

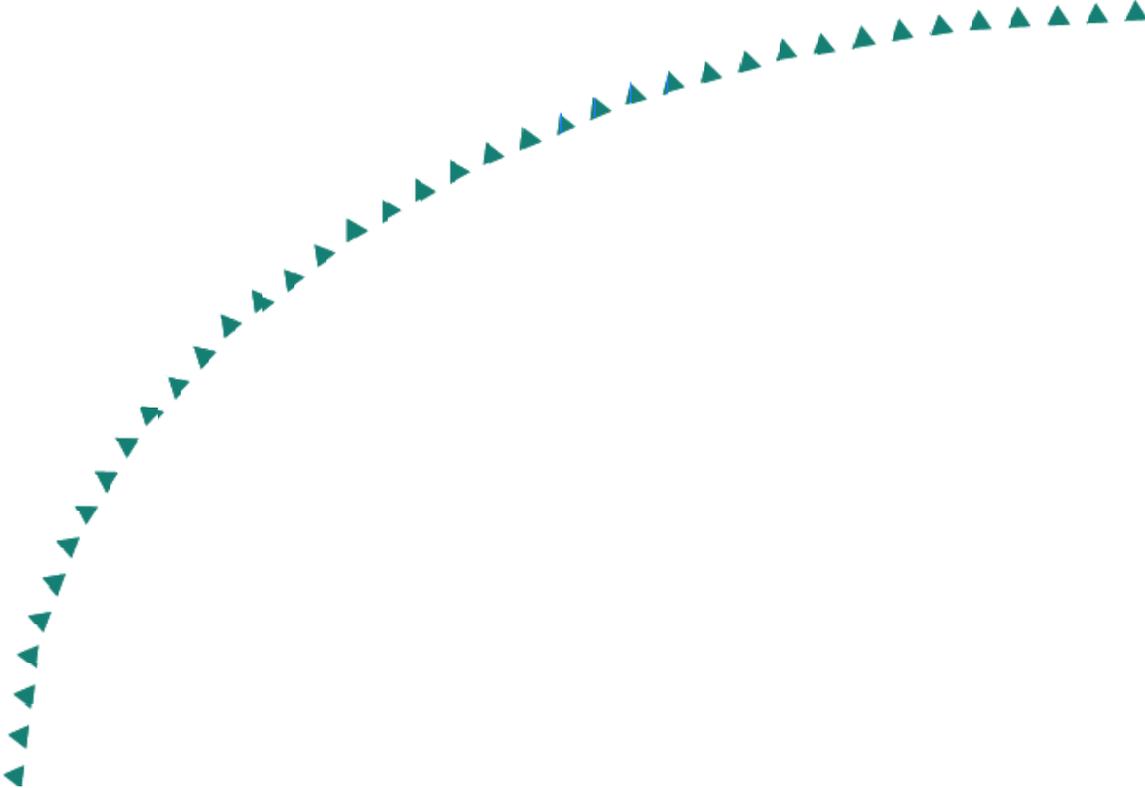
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Final Report

Local Road Tax Options:
Is Minnesota really that different?



Research



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16. Abstract (Limit: 200 words) Local governments in the U.S. use a variety of tax mechanisms to fund local roads. Twelve options are examined in this report related to property access, vehicle use or local economic activity. The most frequent local levies are property taxes, special assessments, vehicle registration taxes, motor fuel taxes and local sales taxes. The overall mix of local road funding also varies widely by state and region. Nebraska, Wisconsin and Kansas have local road revenues most like Minnesota, while local roads funding in New Hampshire, Florida and Nevada is the least similar. The benefits of any individual road tax must be judged in the context of the larger state and local tax system.			
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Local Road Tax Options: Is Minnesota really that different?

Final Report

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Table of Contents

Chapter 1: Introduction	1
Chapter 2: Local Road Revenue Mix	2
U.S. Local Road Revenues	2
Revenue Mix Comparison	4
Chapter 3: Local Road Tax Mechanisms	7
Taxes Related to Property Access	7
• Property Tax (real and personal)	8
• Real Estate Transfer Tax	10
• Special Assessment	10
• Development Impact Fee	11
• Utility Fee	12
Taxes Related to Vehicles	13
• Vehicle (Registration) Tax	13
• Motor Fuels Tax	14
• Toll Charge	15
Taxes Related to Local Economy	15
• Sales Taxes	15
• Personal Income Tax	17
• Business Taxes	17
Chapter 4: Summary	19
References	22
Appendix A	

List of Tables

Table 2.1 - Local road revenue mix for select states	5
Table 4.1 - Local road tax mechanism and incidence.....	21
Appendix Table A.1 - Local road revenues 2002 by state (\$ hundred thousand)	A-1
Appendix Table A.2 - Local road revenues 2002 by state (percent share)	A-2

List of Figures

Figure 2.1 - Local revenue mix likeness by Census region.....	6
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Executive Summary

The diversity of local road funding strategies among U.S. states is demonstrated in the mix of revenue available to local governments. Minnesota local governments rely primarily on local general funds, property taxes and special assessments, and state road aid. The five states with a local road revenue mix most similar to Minnesota are Nebraska, Wisconsin, Mississippi, New Mexico, and Kansas. The five states least like Minnesota are New Hampshire, Nevada, Georgia, Hawaii, and Florida. Funding in this latter group tends to be concentrated in one or two revenue sources, whereas Minnesota and kindred states tend to have a broader funding mix. Local road taxes are divided into three categories based on property access, vehicle travel, and economic activity. Property-related road levies include real and personal property taxes, special assessments, impact fees, transfer taxes, and utility fees. Levies related to vehicle ownership or travel includes local motor fuel taxes, vehicle registration taxes, and toll charges. Levies on local economic activity include local sales taxes, personal income taxes, and business taxes. This report examines local road tax options and describes each tax as excise or ad valorem with household and business impacts.

Chapter 1:

Introduction

This report examines local road tax strategies among U.S. states and addresses two questions. First, is Minnesota's local road funding strategy significantly different from that in other states? Second, what local taxes fund roads and how widespread is their use? Chapter 2 compares the Minnesota local road revenue mix with other states, based on nine Federal Highway Administration funding categories. An index is created to measure the variance in each state's local road revenue mix relative to Minnesota. Some states, like Nebraska and Wisconsin, have very similar funding strategies compared with Minnesota, while other states, like New Hampshire and Florida, take a very different approach. Chapter 3 describes twelve road tax mechanisms used to fund local roads somewhere in the U.S. Six taxes are related to property, three to vehicles, and three related to local economic activity. Each mechanism has useful features, and a balanced tax system mixes both excise and ad valorem taxes to create equitable tax burdens across households and businesses.

Chapter 2:

Local Road Revenue Mix

This analysis is based on 2002 Federal Highway Administration (FHWA) data for U.S. states (1). The local road revenue mix is the relative share of funding from nine revenue sources. Local governments are organized by state, and include counties, cities, towns, and special districts. Revenues are reported annually by FHWA, based on biennial estimates and statistical sampling. The task of generalizing state and local tax methods and mechanisms is further complicated by overlapping fiscal years and a lack of detail. Local road revenue is funding for road construction, maintenance, operation, and administration, as well as traffic police and road patrols. In addition to the local tax effort, revenues may include state and federal aid. Local intergovernmental transfers or debt finance, however, are not included.

An index is constructed from the distributions of nine FHWA revenue categories to identify states with road funding strategies similar and different from Minnesota. Table 2.1 shows the five states with the most and least similar local road revenue mix as compared with Minnesota. Data for all 50 states is reported in the appendix. Appendix Table A.1 shows the dollar values for local road revenues in the 50 states, and Appendix Table A.2 shows the percent share each category represents. Instead of sorting data alphabetically by state, or from high spending to low, states are ordered by how similar their overall funding strategy is to Minnesota.

U.S. Local Road Revenues

Local road revenues nationwide totaled \$49.7 billion in 2002, according to FHWA data, with Minnesota ranked sixth highest at \$2.08 billion, behind California, New York, Texas, Illinois, and Florida. Minnesota local road revenue estimates by Ryan and Stinson for 2000 using primary data are considerably lower (\$1.5 billion), but based on a narrower definition of local road revenue (2). By contrast, FHWA data relies on surveys and statistical sampling, and includes road-related public safety spending, as well as special district spending, such as the Met Council. For cross state comparisons, however, FHWA is the only data source. Since the purpose is to compare the relative local road revenue mix, then assuming estimation methods are uniformly applied, the relative state rankings should not change. The nine FHWA revenue categories are described below, starting with the largest local road funding source nationwide, local general funds.

1) *Local general fund* appropriations in 2002 were \$15.3 billion, the largest single source (31%) 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. Local general funds in public finance terms are fungible general-purpose revenues, ranging

from local taxes and fees to state or federal aid. In the FHWA context, however, general funds are more a catchall category for revenues not allocated elsewhere, and a necessary reporting compromise when trying to bridge the accounting standards of 50 states.

2) *Property taxes and special assessments* were the second largest local road revenue source in 2002, generating \$6.7 billion or 13% of nationwide funding. Minnesota property taxes and special assessments were \$502 million, placing 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.

3) *Miscellaneous income* includes traffic fines, investment income, private contributions, and transfers from other enterprises. Nationwide, local governments raised \$5.0 billion in miscellaneous income, or 8% of all local road revenues. 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.

4) *Other local taxes* include personal property taxes, development impact fees, local sales taxes, as well as (unspecified) other taxes and fees. In 2002, local governments levied \$3.8 billion in other local taxes, or 3% of U.S. local road revenue. The top four states (Florida, California, Georgia, and Illinois) account for half of all other local taxes. Minnesota and 12 other states reported no other local tax revenues for road funding in 2002.

5) *Motor fuels and motor vehicle registration taxes* levied in 2002 by local governments, net of collection costs and non-road spending, raised \$2.0 billion in 28 states, or 4% of U.S. local road funding. Florida and Indiana account for half of all local motor fuels and vehicle registration tax revenues, with Minnesota reporting no revenue in this category.

6) *Toll charges* on roads, bridges, and tunnels generated \$1.1 billion in 19 states or 2% of all U.S. local road revenue in 2002. Three-quarters of the local toll revenue was in New York, Texas, and California, with Minnesota reporting no local toll revenue.

7) *State road aid* includes state road user tax revenues, such as state motor fuel and vehicle registration taxes, which are redistributed to local governments specifically for road spending. State road aid totaled \$11.8 billion nationwide in 2002, or 24% of total U.S. funding. Minnesota state road aid was \$540 million, or 26% of all Minnesota local road revenues. Only four states (California, Michigan, Ohio, and Illinois) had higher state road aid transfers.

8) *State general fund transfers* include other state funds used to support local roads, including state sales or excise taxes, severance or mineral lease taxes, and state bond proceeds. In 2002, state general fund transfers totaled \$2.4 billion nationwide, equal to 10% of all local road revenues. In Minnesota, state general fund transfers for road spending totaled \$320 million, or 15% of local road revenue. Only Illinois and Arizona

had larger general fund transfers, and sixteen states report no state general fund transfers for local road spending at all.

9) *Federal aids* include federal government local road support from Federal Highway Administration grants, FEMA relief, Forest Service in lieu payments, and other agency transfers. Nearly \$1.4 billion in federal local road funding was reported nationwide in 2002, or 5% of total U.S. revenues. Minnesota federal aid was \$45 million or 2% of local road revenue statewide.

Overall, Minnesota local roads were funded 56% from local revenues, versus 68% nationwide. The local effort includes revenues from local general funds, property taxes and special assessments, miscellaneous income, other local taxes, and local motor fuels and vehicle registration taxes. Intergovernmental transfers, including state road aid, state general aid, and federal grants, were 46% of Minnesota local road funding versus 32% nationwide. As the remaining analysis will show, Minnesota's state-local road funding relationship is one approach among U.S. states, which can only be judged in the context of overall state and local tax policies.

Revenue Mix Comparison

Local governments in every state fund roads differently, and therefore it is useful to measure where Minnesota fits in the U.S. local road revenue mix. The comparison begins with an index constructed from each state's relative revenue share compared to Minnesota. The index value is the sum of the absolute difference between a state's percent shares in each revenue category minus the corresponding share for Minnesota, and with this measure, a state's relative ranking is more important than the actual index value itself.

Using the nine FHWA revenue categories, Nebraska has the local road revenue mix most similar to Minnesota. In 2002, Minnesota local road funding was 29% local government general funds, compared to 30% in Nebraska. Property taxes and special assessments were 24% in Minnesota versus 26% in Nebraska. Minnesota local road revenue was 26% state road aid and 25% in Nebraska. At the other extreme, New Hampshire local roads had no local general funds, 17% were from property taxes and special assessments, and 10% was state road aid. Instead, New Hampshire local roads got 73% of their funding from local motor fuel and vehicle registration taxes. The five states with a local road revenue mix most like Minnesota are Nebraska, Wisconsin, Mississippi, New Mexico, and Kansas (Table 2.1). The five states least similar to Minnesota are New Hampshire, Nevada, Georgia, Hawaii, and Florida.

The local road revenue mix in Wisconsin is similar to Minnesota in its reliance on local general funds, state road aid, property taxes and special assessments. Mississippi, New Mexico, and Kansas favor these funding sources as well, but also use personal property taxes and local sales taxes. States that are like Minnesota tend to have more diverse funding sources, while revenues in dissimilar states tend to be more concentrated.

As noted, New Hampshire local roads are 73% funded by local motor fuels and vehicle registration taxes. Nevada relies almost exclusively on other local (sales) taxes and state road aid. Most local road funding in Georgia is other (sales) taxes and local general funds.

Table 2.1 - Local road revenue mix for select states

U.S. <u>\$49.7 billion</u>		5 states MOST like Minnesota				
		Nebraska <u>\$605 million</u>	Wisconsin <u>\$1.56 billion</u>	Mississippi <u>\$435 million</u>	New Mexico <u>\$320 million</u>	Kansas <u>\$590 million</u>
31%	General fund	30%	41%	28%	27%	45%
24%	State road aid	25%	24%	21%	30%	24%
13%	Property tax	26%	23%	22%	12%	19%
10%	State other aid	12%	6%	9%	8%	2%
8%	Misc. income	3%	4%	3%	4%	1%
5%	Federal funds	0%	0%	2%	4%	0%
4%	Fuel&Vehicle	3%	0%	1%	0%	0%
3%	Other local	1%	1%	15%	15%	8%
2%	Toll	0%	0%	0%	0%	0%

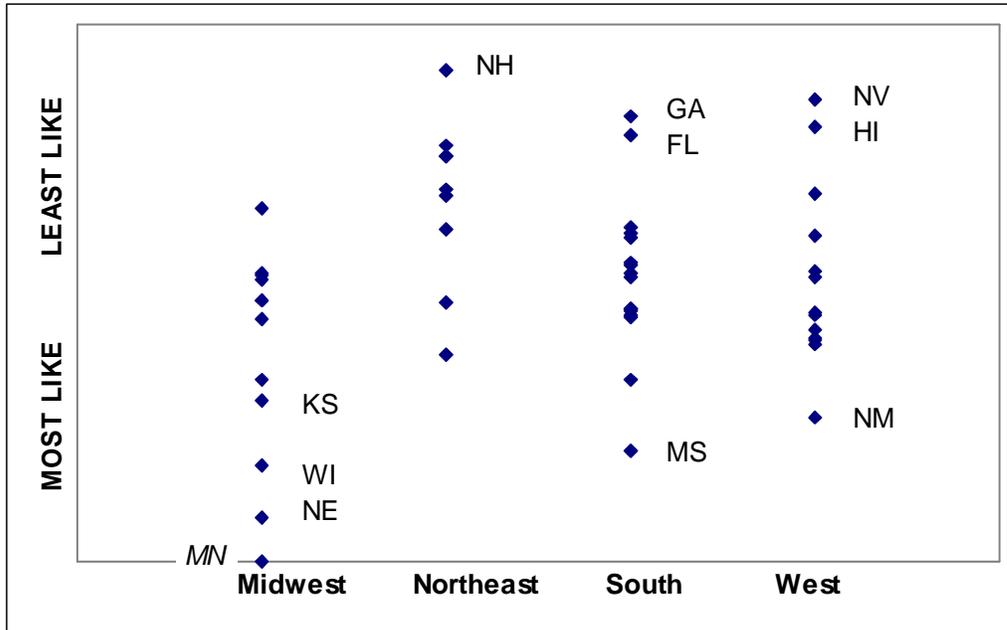
Minnesota <u>\$2.08 billion</u>		5 states LEAST like Minnesota				
		New Hampshire <u>\$256 million</u>	Nevada <u>\$273 million</u>	Georgia <u>\$965 million</u>	Hawaii <u>\$154 million</u>	Florida <u>\$2.68 billion</u>
29%	General fund	0%	5%	38%	46%	13%
26%	State road aid	10%	53%	0%	1%	13%
24%	Property tax	17%	0%	0%	0%	7%
15%	State other aid	0%	0%	0%	0%	0%
3%	Misc. income	0%	0%	9%	3%	12%
2%	Federal funds	0%	0%	1%	1%	0%
0%	Fuel&Vehicle	73%	42%	2%	25%	30%
0%	Other local	0%	0%	50%	23%	24%
0%	Toll	0%	0%	0%	0%	1%

Source: FHWA (2002)

Local road revenues show regional tendencies when states are organized by Census region (3). In figure 2.1 Minnesota is the lowest dot in the Midwest region, and other states are arranged in their respective region by their road revenue likeness index.

The Midwest region has 12 states, including three of five states with local revenues most like Minnesota - Nebraska, Wisconsin, and Kansas. Among Midwest states, Indiana has the local revenue mix least similar to Minnesota. The Northeast census region has 9 states, including New Hampshire, which is the least similar to Minnesota. Also in the northeast region, Massachusetts, Maine, New Jersey, and Connecticut are not only dissimilar to Minnesota, but unlike any other Midwestern state.

Figure 2.1 - Local revenue mix likeness by Census region.



The Southern region has 16 states, including Georgia and Florida, which are among the five states least like Minnesota. Mississippi and Oklahoma are also in the South, but have a very similar revenue mix compared with Minnesota. The Western region has 13 states, and many have a local road revenue mix similar to Midwestern states. New Mexico is among the five states most similar to Minnesota. At the same time, Nevada and Hawaii have the least similar revenue mix compared with Minnesota or any Midwest state.

Chapter 3:

Local Road Tax Mechanisms

The twelve local road taxes described in this chapter fund local roads somewhere in the U.S. Six are related to property access, three to vehicle use, and three rely on local economic activity. The tax impacts and who ultimately pays the tax also depend on how the tax is levied. Tax mechanisms are either ad valorem taxes, based on value such as purchase price, or excise taxes based on consumption and measured in units, like gallons of gasoline. Ad valorem taxes are a proxy for wealth, meant to capture ability to pay, while excise taxes apply to all taxpayers, regardless of their ability to pay, and are meant to capture the value of a service rendered. Another important element of a balanced tax system is the tax incidence. Most Minnesota taxes are paid by individuals, with the tax burden measured as a share of household income. Business tax impacts are harder to generalize, since they can translate into higher consumer prices, lower employee pay, or lower shareholder returns. In Minnesota, state and local taxes collectively are regarded as mildly regressive, suggesting most taxpayers pay an equal share of their income in state and local taxes (4). While this unity holds for the broad middle of the Minnesota income distribution, tax impacts widen at the income extremes.

Ad valorem taxes related to property access include real and personal property taxes, and real estate transfer taxes. Property-related excise taxes include special assessments, development impact fees, and utility charges. Vehicle registration and fuels tax can be ad valorem or excise taxes, but toll charges are always excise fees. The three economy-related taxes are local sales taxes, personal income taxes, both ad valorem levies, and severance taxes or occupation tax, which are unit excise levies. This report describes the broad options among 5,000 local government entities in 50 states. State-level tax policies may often allow a local road tax, but not every community will adopt them. This analysis relies on government and other information sources, such as the Federal Highway Administration and University of California Institute of Transportation Studies (ITS) (5).

Taxes Related to Property Access

Property taxes, real and personal, along with real estate transfer taxes are ad valorem levies based on an assessed value. Special assessments, impact fees, and utility fees are excise taxes based on unit factors, like traffic impact or lot size. Property taxes are the most common local road funding source in the U.S., and reflect the universal need for property access. Personal property taxes also help pay for local roads in a few states, and in a few other states, a real estate transfer tax is levied. Special assessments are levied in a third of states and an equal number allow development impact fees. Road utility pricing is less common, with use by a few local governments in a few states. Dedicating or earmarking revenue for specific services is one way for government to enforce internal budget discipline, and among U.S. local governments there is frequently a link between

property taxes and local services like roads. Local road districts are also common in other states. A road district defines the geographic area of service, which can be sub-jurisdictional or multi-jurisdictional, and can represent the regular service area or a capital project area. Road districts are alternatively referred to as paving, special, service, or improvement districts.

Property Tax (real and personal)

Property taxes are the most common ad valorem levy used to fund local public services. Nearly every state has real estate taxes on land and buildings, but personal property taxes are less common. Revenue dedication and road districting varies widely across the U.S., with no discernible regional tendencies. In some states, local governments use road districts, but not revenue dedication. In other states, there is revenue earmarking, but no districting. Most states have neither dedication nor districts, while only a few states have both. Personal property taxes are levied on tangible household items, like cars and boats, or business property, such as utility and manufacturing equipment. Most personal property is exempt from taxation in Minnesota, and road districts and revenue dedications are rare, although there are exceptions, generally with debt service levies.

The Midwest census region has 12 states. Minnesota local governments do not generally dedicate road property taxes or use road districting. Dedication and districting varies among the five states most like Minnesota in their local road revenue mix. Nebraska levies a road property tax and uses improvement districts. Wisconsin has a road property tax, but general property levies are more typical. Kansas dedicates a transportation tax, with local referendum and sunset provisions. Iowa dedicates part of the local property tax to secondary roads. South Dakota can levy a road improvement tax by local governments and special districts. North Dakota levies a capital improvement property tax allocated among five road classes. In other Midwest states, Ohio local governments or road development districts can levy several road-related property taxes. Illinois road districts also have broad levy authority. Michigan local governments levy a dedicated property tax, subject to voter approval, as do road districts in Missouri. Indiana counties can levy a separate bridge tax.

The Northeast census region has 9 states. New Hampshire has the least similar local road revenue mix, yet like Minnesota, does not use road districts or dedicate road property taxes. Massachusetts dedicates road improvement levies in districts, as do large cities in Connecticut. In both cases, these levies are the only local option road tax. Rhode Island voters can allocate a portion of the property tax to specific road projects. In Vermont and New York, townships designate part of the property tax for roads and may organize special districts. Maine, New Jersey, and Pennsylvania do not generally levy road property taxes or use road districts.

The Southern region has 16 states ranging from Maryland to Texas. Among the five states most similar to Minnesota in revenue mix, Mississippi allows bond referendum backed by dedicated property taxes or special assessments, and has shifted

responsibilities from local districts to countywide districts. Georgia and Florida are states where the funding strategy is least like Minnesota. Georgia does not dedicate road levies, but can establish improvement districts. Florida counties fund road maintenance, construction or lighting with dedicated general property tax levies, and allow community development and other special districts. In the rest of the region, rural road improvement districts in Oklahoma can dedicate separate capital and operation property levies. Texas has a road property tax for capital improvements, particularly on farm-to-market networks, and voter approved maintenance levies. North Carolina local governments and road districts can levy road property taxes for improvements. Tennessee counties and local improvement districts can levy a road property tax to repay capital bonds. Alabama counties dedicate road property taxes, with special property levies in some large cities. Arkansas has a real and personal property taxes for transportation and road improvement districts. Kentucky local governments can levy a property tax for any purpose, including roads, with voter approval. West Virginia special-purpose road property taxes need majority voter approval. Louisiana local governments (parish, city, and road district) can also levy road property taxes with voter approved. Maryland has special road districts with dedicated property taxes. In nearby Delaware, local roads are a state responsibility. South Carolina also has strong state responsibility for funding local roads, but local governments and improvement district can still levy a road property tax. Virginia state government operates much of the local road network, but local governments can create road districts and levy road property taxes.

The Western census region includes 13 states. New Mexico improvement districts can levy a 2% road property tax. Colorado counties dedicate property taxes, which are shared with municipalities. Idaho property levies are dedicated to highway district roads. Montana has a dedicated property tax with voter approval. Wyoming counties levy road property taxes and form road districts. Nevada local governments and improvement districts can levy a voter approved road property tax. Utah local governments organize road districts, but do not levy a dedicated property tax. Arizona counties lost special district authority, and do not use real or personal property tax levy authority. Hawaii does not levy a road property tax or use road districts. California local governments do not generally earmark property taxes or create road districts. Alaska local governments do not generally dedicate revenues, but can levy district assessments. Oregon local governments dedicate road property taxes, as do counties in Washington State.

Personal property must be assessed before it can be taxed, and for motor vehicles there are two basic methods (6). The first method is the approach used for state vehicle registration taxes in Minnesota, which depreciates the vehicle original cost over time. The second approach uses a current market value, based on pricing guides like the NADA blue book. Personal property tax rates are often levied at the same rate as real property taxes. Many states have personal property tax levies, but only a few dedicate revenue to local roads. Connecticut and Massachusetts have road district personal property levies, and motor vehicles are valued by the Blue Book method. Arkansas counties charge a road levy on both personal and real property taxes. Arizona local governments have the authority, but do not levy a personal property road tax. Assessing and taxing motor vehicles is described further in the vehicle tax section.

Real Estate Transfer Tax

Real estate transfer taxes are ad valorem taxes based on value, such as the property sale price with deed taxes or the loan value with mortgage taxes. Minnesota property buyers pay mortgage and deed taxes, with most revenue going to the state general fund, and a small portion (3%) retained by the home county. The state share in 2004 was \$231 million and home-counties received \$8 million. The state deed transfer tax rate is 0.33 percent of property value and the local rate is 0.0033 percent. The state mortgage registry tax rate is 0.23 percent of loan value and the local rate is 0.0023 percent. For every \$100,000 in deed transfers the local tax is \$330, and for every \$100,000 in mortgage debt registered the local tax is \$230. Hennepin and Ramsey counties charge an additional .0001 percent on both the mortgage and deed tax, which yields \$10 for every \$100,000 in value for environmental response funds.

Just a few states dedicate any portion of real estate transfer taxes to road funding (5). New York requires a 0.75% tax on mortgage recording and property transfers dedicated to transportation improvements. In Delaware, even though local roads are largely a state responsibility, counties can levy real estate transfer taxes to fund capital projects. Illinois allows counties and (non-home rule) cities a real estate transfer tax for roads or other transportation projects. Cities in Pennsylvania have authority to levy road-related real estate transfer taxes. Washington State counties and cities can levy one-half percent real estate transfer taxes for transportation capital improvement. Virginia counties and cities can levy a one-time property tax when the deed is first issued, with a portion dedicated to road spending.

Special Assessment

Special assessments are excise taxes based on property characteristics, like street front footage. Minnesota counties, cities, and towns can levy special assessments, not only for road improvements, but a variety of other local amenities, including sidewalks, street lights, snow removal, weed control, tree trimming, garbage collection, water and sewers, storm sewers, parking, and housing (7). Special assessments in Minnesota can only be levied if the property owner directly benefits from the improvement. The levy must not exceed the market value increase in the land portion of the property value, and assessments must treat classes of property uniformly. Finally, bond issues over 20% of the improvement cost must have public hearings, adopt resolutions and hold a voter referendum. Households and business both pay special assessments, with exemptions available for senior citizens and disabled persons, as well as undeveloped and "green acres" agricultural land. Unlike property taxes, special assessments are not tax deductible for households that itemize on their personal income tax returns. Significantly, most property classes that are exempt from property taxes must pay special assessment levies.

In 2003 overall, 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. However, a Minnesota House Research report identified inconsistencies in statewide special assessment revenue (7). State Auditor reports in 2000 put local government special assessment revenue at \$238 million. However, Department of Revenue tax abstracts, absent tax exempt properties, totaled just \$130 million, but by 2003 had reached \$206 million.

Special road assessments are used by local governments in more than 20 states (5). In the Northeast, Maryland, New Jersey, and Pennsylvania levy special assessments for road improvements. New York townships charge special road assessments. Rhode Island cities and towns levy special assessments for road-related (sidewalk) improvements. In the South, Mississippi uses special assessments to bond for road spending. Florida counties levy special assessments for dedicated purposes, including roads. North Carolina and South Carolina both use special assessments for roads. Texas local governments and utility districts levy assessments for road maintenance and capital improvements. Among Western states, Nevada local governments have a special road levy, yet few jurisdictions use it. Wyoming local governments can create special assessment districts, and taxpayer costs are limited to 30%. Alaska boroughs and municipalities levy special benefits assessments to pay for roads. Arizona has special road assessments. Oregon and California special assess for road improvements. In the Midwest, South Dakota local governments can levy special assessments for road projects, as do local governments in Michigan. Missouri allows special assessment with voter approval. Illinois and Iowa also have special assessment road funding.

Development Impact Fee

Local government impact fees are one-time charges on new real estate development as compensation for the higher incremental cost of off-site capital improvements. Like on-site dedications, impact fees shift the infrastructure costs of new development back on land owners, builders, and/or the final property owner. Impact fees apply to both residential and non-residential development, and may cover a wide range of service improvements, such as roads, parks, and public safety. Arizona adopted the first impact fee in 1982, and within a decade 19 other states had adopted similar legislation (8). At the local level, 59% of cities and 39% of counties report using development impact fees in 2000, most commonly in high-growth areas and larger cities. Development impact fees in Minnesota have been rare, in part because state law neither allows nor prohibits the use of development impact fees, leaving them in legal limbo (9).

Use varies widely among states with local impact fees, and roads are commonly, but not always part of the fee. The ITS study identified eleven states where impact fees are levied for road improvements for new development (5). Among Midwestern states, Illinois levies impact fees, as do local governments in Missouri, where impact fees are called development excise taxes. In the Northeast, New York local governments, especially towns, use development mitigation fees for road funding. Southern states with development impact fees include Georgia, which allows special property assessments on new development to pay for repairs brought about by the new construction activity. Development impact fees are also used in Maryland, and Virginia has a one-time tax

when a first deed is issued. Texas cities can charge a flat per parcel fee. Western states with development impact fees include Nevada and Idaho. In Colorado, impact fees are based on land acreage or the number of units and floor area. California has impact development fees for transit districts.

A 2002 National Association of Realtors survey reported road-related impact fees on single family home development in 14 states (10). The average fee among 19 Florida counties and cities was \$1,050 per unit. In 18 California counties, cities, and towns the average was \$1,300. Development impact fees on new homes in eight Oregon cities averaged \$1,680. Among six Arizona cities and towns impact fees averaged \$700 per unit. In Colorado, five cities and towns averaged \$1,000 per SFH in impact fees. Seven cities in Washington State had average fees of \$2,600. The average in four Texas cities was \$850 per housing unit. Only one local government in each of the seven remaining states responded to the survey and reported using road-related impact fees on single family home development. The lowest fees were \$81 in Roswell, Georgia, \$145 in Burlington, Vermont, and \$381 in White House, Tennessee. The Ada County Highway District in Idaho had a road related impact fee of \$1,055. St. Mary's County, Maryland charged \$450 per unit. Fisher, Indiana levied a city development impact fee of \$500 per unit.

Utility Fee

The road utility fee is an excise tax on local road access, and resembles the pay-as-you-go pricing of other utilities. Where road utilities exist, property owners pay monthly or quarterly installments. Unlike more traditional utilities, road use or consumption is harder to measure for individual property. While the comings and goings of the average residential property might suggest all homes pay the same road fee, traffic from business and commercial property is more variable. Utility fees are generally linked to pavement management plans for street maintenance, and in some cases for new development. Trip generation pricing uses a property's expected traffic load to calculate the road levy, with the model approach outlined in the *Trip Generation Manual* published by the Institute of Transportation Engineers (11). Street utility fees were simulated for six Minnesota cities in a 2004 Transportation Policy Institute study, where the revenue objective was to fund network backlogs (12). The average road utility fee for a homestead was less than \$2 per month, the average convenience store paid \$25 monthly, and the typical large retail store paid \$700.

Trip generation pricing has few examples in the U.S., but a dozen cities in Oregon make that state a leader in road utility pricing. The City of Lake Oswego uses trip generation pricing for street maintenance, with the average single family home paying \$3.75 a month. Public buildings, like the junior high school and city hall, pay \$200 monthly. The City of Tualatin is another Oregon community with road utility fees, where single family homes pay \$2.92 a month in road fees, while non-residential properties ranging from \$1 to \$72 per thousand square feet per month. Until they lost the right in 1995, twelve Washington cities levied a monthly street utility fee of \$2 per employee and a \$2 monthly fee on housing units (13). Trip generation pricing is used in several Texas

cities, including Greenville, where new development impacts are paid with road utility fees (14). Beaumont, Texas shifted from a \$3 per parcel flat fee to trip generation pricing. York County, Virginia supports a pavement management plan with trip generation road fees. The Wisconsin city of Oconomowoc recently gave preliminary approval to road utility pricing, but later chose to raise property taxes instead (15). The average single family home would have paid \$22.50 a year (less than \$2 a month), and Oconomowoc would have been the first Wisconsin community to adopt a road utility fee.

Taxes Related To Vehicles

Local road taxes on vehicle ownership and travel are paid by households or businesses alike and include motor vehicle registration taxes, motor fuel taxes, and crossing tolls. Local vehicle registration taxes are found in a majority of states, structured as ad valorem taxes, excise taxes or both. Thirteen states have local motor fuel taxes, typically an excise tax, but a few have local sales taxes. Tolls on roads, bridges, and tunnels are excise taxes, and help fund local roads in eleven states. Minnesota has no local vehicle registration or local motor fuels tax, but state registration and fuels taxes are shared with local governments. This collect-and-share approach illustrates a major fiscal difference between local taxation and state-local revenue sharing. Taxes collected locally are spent locally. Redistributing state road taxes among local governments means the local contribution may not match the local aid distribution. Just the same, Minnesota counties and (eligible) cities have a constitutional claim on state registration and fuel taxes, with 29% dedicated to counties and 9% to cities with populations over 5,000. For every \$100 vehicle registration tax, counties receive \$29 and eligible cities get \$9. With every 20-cent per gallon state fuel tax, 5.8 cents a gallon goes to counties and 1.8 cents goes to eligible cities.

Vehicle (Registration) Tax

Every state requires motor vehicles be registered and all states levy vehicle registration taxes. In addition, some states allow local registration taxes, which may be levied ad valorem, excise or both. The simplest excise tax is a flat fee per vehicle, although charges can be differentiated according to vehicle weight, horsepower, or other characteristic. Alternatively, the ad valorem approach requires both a tax rate and an assessed value. Vehicle assessments follow two methods. The first approach starts with the vehicle's original purchase price or MSRP (manufactures suggested retail price), with the taxable value depreciated each year according a defined schedule. This is the assessment method Minnesota uses to calculate the state motor vehicle registration tax. The second assessment method starts with current market values reported in monthly pricing guides like the Blue Book, published by the National Automobile Dealers Association (NADA). In some states the Blue Book assessment is reduced 15% to 70% further. Once a taxable value is established, the tax rate is applied, which may be the local property tax rate, some statewide rate, or a locally determined (arbitrary) rate.

A study by the National Council of State Legislatures identifies thirty-six states with a local vehicle registration tax (6). In the Midwest, nine states allow local

registration taxes. The Missouri local vehicle tax is based on 33% of NADA prices. Kansas local vehicle levies are based on countywide tax rates. Ohio local governments can adopt a local vehicle license tax up to \$20 per vehicle. Illinois allows flat registration fees that vary with vehicle type. Nebraska has uniform local vehicle fees based on vehicle weight and age. North Dakota allows local vehicle registration taxes, although none have been adopted. South Dakota county fees start at \$4 per wheel and graduate higher with vehicle weight. Iowa allows local vehicle taxes with voter approval, yet none exist. Indiana local registration taxes are part flat fee and part value-based tax. Five Northeastern states have a local vehicle tax, often levied as part of a personal property tax. The Connecticut local vehicle assessment is 70% of NADA value. Maine and New Hampshire local vehicle taxes vary with vehicle value and age. Massachusetts has a similar local registration charge. New York counties can impose a use tax, typically less than \$10 per vehicle.

Eleven Southern states have local vehicle registration taxes. Alabama local vehicle taxes are assessed at 15% of NADA value, and taxed at the local property tax rate. Mississippi local vehicle are assessed at 24% of NADA value and taxed as personal property. Kentucky and Louisiana local vehicle taxes are based on the NADA value. Georgia has local vehicle license taxes levied at the same rate as the personal property tax. The car tax in Virginia is a flat fee. South Carolina counties can levy up to \$20 per vehicle. Tennessee allows a flat fee local registration tax with majority voter approval or two-thirds county board approval. Texas counties can levy a \$10 flat fee for roads. North Carolina and Arkansas have flat \$5 per vehicle road taxes.

Eleven western states allow local registration taxes. Alaska local governments can levy a personal property taxes based on vehicle age. Nevada has vehicle "privilege" taxes assessed in lieu of personal property taxes. California vehicles are subject to a statewide personal property tax, and levies for air quality, call boxes, and abandoned vehicles. Colorado local governments can levy a flat \$10 road fee. Montana has a flat vehicle registration fee for local roads. Oregon can levy local registration fees for roads with voter approval. Idaho allows local vehicle fees up to twice the level of state vehicle taxes. Montana counties have an optional 0.7% tax on top of the 2% state rate. Hawaii county vehicle taxes are based on weight. Washington combines a flat fee with a value tax. Wyoming has uniform local vehicle fees based on vehicle weight and age.

Motor Fuels Tax

Motor fuels for highway use are subject to state and federal taxes in all 50 states, but fifteen states also allow local motor fuel taxes (16). Motor fuel taxes are paid by households and business, with the tax incidence relative to fuel consumption. In the Midwest, Illinois allows (some counties and cities) local option excise taxes and/or local option sales taxes. North Dakota and South Dakota have authorized local motor fuel taxes, but none have been adopted. The only Northeast state with a local motor fuels tax is New York, which allows a local 4% sales tax. Among Southern states, Florida has a 13.7 cent on local fuel tax limit and requires voter approval. Mississippi oceanfront counties can levy up to 3 cents a gallon for levy and seaside roadways (pre-Katrina).

Alabama county and municipal governments can levy 1- to 5-cents per gallon in fuel taxes, but average 1.4 cents. Georgia has a 2% local motor fuels sales tax. Virginia local motor fuel sales taxes are 0.6%, in addition to the 2% state sales tax. In the West, Nevada counties can levy up to 9.4 cent in local motor fuel taxes. Hawaii local motor fuel tax rates vary by county, but average 15 cents a gallon. Oregon has voter approved local fuel taxes that average less than 1-cent per gallon. Alaska has a local transfer tax on motor fuels. California local governments can levy a 2% local fuel tax with voter approval. Washington allows local fuel (excise) taxes up to 10% of the state rate and a local fuel (ad valorem) sales tax of 1.5%. Montana and New Mexico allow local motor fuel taxes, but none have been adopted.

Toll Charge

Toll or crossing charges are excise levies that vary by vehicle characteristics, such as the number of axles, or may depend on distance traveled. The vehicle owner/operator pays a fee, impacting both households and business depending on their use of toll facilities. Local governments in twelve states get funding from road, bridge, and tunnel toll charges (Local tolls in eight states are from ferry crossing, not roads, bridges, or tunnels, yet they are included in the FHWA local road revenue data analyzed in Section 1. They are Maine, Massachusetts, Michigan, Oregon, Pennsylvania, Tennessee, Washington, and Wisconsin.). Nationwide tolling generated \$3.2 billion in 2002. The New York City tunnel and bridge authority alone was \$2.0 billion. Texas local tolls generated nearly \$600 million, largely from the Harris County Toll Authority (Houston). California revenues were \$275 million, including the Golden Gate Bridge Authority (San Francisco). The E-470 Beltway in (Denver) Colorado raised nearly \$100 million. Florida, Virginia, Illinois, and New Jersey average \$60 million. Nebraska, West Virginia, and Missouri local toll authorities were about \$1 million each. Minnesota has no local toll roads.

Taxes Related to Local Economy

Three local road levies are related to local economic activity. Local sales taxes are levied as a percent of taxable value, such as purchase price. Personal income taxes are levied as a share of individual taxable earnings. And for this analysis, business taxes include severance taxes, and corporate income taxes; franchise, occupation and gross receipts. Households and business pay sales taxes, households pay personal income taxes, and naturally, businesses pay business taxes. Sales and income taxes are classic ad valorem taxes, and business taxes may be excise or ad valorem.

Sales Taxes

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. Sales taxes are ad valorem levies on the value of taxable purchases. Beyond the general sales tax, some levies specify the taxable item or event, such as motor vehicles,

lodging, food, liquor, or entertainment. In Minnesota, local sales tax use is confined to a handful of cities and one (Cook) county (17). Tax revenue can be used for road funding in some cases, but more often is dedicated to other capital projects. 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. Saint Cloud has a 1% food and liquor tax, and a 1/2% sales tax, which extends to neighboring Sartell, Sauk Rapids, and St. Augusta. Saint 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 is typically required, but first every local sales tax must get state legislative approval.

Thirty-five states allow local governments to levy local sales taxes in support of local roads (18). 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. Kansas has a 3% maximum local sales tax. 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%. Illinois has a maximum 3% local sales tax. Missouri local sales tax rates range from a half percent to 4.125%, with capital project earmarking and sunset provisions. Ohio allows county sales taxes with rates from one-quarter percent to 2%. Michigan has no local sales tax. Local sales taxes are less common in the Northeastern states. Connecticut, Maine, Massachusetts, New Jersey and Rhode Island have no local sales tax option. New Hampshire has no local sales tax or state sales tax. Pennsylvania allows up to 1% in local sales taxes for designated capital projects. New York has a maximum local sales tax rate of 4.625%. The maximum local option sales tax in Vermont is 1%.

Among Southern states, Florida allows local sales taxes up to 1.5%. Georgia has a local special-purpose sales tax with rates between 1% and 3%. Alabama home rule cities can by ordinance levy a local sales tax as high as 8%. Louisiana cities may impose up to 6.75% in local sales taxes. Virginia allows municipalities, with voter approval, to levy general sales taxes for street maintenance up to 1%. South Carolina allows local sales taxes up to 2%, with project earmarking and sunset provisions. North Carolina local sales tax rates are between 2% and 3%. Oklahoma allows a dedicated sales tax up to 6%. Tennessee local sales taxes range from 1.5% to 2.75%. Texas allows up to 2% in local sales taxes. Arkansas allows a local sales tax as high as 6%. Kentucky overturned a local sales tax provision. Delaware has no state or local sales tax. In the West, Nevada allows a maximum 1% local tax. Wyoming local sales tax is up to 2%. California local sales tax rates range from 1% to 2.5%. Utah local sales rates range from 1% to 3.25%. Washington local sales taxes range from 0.5% to 2.4% with project earmarks. Arizona allows a local sales tax to 4.5%. Colorado allows local sales taxes up to 7%. Alaska also allows local sales tax rates up to 7%, but has no state sales tax. Montana has no state sales tax, and no local sales tax, except for a tax on resort lodging. Oregon has neither a state sales tax nor local sales taxes.

Personal Income Tax

Personal income taxes are ad valorem levies on household earned and investment income, or with payroll taxes, earned income only. The tax incidence can vary by place of residence or place of work, depending on the jurisdiction levying the tax. Some states have no personal income tax, including South Dakota in the Midwest. In the Northeast, New Hampshire only taxes dividend and interest income, and the same is true in the South for Tennessee. Florida and Texas have no state income tax. Among Western states, Nevada, Washington, Wyoming, and Alaska levy no state personal income tax.

Few states allow local income taxes, which commonly go to the local general fund, but occasionally a portion is dedicated to local roads (5). In the Midwest, Ohio cities can levy up to 2.85% in local income taxes. Three Indiana counties have local income tax rates from 0.3% to 1.5%. Iowa school districts can levy up to 20% of the state income tax rate. Michigan cities can levy personal income taxes, with the highest rate (2.8%) in Detroit. Kansas City and St. Louis, Missouri have 1% earnings taxes. Among Northeast states, Newark, New Jersey has a 1% employer payroll tax. New York has a top local income tax rate (3.648%) in New York City. Philadelphia, Pennsylvania has a top rate of 4.69% on wages and net profits. Among Southern states, Maryland requires local income taxes in counties and cities which average 2.5%. Wilmington, Delaware taxes 1.25% of worker income. Kentucky local governments levy up to 3.35% on local payrolls. In the West, Oregon has a 0.62% payroll tax for transit funding in Portland area counties.

Business Taxes

Local road support can come from business taxes, including corporate income taxes, occupation taxes, and (resource) severance taxes. Corporate income taxes are ad valorem levies whether they are franchise, gross revenue, or gross receipts taxes. Most states have state-level corporate income taxes, only a few tax gross receipts. Occupation taxes are excise taxes based on the workforce size. Severance taxes are excise or ad valorem levies on natural resource extractions. Each tax can be levied separately or in combination. Various business taxes are dedicated at least partially to local roads in the U.S. Indiana counties have local income tax for infrastructure improvements. New Jersey allows local payroll and parking taxes, yet none have been adopted. Louisiana has local gaming and hotel taxes dedicated to transportation, particularly transit. South Carolina has hospitality fees on lodging, restaurant, entertainment and other services dedicated to economic development projects. Kentucky has payroll and occupation taxes to support transit, and a car rental tax for economic development. Nevada has a lodging tax with 1% dedicated to roads. New Mexico local governments can use gross receipts taxes to help pay for roads. Hawaii counties can levy a public utility franchise tax for transportation. Colorado has flat fee per employee local occupation taxes that help fund local roads. Washington has a worker occupation tax and a flat business license fee for local road funding.

The severance tax is a levy on natural resource extraction, like oil and gas, coal, minerals, timber, even water. Severance taxes are paid by business and may be structured as excise or ad valorem taxes. Excise tax levies are per unit, such as a cubic yard of gravel, while ad valorem taxes are levied on value, for instance, of the mined gravel. In Minnesota, two severance taxes, the aggregate minerals tax and the mining production tax, are directly related to local road funding. The aggregate mineral tax (or gravel tax) is levied on the removal of nonmetallic natural mineral aggregate at a maximum rates of 10-cents per cubic yard or 7-cents a ton. The aggregate minerals tax in 2003 generated \$3.0 million for local road and bridge funding in 29 Minnesota counties. The mining production tax, a \$2.137 per ton levy on the merchantable iron ore concentrate, generated \$65 million in 2004, and is shared more widely among local government units than the gravel tax, but over a smaller geographic area. Taconite counties receive 26.05 cents per ton, and 5.525 cents is dedicated to county road and bridge funds. The net effect in 2004 was \$2.5 million for county road and bridge funding. Cities and towns also share in mining production tax proceeds, but face no statutory dedication to local road funding.

Many states have severance taxes, and a few dedicate revenue to road funding. Alabama counties can levy a 10-cent per ton mineral severance tax dedicated to local road maintenance, restoration, or reconstruction (19). A 20-cent per ton coal tax is dedicated to local roads in Jackson and Marshall County. Kentucky shares state coal extraction taxes with local coal-county governments, and a portion is directed to the road networks that carry bulk coal (20). Virginia and West Virginia tax coal and other mineral extraction, as well as oil and natural gas, with part of the revenue dedicated to local roads (21). Virginia has a gross receipts tax on mining operations. Tennessee has an oil and gas severance tax it shares with local governments in extraction-counties, along with a local coal tax, and a 7-cent per ton local aggregate tax. Alaska has a local severance tax for roads and other transportation purposes. Wyoming mineral taxes were dedicated to local roads, until the state legislature re-classified the mineral tax as general purpose revenues.

Chapter 4:

Summary

U.S. local roads revenues totaled \$49.7 billion in 2002, according to Federal Highway Administration, with Minnesota local road revenues estimated at \$2.1 billion. Revenues from local government general funds were 31% in Minnesota, close to the national average at 29%. Property taxes and special assessments (combined) were the second largest local revenue source in Minnesota at 24%, but nearly twice the 13% national average. Miscellaneous income represents 8% of U.S. local road funding, but was less important in Minnesota (3%). Other local taxes, including personal property taxes, local sales taxes, and development impact fees generated 3% of U.S. local road revenue, largely in Florida, California, Georgia, and Illinois, with none reported in Minnesota or 12 other states.

Local motor fuel and vehicle registration taxes generated \$2.0 billion in 28 states in 2002. Minnesota had no local road revenues in this category. Toll charges from local road, bridge, or tunnel crossings generated \$1.1 billion in 19 states in 2002, although most came from New York, Texas, and California. Minnesota had no local road revenue in this category. Minnesota local governments received 26% of local road funding from state road aid, versus 24% nationwide. State general fund transfers were 15% of Minnesota local road revenues, above the 10% U.S. average, however, 16 states reported no state aid to local governments. Federal aid is a small share of local road funding nationwide (5%), as it is in Minnesota (3%). Overall, two-thirds of local road revenue nationwide is from a local tax effort and one-third is intergovernmental aid. The local tax effort in Minnesota generates just over half the local road funding, and just under half comes from intergovernmental aid.

The Minnesota local road revenue mix, in each of nine FHWA funding categories, is most similar to Nebraska, Wisconsin, Mississippi, New Mexico, and Kansas, and least similar to New Hampshire, Nevada, Georgia, Hawaii, and Florida. Over time, states developed different tax strategies to support local roads. Minnesota's local road funding strategy is similar to other Midwest states, but quite different from states in the Northeast and West census regions. These differences are rooted in history, geographic size, and regional governing philosophy. Rhode Island, for example, measures only 1,545 square miles and became one of the first U.S. states in 1790 (22). Minnesota became the 32nd state in 1858, and is 87,000 square miles. Arizona became the 48th state in 1912, covering 114,006 square miles.

Twelve individual local tax mechanisms can help fund local roads, including six related to property access. The most common local support for roads is real (estate) property taxes, although a few states levy personal property taxes as well. Property taxes are sometime dedicated to road service, but in many cases, like Minnesota, they are not. In some states local governments organized road districts to tax and manage service, but in Minnesota political boundaries are generally contiguous with road district boundaries. Around the U.S., real estate transfer taxes are common levies, with an occasional

dedication to road funding. Special assessments in more than 20 states fund a variety of public services, and the use of development impact fees is equally widespread. Road utility fees, specifically trip generation pricing, is not widely used for local road funding.

Three local road revenue sources related to vehicle ownership and travel are motor vehicle registration taxes, motor fuel taxes, and toll charges. Local vehicle registration taxes are levied in 36 states, either as flat fees or based on assessed value. Local motor fuel taxes are levied in 15 states, again as a unit tax or as a percent of sale price. Toll charges on roads, bridges, and tunnels are levied in 12 states, but revenues concentrated in just a few.

Three road taxes on local economic activity are sales taxes, personal income taxes, and business taxes. Local sales taxes help pay for local roads in 35 states. Sales tax rates are generally capped and revenue is often dedicated to specific road projects. Local personal income taxes to support local roads are rare, but exist in a few larger cities. Business taxes are also an uncommon local road funding source, yet examples in Minnesota include the gravel tax and taconite tax.

Road taxes may be characterized as (unit) excise taxes or ad valorem (value-based) taxes. Real and personal property taxes, real estate transfer taxes, sales and personal income taxes are ad valorem levies (Table 4.1). These mechanisms use taxable value as a proxy for personal wealth, and hence taxpayer ability to pay.

Table 4.1 - Local road tax mechanism and incidence

LOCAL ROAD TAXES	Excise	Ad Valorem	Household	Business
<u>PROPERTY ACCESS</u>				
Real (estate) property tax		X	X	X
Personal property tax		X	X	X
Real estate transfer tax		X	X	X
Special assessment	X		X	X
Development impact fee	X		X	X
Road utility tax	X		X	X
<u>VEHICLE TRAVEL</u>				
Vehicle registration tax	X	X	X	X
Motor fuels tax	X	X	X	X
Toll charge	X		X	X
<u>ECONOMIC ACTIVITY</u>				
Sales tax		X	X	X
Income tax		X	X	
Business taxes	X	X		X

Special Assessments, development impact fees, road utility fees, and toll charges are unit excise taxes levied on the number of units consumed (per gallon) or relative size (foot frontage), and act as a proxy for services rendered. Some tax mechanisms can be levied either on value or by units, including vehicle registration taxes, motor fuel taxes, severance and other business taxes. Households are potentially subject to all twelve local road taxes, including business taxes indirectly, while business is subject to all but the personal income taxes. A balanced tax system uses excise and ad valorem taxes to create an equitable mix of household and business tax burdens.

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Appendix A

Table A.1: Local road revenues 2002 by state (dollars in hundred thousands)

Rank order local road revenue mix (likeness index) from the states **most like** to the states **least like** Minnesota*

STATES (2002)	General Fund	PropTax & Specials	Misc. Income	Other taxes	Motor Fuel & Registration	Tolls	State road aid	State genl-purpose	Federal aids	Total road revenues
Total	15,289,756	6,678,119	5,015,982	3,845,749	2,050,305	1,148,724	11,858,514	2,438,134	1,381,893	49,707,176
Minnesota	609,199	502,479	64,750	-	-	-	539,616	320,194	44,809	2,081,047
Nebraska	179,457	154,907	17,946	8,733	18,851	1,611	154,046	69,818	8	605,377
Wisconsin	641,567	355,563	67,425	19,558	635	59	380,099	98,309	798	1,564,013
Mississippi	119,687	97,084	11,467	65,710	6,424	-	89,903	37,735	6,579	434,589
New Mexico	86,164	38,619	13,984	47,128	-	-	95,353	26,561	12,637	320,446
Kansas	267,274	113,208	6,218	47,015	-	-	143,456	12,927	-	590,098
Illinois	223,555	601,609	164,558	330,141	28,958	47,580	639,104	651,261	2,068	2,688,834
Oklahoma	207,900	16,182	13,696	39,137	-	-	94,329	57,039	9,679	437,962
Pennsylvania	521,939	316,171	333,348	-	34,048	17	201,181	-	1,726	1,408,430
Idaho	19,006	60,656	23,434	5,545	3,554	-	111,641	12,290	15,633	251,759
Utah	143,031	-	10,481	6,221	-	-	90,075	18,585	10,476	278,869
Washington	136,678	342,988	117,240	152,847	31,168	2,388	397,002	46,101	253,582	1,479,994
Montana	19,073	28,441	5,337	4,155	14,911	-	58,827	-	8,310	139,054
Missouri	171,555	132,426	56,038	258,596	-	808	253,179	-	549	873,151
Texas	1,610,867	731,802	629,272	-	163,760	318,698	442,137	7,300	54,288	3,958,124
Colorado	364,385	92,618	138,027	222,723	-	39,609	237,384	10,702	2,552	1,108,000
South Carolina	167,278	49,864	-	30,817	-	-	38,431	11,080	2,488	299,958
Oregon	71,304	38,760	79,933	45,322	9,426	3,530	191,476	93,709	105,739	639,199
Virginia	481,632	21,219	41,300	7,552	97,532	34,163	235,930	28,705	3,584	951,617
West Virginia	144,639	42,647	11,885	107	-	1,161	-	20,981	4,282	225,702
Alabama	316,358	36,555	202,592	-	28,273	-	326,977	-	870	911,625
New York	2,331,058	726,500	277,855	156,965	86,936	380,694	282,244	231,305	130,442	4,603,999
North Dakota	16,763	63,176	3,241	1,855	-	-	98,983	-	444	184,462
Ohio	402,053	99,736	26,387	135,063	-	-	839,830	-	31	1,503,100
South Dakota	152,973	22,362	1,036	-	6,125	-	40,648	-	-	223,144
Tennessee	186,193	6,451	-	506	27,838	5	271,864	1,265	4,427	498,549
Alaska	32,355	54,108	1,605	8,236	9,894	-	2,088	-	832	109,118
Iowa	16,481	265,119	23,716	53,355	-	-	479,749	20,006	88,395	946,821
Michigan	464,894	16,383	281,410	50	-	1,205	953,931	1,037	1,182	1,720,092
Louisiana	77,071	105,355	27,721	212,049	214	-	236,434	-	1,500	660,344
California	1,531,404	238,721	1,687,040	586,269	-	182,361	1,979,831	56,572	495,817	6,758,015
Arkansas	95,198	121,429	65,785	86,368	-	-	12,408	-	1,537	382,725
North Carolina	419,433	3,686	31,621	9,829	12,387	-	134,508	1,281	2,625	615,370
Maryland	79,080	23,676	21,407	19,837	-	-	387,951	29,914	22,671	584,536
Wyoming	37,150	466	1,193	20,292	12,597	-	23,012	5,107	36,047	135,864
Kentucky	186,190	-	20,937	7,165	13,602	-	10,015	42,200	182	280,291
Vermont	28,687	86,442	-	-	-	-	-	-	2,853	117,982
Delaware	24,153	894	2,048	170	-	-	-	9,671	-	36,936
Indiana	175,014	-	-	-	243,300	-	420,528	413	4,381	843,636
Rhode Island	111,066	18,212	-	-	17,055	-	-	4,938	1,552	152,823
Arizona	103,518	15,304	88,362	95,890	-	-	128,934	500,626	31,324	963,958
Connecticut	237,172	-	21,350	-	30,420	-	40,015	-	-	328,957
New Jersey	1,065,317	-	2,506	-	-	33,507	126,093	-	-	1,227,423
Maine	206,040	-	950	-	-	2,576	22,870	107	110	232,653
Massachusetts	-	807,718	14,531	12,744	-	59,802	126,949	29	1,959	1,023,732
Florida	352,726	184,482	319,138	632,392	791,879	38,950	347,635	8,227	1,006	2,676,435
Hawaii	71,282	-	4,983	35,527	38,761	-	1,976	-	2,231	154,760
Georgia	370,267	796	82,030	479,880	20,553	-	-	2,139	9,382	965,047
Nevada	13,670	-	199	-	114,365	-	144,306	-	196	272,736
New Hampshire	-	43,305	-	-	186,839	-	25,566	-	110	255,820

*Likeness index equals the sum the absolute difference in the state percent share of a revenue category relative to Minnesota share

Table A.2: Local road revenues 2002 by state (percent share)

Rank order local road revenue mix (likeness index) from the states **most like** to the states **least like** Minnesota*

Share of total	General Fund	PropTax & Specials	Misc. Income	Other taxes	Motor Fuel & Registration	Tolls	State road aid	State gen-purpose	Federal aids	Total road revenues
United States	31%	13%	10%	8%	4%	2%	24%	5%	3%	49,707,176
Minnesota	29%	24%	3%	0%	0%	0%	26%	15%	2%	2,081,047
Nebraska	30%	26%	3%	1%	3%	0%	25%	12%	0%	605,377
Wisconsin	41%	23%	4%	1%	0%	0%	24%	6%	0%	1,564,013
Mississippi	28%	22%	3%	15%	1%	0%	21%	9%	2%	434,589
New Mexico	27%	12%	4%	15%	0%	0%	30%	8%	4%	320,446
Kansas	45%	19%	1%	8%	0%	0%	24%	2%	0%	590,098
Illinois	8%	22%	6%	12%	1%	2%	24%	24%	0%	2,688,834
Oklahoma	47%	4%	3%	9%	0%	0%	22%	13%	2%	437,962
Pennsylvania	37%	22%	24%	0%	2%	0%	14%	0%	0%	1,408,430
Idaho	8%	24%	9%	2%	1%	0%	44%	5%	6%	251,759
Utah	51%	0%	4%	2%	0%	0%	32%	7%	4%	278,869
Washington	9%	23%	8%	10%	2%	0%	27%	3%	17%	1,479,994
Montana	14%	20%	4%	3%	11%	0%	42%	0%	6%	139,054
Missouri	20%	15%	6%	30%	0%	0%	29%	0%	0%	873,151
Texas	41%	18%	16%	0%	4%	8%	11%	0%	1%	3,958,124
Colorado	33%	8%	12%	20%	0%	4%	21%	1%	0%	1,108,000
South Carolina	56%	17%	0%	10%	0%	0%	13%	4%	1%	299,958
Oregon	11%	6%	13%	7%	1%	1%	30%	15%	17%	639,199
Virginia	51%	2%	4%	1%	10%	4%	25%	3%	0%	951,617
West Virginia	64%	19%	5%	0%	0%	1%	0%	9%	2%	225,702
Alabama	35%	4%	22%	0%	3%	0%	36%	0%	0%	911,625
New York	51%	16%	6%	3%	2%	8%	6%	5%	3%	4,603,999
North Dakota	9%	34%	2%	1%	0%	0%	54%	0%	0%	184,462
Ohio	27%	7%	2%	9%	0%	0%	56%	0%	0%	1,503,100
South Dakota	69%	10%	0%	0%	3%	0%	18%	0%	0%	223,144
Tennessee	37%	1%	0%	0%	6%	0%	55%	0%	1%	498,549
Alaska	30%	50%	1%	8%	9%	0%	2%	0%	1%	109,118
Iowa	2%	28%	3%	6%	0%	0%	51%	2%	9%	946,821
Michigan	27%	1%	16%	0%	0%	0%	55%	0%	0%	1,720,092
Louisiana	12%	16%	4%	32%	0%	0%	36%	0%	0%	660,344
California	23%	4%	25%	9%	0%	3%	29%	1%	7%	6,758,015
Arkansas	25%	32%	17%	23%	0%	0%	3%	0%	0%	382,725
North Carolina	68%	1%	5%	2%	2%	0%	22%	0%	0%	615,370
Maryland	14%	4%	4%	3%	0%	0%	66%	5%	4%	584,536
Wyoming	27%	0%	1%	15%	9%	0%	17%	4%	27%	135,864
Kentucky	66%	0%	7%	3%	5%	0%	4%	15%	0%	280,291
Vermont	24%	73%	0%	0%	0%	0%	0%	0%	2%	117,982
Delaware	65%	2%	6%	0%	0%	0%	0%	26%	0%	36,936
Indiana	21%	0%	0%	0%	29%	0%	50%	0%	1%	843,636
Rhode Island	73%	12%	0%	0%	11%	0%	0%	3%	1%	152,823
Arizona	11%	2%	9%	10%	0%	0%	13%	52%	3%	963,958
Connecticut	72%	0%	6%	0%	9%	0%	12%	0%	0%	328,957
New Jersey	87%	0%	0%	0%	0%	3%	10%	0%	0%	1,227,423
Maine	89%	0%	0%	0%	0%	1%	10%	0%	0%	232,653
Massachusetts	0%	79%	1%	1%	0%	6%	12%	0%	0%	1,023,732
Florida	13%	7%	12%	24%	30%	1%	13%	0%	0%	2,676,435
Hawaii	46%	0%	3%	23%	25%	0%	1%	0%	1%	154,760
Georgia	38%	0%	9%	50%	2%	0%	0%	0%	1%	965,047
Nevada	5%	0%	0%	0%	42%	0%	53%	0%	0%	272,736
New Hampshire	0%	17%	0%	0%	73%	0%	10%	0%	0%	255,820