns.

Figure 6: Contributions to the Minnesota Highway User Distribution Fund (Source: Metropolitan Council)
**Trunk Highway Fund**

The state Trunk Highway Fund is the primary pool where revenues from various sources allocated for highway use are collected. These sources include state funding, which primarily comes through the HUTDF, and federal funding through formula and earmarked funds, as discussed in the second chapter of this report. Finally, other sources, such as borrowing in the form of state highway bonds, are also used.

- **Federal Funding for Highways**

As discussed in the first section of this report, federal funding for state projects comes in the form of formula funds and funds for earmarked projects (which are directly deposited in the Trunk Highway Fund, for state projects only).

![Figure 7: Federal Highway Funding for Minnesota during 2000–2007](Source: Mn/DOT)

From 1990 to 2007, federal funding for highways generally has increased (Minnesota Department of Transportation 2009). This increase primarily can be attributed to increased funding levels in federal funding bills (Minnesota Department of Transportation 2009). Figure 7 shows the federal and state funding for highways from 2000 to 2007. Revenues increased between 2000 and 2003 and then remained fairly constant until 2005. The substantial increase in years 2006 and 2007 is due to increased levels of federal funding under SAFTEA-LU. In 2009, federal funding will spike again due to the Federal Economic Stimulus Package. After that, it is not known what funding levels will be; a new funding bill will need to be approved.

- **Other Sources**

Finally, revenues from license fees and fines also are directly deposited into the Trunk Highway Fund, although they make up a small percentage of the total revenues.
**State Trunk Highway Bonds**

Another significant portion of the state funding for highways comes as proceeds from state highway bonds. Bonds issued for trunk highways are G.O. bonds, but payable from the Trunk Highway Fund. Trunk highway projects may not be paid for with G.O. bonds that are payable in the first instance from the general fund (Minn.Const. art. XIV, § 11; art. XI, § 5; Minnesota House of Representatives Research Department, 2002b). According to Matt Kane (Kane 2008), starting in 2002, the State of Minnesota’s proceeds from highway bonds spiked upwards to their all-time high in almost twenty years after staying below the adjusted 1986 level through 2001. The 2006 level, at $161.9 million, amounted to 79% more than the adjusted 1986 amount (Kane 2008). This amount is projected to decline from this peak in future years, however, as the state transitions to using bonding more for cash-flow purposes and as fewer revenues are available to bond against.

**Types of Highway Expenses**

Expenditure is a very important aspect of funding as it helps identify areas where funds are used and needed the most. The primary highway expenses in Minnesota come in the form of Mn/DOT construction, Mn/DOT operation and maintenance, debt service, public safety, and others. Figure 8 shows a more detailed distribution of highway expenditures for the year 2005. Money in the Trunk Highway Fund constitutionally is dedicated solely to trunk highway purposes, but the money must be appropriated by the legislature. Highway construction is the single biggest category of expenditure, including construction contracts, contract administration, engineering, research, and purchase of right-of-way. Maintenance of the trunk highway system is the next-highest category. The Department of Public Safety (DPS) portion mainly goes to the State Patrol for law enforcement on the trunk highway system. Debt service includes repayment of trunk highway bonds and repayment of advances made by local units of government to accelerate trunk highway projects. Capital projects primarily mean Mn/DOT buildings, covering everything from the central office in St. Paul to district office buildings to maintenance buildings and storage sheds around the state. In the past, these were paid by direct appropriations from the Trunk Highway Fund, rather than through the sale of bonds as with other state buildings. However, in 2008, the state legislature authorized the use of bonds for such projects (Minnesota House of Representatives Research Department 2005c).
Transit Funding Mechanisms

**Minnesota Transit Programs**

Minnesota has two distinct groups of transit programs: those in the metro area that are provided, managed or coordinated by the Metropolitan Council; and those in greater Minnesota, which are funded and coordinated by the Mn/DOT Office of Transit.

- **Twin Cities Metropolitan Area**

In the Twin Cities metropolitan area, public transit is operated or assisted by the Metropolitan Council, relying heavily on funding from the state. The Metropolitan Council operates about 1,580 buses and 24 light rail vehicles over 206 routes, and almost 25% of the system is privately contracted on a cost basis (Metropolitan Council 2008b). Transit services provided or assisted by the Metropolitan Council include:

  - **Metro Transit**, the Twin Cities’ regional regular-route bus system, which was taken over operation by the Council when the Metropolitan Transit Commission was abolished in 1994;

  - **Metro Mobility**, the demand-activated system that provides door-to-door transportation for eligible disabled persons;

  - **Opt-out Systems**, six suburban transit authorities providing large bus, dial-a-ride, and other programs within twelve suburbs created in 1982 to 1985;

  - **Community-based Transit**, rural and small-urban systems that receive operating assistance from the council;

  - **Light Rail**, the Hiawatha light rail transit line operating between downtown Minneapolis and Bloomington. The line was built with a combination of federal assistance, state
bonding money, and contributions from Hennepin County and the Metropolitan Airports Commission (Minnesota House of Representatives Research Department 2005a);

*Northstar Commuter Rail*, the region’s first modern commuter rail line operated by the Metropolitan Council

Transit ridership has varied over the last ten years or so based on several major drivers. In 1995, the Legislature began to provide more funding to transit, resulting in more service on the street and higher ridership. Ridership growth continued until 2001 when the economic downturn, coupled with cuts in state funding, reduced ridership demand and funding for service. The result was ridership declines from 2001 to 2004, primarily due to a reduction in service hours of approximately 10%. In 2004 there was a drivers' strike, which lasted forty-two days. Metro Transit provided no service during this period, reducing ridership. Offsetting this was the opening of the Hiawatha LRT line in 2004. By 2008, Hiawatha LRT comprises well over 10% of the total transit ridership in the region. Also in 2004, gasoline prices began to trend upward significantly, culminating in the price spike in early 2008. This has provided an economic incentive for persons to take transit instead of driving. The result is that 94.8 million rides were given in 2008, the highest ridership in over twenty-five years.

![Twin Cities Area Transit Ridership](source: Metropolitan Council)

**Figure 9: Twin Cities Area Transit Ridership** (Source: Metropolitan Council)

- **Greater Minnesota**

Transit funding in greater Minnesota comes in the form of operating assistance to numerous transit systems outside the metropolitan area, including systems as large as Duluth (Duluth Transit Authority) and as small as circulating vans in rural counties. Mn/DOT, through its Office of Transit, provides operating assistance to transit systems around the state. Of the eighty counties comprising greater Minnesota, seventy-three have some form of transit service with sixty-six having county-wide programs. Systems are put into one of four categories:

*Urbanized systems*: There are presently six urbanized systems (Duluth, Rochester, St. Cloud, East Grand Forks, La Crescent and Moorhead.);
Small urban systems: There are presently sixteen small urban systems (Albert Lea, Benson, Faribault Granite Falls, Mankato, Hibbing, Le Sueur, Montevideo, Morris, Northfield, St. Peter, Stewartville Virginia and Winona);

Rural systems: There are presently forty-three rural systems (including counties, smaller towns, American Indian tribes, social service agencies, etc.);

Systems for the elderly and disabled: There are presently five such demand-responsive services—primarily for elderly and disabled—in Duluth, Rochester, Moorhead, East Grand Forks and St. Cloud.

Transit Funding
The main sources of revenue for transit funding in Minnesota are the state MVST, state general fund contributions, fares, local funding, and federal funding. State and federal funding is distributed through the Metropolitan Council in the metro area and through Mn/DOT in greater Minnesota.

Figure 10: Major Operating Funding Sources for Metropolitan Transit in the Twin Cities (Source: Metropolitan Council)

- **MVST**

  Property taxes were the largest contributor to transit funding in Minnesota until 2001, when the legislature replaced them with the MVST. In Figure 10, this transition from property taxes to MVST (MVET or motor vehicle excise tax in the figure) is clearly visible. Presently, MVST is the largest contributor to transit funding. With the passage of the MVST referendum (described
in Chapter 2), the percentage of MVST revenues for transit will increase until 2012 when the phase-in finally is complete and at least 40% of MVST is dedicated to transit.

- **State General Fund**

  Transit funding from the State General Fund comes directly from general revenues such as the state-wide sales tax, income tax, and other taxes. There have been four distinct eras over the last ten years in funding from the State General Fund for transit. From 1994 through 1997, funding was kept relatively stable, as it was perceived that every additional rider added to the demand for subsidy. Perceptions of what transit does shifted and, from about 1998 through 2001, general funds increased as the legislature consciously decided to increase transit ridership by providing more service. From 2001 to 2004, general funds declined as the state was in a recession and overall tax revenues declined. From 2004 through today, there have been increases in the state general funds to transit to offset the substantial declines in the MVST revenues.

- **State Bonding Bill**

  The state bonding bill never had a set amount reserved for transit but, instead, has been focused on individual projects. Most funding from the bonding bill over the last ten years has gone to large transitway projects, namely the Hiawatha LRT, Cedar BRT, and Northstar Commuter Rail. Park and ride lots have also been funded from this source.

- **State Trunk Highway Bonds**

  Trunk highway bonds are paid for from the Trunk Highway Fund, and projects must improve the trunk highway system. In 2003, for example, $46 million in trunk highway bonds were allocated to transit, funding ten park and ride lots and ten bus shoulder segments or ramp bypasses. In 2005, $36 million in trunk highway bond revenues were used for transit projects, including nine park and ride lots and nine bus shoulder segments/ramp bypasses or other transit advantages.

**Funding Mechanisms for Local Roads**

Funding for local roads in Minnesota comes from federal, state, and local sources. State sources include money from the HUTDF in the form of county state-aid and municipal state-aid street funds, state general fund appropriations, the state local road improvement program, and the transportation revolving loan fund. Federal funding comes primarily through Area Transportation Partnerships. A number of local revenue sources are also used, such as property tax, local general funds, sales tax, and special assessment. Having discussed local revenue sources in the second chapter, this section shall concentrate on state and federal funding sources.

**State Funding for Local Roads**

State aid for funding local roads comes primarily from the HUTDF. Distribution of funds from the HUTDF into state aid and other funds for local roads has been described in detail in the first section of this report. In short, funds from the HUTDF, excluding amounts transferred to the Trunk Highway Fund and flexible highway accounts, are used to fund local roads through state aid and town road and town bridge accounts. Other sources of state funding for local roads include regular state general fund appropriations, the local road improvement program, and the transportation revolving loan fund.
County State-Aid System

The county state-aid highway (CSAH) system is a network of highways owned by the counties. All eighty-seven counties participate in the system. Counties receive money from the CSAH fund for the construction, improvement, and maintenance of these highways. Counties propose to Mn/DOT highways for inclusion in the system. The department makes the final decision based on criteria in state rules. The criteria focus mainly on traffic levels, functional classification, and a highway’s role in connecting communities or markets. There are about 30,000 total miles on the county state-aid system, comprising about two-thirds of all county highway miles.

The CSAH system is financed by the County State-Aid Highway Fund, which is established by the Minnesota constitution. Counties now receive about 28% of all highway user tax (fuel tax and vehicle license tax) revenue. Money in the fund is used for construction, improvement, and maintenance of county state-aid highways (Minnesota House of Representatives Research Department 2002a).

Money in the county state-aid fund is allocated to the counties by a formula provided in Minnesota statutes: 10% is divided equally among all counties; 10% is divided among all counties according to their total of registered motor vehicles; 30% is divided among all counties based on their total lane-miles of state-aid highway; 50% is divided among all counties based on their money needs. This is defined as the total amount each county needs in order to bring all their state-aid highways up to state standards (Minnesota House of Representatives Research Department 2002a).

Municipal State-Aid Street Fund

The Municipal State-Aid Street (MSAS) system is a mechanism for distributing a portion of state highway user taxes to cities with a population of over 5,000 to pay for the construction, improvement, and maintenance of their key city streets. With an overall network of about 3,000 miles of streets, there are now 135 cities that meet this qualification, plus one city (Chisholm) that fell below 5,000 in the 2000 census but which has been grandfathered into the system. Cities propose to Mn/DOT streets for inclusion in the system. The department makes the final decision based on the criteria in the state rules. The criteria focus mainly on traffic levels, functional classification, and a street’s role in connecting major points within the city. Each city is limited to putting no more than 20% of its total street miles onto the state-aid system.

The municipal state-aid fund receives a constitutionally guaranteed 9% of 95% of the highway user tax distribution fund (Minnesota House of Representatives Research Department, 2005b). Money in the municipal state-aid fund is allocated to cities with over 5,000 people by a formula provided in the Minnesota statutes: 50% is divided among all cities over 5,000 based on their population; 50% is divided among all cities over 5,000 based on their monetary needs. This is the amount each city needs to bring all its municipal state-aid streets up to state standards (Minnesota House of Representatives Research Department 2005b).

The formula results in about 69% of municipal state-aid street dollars going to cities in the seven-county metropolitan area. This is approximately in line with the metropolitan area’s share of total municipal state-aid street mileage and vehicle-miles traveled on the system (Minnesota House of Representatives Research Department 2005b).
• **Regular State General Fund appropriations**

The state has at times appropriated state general funds for specific local road and bridge programs or projects. It is fair, however, to characterize the state general fund appropriations to Minnesota cities as limited, even during healthy economic times. However, it is also important to point out that, despite the fact that regular state general fund appropriations are limited, state G.O. bonding for local roads and bridges is a very important source of funds.

• **Local Road Improvement Program**

The Local Road Improvement Program was created by the legislature in 2002 (Minnesota Statutes 174.52) and established two accounts to provide funding assistance to local agencies in construction, reconstruction, or reconditioning projects with regional significance. Originally it had two accounts—the Trunk Highway Corridor Projects Account and the Local Road Account for Routes of Regional Significance—and, in 2005, the legislature created a third account called the Rural Road Safety Account. During the 2006 legislative session, the legislature approved an appropriation of $16 million to fund the Local Road Improvement Program from the bond proceeds account in the Minnesota State Transportation Fund. The session law identified $7.65 million for the Routes of Regional Significance Account, with one earmark project of $500,000 for Freeborn County (CSAH 46), and $7.65 million for the Rural Road Safety Account, with one earmark for the overpass on TH 10 in the city of Staples. The Rural Road Safety Account excludes the metropolitan counties (Minnesota Department of Transportation State Aid for Local Transportation Division 2006). In 2008, the allocation of funds was increased to $10 million for rural road safety projects on county state-aid highways (Minnesota House of Representatives Research Department 2008).

The Trunk Highway Corridor Account is used as a loan or grant source to cities, towns, and counties to assist in paying the local share of trunk highway projects that have local costs related to the trunk highway improvement, and that are not funded or partially funded with other state and federal funds. General obligation (GO) bonds were also authorized for this account by the legislature with the objective of providing loans to local governments to help them pay their cost participation share of Mn/DOT projects (Minnesota Department of Transportation State Aid for Local Transportation Division 2006).

The Routes of Regional Significance Account is used for grants or as a loan source for cities, towns, and counties to assist in paying the costs of constructing or reconstructing city streets, county highways, or town roads with statewide or regional significance that have not been fully funded through other state, federal, or local funding sources. The considerations for determining project priority and amount of the grant or the loan are dependent on various factors including availability of other funds (federal, state or local), regional significance of the route, elimination of transportation deficiency, impact on the population, and contribution to economic development (Minnesota Department of Transportation State Aid for Local Transportation Division 2006).

The Rural Road Safety Account is used as a grant source to the counties to help pay the costs of capital improvement projects on County State Aid Highways (CSAH) and is primarily intended to reduce accidents, deaths, injuries, and property damage. Eligibility for project selection must be based on the ability of each proposed project to reduce the frequency and severity of accidents (Minnesota Department of Transportation State Aid for Local Transportation Division 2006).
Another important source of funding for local roads in Minnesota is the Transportation Revolving Loan Fund (TRLF). In November 1995, the federal government established the State Infrastructure Bank (SIB) program through the National Highway System Designation Act. An SIB is a state or multi-state fund that can be used by eligible borrowers to finance transportation projects. The purpose of the SIB program is to attract new funding for transportation, encourage innovative approaches to financing transportation projects, and help build needed transportation infrastructure (Minnesota Department of Transportation, Office of Investment Management 2008). An SIB operates much like a commercial bank. It offers loans and other types of financial assistance to eligible borrowers to finance transportation projects. When the loans are repaid, the funds are returned to the SIB and used to finance another set of projects, creating a continually expanding pool of money for transportation projects (Minnesota Department of Transportation, Office of Investment Management 2008).

During the 1997 legislative session, Mn/DOT proposed legislation that would create an SIB for Minnesota. On May 12, 1997, this legislation, known as the Transportation Revolving Loan Fund (TRLF) Act, was signed into law. The TRLF Act jointly authorized Mn/DOT, the Minnesota Department of Trade and Economic Development (DTED), and the Minnesota Public Facilities Authority (PFA or Authority) to develop and administer an SIB program (Minnesota Department of Transportation, Office of Investment Management, 2003). Mn/DOT is responsible for evaluating and certifying transportation projects to the PFA for TRLF financing. The PFA is responsible for conducting a financial evaluation of the certified transportation project applicants and setting the terms and conditions for the TRLF loans (Minnesota Department of Transportation, Office of Investment Management 2008).

In June of 1997, the federal government authorized Minnesota to create an SIB program and appropriated to the state $3.96 million in federal incentive funds to capitalize the TRLF. All federal funds deposited into the TRLF require the concurrent deposit of a non-federal match of 25% of the federal contribution.

Eligible TRLF borrowers include the state, counties, cities, and other governmental entities. Although private entities are not currently eligible for TRLF financing, they may be able to enter into agreements with eligible borrowers to finance eligible transportation projects. Federal and state law authorize financial assistance in the form of loans, loan guarantees, lines of credit, credit enhancements, equipment financing leases, bond insurance, and other forms of financial assistance (Minnesota Department of Transportation, Office of Investment Management 2008).

The Metropolitan Council decides annually—based on expected loan requests from various cities—how much to levy for the program. Typically, a full annual levy raises about $3.3 million. The Council lends money to cities to purchase the right-of-way from willing sellers. The
cities are responsible for having the property appraised and negotiating a price with the seller. Mn/DOT reviews and certifies the appraisals. The cities are also reimbursed for costs they incur to acquire the property. When Mn/DOT is ready to purchase the land for highway construction, it buys the property from the city at the price paid for the property and the loan is repaid to the RALF account. The long-term savings occur because development of the land and its appreciated costs have been preempted. Over the last twenty years, loans have been made to acquire right of way parcels for TH 10, TH 52, TH 169, TH 212, TH 610, I-494, and I-35.

**Federal Funding for Local Roads**

Minnesota receives federal funds under the SAFETEA-LU act. Federal revenues come in a variety of different programs, and are mostly used to support construction and maintenance of state road and bridge systems. Federal funding, which comes primarily from the federal MVFT, is distributed to specific competitive projects within the state through eight Area Transportation Partnerships (ATPs). ATP members include representatives of Minnesota cities and counties, Mn/DOT, transit agencies, and regional planning organizations. Minnesota cities compete among themselves and Minnesota counties for federal funds. In 2001, roughly two-thirds of the federal funding for road and bridge improvements for Minnesota local governments was provided to Minnesota counties, and one-third was provided to Minnesota cities.

- **Area Transportation Partnerships**

The ISTEA of 1991 gave the states more flexibility to determine transportation solutions and required developing a State Transportation Improvement Program. Its successors, the TEA-21 and SAFETEA-LU, continued this flexibility. Mn/DOT responded by decentralizing the program decision-making process to a more regional level. Each planning district established its own Area Transportation Partnership to help broaden input into the project selection process. At present, there are eight area transportation partnerships in Minnesota. Figure 11 shows the location of the eight ATP districts in Minnesota (Minnesota Department of Transportation, Office of Investment Management 2005).
ATP membership includes traditional and nontraditional transportation partners and can include Mn/DOT, municipalities, counties, state agencies, regional organizations (regional development commissions, metropolitan planning organizations, etc.), transportation modal interests (transit, air, rail, freight, or bike, etc), American Indian communities and citizens.

Every year, the ATPs develop an Area Transportation Improvement Program (ATIP). Each ATP has its own process to develop an ATIP (Minnesota Department of Transportation, Office of Investment Management 2005). The primary activities of ATPs include: soliciting projects for federal funding, technically evaluating projects, integrating transportation partners' priorities, involving transportation stakeholders in the process, submitting the annual ATIP for inclusion in the State Transportation Improvement Plan (STIP), and reviewing and commenting on the draft STIP. The area transportation partnerships also look over and work on various categories of projects including state, county, and city roads and bridges; safety projects (hazard elimination and rail safety); enhancements; transit capital; and state trunk highway roads and bridges (Minnesota Department of Transportation, Office of Investment Management 2005).
**Geographical Distribution of Local Road Funding**

For the purpose of distribution of funds, cities within Minnesota are categorized on the basis of population. The two categories used are cities with a population under 5,000 and cities with a population over 5,000. The distribution of money from the HUTDF to the CSAH and MSAS funds show differences in funding for the metro area and greater Minnesota.

The MSAS fund is distributed primarily to cities with a population greater than 5,000 (plus the grandfathered City of Chisholm) on the basis of population (50%) and construction needs (50%). The formula results in about 69% of municipal state-aid street dollars going to cities in the seven-county metropolitan area. This is approximately in line with the metropolitan area’s share of total municipal state-aid street mileage and vehicle-miles traveled on the system (Minnesota House of Representatives House Research 2005b).

The CSAH funds follow a different formula for distribution with a 10% equal distribution to all counties, 10% based on vehicle registration, 30% on lane miles, and 50% on needs (Minnesota House of Representatives House Research 2002a). Chapter 152 of the 2008 HF2800 legislation introduces some changes for the CSAH fund. From the amount available in the CSAH funds, it calls for a 2% deduction for administrative costs, 1% for the disaster account, and a set-aside for research (recommended by the screening board). From the remaining amount, a deduction of three-quarters of 1% is to be made for the state park road account and an additional amount is to be transferred to the newly created county state-aid highway revolving loan. The remaining amount is then to be divided among counties according to the formula mentioned above (Chapter 152 of the Minnesota Session Laws).

Due to the formulas used for distribution, greater Minnesota received 81% of the CSAH funds and 32% of MSAS funds in 2009. In terms of state funding going to local roads, this meant that $373 million of the $534 million going to local roads in 2009 went to greater Minnesota.

Greater Minnesota is geographically larger and thus has more miles of roads to maintain. However, half of the state’s population is concentrated within the seven county metro area. Greater Minnesota has the challenge of maintaining an extensive number of roads while the metro area has the challenge of addressing congestion. Funding is inadequate to do either properly.
CHAPTER 4: CHALLENGES AND FUTURE OPTIONS

Addressing the need for better transportation funding is imperative as the pressures of a growing population and a rise in the cost of transportation projects pose new problems each day. Unmet needs in the funding of highways, transit, and local roads have been increasing over the last few years. Many research projects and papers in the past have discussed possibilities for generating revenues for transportation funding. This section of the report looks at the challenges faced by the present transportation system, future trends for transportation funding in Minnesota, and the various options available for improving on the current situation.

The first section of this chapter delves deeper into the challenges faced by the present federal MVFT funding model and why it is imperative to explore new options for the future. The second section of this chapter looks at important trends in transportation that would significantly impact the future of transportation funding in Minnesota. These include trends in vehicle miles traveled (VMT) and primary state funding sources (MVFT, MVST, and MVRT). The final section looks at various funding options for the future that have been highlighted by research projects and papers in the past.

Challenges for the Present System

While the federal fuel and vehicle taxes worked well and were appropriate for the purpose at the time they were developed, they have failed to keep pace with the changing needs of the transportation system. One of the starkest indicators of this fact is the decline in the average of all user fees paid per vehicle mile of highway travel, which decreased from $0.06 (2001 dollars) per mile in the 1960s to $0.034 per mile today (Transportation Research Board 2006). Another is the significant expansion in the past two decades of federal programs and the types of projects eligible for federal funds, adding 137,000 miles of highways eligible for federal support. These statistics highlight the disparity between growing needs and revenue generation to meet those needs (National Surface Transportation Policy and Revenue Study Commission 2007). In view of this growing pressure, it will be imperative in the future either to change the existing funding structure or introduce new methods to fund the transportation system. Recent estimates by both the Congressional Budget Office and the federal treasury indicate that HTF expenditures of federal funds authorized by SAFTEA-LU are significantly exceeding tax receipts coming into the HTF. At the current rates of spending, the highway account of the HTF has fully drawn down by FY 2009 and the transit account by 2012 (National Surface Transportation Policy and Revenue Study Commission 2007).

To improve the present system effectively—or implement a new one—it is important to understand the challenges the present system faces. These challenges can be divided broadly into two categories: political challenges and challenges posed by technology.

Political Challenges

One of the main reasons for concern regarding the present system for transportation funding in the United States is political. There has been significant opposition to raising taxes—even the perception of raising taxes. Also, the impacts of not raising taxes are not immediate. Congestion gets slightly worse, bridges deteriorate slightly more, and catastrophic events happen rarely. Because of this, it is easy to push off needed funding increases to future years. Also, the taxes
that are used, most notably the fuel tax, are very visible. People see these rates every time they
gas up their car. This has led to a significant amount of public opposition to increasing the fuel
tax, making it a very politically sensitive issue. Since the fuel tax rate is defined in terms of cents
per gallon, increasing or adjusting the rate to inflation requires state and legislative action
(Transportation Research Board 2006). This combination of the need for legislative action and
public opposition that hampers political will is the biggest disadvantage of the present fuel tax.

**Technological Challenges**

The term “technological challenges” here does not refer to the lack of technological advances but
to the abundance of them and the inability of the MVFT to keep up with them. Research has
suggested that, even in the absence of any technical breakthroughs, fuel economy of vehicles will
improve 15–25% within the next ten to twenty years (Transportation Research Board 2006). If
such an improvement actually were to happen, it would significantly reduce fuel consumption
and further reduce the efficiency of the MVFT, and the only options for governments under the
present system would be either to increase the MVFT rates or significantly cut down on
transportation spending. Even if the lower level of 15% were considered, maintaining a constant
revenue per vehicle mile traveled would require a 17.6¢ increase in the constant-dollar MVFT
(Transportation Research Board 2006).

In addition to increasing fuel efficiency, the United States has seen a growth in the number of
vehicles that operate on energy not taxed under the present MVFT system (e.g. battery-powered
vehicles and other vehicles not using taxed liquid fuels) and that could significantly reduce
MVFT revenues even at constant VMT levels. This would mean a reduction in revenues with no
reduction in transportation infrastructure demand.

**Transportation Trends in Minnesota**

The Metropolitan Council’s 2030 Transportation Policy Plan predicts that highway funding
levels resulting from projected revenue trends will result in significant highway congestion
increases, reducing the region’s competitiveness in the national and international markets. The
plan also talks about the need for transit service increases, which both could mitigate the
negative effects of unfunded highway needs and will not be possible at current funding levels
(Metropolitan Council 2004b). Current funding sources at the least will need to increase with
inflation to maintain the current level of highway, transit, and local road services in the future.
Expenditure increases also will have to be kept at or below inflationary trends. Trends in VMT,
the fuel tax, MVST, tab fees, and MVRT are important in identifying future demand for
transportation and revenues available to fund this demand.

**Vehicle Miles of Travel (VMT)**

There are three important trends affecting the highway system: growth in the population of
Minnesota and more importantly in the Twin Cities; growth in the average number of trips taken;
and growth in the length of trips.

The first major trend is that there are more people in Minnesota. Every person in the state
generates travel on the state’s roads. Population growth in the Twin Cities has been faster than
population growth in greater Minnesota, concentrating a lot of growth in travel on a relatively
few roads.
A second trend is that people, on average, are taking more trips every day. This has been a long-term trend driven by a number of factors. Women’s employment grew substantially, increasing both the number of trips for work but also increasing discretionary trips as women have more money to spend. Universal driver’s education and the increasing number of automobiles available have made access to driving easier. People are working earlier in life and later in life, generating more trips. Adults and children are involved in more discretionary activities. While household size has declined substantially, every household requires a certain number of trips for groceries and sundry items.

The third trend is that people are traveling longer distances on average for each trip. This is due to many of the factors listed above as well as the ability to travel on the highway system.

The result of more people taking more and longer trips is that travel on Minnesota highways has been increasing substantially. The 2003 Minnesota Statewide Transportation Plan gives a clearer picture of transportation trends in Minnesota (Minnesota Department of Transportation, Office of Investment Management 2003). Travel on Minnesota’s roadways has been increasing steadily and this increase has been faster in urban centers compared to other areas. The average annual increase in total VMT between 1995 and 2000 was 3.6% per year, compared to 2.5% per year between 1990 and 1995. The plan also points out that interstates and other principal arterials represent 4% of all road miles in the state, but carry close to 50% of the state VMT.

It should be noted, however, that there may be changes occurring. VMT per capita, after growing for decades, has declined from 2004 to 2007 (the most recent data available). It is not yet clear if this is going to be an ongoing trend, but it appears that increases in fuel costs, increases in congestion, and restructuring in the labor market may lead to reduced levels of travel per capita.

In the Twin Cities, VMT has been increasing since VMT has been tracked. It is also projected to grow as the region adds another 600,000 people between 2010 and 2030. Another important trend indicated by the 2003 Minnesota Statewide Transportation Plan is an increased dependency on petroleum (Minnesota Department of Transportation, Office of Investment Management 2003). Nationwide, petroleum consumption for transportation purposes has been increasing steadily over the past decades. Increasing vehicle fuel efficiency during the 1980s helped consumption stay flat while VMT was steadily increasing at 3.2% annually. Fuel consumption started increasing again in the 1990s. From 1990 to 1999, fuel consumption increased a total of 30.5%, or 3% annually. This is proportional to the increase in VMT on Minnesota roads in the last ten years, which has also increased an average of 3% annually.

**MVFT, MVST, and Tab Fees**

From the earlier sections of this report, the importance of the fuel tax, MVST, and tab fees as sources of funding for transportation in Minnesota is clear. They provide a large portion of the total funding for highway (through the HUTDF), transit (through MVST dedications), and local roads (through dedications to the CSAH, MSA, and town road and bridge funds from the HUTDF). Therefore, studying future trends for these three revenue sources is important when looking at the future of transportation finance in Minnesota. Barry Ryan and Thomas Stinson study these trends in their report on Minnesota state road taxes in 2030 (Ryan and Stinson 2005). Their projections rely on the Global Insight’s 25-year forecast for the U.S. economy.

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6 Since 2006, with rising gasoline prices, there has been a slight decrease in VMT.
Taking into account the growth in Minnesota’s vehicle fleets under the three scenarios, Ryan and Stinson predict that the motor vehicle registration taxes (tab fees) will grow from $492 million in 2003 to $933 million by 2030 in the trend scenario, to $1.2 billion by 2030 in the optimistic scenario, and to $875 million by 2030 in the pessimistic scenario. They identify a major policy concern regarding the shift over time in vehicle registration tax burdens toward new vehicle purchases. The proportion of registration taxes paid for new light vehicles compared to all light vehicles is expected to increase from 25% in 2003 to 50% in 2030. This reliance on new vehicle sales to generate vehicle registration tax revenues could add volatility and uncertainty to future road-funding commitments. Unfortunately, this analysis was not done under the current automobile purchasing climate, where owners are keeping their vehicles much longer and buying smaller, less expensive vehicles.

Taking into account the increase in vehicle costs under the three scenarios, Ryan and Stinson predict that the MVST will grow from $187 million (one-third of total MVST) for roads in 2003 to $658 million by 2030 in the trend scenario, to $975 million by 2030 in the optimistic scenario, and to $651 million by 2030 in the pessimistic scenario.

Minnesota’s 20¢ per gallon motor vehicle fuel tax is the largest contributor to the HUTDF. It generated $635 million for state and local roads in 2003. Ryan and Stinson make predictions about motor vehicle fuel taxes based on the presumption that the tax rates remain the same. In 2030, motor vehicle fuel taxes are estimated to generate $1.25 billion in the trend scenario, $1.36 billion in the optimistic scenario, and $1.14 billion in the pessimistic scenario. Despite the predicted increase in revenues from motor vehicle fuel taxes, relying on them as a primary source of funding may not be the best idea at the state or the federal level. On December 19, 2007, President Bush signed legislation changing the Corporate Average Fuel Economy standards and requiring new auto fleets to average 35 miles a gallon by 2020, a 40% increase from today's 25 mile per gallon average. With these projected increases in fleet fuel efficiency and growth in use of alternative fuels, the fuel taxes that are the backbone of federal and state transportation revenues will continue to shrink relative to use of the system (National Surface Transportation Policy and Revenue Study Commission 2007).

Ryan and Stinson (2005) also talk about the relationship between revenues and inflation-adjusted road costs as these two factors determine the surplus or deficit in purchasing power. Their study indicates that inflation outpaces revenue growth in MVRT and MVFT. The MVST, however, grows three times faster than inflation or the other road taxes.

**Options for the Future**

Various studies in the field of transportation finance in Minnesota and other states have suggested new methods for refining the funding system to meet future needs. These suggestions range from modifying present revenue collection methods to introducing entirely new methods of revenue generation for transportation funding. A look at some of these options gives us insight on what changes may be needed to fund transportation sufficiently in the future.

For the purpose of this report and to understand transportation funding options better, we use a general framework for transportation finance, shown in Table 2. As indicated in the table, we categorize the various methods to fund transportation into three broad categories: general
revenue, value capture, and user fees. The categorization is based on the benefit principle that the cost of transportation for contributors should be based on and proportional to the benefits received by them. Since transportation investment in an area creates benefits for many people, our framework elaborates on who benefits from such investment and how they pay for it. The table also highlights various ways in which these benefits can be measured and the finance instruments that can be used to collect them.

The benefactors of transportation can be broadly classified into three groups: the general public that benefits through economic or social returns generated by new or improved infrastructure; users of transportation facilities who benefit through direct use of infrastructure and convenience; and a restricted group of beneficiaries that enjoy benefits due to enhanced location advantages (e.g. higher property values). In this section we will briefly describe the three categories of transportation finance as suggested by our framework and focus on future options within the categories.

Table 2: Value Capture in the General Framework of Transportation Finance

<table>
<thead>
<tr>
<th>Funding Mechanism</th>
<th>Beneficiaries</th>
<th>Measurement of Benefit</th>
<th>Finance Instrument</th>
<th>Cost Type</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upfront</td>
</tr>
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<td>General Revenue</td>
<td>General public</td>
<td>General tax base growth</td>
<td>General fund allocation; Earmarked property tax; Transportation sales tax</td>
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<tr>
<td>Value Capture</td>
<td>Restricted non-user beneficiaries</td>
<td>Land value growth</td>
<td>Land-value Taxes (LVT)</td>
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<td></td>
<td></td>
<td>Property tax growth</td>
<td>Tax Increment Financing (TIF)</td>
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<td></td>
<td></td>
<td>Assessed special benefits</td>
<td>Special Assessments (SA)</td>
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<td></td>
<td></td>
<td>Transportation utility</td>
<td>Transportation Utility Fees (TUF)</td>
<td>△</td>
</tr>
<tr>
<td></td>
<td>Developers</td>
<td>Off-site development opportunities or benefits</td>
<td>Negotiated Exactions</td>
<td>△</td>
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<tr>
<td></td>
<td></td>
<td>Off-site development opportunities</td>
<td>Development Impact Fees (DIF)</td>
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<td></td>
<td></td>
<td>Development privileges</td>
<td>Joint Development (JD)</td>
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<td>On-site development opportunities</td>
<td>Air rights</td>
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<tr>
<td>User Fees</td>
<td>Users of transportation facilities</td>
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<td>Gas taxes</td>
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<tr>
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<td></td>
<td>Mileage</td>
<td>Mileage-based charges</td>
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<td></td>
<td>Vehicle operators</td>
<td>Vehicle unit/types</td>
<td>Vehicle sales tax; License tab fee; Wheel-age charges</td>
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<td>General access rights</td>
<td>Tolling</td>
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<tr>
<td></td>
<td></td>
<td>Demand-controlled access rights</td>
<td>Congestion pricing</td>
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<tr>
<td></td>
<td></td>
<td>Rights to incur environmental impacts</td>
<td>Transportation environmental taxes/fees</td>
<td>△</td>
</tr>
<tr>
<td></td>
<td>Passengers</td>
<td>Ridership</td>
<td>Fare or permits</td>
<td>△</td>
</tr>
</tbody>
</table>

**General Revenues**

One way to determine the economic or social benefits created by transportation improvements is to study the growth in a jurisdiction’s general tax base. Revenues from the government general fund often are used to fund transportation in the United States and many countries around the world. The use of general funds both in the United States and in Minnesota has been discussed earlier in the report. In 2002, local general fund appropriations were the single largest funding source for local roads in the United States, estimated at $15.3 million. In Minnesota, in particular, general funds have played a very important role in funding transit services. For example, during the 2004–05 biennium, $31.9 million was appropriated from the state general fund for greater Minnesota transit and $108 million for metropolitan area transit. The future options for general revenue discussed in this chapter are the use of sales tax to fund transportation and special property tax levies for transportation.
• **State or Local Sales Tax for Transportation**

Minnesota authorizes certain cities and counties to levy sales taxes for specific public improvements, subject to voter’s approval. Despite the fact that a number of counties and cities in Minnesota have local sales taxes (described in greater detail in chapter 1) that can be used for funding roads, more often they are dedicated to other tourism, entertainment, or hospitality needs. The use of sales tax for transportation is more prominent in the case of transit. Starting July 1, 2008, five counties in the metro area have had access to one quarter of 1% sales and use tax. These five counties are Anoka, Ramsey, Dakota, Washington, and Hennepin.

At present, thirty-five states allow local governments to levy local sales taxes in support of local roads and transit. The use of local sales taxes to fund transportation improvement can be increased to meet growing needs and a number of examples can be found around the United States. Goldman et al. (2001) highlight the use of local sales taxes for transportation and indicates they have the potential to raise significant amounts of revenue to meet growing transportation needs. Aspen, Colorado and Seattle, Washington have the highest rate of sales tax dedicated solely for transportation at 1.5% and 1.2%, respectively. Atlanta, Austin, Cleveland, Dallas, Houston, Los Angeles, and New Orleans follow them at 1% (Goldman et al. 2001). The greater use of sales tax to fund transportation in Minnesota, as well as the option of dedicating a percentage of sales taxes for transportation, could help meet future funding challenges. The difficulty is that in most major cities, sales taxes are already dedicated to other uses.

• **Special Property Tax Levy for Transportation**

Property tax levies, in general, primarily are set by local governments such as cities, towns, counties, and school districts, among others, to meet their spending needs for community service costs and debt obligations. Community services costs may include provision for parks and schools, as well as transportation investment. Local government entities formalize an annual budget and determine the revenues that should come from property owners, and then levy an amount that is distributed over the tax base. Special property tax levies are used as a tool to meet immediate or high priority needs of a local entity and have been used for a wide range of needs including transportation improvements. Seattle, Washington and Fairfax County, Virginia have used special property tax levies for transportation.

In 2006, voters in Seattle approved a nine-year property tax levy that was, at the time, estimated to provide $365 million (over the nine-year period) for transportation investments in the city. This was part of the city’s effort to provide a multimodal transportation system and improve the existing transportation infrastructure. The property tax levy, along with a commercial parking tax and an employee hours tax, are expected to fund half of the required street maintenance needs by 2015 (Guppy 2006; Seattle Department of Transportation 2009).

Unlike Seattle, where special property tax levies are applicable to the entire city, Fairfax County uses special property tax levies at various scales and primarily targets non-residential uses. The county mostly uses two tools to implement such levies: transportation tax districts and commercial transportation tax districts. Transportation tax districts use a special property tax levy of $.20 per $100 assessed value on commercial and industrially zoned properties to fund transportation improvements in the area. The commercial transportation tax district encompasses the entire county and uses a special property tax levy of $0.11 per $100 assessed value on areas
zoned and used for commercial uses to pay for transportation improvements within the county (Fairfax County, Virginia 2009).

One of the difficulties in Minnesota is that the state relies heavily on property taxes for cities, counties, schools, and other special districts. Any increases in property taxes would have to be layered on top of these existing uses.

**User Fees**

User fees are aimed directly at linking transportation costs and user benefits by making the users of transportation infrastructure pay for it. There are a number of variations on how user fees can be applied including the present system of taxing fuel consumption. Future options for user fees discussed in this chapter build on findings of past research projects and include raising the MVFT, extending and indexing current taxes, and on implementing other local taxes, mileage-based user fees, congestion pricing, and a federal transit tax. For transit, user fees can make transit less attractive to riders.

- **Raising the Federal Fuel Taxes**

Despite the fact that federal fuel taxes are the primary source of all federal transportation funds, the last change in the federal fuel taxes was in 1993. Suggestions have been made to increase the current 18.3¢ per gallon federal fuel tax to meet the nation’s growing needs.

The National Surface Transportation Policy and Revenue Commission’s 2007 report boldly recommends raising the federal fuel tax by 25¢ to about 40¢ per gallon over the next five years and thereafter indexing it to the rate of inflation. With the federal fuel tax currently at 18.3¢ per gallon of gasoline and 22.4¢ per gallon of diesel fuel, the commission is proposing that one of the nation's most regressive taxes be increased by a staggering 136–218%. These tax revenues would then be spent on a variety of new road, transit, administrative, and environmental initiatives.

The Congressional Budget Office’s 2007 report also provides some important insights into the federal fuel tax (Congressional Budget Office 2007). Short of a major overhaul of the financing mechanism, existing motor fuel taxes could be altered in a variety of ways. To achieve higher revenues, policymakers could increase the per-gallon tax rates or index them to inflation. To tax fuels comparably and avoid the fuel tax problems caused by the use of more efficient alternative fuels, policymakers could apply rates consistent with the fuels’ energy content and bring emerging new fuels under this rubric.

- **Extending and Indexing Current Taxes**

Extending and indexing fuel taxes at the state level is also an option for the future. Wisconsin, for example, indexes its fuel tax. Martin Wachs points out in his 2003 study that, in the absence of growing fuel tax revenues, the fastest-growing source of money for transportation projects and programs has been borrowing. Between 1995 and 1999, while collections of user fees (taxes and tolls) rose by only 18%, borrowing for transportation projects rose by 92% (Wachs 2003). As in the case of federal fuel taxes, state fuel taxes also can be increased or indexed to meet growing need. At present, state motor fuel taxes average 20.3¢ per gallon among the fifty states, ranging from 7.5¢ per gallon (Georgia) to 29¢ per gallon (Rhode Island). In 1957, the average state
gasoline tax was 5.7¢ per gallon and, had state gasoline taxes grown with the consumer price index, the average for the fifty states would today be 9.7¢ higher than it is (Wachs 2003).

As discussed earlier in this report, motor fuel tax rates in Minnesota are fixed in nominal terms and have not increased with inflation. If the cost of building and maintaining highways and transit systems rises in the future as it has in the past, fuel tax revenues will not be sufficient to support growth and maintenance of the transportation infrastructure. Therefore, despite the fact that these options have been considered and rejected by the legislature in the past, increasing the motor fuel tax or indexing it to inflation would be important for the future of transportation finance in Minnesota.

- *Implement Other Local Option Taxes*

A number of local option taxes have been used within the United States to increase local revenues for transportation funding. These include local fuel tax options and wheelage taxes. Portland, Oregon has used an employment tax to fund transit.

At present many states allow for local fuel tax options in addition to the state fuel tax, which help generate additional revenue for transportation funding. For example, Florida receives funding from the fuel tax in addition to the levy of local sales taxes. Local fuel tax refers to locally imposed per-gallon taxes and local sales taxes refer to local retail sales taxes applied to gasoline. Another source of local funding is wheelage tax, which is levied by a county on vehicles kept in the county. Wheelage tax funds are used for transportation needs including highway preservation projects, expansion projects, and transit improvement.

Minnesota currently has no local option fuel taxes and limits the authority of counties to levy wheelage taxes to a mere $5. In view of the growing needs for transportation funding, the state must provide authority for all local governments to implement local option fuel tax and increase wheelage tax. The Transportation Alliance’s report on Minnesota’s transportation system suggests authorization for all eighty-seven counties to levy wheelage tax up to $20 per vehicle, raising about $80 million annually (Minnesota Transportation Alliance 2007).

- *Distance Based Charges*

Many major studies have identified forms of distance-based charges as a preferred option for replacing the current fuel tax. A mileage-based user fee would tax owners on the number of miles their vehicle is driven rather than on its fuel consumption, as is the case with the present fuel tax. One such example is the VMT fee.

VMT fees are very similar to fuel taxes in that they are directly related to vehicle use, provide a stable and predictable revenue stream, and are subject to similar problems regarding inflation. One of the major advantages of the VMT fee, is that it is not adversely affected by the proliferation of alternative fuel vehicles or improvements in fuel economy, making it a more reliable source of revenue for the future (National Surface Transportation Policy and Revenue Study Commission 2007; Iacono and Lari 2005). VMT fees could be implemented as a supplement to existing fuel taxes or in place of them.

The use of a mileage-based user fee such as the VMT fee has many notable advantages: it reduces further depletion of the purchasing power of fuel tax as fuel efficiency dramatically increases in the future; it links the usage of roads directly to the taxes collected, which would permit more direct demand management; it readily can be converted to a congestion pricing
charge or a weight-distance fee that would better reflect the impact of the vehicle on road wear and tear; and it would lead to an increased efficiency of toll collection processes on all toll operations (Fichtner and Riggleman 2007). The major drawbacks of such a system are high transaction, technology, and administrative costs and, most importantly, a great concern about privacy.

One of the main reasons for suggesting mileage-based user fees at the federal level is to have a uniform national system that would help eliminate cross-border conflicts that could arise if such a system were only state-based. To aid in the implementation of such a system, the National Surface Transportation Policy and Revenue Study Commission’s 2007 report recommended that the next surface transportation authorization act should fund a major national study to develop a strategy for transitioning away from the fuel tax to fund highway and transit programs (Fichtner and Riggleman 2007). Examples of such systems can be found in countries like Germany. Heavy trucks on the German federal highway system are equipped with transponders and GPS systems, and use an automatic toll collection system based on truck weight, level of emissions, and distance traveled (National Surface Transportation Policy and Revenue Study Commission 2007). In view of the trend of VMT growth as indicated in the 2003 Minnesota Statewide Transportation Plan, VMT fees seem to be a logical and beneficial option for the funding of transportation. The difficulty with this approach is that some sort of tracking device would have to be on every vehicle. This has proven extremely unpopular with the public.

- **Congestion Pricing**

Congestion pricing is another option for potentially increasing funds for transportation. Congestion pricing collects tolls and charges motorists for travel on particular roads based on the amount of traffic at a given time (Rufolo, Bertini, and Kimpel 2001). Technology increasingly makes it possible to assess routine usage charges without the delays associated with tollbooths in the past. It is possible to toll whole roadways or to toll only particular lanes. Lanes can be permanent or shoulder lanes can be used dynamically during peak periods. Tolls can also be variable depending on congestion levels.

In their 2001 study titled *Alternatives to the Motor Fuel Tax*, Rufolo et al. (2001) talked about congestion pricing as an option for alternative funding. Congestion pricing may be a better option than fixed toll fees that do not vary by time of day and, hence, do not differentiate between trips at times when there is excess capacity and times when there is not. Rufolo et al. suggested that congestion pricing can be implemented on part of a facility (such as SR 91 in California), on an entire facility (such as Autoroute A1 in France), or over an entire area (such as Singapore). An example of congestion pricing is the I-15 in San Diego, where the price is adjusted every six minutes to maintain the level of service on the priced lanes. The difficulty with congestion pricing is that traffic volumes are not high enough for tolling to generate substantial revenues. The tolled lane on I-394, the MnPass Lane, has barely been able to cover its annual operating costs and has contributed nothing to its capital costs. It would be possible to charge substantially higher tolls if the whole system was tolled but this would force congestion from highways onto local streets. It is important to remember that congestion on local streets was a large impetus for building highways in the first place.

One of the various options of implementing congestion pricing is the use of cordon pricing. Cordon pricing, in short, is the charging of a fee for either being in or entering a particular area. Cordon pricing can be tailored to a number of areas such as neighborhoods or central business
districts where the commuter is charged a fee for using the transportation infrastructure within the cordon pricing-designated area. The system can be applied using tollbooths or a global positioning system. Singapore was one of the first major cities to use cordon pricing in the form of permits for driving in specific areas. Following Singapore’s example, a number of European cities also are introducing cordon pricing to generate revenues.

- **Federal Transit Tax**

At present, 80% of total federal transit funding comes from the Highway Trust Fund and the remaining 20% comes from the federal general fund. Despite the contribution from the Highway Trust Fund, no federal fee is levied directly on transit. This creates a considerable amount of pressure on the HTF, as it provides funds that are not replenished. The National Surface Transportation Policy and Revenue Study Commission (2007) suggested that the user-pay principle should be extended to transit and recommended a federal ticket tax be levied on all transit trips, supplementing revenues from the federal fuel tax and general fund. The tax suggested would be similar to tax presently imposed on airline fares. The difficulty with this tax is that transit ridership is extremely economically sensitive. Even small, marginal increases in cost can drastically reduce ridership because transit is always competing with the automobile for trips. Airlines, on the other hand, have few competitors given the long distances they travel.

- **Emissions-based Fees**

There has been a substantial discussion of global warming over the last ten years. One of the alternatives that have been discussed is a fee based on generation of carbon emissions. Higher polluting cars would pay a higher tax than lower polluting vehicles, thus giving an economic incentive to reduce emissions. The difficulty in justifying this is that it is not related to how far an individual drives and thus impacts the transportation infrastructure. Some vehicles may pollute more but be driven less, actually generating fewer emissions than more efficient vehicles.

**Value Capture**

The use of general fund revenues and taxes such as the fuel tax, tab fees and MVST helps link the cost of transportation infrastructure to the general public and facility users. Value capture, on the other hand, aims to capture the value of benefits received by beneficiaries enjoying enhanced location advantages to generate revenue for funding transportation. Unlike other options highlighted earlier that emphasize user finance of transportation, value capture aims to improve equity without placing the cost directly on users. The use of value capture as a source of transportation funding could help support massive current construction efforts to relieve congestion in most regions, or finance the capital improvements to urban transit systems that are most often supported by regressive taxes (Iacono and Lari 2005). As Table 2 shows, there are eight financial instruments that could be used to collect contributions in return for benefits received.

- **Land Value Tax**

A tax on land value can capture the general increase in the price of land due to improved accessibility from transportation networks. The most common land value tax is called split-rate property tax, because it levies a higher rate on land value than on the value of improvements (blinding), while the conventional property tax applies the same rate to land and improvements.
Tax buildings create disincentives for development, but taxing land in a higher rate results in little economic distortion, because the supply of land is fixed. The land value tax has had limited use in the United State. The general perception is that the tax is very efficient theoretically, because it provides strong signals about where to invest. However, land value tax may be relatively difficulty to adopt or to implement, especially due to the technical difficulty in assessing land value and political difficulty in property tax changes.

- **Tax Increment Financing (TIF)**

Tax Increment Financing uses future increases in property taxes generated by infrastructure improvements to finance the initial costs of the development (Johnson 2002; Weber 2003). TIF first was introduced in the 1950s primarily as an urban renewal tool to improve blighted areas concentrated in central city neighborhoods. Over the years, the nature and scope of TIF use has expanded significantly and it is now used in both central cities and suburbs. However, the issue of TIF use has been highly debated in the past as many feel it is often a corporate handout to subsidize projects that would occur even in the absence of the TIF.

At present, all fifty states permit the use of TIF and abundant examples of the use of TIF for funding transportation projects can be found across the United States (Illinois, Oregon, Washington, etc.). TIF is not a new concept for Minnesota as it has been abundantly used since the passing of the TIF enabling act in 1979.

- **Special Assessments**

Special assessments is a public finance instrument, by which property owners located within a designated geographic area, or "special assessment district," pay for special benefits accruing to their properties that results from their geographic proximity to the improvement. Proponents of special assessments argue that the method serves many purposes. First, it aligns project costs with benefits in an equitable and effective manner by calculating the private benefit (windfall gain) of public investment and capturing gains through special assessments. Secondly, it gives local governments an additional source of much-needed revenue for funding various infrastructure improvements. Finally, some suggest that special assessments give citizens the power to undertake improvements in their area that a local government entity would not otherwise undertake. However, the revenue generation capacity of special assessments is limited and they, at best, can be used to complement other funding sources. Also, with transportation projects, the benefits of an expanded roadway or fewer people on roadways due to transit can be much broader than a special assessment district. At present, special assessments is a common tool for local governments and all fifty states permit their use.

- **Transportation Utility Fees (TUF)**

Transportation utility fees are based on the concept that transportation provides a utility to residents much like other local services (e.g. water and waste water treatment) and, therefore, should be funded through user charges like other local services (City of Oregon 2006). TUF helps provide a stable source of revenue for transportation infrastructure improvements and maintenance. TUF aims to link costs more effectively to usage by shifting the burden of transportation costs from residential to commercial and industrial users that make greater use of transportation services. Oregon has been one of the leaders in implementing such fees and examples of its use there can be found in Ashland, Canby, Bay City, Corvallis, Eagle Point,
Grants Pass, Hubbard, La Grande, Lake Oswego, Medford, Milwaukie, North Plains, Philomath, Phoenix, Talent, Tigard, Tualatin, West Linn, and Wilsonville (City of Oregon 2006). In Minnesota, the option of TUF has failed to get legislative approval despite many attempts, and is expected to be a part of the 2009 legislative session.

- **Development Impact Fees**

  Development impact fees primarily are one-time charges determined by a formula and collected by local governments from project developers for infrastructure associated with the project (e.g. sewers and roads). They can be levied on both on-site services (sewer, water, etc.) and off-site services (schools, parks, local roads, etc.). Development impact fees not only link costs and benefits by capturing value created for new development at a given location (rather than using the larger tax base to pay for the costs), but have also proved to be an effective tool for local government to direct growth in order to achieve desirable land use patterns.

  Arizona was the first state to adopt development impact fees in 1982 and use has expanded, with about twenty-six states using the mechanism by 2008. The nature of legislation regarding development impact fees varies from state to state, with Texas and Illinois adopting specific and comprehensive regulations, and New Jersey and Indiana adopting brief and general regulations (Libby and Carrion 2004). Development impact fees have not been very popular in Minnesota, particularly due to the ambiguity of state law that neither explicitly allows nor prohibits their use (Ryan 2006). Because of this, they are rarely used in Minnesota.

- **Negotiated Exactions**

  Negotiated exactions primarily are a non-formula version of impact fees, where developers pay for public services associated with their project either through in-kind contributions or in-lieu fees. They are similar to development impact fees in principle but are typically limited to offsetting the cost of on-site infrastructure provision such as water and sewer services, which restricts their ability to be used for transportation infrastructure funding. Exactions can take many forms including monetary payments, construction of a facility (e.g. parks), and land dedications.

- **Joint Development**

  Joint development is a formal arrangement between a public and a private agency that mutually recognize the enhanced real estate development potential created by transportation improvement. It involves either private sector payments to the public entity or private sector sharing of capital costs (Cervero, Hall, and Landis 1991). The main concept of joint development is to encourage collaboration between the public and private sectors, resulting in reduced resource and capital costs for both sectors. Joint development can be used as a tool to finance a number of projects that are not feasible for either the public or private sector if undertaken individually.

  A number of examples of joint development for transportation infrastructure funding exist within the U.S., including projects in Washington D.C., New York, and Portland. In the recent past, the use of joint development has focused a great deal on transit-related projects. Joint development strategies commonly used include leasing and selling of land or development rights, land acquisition, and zoning incentives, among others. The difficulty with joint development is that
there are very few opportunities to do it as it requires land that is valuable enough to be developed.

- **Air Rights**

Air rights often are considered a form of joint development. They involve the leasing or selling of development rights above (or in some cases below) a transportation facility to generate an increment in the land values that offsets the cost of the transportation facility. Air rights can be used to pay for operating and maintenance costs, as well as debt, even after the construction of the transportation project is completed. Research has suggested that this strategy may be a highly beneficial option for Minnesota, in particular, due to the nature of construction of interstate freeways that generally follow a trench design (Levinson, King, and Krizek 2008).

Examples of using air rights to generate revenues for transportation—either through leasing or selling—include the Resurgens Plaza in Atlanta, the Fitchburg Commuter Rail and Housing Development in Boston, the Ballston station in Washington, and the Penn Central station in New York. In Minnesota, the Target Field project in Minneapolis, which uses a long-term lease of air rights to provide stadium-related parking, is a great local example of the use of air rights. Again, these sorts of opportunities are extremely limited.

**Concluding Remarks**

In this section we summarize a variety of financial options that may be increasingly used or discussed for funding public transportation. Each option has its advantages and limitations. There is no one single “magic solution” to solve the urgent issue of insufficient transportation funding. Moreover, new approaches will be created and experimented from time to time in the search of alternative transportation funding sources. We hope this report can be frequently updated to reflect this ongoing discussion.
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