

· SPECIAL REPORT ·

Transportation funding dilemma

A primer on Wisconsin's
unsustainable
transportation revenues

By Dale Knapp



**BADGER
INSTITUTE**



Transportation funding dilemma

A primer on Wisconsin's unsustainable transportation revenues

By Dale Knapp

Executive Summary

Over the past 15 years, a variety of decisions by elected state officials have affected transportation finance in Wisconsin. The net result is a transportation revenue stream growing slower than inflation, debt service eating up one of every five transportation-fund dollars, delay of some projects due to lack of funds and shrinking aids to local governments.

Among those decisions were:

1. To use transportation dollars to balance the state's general fund during 2004-'11, which directly resulted in more borrowing;
2. Elimination of gas tax indexing in 2006. While generally popular, this is one of the main factors behind the sluggish growth in transportation revenues;
3. Continuing to borrow at historically high rates to compensate for slow revenue growth; and
4. Not adequately accounting for inflation when some projects were enumerated. Combined with modest revenue growth, this caused project delays due to lack of funding.

On the revenue side of the ledger, the impacts are

clear. Since 2009, collections from gas taxes increased an average of 1.1 percent per year, while vehicle registration fee revenues rose 1.8 percent annually. These are the main revenue sources for the state transportation fund, which averaged 1.7 percent growth during 2009-'18.

During this period, the federal transportation cost index (2.2 percent annually) increased faster, as did the consumer price index (1.8 percent annually) and the state's general fund (3.2 percent per year).

Wisconsin also faces challenges on the spending side of the ledger. Due to increased use of debt, spending on debt service is claiming a growing share of revenues, rising from 7.1 percent in 2000 to 19.3 percent in 2018. This increase means fewer dollars available for ongoing projects. Transportation fund revenues, net of debt service, have increased an average of just 0.6 percent annually since 2009.

Over the past 15 years, the state also has committed to rehabilitating and rebuilding Interstates in southeastern Wisconsin. These projects have, on average, accounted for about 14 percent of state spending on highways and may have crowded out other projects.

For more than a decade, officials at both the state and local levels have debated transportation finance in Wisconsin. In fact, financing roads and highways has been an issue in numerous states over the past few years. In Wisconsin, that discussion will continue this spring and summer as the governor and lawmakers work to create a state budget for 2019-'21.

As in the past, the transportation discussion likely will

focus on both revenues and expenditures. Should the state increase taxes or fees to pay for its transportation needs, or should it focus on ways to live within the current revenue structure?

This primer helps to inform that discussion by laying out in some detail transportation funding and expenditures at the state level, and then highlighting key trends in Wisconsin transportation finance.

Transportation Finance Overview

As a first step, a basic overview of transportation finance in Wisconsin is helpful. To minimize the impact of one-year anomalies in either revenues or expenditures, we combine four years of data (2014 through 2017) in this section.

Revenues

When many people think state transportation revenues, they typically think gas taxes and registration fees. While these are the primary funders of state road and highway spending, they only account for about half of the dollars the state uses to pay for transportation. Because highways are long-term investments, the state borrows to pay for a portion of the costs of their construction or reconstruction. The federal government also provides funds for some projects.

During 2014-'17, the Wisconsin Department of Transportation spent nearly \$14 billion. To fund that spending, it collected more than \$4 billion in motor fuel taxes, accounting for 30 percent of the total needed (Figure 1).

Vehicle registration fees totaled \$2.7 billion, or 20 percent of the amount needed. Other smaller taxes and fees deposited in the state transportation fund totaled \$958 million, or 6.7 percent of spending. These revenues combine to make up the state transportation fund, which accounted for 57 percent

of transportation funding.

At \$3.4 billion, federal dollars paid for a quarter of all spending. Other revenues, including transfers from the state's general fund, totaled almost \$1 billion (7 percent). The remaining \$1.9 billion (just under 12 percent) was borrowed.

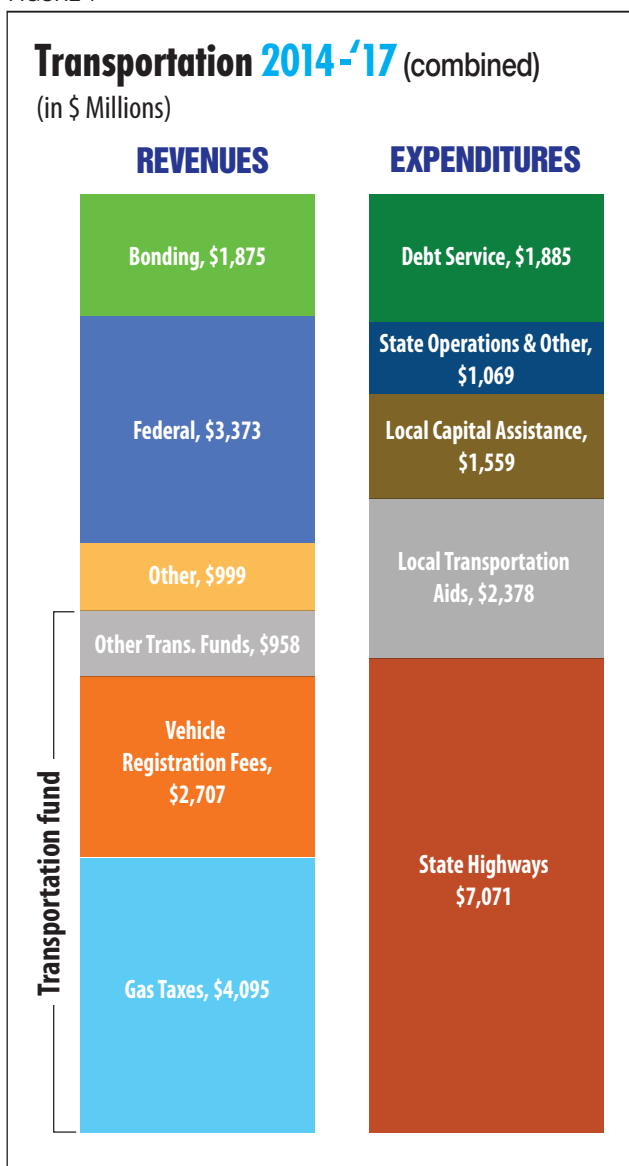
Spending

The bulk of the state transportation budget pays for "state highways." This is a broad category the Department of Transportation uses and includes expenditures for development, rehabilitation, repair and maintenance of the state and Interstate highway systems. Over four years, Wisconsin spent \$7.1 billion (half of all expenditures) on these activities.

The state also provides aid to local governments to help pay for local roads, bridges and transit. The largest of these appropriations is general transportation aid (\$1.7 billion over four years). Total funding for local transportation was \$3.9 billion, or 28 percent of expenditures.

When the state borrows for road projects, it repays that debt over a number of years, usually 20. During 2014-'17, Wisconsin paid \$1.9 billion in debt service, or 13.4 percent of all spending. Finally, state operations and other miscellaneous spending totaled \$1.1 billion (7.6 percent).

FIGURE 1



Trends in Transportation Revenues

The amount of money available to the state for transportation is driven largely by trends in gas taxes and vehicle registration fees, which are growing slowly. Federal aid has declined of late, while borrowing has increased significantly over the past 15 years.

Transportation Fund

Collections from motor fuel taxes, the largest transportation fund revenue, depend on both the tax rate and the number of gallons of fuel purchased. These purchases are related to miles driven, which tend to rise and fall with the economy. However, as cars and trucks become more fuel efficient, the relationship between miles driven and fuel purchases changes. More miles are driven per gallon of gas, resulting in less revenue per mile.

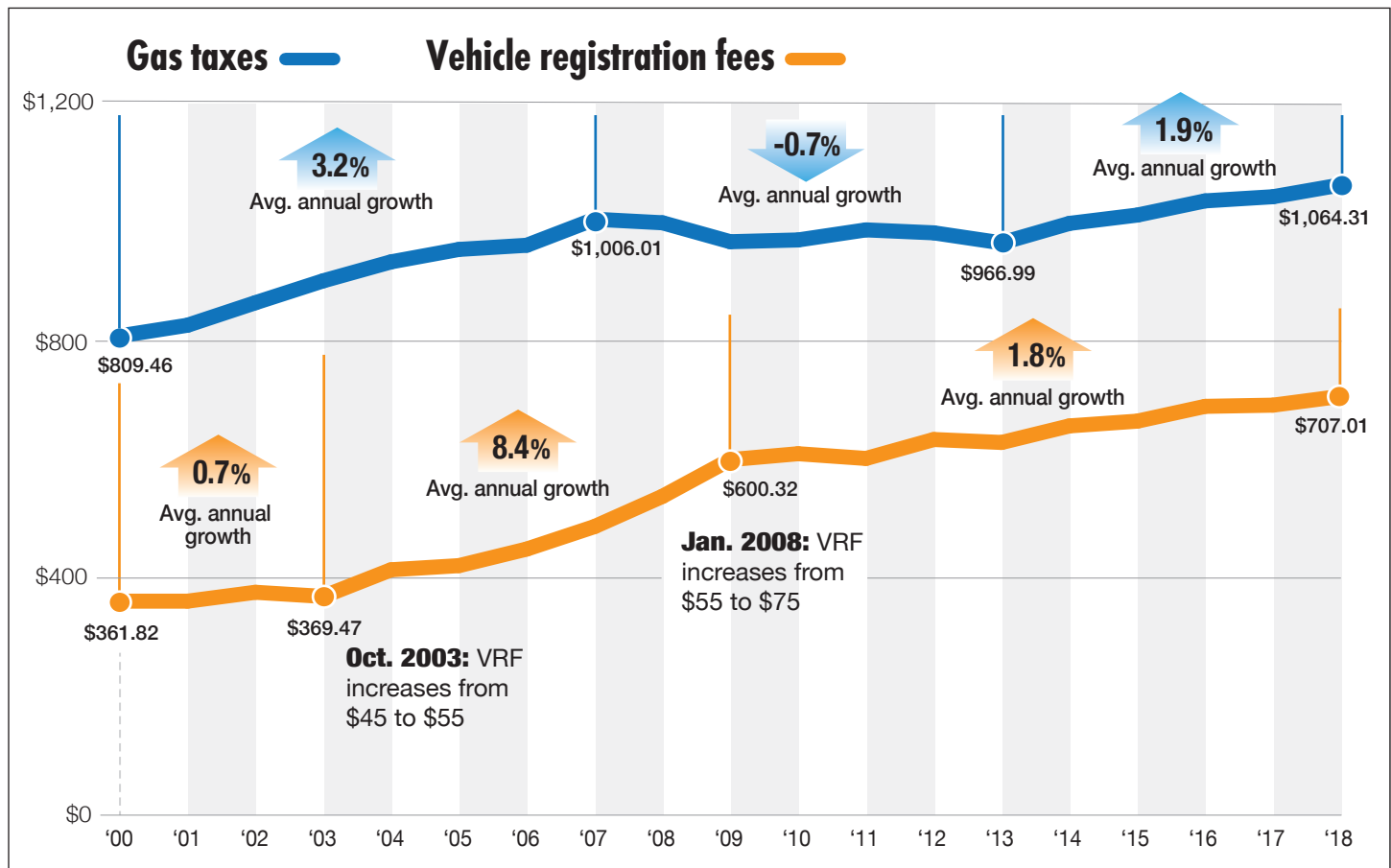
The impact of rising tax rates, the economy and gallons purchased is illustrated in three periods during 2000-'18 (see Figure 2).

1. With the exception of 2001, the years from 2000 through 2007 were marked by a growing economy. During these years, Wisconsin's gas tax was indexed,

or adjusted for inflation. It increased from 25.8 cents during most of fiscal 2000 to 30.9 cents per gallon in 2007. During this period of economic expansion and indexing, gas tax collections increased an average of 3.2 percent per year. Only about a quarter of the increase was due to more gallons purchased; most of the gain was from a rising tax rate.

2. The Great Recession and its lingering effects led to a slight reduction in the number of gallons purchased from 2008 through 2013. With no rate change (indexing ended in 2006), collections were driven entirely by the motor fuel purchased. While miles driven rose about 3 percent, gas purchases declined nearly 4 percent. Thus, collections in 2013 (\$967 million) were almost 4 percent less than in 2007 (\$1.01 billion).
3. After 2013, the state's economy began to pick up, unemployment fell to record levels and travel again grew. Gas tax collections climbed an average of 1.9 percent annually during 2014-'18 due entirely to rising gas sales.

FIGURE 2



Registration fees are similar to gas taxes in that collections rise only if more vehicles are registered or fees are increased.¹ The current annual fee for a car or light truck is \$75 (\$175 for electric cars). Fees for other vehicles vary. For example, registration for heavy trucks depends on weight, with owners of the heaviest tractor trailers paying almost \$2,600 per year. The last increase in vehicle registration fees (VRFs) was in January 2008, when the fee for cars and light trucks rose from \$55 to \$75.

Changes in registration fee collections since 2000 can be segmented into three periods to illustrate the impact of the economy and fee changes.

1. With the state going through a mild recession in 2001 and no change in VRFs, collections changed little during 2000-'03, rising an average of 0.7 percent per year.
2. Over the ensuing six years, registration fees were increased twice. In October 2003 (fiscal 2004), the fee for cars and light trucks rose from \$45 to \$55. In January 2008, it increased again to the current \$75. Registration fees for other vehicles also rose. During 2003-'09, collections rose an average of 8.4 percent per year. Total collections in 2009 were 63 percent higher than in 2003, with most of the increase due to rising fees.
3. Since 2009, collections from the various VRFs have risen an average of 1.8 percent per year due to 8 percent more vehicles being registered. The only fee change was a \$100 surcharge on electric vehicles beginning in January 2018.

To summarize, during 2009-'18, Wisconsin made no

Average fuel efficiency is expected to rise almost 24 percent through 2027, resulting in gas tax collections falling from just over \$1 billion to \$995 million.

Wisconsin transportation fund revenues from all sources are expected to increase a total of about 4 percent over the decade.

changes to either the gas tax or registration fees. Total transportation fund revenues increased 15.9 percent during this period, an average of 1.7 percent per year. By comparison, the national highway construction cost index rose 21.4 percent during this period, the consumer price index was up 17 percent and state general fund revenues climbed 33.3 percent.

Federal Aid

As Figure 1 shows, Wisconsin relies on the federal government to help fund a significant portion of its transportation projects. However, since 2010, the amount Wisconsin has received from the feds has declined slightly.

Excluding stimulus money used in 2009 (\$381 million) and 2010 (\$247 million), federal transportation aid increased an average of 4.1 percent per year during 2000-'10, from \$606 million to \$908 million. Since then, federal funds have averaged about \$850 million; in 2018, they totaled \$827 million.

Ongoing Revenues

Ongoing revenues for transportation in Wisconsin include taxes and fees deposited in the transportation fund, federal revenues (excluding stimulus) and other miscellaneous revenues. Their growth has slowed significantly since 2009. From 2000 through 2009, ongoing transportation revenues increased 45.5 percent. Over the nine years since, they are up just 13.3 percent, or an average of 1.4 percent per year.

Borrowing

Any spending above the amount of ongoing revenues is funded with borrowing, which has climbed significantly over the past 18 years. Again, since highways are designed

How Do Wisconsin's Gas Tax and Vehicle Registration Fee Compare?

Comparing gas taxes and vehicle registration fees across states can be challenging due to varying approaches. For example, all states except Pennsylvania impose a per-gallon excise tax on gasoline. Wisconsin's is 30.9 cents per gallon, ninth-highest, according to the American Petroleum Institute.

However, the state adds another 2 cents per gallon to fund its petroleum cleanup fund. Other states have similar taxes for a variety of purposes, some transportation related, others not. Some states also impose sales taxes on gasoline purchases (Wisconsin does not). These taxes run as high as 58.7 cents per gallon (Pennsylvania). When those are added,

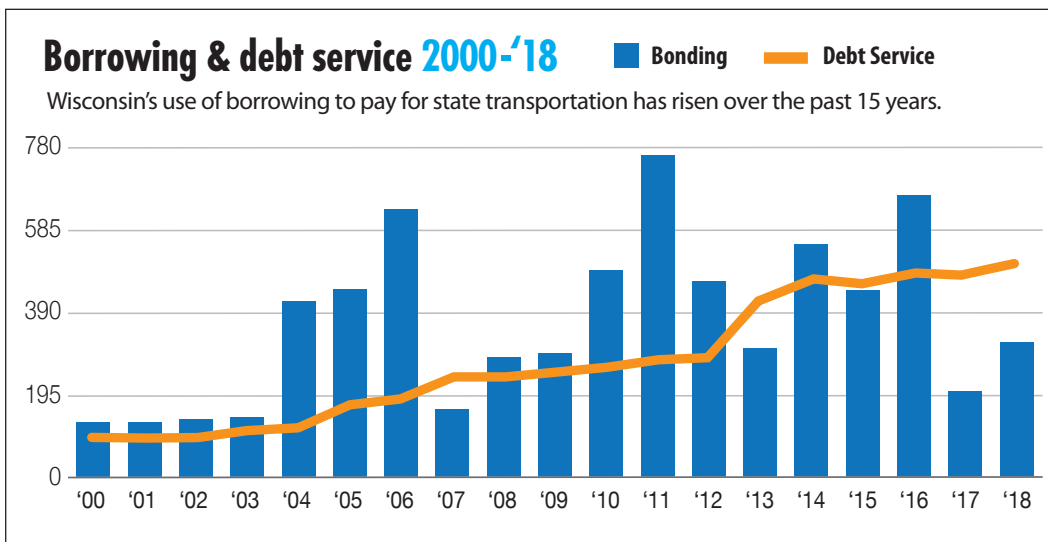
the state ranks 19th.

The approach to vehicle registration fees also varies by state. Wisconsin charges a flat fee of \$75. Another 25 states charge a flat fee, with 21 below \$75 and four above.

The remaining 24 states charge a fee based on some combination of vehicle value, age and weight. These fees cannot be compared generically, only on specific vehicles.

The Wisconsin Department of Transportation compared Wisconsin's \$75 fee with those of surrounding states on a 1-year-old, four-wheel-drive SUV. Those fees were all higher than Wisconsin's, ranging from \$101 in Illinois to \$594 in Minnesota.

FIGURE 3



to last for decades, it is not unusual to borrow for their construction or reconstruction. However, the bonds issued must be repaid out of ongoing revenues over the ensuing 20 years. These debt service payments reduce dollars available for other needs during that time.

Wisconsin's use of borrowing to pay for state transportation has risen over the past 15 years. During 2000-'03, the state issued \$532 million (an average of \$130 million per year) in bonds backed by transportation fund revenues, enough to pay for approximately 6 percent of state transportation spending.

In subsequent years, the state's use of borrowing ratcheted up to an average of \$435 million per year (\$3.5 billion total) during 2004-'11, an increase of 235 percent on an annual basis (see Figure 3). During these years, bonding paid for 14 percent of spending, up from 6 percent in the years prior.

Why the big increase? Part of the answer is general fund "raids" on the transportation fund beginning in 2004. During 2004-'11, lawmakers and the governor used \$1.4 billion in gas taxes and vehicle registration fees to balance the general fund.

To limit the impact on transportation, they authorized just over \$1 billion in borrowing to "replace" those funds. While the debt service on these bonds is paid out of the general fund, these maneuvers added an average of \$128 million per year to total transportation bonding.²

But the state also issued more transportation-backed bonds during these years than during 2000-'03. From 2004 through 2011, lawmakers authorized \$2.5 billion in borrowing backed by transportation fund revenues. At an average of \$307 million per year, transportation-backed borrowing more than doubled compared to 2000-'03.

The state no longer uses transportation dollars to balance its general fund; Wisconsin's constitution was amended in 2014 to permanently ban the practice. However, bonding for trans-

portation has remained high even without raids. During 2012-'18, transportation borrowing totaled \$2.6 billion, or an average of \$437 million per year. On average, it has funded almost 13 percent of transportation expenditures.

Looking Ahead

What might we expect in revenue growth over the next decade? As part of a December 2016 study (Fund Solvency Report), the Department of Transportation estimated transportation fund revenues through 2027.

Average fuel efficiency is expected to rise almost 24 percent through that year, resulting in gas tax collections falling from just over \$1 billion to \$995 million in 2027. Vehicle registration fees are expected to rise an average of 1.2 percent per year. Changes in both are below Wisconsin's 2009-'18 experience. Transportation fund revenues from all sources are expected to increase a total of about 4 percent over the decade.

But there are risks to even that pace of growth. The current

The General Fund and Transportation

Since the 2003-'05 biennium, there has been a shifting of revenues between the general and transportation funds. As mentioned previously, the state used \$1.4 billion in transportation fund dollars to help balance the general fund between 2004 and 2011. In 2014, the state constitution was amended to prevent this action going forward.

While transportation dollars are no longer used to pay for general fund programs, the reverse is not true. Since 2012, the state has been supplementing the transportation fund with general fund taxes. Since 2013, the state has shifted 0.25 percent of general fund taxes annually to the transportation fund. In 2018, this transfer was just under \$40 million.

There also have been a number of one-time transfers. From 2012-'18, transfers from the general fund have totaled nearly \$500 million.

General fund taxes are also used to pay for some general obligation bonds issued for transportation projects. Since 2005, \$1.26 billion in general fund dollars have been so used. In 2018, the amount was \$127 million.

economic expansion is among the longest on record. History tells us that a recession is almost inevitable within the next few years. Even a mild recession would be felt in the transportation

budget. However, given the minimal revenue growth currently expected, a deep or protracted downturn could have a devastating impact on transportation funding.

Trends in Transportation Spending

On the spending side of the ledger, several trends stand out. The increased borrowing discussed above has led to significant growth in debt service, both overall and within the transportation fund. This has crowded out dollars for current priorities. One of the main casualties has been local aid. Also, beginning more than 15 years ago, Wisconsin decided to refurbish and reconstruct some of its Interstates in the southeastern corner of the state. These projects, many still unfinished, required significant state investment.

Debt Service

Earlier, we discussed Wisconsin's large increases in transportation borrowing. The long-term costs of those decisions are now being felt.

In 2000, the state spent \$90 million, or 4.7 percent of total non-debt revenues, to service prior borrowing. By 2018, debt service had more than quintupled to \$507 million and 15.9 percent of non-debt revenues.

During those years, state leaders also shifted how that debt service was funded. Prior to 2005, debt service on transportation borrowing was paid with gas taxes and vehicle registration fees. Since then, a portion is paid with general fund taxes. In 2018, \$380 million of debt service was paid from the transportation fund, \$127 million from the general fund.

Debt service paid from the general fund siphons away income and sales taxes historically used for school aids, higher education, corrections and other state programs. However, the state's general fund totals more than \$16 billion and transportation debt service claims less than 1 percent of that.

By contrast, Wisconsin's transportation fund is less than \$2 billion. In 2018, the \$380 million of debt service claimed 19.3 percent of those dollars. And that percentage has been rising, from 7.1 percent in 2000 to 13 percent in 2002, and to nearly 20 percent in 2018. It is expected to top 20 percent this year. In other words, for every \$5 collected from gas taxes, registration fees and other transportation fund revenues, only \$4 are available for ongoing or new projects, maintenance of the

current system or local assistance.

The impact of rising debt service can be highlighted by looking at transportation fund revenues net of debt service. As mentioned above, gross revenues rose an average of 1.7 percent per year during 2009-'18. However, after accounting for debt service payments, amounts available for ongoing projects increased just 0.6 percent annually.

Local Aids and Assistance

While debt service has risen, aids to local governments have moved in the opposite direction. Historically, a large share of transportation dollars was used to help pay for local roads, bridges and mass transit. While still significant, that share has declined over the past 15 years.

Local road aids peaked in 2010 at \$1.2 billion, when the

state used \$156 million in stimulus dollars. Since then, total transportation revenues increased slowly, and debt service rose rapidly. Dollars flowing to local governments declined to \$977 million in 2017, before rising to just over \$1 billion in 2018.

The decline is more striking when aids are put in the context of total transportation spending. In 2000, local aids and assistance made up almost 40 percent of state transportation spending.

A decade later, it was under 35 percent, and in 2018, local assistance made up just 28.6 percent of state transportation expenditures.

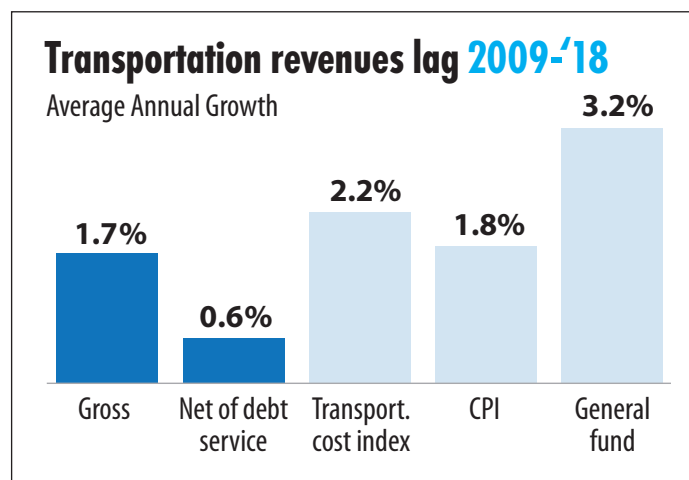
Spending on State Highways and Interstates

In 2018, expenditures for all highways made up 49 percent of DOT spending, a percentage that has changed little over the years.

It is difficult to completely isolate all Interstate spending vs. spending on other highways, but the state over time has authorized large separate appropriations and Interstate project funds.

Wisconsin began rehabilitating and rebuilding Interstates in southeastern Wisconsin in 2002. The 2001-'03 state budget created a separate appropriation for this purpose. That rehabilitation

FIGURE 4



program ended in 2011, and the Southeast Wisconsin Freeway Megaprojects program was created in 2012 for southeastern Wisconsin freeway projects costing more than \$500 million.

Through 2018, the state has spent almost \$3.8 billion in the rehabilitation and megaprojects programs — money used exclusively for Interstates. In addition, the state is redoing I-90 from the Illinois state line to Highway 12 in Madison and has spent about \$580 million on that project so far — bringing the total aforementioned Interstate spending up to almost \$4.4 billion.

On average, spending just on the southeastern Wisconsin projects (and not including I-90) accounted for about 14 percent of highway expenditures since 2002, but that percentage, of course, represents only a portion of Interstate spending.

A determination of obligations going forward, meanwhile, is beyond the scope of this primer but — to mention just one example — the I-90 project is expected to cost an additional \$633 million beyond any of the numbers cited above.

In sum, the rebuilding of Interstates in Wisconsin likely has

affected the DOT's ability to fund other projects, but further, more extensive study will be needed on the issue.

Looking Ahead

Transportation expenditures are limited by the amount of revenue available. That is illustrated by the state's cancellation in 2017 of the reconstruction of I-94 in Milwaukee between the Zoo and Marquette interchanges.

In addition to projecting revenues, the Fund Solvency Report discussed above explored several spending scenarios through 2027. These ranged from spending less than was spent during 2015-'17 to modest spending increases.

Under the most frugal scenario, the DOT estimated that expenditures would exceed revenues by \$852 million, or 2.9 percent. The percentage of highway miles rated poor or worse would climb from 21 percent to 44 percent. Under a scenario in which spending rises “modestly” compared to 2015-'17, the gap between revenues and expenditures rises to \$7.94 billion, or 22 percent of 10-year expenditures. The share of “poor” miles increases to 36 percent.

Can We Be More Efficient?

In January 2017, the Legislative Audit Bureau completed an audit of the state highway program. In it, auditors listed some areas for improvement.

The time from enumeration of a project in the state budget to completion can be many years. The Legislative Audit Bureau noted that the DOT underestimated costs for projects by not adequately accounting for inflation and unexpected costs. Sixteen ongoing projects (in 2016) were initially estimated to cost \$2.7 billion. As of the audit, they were expected to cost \$5.8 billion.

The underestimation of costs led to the budgeting of more major highway work than the DOT had funds for and delays in some projects.

The audit bureau also identified potential savings of about \$10 million per year (on average) from modest changes to the bidding process, including making efforts to ensure there were multiple bids on a project.

Compared to Other States

Several organizations attempt to compare highway costs and efficiencies among the states. Each has its drawbacks but can provide some information on how Wisconsin stacks up.

In 2018, the Midwest Economic Policy Institute (MEPI) published a report examining highway construction costs across states. MEPI collected information on the amount spent on highway construction from 1993-2015 and divided that by total lane miles, not just miles under construction.

MEPI noted that “each state encounters its own unique complications that factor into overall costs. Therefore, it cannot be exclusively used as a definition of cost effectiveness.”

MEPI reports that over the 22 years studied, Wisconsin's highway construction costs averaged \$30,566 per lane mile, 17th highest in the nation but in the middle compared to our neighbors. Average costs for surrounding states were: Illinois, \$51,907; Michigan, \$42,887; Iowa, \$26,436; and Minnesota, \$24,190.

The Reason Foundation has been tracking the “performance” of state highway systems since 1984. Its approach differs from MEPI's. Reason analyzes individual years and looks not only at spending but also at highway conditions, congestion, fatalities and deficient bridges.

Reason's most recent study was published last year and showed Wisconsin ranking 38th best on overall performance in 2015. Its figures show the state spent \$117,191 per mile to “build new, and widen existing, highways and bridges.” That amount was 15th highest nationally and higher than all neighboring states except Illinois (\$263,315).

Wisconsin also ranked poorly on highway condition. The Reason study reports that 5.44 percent of Wisconsin's rural Interstates and 6.7 percent of its urban Interstates were in poor condition. While those percentages are relatively small, Wisconsin ranked third-worst on rural and 11th-worst on the condition of urban Interstates.

Conclusion

The transportation funding issue is not new; it has been studied at length for the past decade. And Wisconsin is not alone in facing transportation finance challenges. A relatively large part of the nation's transportation infrastructure is at or nearing its life span, and the revenues

needed to refurbish or replace this infrastructure are growing modestly.

Wisconsin's challenge is exacerbated by its past reliance on borrowing. Repaying that debt now means even less of a slow-growing revenue source is available for current needs.

About the author

Dale Knapp is the Director of Research and Analytics for the Wisconsin Counties Association and the Director of Forward Analytics. Prior to joining the Counties Association in 2018, he spent almost 18 years with the Wisconsin Taxpayers Alliance (WISTAX), serving as Research Director for the last 15. While at the Alliance, Knapp wrote extensively on a variety of public policy issues, including transportation. He was also the primary author of "Filling Potholes," a 2014 WISTAX report commissioned by Wisconsin's Local Government Institute.

Endnotes

¹ Collections also can change with a different mix of vehicles; for example, a greater ratio of high-fee trucks to low-fee cars.

² Wisconsin Legislative Fiscal Bureau, Informational Paper 35