



# Road Overkill

**Wisconsin Spends Big  
on Questionable Highways,  
Even as Driving Declines**

**WISPIRG**  
Foundation

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Wisconsin Spends Big on Questionable  
Highways, Even as Driving Declines



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# Executive Summary

**W**isconsin's transportation system is at a crossroads. The state's roads and bridges are aging and maintenance needs are increasing. Funding for transit service has been slashed at the same time that demand for transit is rising nationally.

Yet, even with limited resources at its disposal – and amid falling gasoline tax revenues – the Walker administration has chosen to invest massive amounts of money in highway expansion. Starting with the 2011-2013 biennial state budget, Wisconsin has allocated hundreds of millions of dollars in funding for freeway expansion and construction projects while cutting state aid for transit and maintenance of locally owned roads, harming local taxpayers, those who choose not to drive, and the increasing numbers of Wisconsinites who are seeking transportation options.

Highway expansion is often justified based on the idea that traffic volumes will go in only one direction: up. Yet, Wisconsinites are actually driving less per capita now than we did in 1997, raising the question of whether massive new highway projects really make best use of our resources.

**A review of six highway projects completed across Wisconsin in the last two decades (and one still partially under construction) reveals that traffic on many new roads is failing to materialize as originally projected by the Wisconsin Department of Transportation (WisDOT).** Before Wisconsin invests hundreds of millions of additional dollars in highway expansion projects at the expense of other transportation priorities, the state should conduct a thorough review of the need for highway expansion in light of changing trends in driving.

**Wisconsin is planning to spend big on highways while squeezing funding for other forms of transportation.**

- Wisconsin's 2011-2013 biennial state budget appropriated \$1.2 billion for highway construction projects.
- In addition to increasing funding for highway megaprojects in south-east Wisconsin to \$550 million, the 2013-2015 biennial budget proposes an additional \$735 million for other major highway projects statewide.
- To pay for this increased highway spending, both budgets reduced the amount of state-collected gas taxes that flow back to local governments for local streets and roads, leaving the vast majority of costs for local roads – which comprise the biggest part of the road network in the state – to be covered by local taxpayers.
- The 2013-2015 biennial budget also seeks to shift funding for transit from the dedicated Transportation Fund to the state's strapped general fund, freeing up additional funding for highway expansion projects.

**Recent highways built across Wisconsin have failed to attract the level of traffic originally projected by WisDOT – a manifestation of the recent trend toward reduced driving in Wisconsin and nationwide.**

This report highlights seven projects – representing more than \$1 billion in taxpayer investment – where traffic counts are not on pace to match projections.

- **U.S. Highway 151 between Dickeyville and Belmont** – In 1999, WisDOT forecast that traffic on this stretch of road would increase by 60 percent by 2025. This forecast was used to justify the \$100 million conversion of the two-lane road to a four-lane divided expressway. Eleven

years later, traffic volumes had risen between 13 and 22 percent.<sup>1</sup> Traffic volume would need to grow significantly faster in the next 12 years than it did in the last 11 in order to meet projected 2025 traffic levels.

- **Interstate 39/U.S. Highway 51/ State Highway 29 in Wausau** – In 2010, WisDOT christened a new, \$309 million six-lane freeway in Wausau shared by Interstate 39, U.S. Highway 51, and State Highway 29. In the year it opened, traffic on the highway was 3.8 percent below the low end of WisDOT's forecast range for the road's inaugural year.
- **Burlington Bypass** – The \$118 million, four-lane Burlington Bypass in Racine County presently accommodates 33 to 36 percent less traffic than forecast, and handles traffic numbers small enough that a two-lane road would be suitable.
- **State Highway 64, St. Croix County** – In 1994, WisDOT predicted an increase in traffic by 2016 of 75 to 101 percent for this highway in St. Croix County. After a \$109 million upgrade, by 2012 traffic on the road had increased just 21 to 56 percent. Traffic volumes would need to increase another 28 to 44 percent in just the next four years to reach the volumes predicted for 2016.
- **U.S. Highway 141, Marinette and Oconto counties** – The \$68 million expansion of U.S. 141 in northeastern Wisconsin was expected to serve a predicted increase in traffic of 35 to 71 percent by 2025 compared with 1995 levels. But by 2009, the most recent year for which data are available, traffic volumes had increased just 3.9 percent at one location.

- **U.S. Highway 41 from Oconto to Peshtigo** – This \$180 million expansion serves traffic volumes lower than were projected for 2007. Even on busier stretches of the road, the number of cars driving on U.S. 41 has only inched up by 8 to 12 percent since 2001. Further increases in traffic of 28 to 40 percent are necessary for WisDOT’s 2027 traffic forecasts to be realized.
- **State Highway 26 from Janesville to Watertown** – WisDOT expects an increase in traffic of 85 to 300 percent on this stretch of highway between 1998 and 2028, justifying an expansion of the road that will cost an estimated \$433 million. Though construction is underway

along much of the route, traffic volumes on completed portions are not meeting projections: at one location in 2010, the number of cars was 21 percent below what was expected in 2008. For traffic levels to reach their predicted highs by 2028, volumes will need to increase a further 77 percent or more.

**Wisconsinites – like Americans in general – are driving less. The recent, historically unprecedented decline in vehicle travel – coupled with lower-than-anticipated traffic on recently completed roads – calls into question whether massive new investments in highway expansion are justified.**

- The average Wisconsinite now drives about as much in a year as he or she did in the middle of President Bill Clinton’s administration, and total vehicle travel has fallen by 3 percent since 2004. (See Figure ES-2.) The recent trend toward less driving in Wisconsin is consistent with broader national trends.
- Young people lead the trend toward reduced driving. According to the National Household Travel Survey, between 2001 and 2009 the average number of vehicle-miles traveled by 16- to 34-year-olds nationwide dropped 23 percent.
- There are strong reasons to believe that stagnation in vehicle travel will continue. Young people are more likely to prefer to live in mixed-use neighborhoods with transit accessibility and close proximity to shopping, dining, schools and work rather than the sprawl-style suburban developments favored by previous generations. Increased gasoline prices are also causing people to drive less. Wisconsin’s recently

**Figure ES-1. Location of highway construction projects studied in this report**

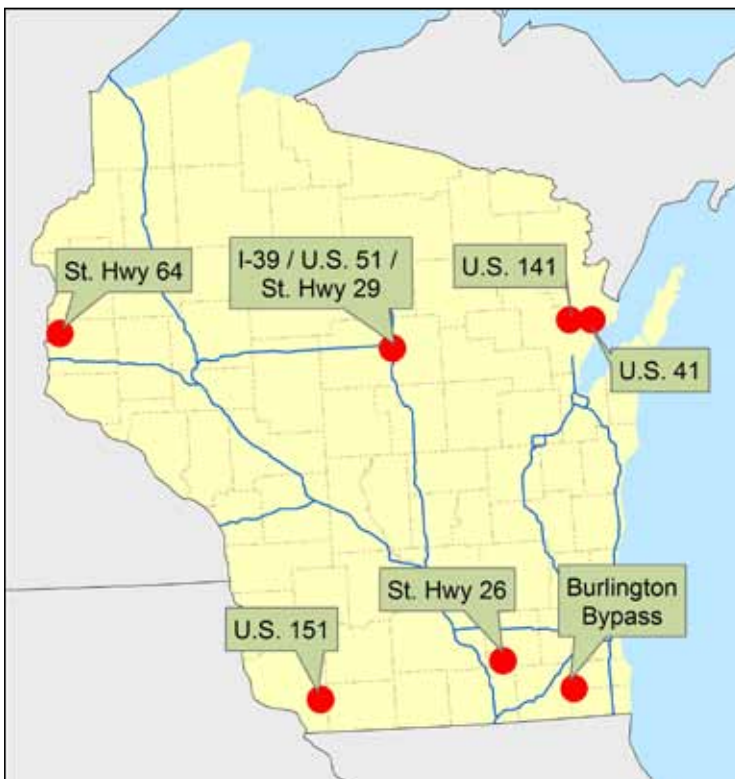
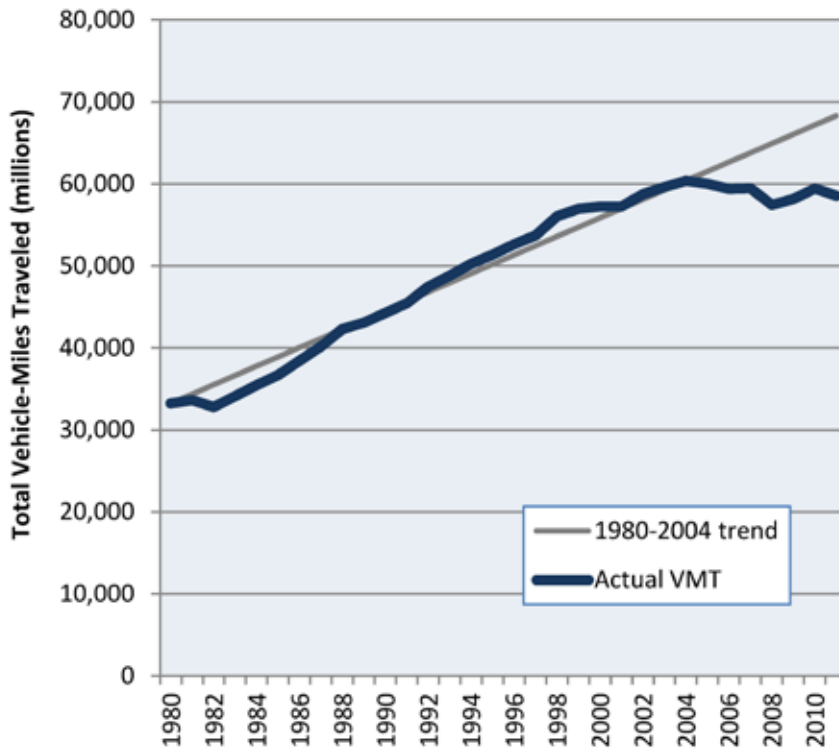


Figure ES-2. Total VMT in Wisconsin, 1980-2011



convened Transportation Finance and Policy Commission concedes that statewide VMT is likely to remain stagnant for the next decade.

**To protect the public purse and ensure Wisconsinites get transportation infrastructure that meets the needs of the 21st century, Wisconsin officials should:**

- Revisit traffic growth projections for proposed highway expansion projects in light of recent trends in driving and scale back or cancel projects that are no longer justified.
- Adopt a “fix it first” approach to the state’s highway infrastructure by addressing pressing road maintenance needs across Wisconsin.
- Respond to the 21st-century needs of Wisconsinites by shifting some funding from highway expansion projects toward increased support of public transportation, local road repair, and bicycle and pedestrian infrastructure.



# Introduction

For most of the 20th century, the number of cars on Wisconsin roads and the number of miles driven in them each year went in only one direction: up.

The number of miles driven on Wisconsin highways nearly doubled between 1980 and 2004 – increasing from 31.2 billion miles to 60.4 billion miles.<sup>2</sup> With that history, it is little surprise that transportation planners in Wisconsin and elsewhere have treated the notion of increasing traffic as a reliable fact of life.

Over the last decade, though, something remarkable has happened. Wisconsinites and Americans in general have started driving less, breaking a pattern of rapid increases in driving stretching back more than six decades. There are many theories about why this change is occurring. Some blame

the economy (even though the trend toward reduced driving began before the recession and has persisted through the recovery). Others point to dramatic changes in transportation behavior among young people. Demographic changes – especially the aging of the Baby Boom generation – are partially responsible. Higher gas prices likely have played a part. The slowing spread of sprawl – due partially to the housing crisis – may have contributed as well.

Regardless of which of these factors caused the recent decline in driving – and all of them may have played some role – one thing is for certain: the future of transportation looks a lot different than it did a decade ago.

Across the state, highways that were built in the expectation of ever-growing demand for driving are failing to attract

the amount of traffic anticipated when they were planned and built. With transportation needs changing – and with Wisconsin making critical choices about its transportation future – the time has come to reevaluate whether highway expansion projects planned years ago are still a wise investment of public money. It is also time to reevaluate whether other transportation investments that would be sacrificed in the pursuit of even bigger highways – such as improvements in public transportation – might not deliver greater benefits.

Wisconsin's experience with recently-built highways suggests that, in an era of reduced demand for driving, Wisconsin may not need the type of highway expansion program favored by the Walker administration. Scaling back on highway expansions may free up resources to invest in maintaining our existing state and local roads, provide the improved public transportation, walking and bicycling options Wisconsinites increasingly desire, and reduce pressure on taxpayers.

# The Changing Future of Transportation

**F**or decades the annual number of miles traveled in cars in Wisconsin increased steadily. Between 1970 and 2004, total vehicle-miles traveled (VMT) more than doubled.<sup>3</sup> But in 2004 something remarkable happened: after decades of reliable growth, VMT reached a peak in the Badger State. Indeed, by 2011 per capita VMT in Wisconsin was 633 miles less than in 2004 while overall VMT was down approximately 3.2 percent from the 2004 high.<sup>4</sup>

Wisconsinites are not alone. Across the United States, Americans are driving less than we did in 2004. Moreover, the biggest changes in driving behavior are occurring among the youngest Americans – those who will be the primary users of the transportation system 10 or 20 years from now.

Despite these major shifts in behavior, the state of Wisconsin continues to spend

money on transportation as though nothing has changed, prioritizing big highway expansion projects over other worthy priorities, such as expanding transportation choices for Wisconsinites. To understand just how out of step this approach is, it is important to review recent trends in transportation both in Wisconsin and across the country.

## Wisconsinites Are Driving Less

Like the rest of the United States, in recent years Wisconsin has witnessed a marked decline in total driving. From a high-water mark of approximately 60.4 billion miles in 2004, Wisconsin's total VMT has fallen approximately 3 percent.<sup>5</sup>

This trend holds true in per-capita terms as well. For much of the last four decades, VMT per capita in Wisconsin grew strongly, from 6,382 miles in 1973

to 10,916 miles in 2004. In recent years, however, VMT per capita has been falling. (See Figure 1.) In 2011, the average Wisconsinite drove fewer miles than he or she did in 1997. This is all consistent with a national trend. The number of vehicle-miles traveled per capita in the United States peaked in 2004, while total vehicle travel peaked in 2007.<sup>6</sup> According to the National Household Travel Survey, the average number of vehicle-miles traveled by 16 to 34 year-olds nationwide dropped 23 percent between 2001 and 2009.<sup>7</sup>

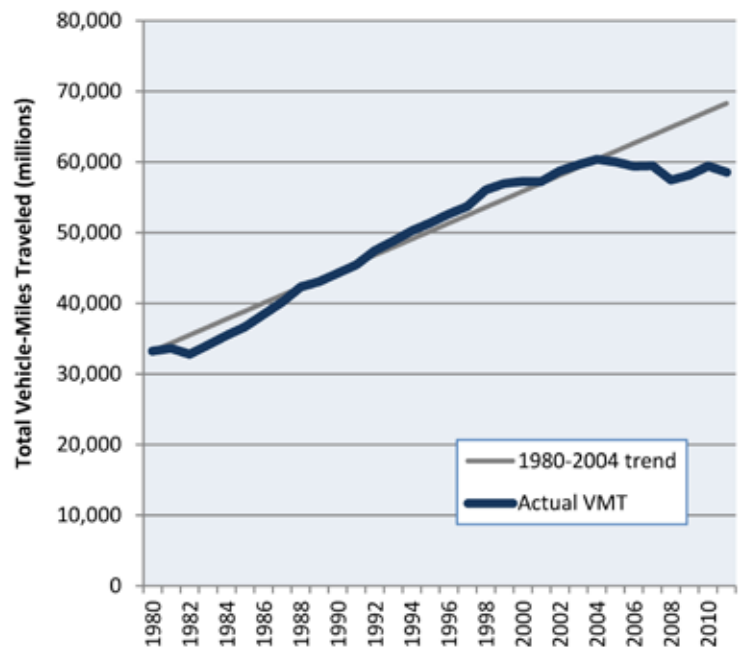
## Wisconsinites Are Increasingly Looking for Transportation Choices

Across the state, many Wisconsinites are showing an increased desire to use public transit, although funding problems have challenged the ability of the state's transit systems to take advantage of increased interest from would-be riders. Commuters in Wisconsin's two biggest cities are also demonstrating a greater interest in riding their bicycles to work.

In much of Wisconsin, demand for public transportation has been on the rise:

- Transit ridership in Madison has risen in 11 of the past 12 years and hit an all-time high in 2011.<sup>10</sup> Nearly 45 percent more trips were taken on public transportation in the Madison area in 2011 than were taken in 1997.
- In La Crosse, annual transit ridership has risen from approximately 750,000 trips in 1997 to almost 1.3 million in 2012.<sup>11</sup>
- According to the Wisconsin Commission on Transportation Finance and Policy, between 2007

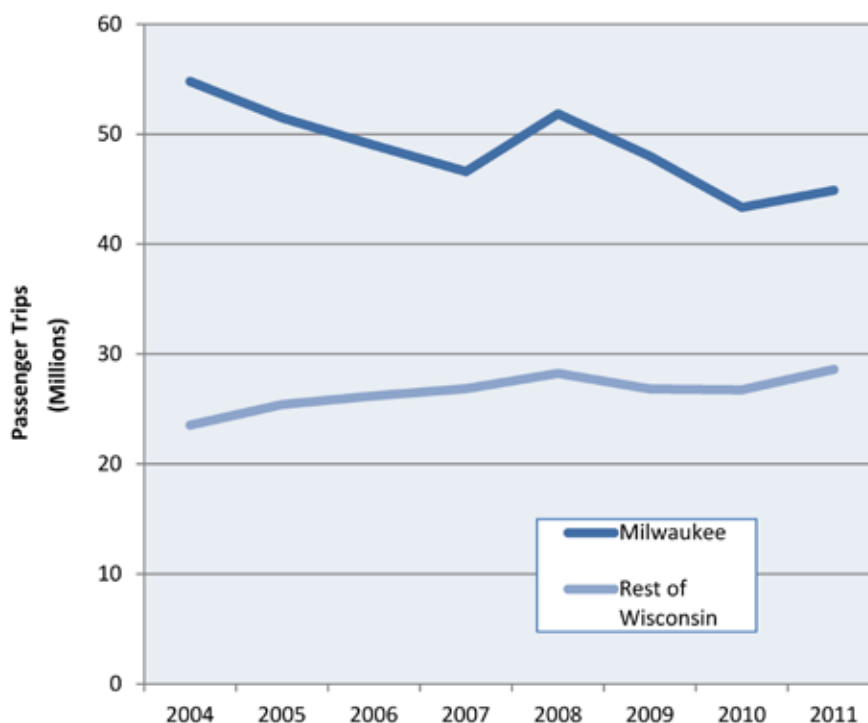
Figure 1. Total VMT in Wisconsin, 1980-2011<sup>8</sup>



and 2011 statewide ridership on “Tier C” transit systems – those operating in areas with populations of less than 50,000 – rose.<sup>12</sup> For example, at Bay Area Rural Transit on the shores of Lake Superior, year-on-year ridership was up 11 percent in 2010, 21 percent in 2011 and a further 9.5 percent through October 2012.<sup>13</sup>

The one dark cloud in the statewide transit picture has been the state's largest transit system: Milwaukee. Since 2000, the Milwaukee County Transit System has been forced to undergo six major bus route restructurings shedding 21 regular bus routes, and to curtail both the frequency and hours of service on the routes that remain. Over the same period, the cost of a single bus fare in Milwaukee has risen 67 percent. According to testimony to the state's Transportation Finance and Policy Commission by the

Figure 2. Trends in transit passenger trips<sup>9</sup>



managing director of the Milwaukee County Transit System, these changes in service and fares “have been major factors in reduced ridership.”<sup>14</sup>

In addition to changes in transit usage, Wisconsinites in the state’s two largest cities are also increasingly choosing to commute to work by bicycle. Between 2000 and 2011, the number of people bicycling to work in Milwaukee grew 227 percent. In Madison, the number surged 147 percent. Fully 4.7 percent of all commuting in Madison in 2011 was done by bicycle.<sup>15</sup>

These trends toward increased interest in transit and other alternatives to driving are consistent with larger, national trends. In 2009, American 16- to 34-year-olds took 24 percent more bike trips than they did in 2001 and increased their miles

traveled by transit by 40 percent relative to eight years earlier.<sup>16</sup> Nationally, transit ridership in 2012 increased by 1.5 percent over 2011 levels to reach its second-highest level since 1957.<sup>17</sup>

## The Future of Transportation in Wisconsin Is Changing

Major changes are afoot in transportation behavior among Wisconsinites (and Americans more broadly). These changes point to a future in which there are fewer cars, being driven fewer miles, than might have been predicted just a few years ago.

As Wisconsin faces critical decisions about its transportation future, the state needs to consider how changing trends should reshape its transportation

investment strategy. A review of seven highway projects proposed and initiated over the last 20 years suggests that the traffic projected for those highways has failed to materialize to the degree

anticipated by transportation planners. These examples demonstrate how continued reductions in driving could reduce the urgency of and need for large new investments in highway capacity.

# Traffic Is Failing to Materialize as Expected on New Wisconsin Highways

Time and again, the state has invested hundreds of millions of dollars in new and expanded highways based, at least in part, on the assumption that traffic on those highways will greatly increase. In many cases, however, those increases in traffic have not materialized, or have materialized far more slowly than originally anticipated – yet another sign that the demand for driving in Wisconsin is changing.

If demand for driving continues to grow more slowly than in the past, Wisconsin may be able to use funding

currently proposed for major highway expansion projects to address growing highway repair needs and rising demand for alternatives to driving.

In this section, we review seven recent highway projects in Wisconsin – which, collectively, represent more than \$1 billion in taxpayer investment – to “reality check” the traffic projections originally made by WisDOT versus actual recent traffic counts.

Traffic forecasts for proposed highway projects are often found in the “Purpose and Need” chapters of the environmental

impact statements for the projects. The documents present a baseline traffic count and a forecast for a “design year” (and sometimes an intermediary year) at a series of locations expressed in absolute terms and as a percentage increase over the baseline count. To achieve a comparison with recent actual traffic counts reported by WisDOT, we calculated the actual percentage increase that has occurred relative to the baseline counts. Occasionally the forecast is presented as a range to account for variation in traffic levels along the length of the project route. In these instances, this report compares the high end of the forecast with the actual count at the location along the highway with the highest traffic count and the low end of the forecast with the count at the location with the lowest actual traffic count to produce a range of actual traffic growth along the highway relative to the baseline.

As will be described in greater detail below, there are numerous cases in which traffic for newly constructed or expanded highways has either failed to develop as originally projected by WisDOT, or appears very unlikely to meet the traffic projections made when the projects were proposed. It is difficult to blame WisDOT for failing to foresee the impact of the recent dramatic shift in driving patterns – a shift that took many transportation experts by surprise.

But with Wisconsinites now driving as little per capita as they did 16 years ago, and with driving levels continuing to stagnate even in the midst of economic recovery, there is no excuse for Wisconsin officials to fail to take into account these cautionary examples and new information about changing driving trends when deciding how Wisconsin’s future transportation dollars will be spent.



*Soaring ramps mark the newly expanded Interstate 39/U.S. Highway 51/State Highway 29 in Wausau.*

**Figure 3. Location of the Interstate 39/U.S. Highway 51/ State Highway 29 project in Wausau**



## Interstate 39/U.S. Highway 51/ State Highway 29 in Wausau

Just south of Wausau, in central Wisconsin’s Marathon County, Interstate 39/U.S. 51 meets State Highway 29 and the two highways head north together for approximately five miles until State Highway 29 breaks off to continue its journey west. This shared roadway brings together central Wisconsin’s primary north-south artery (Interstate 39/U.S. 51) and a major east-west travel route (State Highway 29).<sup>18</sup> This



stretch of highway sees long-haul truck volume as well as shorter local trips and commuting activity.

A major construction project on this stretch of highway began in 2004 that involved expansion to six total lanes (with room to expand to eight total lanes by 2020) and the reconfiguration and reconstruction of the two interchanges with State Highway 29, creating an interchange at the northern end of the project area featuring three tiers of soaring ramps.<sup>19</sup>

Projections of substantial traffic growth were used, in part, to justify this \$309 million endeavor and official documents warned that by 2020 the freeway would be “one of the busiest in the state.” Based on a 1999 traffic count, WisDOT predicted an increase in traffic by 2010 – the year

construction work ended – of up to 41 percent. By 2020 the number of cars on the freeway was expected to be up to 66 percent greater than in 1999.<sup>20</sup>

The completed six-lane freeway is far from carrying that much traffic. In fact, comparing the smallest, most recent reading taken by WisDOT in 2010 to the low-end of the forecast range for that year, there were 3.8 percent fewer vehicles on the freeway than anticipated. The low and high ends of the 2010 traffic count range would need to grow by 24 percent and 70 percent, respectively, to meet official predictions by 2020. The most recent available traffic volumes on the road are within the design capacity of a four-lane highway and less than the capacity of the new highway.<sup>21</sup>

**Table 1. Projected and actual average daily number of vehicles on Interstate 39/U.S. Highway 51/ State Highway 29<sup>22</sup>**

Location	1999 Baseline Count	2010 Projected	2010 Actual*	2020 Projected
I-39/U.S. 51/St. Hwy 29	40,000-56,000	52,400-78,800	50,400-54,900	62,300-93,200

\*Traffic counts conducted in May 2010. At this time some construction work remained outstanding on the interchange ramps at the northerly intersection. The entire project was ultimately completed in late 2010.<sup>23</sup> However, all other construction on the roadway was completed prior to 2010.<sup>24</sup> More recent traffic counts were not available at the time of publication.



Workers put the finishing touches on the Fort Atkinson bypass, part of the \$433 million expansion of State Highway 26.

## State Highway 26 from Janesville to Watertown

State Highway 26 ties together six communities, including Janesville and Watertown, while also connecting to major highways such as Interstates 90 and 94 and U.S. 12 and U.S. 18. As a major highway in Rock, Jefferson and Dodge counties, State Highway 26 handles through traffic, including long-distance trucks, while acting as a local and regional link between the commercial activity of Janesville and the smaller towns in its northern vicinity.<sup>25</sup>

Originally built as a two-lane highway, State Highway 26 is currently undergoing expansion work to become a four-lane road including bypasses of communities en route. However, with research by WisDOT concluding that traffic volumes on “old routes” in medium and large bypassed communities often remain unchanged or even rise relative to pre-bypass levels, the need for wide, high-capacity bypasses of communities like

Figure 4. Location of the State Highway 26 project between Janesville and Watertown



Jefferson is open to question. Jefferson is the sort of town that often holds on to its traffic even in the presence of a bypass because the downtown area is a local destination for shoppers, traders and businesspeople.<sup>26</sup> This tendency is one possible explanation for low traffic levels on newly constructed bypasses.

Official projections of future traffic levels forecast large increases in the number of vehicles using State Highway 26. Based on counts taken in the 1990s, by 2028 WisDOT anticipated as much as 300 percent growth in one location. Even at the low end of the forecast range, WisDOT still expected a substantial 85

percent surge in traffic volumes.<sup>27</sup>

Estimated to cost a total of \$433 million, work on the project is ongoing.<sup>28</sup> However, recent traffic counts taken near Janesville show that the number of vehicles using the existing roadway is falling short of what was expected.<sup>29</sup> On State Highway 26 leaving Janesville, traffic levels in 2010 were at least 21 percent below WisDOT's forecast for traffic in 2008. Compared to the prediction for 2028, traffic levels were 44 percent lower. Traffic volumes would need to grow an additional 77 percent to reach predicted levels in this particular location.

**Table 2. Projected and actual average daily number of vehicles at points on State Highway 26**

Location	1998 Baseline Count	2008 Projected	2010 Actual	2028 Projected
County Highway Y to Townline Road, Janesville	18,100	23,500	18,600	33,000
Fort Atkinson Bypass	6,700*	9,500	7,200-7,400**	14,000

\*1997 baseline count

\*\*2009 count



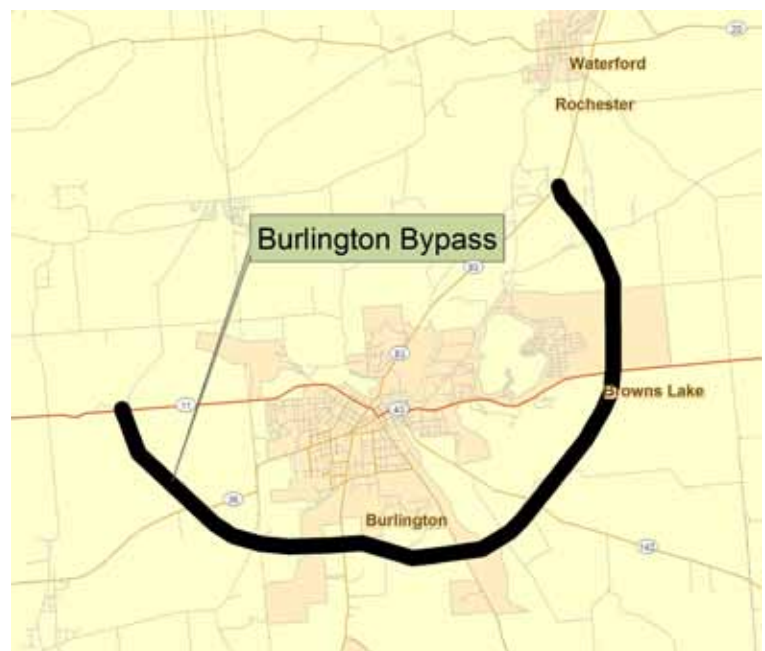
*The Burlington Bypass prior to opening.*

## Burlington Bypass

The city of Burlington, with a population of almost 10,500 in 2011, is located in Racine County at the junction of several important state highways including State Highways 83, 11, 142 and 36.<sup>30</sup> All of these highways are major arteries in southeastern Wisconsin. For years, they fed their mix of trucks and long-distance and local traffic into Burlington's downtown.

In the 1990s, a project was proposed to build an 11-mile bypass running south of Burlington connecting to State Highway 11 on the west side of town and State Highway 36 on the east. This was designed as a rural four-lane divided roadway, ultimately cost \$118 million, and opened in its entirety in late 2010 (though segments completed earlier began serving traffic in 2008).<sup>31</sup>

**Figure 5. Location of the Burlington Bypass project**



Official traffic forecasts predicted substantial growth in traffic volumes and congestion in downtown Burlington, leading to expectations that a bypass would be heavily used by regional through-traffic. According to the projections, without a bypass, State Highway 36 in downtown Burlington would experience as much as a 60 percent increase in traffic by 2020.<sup>32</sup> State Highway 83 was in line for a similarly large increase of 57 percent.<sup>33</sup> Conversely, according to local newspaper accounts, officials promised as much as a 30 percent reduction in traffic volumes in the downtown area if the bypass were built.<sup>34</sup>

In reality, traffic volumes on the bypass are lower than expected. Two

traffic counts taken on the middle portion of the highway indicate that the road presently accommodates 33 to 36 percent less traffic than anticipated.<sup>35</sup> In absolute terms, the four-lane bypass handles a number of cars that, based on design criteria outlined in WisDOT's *Facilities Design Manual*, a two-lane bypass could adequately accommodate.<sup>36</sup>

Even official documents produced during the project's planning stage foresaw some of the proposed bypass' overcapacity. At the time of publication, WisDOT's project study allowed that on the western segment of the future bypass, the traffic forecast "warrants a two-lane rural highway." However, a four-lane road was constructed along the entire length of the route.<sup>38</sup>

**Table 3. Projected and actual average daily number of vehicles on the Burlington Bypass<sup>37</sup>**

Location	2010 Projected	2011 Actual
Middle of Burlington Bypass	11,000	7,000-7,400



*The U.S. 151 bypass runs south of Platteville. Credit: City of Platteville*

## U.S. Highway 151 from Dickeyville to Belmont

The \$100.3 million Dickeyville-to-Belmont project encompassed an 18-mile segment of U.S. 151 located in Grant and Lafayette counties.<sup>39</sup> The project included widening U.S. 151 to four lanes, building bypasses of Dickeyville and Platteville, and managing road access to allow for uninterrupted travel with a 55 miles-per-hour speed limit. It was completed in late 2005.<sup>40</sup>

Based on traffic counts reported in the 1999 project documents, traffic levels were forecast to increase 60 percent by 2025 along this stretch of road.<sup>41</sup> Eleven years later in 2010, traffic volumes in the vicinity of Dickeyville had risen just 22 percent, while at Platteville, close to Belmont, traffic counts had inched up a little less than 13 percent.

**Figure 6. Location of the U.S. Highway 151 project from Dickeyville to Belmont**



Traffic volume would need to grow significantly faster between now and 2025 than it did between 1999 and 2010 for the initial traffic forecast to come to fruition.<sup>42</sup>

**Table 4. Projected and actual number of average daily vehicles on U.S. Highway 151**

Location	1999 Baseline Count*	2010 Actual	2025 Projected
Immediately south of Dickeyville	10,500	12,800	16,800
East of Platteville, approaching Belmont	7,000	7,900	11,200

\* Note: no year was given for the baseline count in the Final Environmental Impact Statement, which was published in 1999, so the counts are assumed to be 1999 counts.



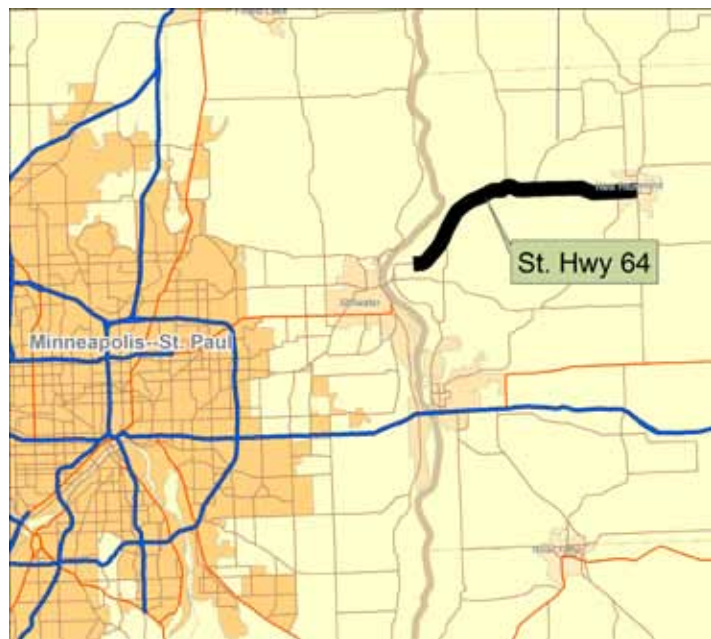
*A new bridge over the St. Croix River (photo illustration above) is projected for completion in 2016 at a cost for the entire project, including associated road construction, of more than \$580 million. The bridge would connect the Minneapolis-St. Paul area to the expanded State Highway 64 in St. Croix County. However, in its 1994 environmental review of the State Highway 64 widening project, WisDOT anticipated that completion of the bridge would have minimal impact on traffic on State Highway 64 – meaning that the decades-long debate over the bridge is unlikely to be the cause of slower-than-anticipated traffic growth on the highway.*

## State Highway 64 between Houlton and New Richmond

A major east-west corridor and the primary artery in this region of the state, State Highway 64 serves regional, interstate and local traffic in St. Croix County in far western Wisconsin. The highway was originally tapped for expansion in the state's *Corridors 2020* highway plan and the final proposal called for work along an approximately 15-mile corridor, expanding the existing roadway to four lanes as well as constructing bypasses of communities to divert through-traffic away from downtown areas.<sup>43</sup>

WisDOT based its forecasts of large increases in traffic along State Highway 64 on the notion that sprawling development from the Twin Cities would continue to

**Figure 7. Location of the State Highway 64 project between Houlton and New Richmond**





draw more cars and more traffic to St. Croix County. In 1994, St. Croix County was one of the fastest growing counties in Wisconsin, and by the late 1990s and early 2000s it was leading the state in population growth.<sup>44</sup> At the time, more than 30 percent of the county’s employed residents commuted to Minnesota, and many others traveled to the state for shopping, cultural and entertainment opportunities.<sup>45</sup>

WisDOT anticipated that continued rapid growth in the area’s population and a related increase in commuting and recreational travel to Minnesota would put pressure on the area’s highways. By 2016 traffic volumes on State Highway 64 were predicted to increase by 75 to 101 percent between Houlton and New Richmond, resulting in traffic at many points along the route that would leave the existing two-lane road severely congested.<sup>46</sup>

In addition, WisDOT anticipated construction of a new or improved bridge over the St. Croix River to replace the Stillwater Bridge. However, WisDOT anticipated that completion of the bridge – now scheduled for 2016 – would have only a minor impact on State Highway 64, adding 200 to 300 cars per day to the highway between Houlton and Somerset, or about 1 percent of projected traffic volumes.<sup>47</sup> The long debate over the bridge project, therefore, has had little bearing on the degree to which traffic has failed to materialize on the expanded State Highway 64.

Ultimately, WisDOT spent \$109 million on this expansion of State Highway 64, which was completed in 2006.<sup>48</sup> However, as of 2012, traffic volumes were far from reaching forecast levels. Over the 21 years since the baseline count cited by WisDOT, traffic on the road had increased just 21 to 56 percent and would need to increase by roughly as much again over just four years to reach predicted volumes by 2016.

The long-time trend toward sprawling development was interrupted in the late 2000s by the housing crisis and economic recession. Between 1994 and 2007, St. Croix County’s population increased an average of 3 percent per year. Since 2007, however, the annual rate of population growth has fallen to just 1 percent, with growth of just 0.5 percent annually between 2010 and 2012.<sup>49</sup>

There is no guarantee that a return to economic growth will revive sprawling development. Young people are increasingly seeking to live in walkable, urban areas, while retiring Baby Boomers may seek to move to areas that are more easily accessible by a range of transportation modes. Some real estate analysts suggest that this could lead to a glut of suburban housing nationwide, dampening the demand for new sprawling development on the outer fringes of metropolitan areas like Minneapolis-St. Paul.<sup>50</sup>

**Table 5. Projected and actual average daily number of vehicles on State Highway 64**

Location	1991 Baseline Count	2012 Actual	2016 Projected
Houlton to Somerset	9,360	13,700	17,500
Somerset to New Richmond	6,690	8,100	11,700
East of New Richmond	3,580	5,600	7,200



U.S. 141 as it enters Marinette County.

## U.S. Highway 141 in Marinette and Oconto Counties

In the 1990s, U.S. 141 was a two-lane highway traversing a predominantly rural stretch of Oconto and Marinette counties in northeastern Wisconsin. Designated as a major connector in *Corridors 2020*, the statewide highway plan completed in the 1980s, U.S. 141 carries long-haul truck traffic, local vehicles and those using the highway for access to the recreation areas of northern Wisconsin and Michigan's Upper Peninsula.<sup>51</sup>

The official recommendation was to expand the existing two-lane highway to four lanes and to construct bypasses of Lena, Coleman and Pound, the three towns along the length of the route.<sup>52</sup> Final construction costs for the approximately 16-mile project totaled \$68.1 million.<sup>53</sup> Work ended in 2007.<sup>54</sup>

Figure 8. Location of the U.S. Highway 141 and U.S. Highway 41 projects in Marinette and Oconto Counties



In describing the need for action, WisDOT warned of increasingly heavy traffic on U.S. 141. By 2025, traffic volumes at a series of locations along the project's length were forecast to increase between 35 and 71 percent over their 1995 levels.<sup>55</sup>

This growth has largely failed to materialize. In 2009, the most recent year for which data are available, traffic volumes at a location expected to see a

61 percent surge had increased just 3.9 percent. In order to meet the original projections for 2025, traffic volumes at this location would need to grow 54 percent over their 2009 levels.<sup>56</sup> At points along the northern portion of the newly expanded four-lane highway, traffic volumes in 2009 were still within the design limits of a two-lane road.<sup>57</sup> At only one location did traffic appear to be on pace to meet projections.

**Table 6. Projected and actual average daily number of vehicles on U.S. Highway 141**

Location	1995 Baseline Count	2009 Actual	2025 Projected
Coleman to Pound	7,600	7,900	12,200
County Hwy M to County Hwy B	7,000	8,800	11,950
Stiles to Lena	7,900	10,900	12,850

### Rethinking Old Assumptions: U.S. 8 in Polk and Barron Counties

State transportation officials should use the latest data and most up-to-date understanding of traffic trends to reevaluate the need for highway expansion projects. Recent trends in traffic along U.S. 8 – which has been proposed for widening in Polk and Barron counties – exemplify why such reevaluation is important.

Construction work to widen U.S. 8 from two to four lanes is still years away and the state legislature has yet to approve funding.<sup>62</sup> But WisDOT produced a project study in 2007 citing future traffic volumes and a need for additional capacity as reasons for the project. By 2030 WisDOT forecasts an increase in traffic volumes of 35 to 55 percent relative to traffic counts taken in 2000 and 2004.<sup>63</sup>

Traffic volumes on U.S. 8 have, in fact, fallen in recent years relative to the 2000 and 2004 traffic counts used in the original project study. For example, at two locations west of Turtle Lake, traffic volumes in 2012 were 3.7 percent and 20 percent below 2004 levels. Just east of Almena, in Barron County, traffic levels in 2011 were down 10 percent relative to their 2004 levels. Recalculating traffic forecasts in light of the recent trend in the number of vehicles using U.S. 8 in these locations would give WisDOT the opportunity to reassess the need for a large-scale expansion project on this road.<sup>64</sup>

## U.S. Highway 41 from Oconto to Peshtigo

A major north-south highway in Wisconsin, U.S. 41 runs through Milwaukee, around Fond du Lac and skirts the city of Green Bay before approximately paralleling the western shore of Green Bay and entering Michigan at Marinette. Along its northern stretch near the Michigan state line, U.S. 41 carries interstate traffic and long-haul trucks as well as local vehicles moving between the communities of Oconto and Peshtigo.

In 1999, the state legislature allocated funds for roadwork on a 21-mile stretch of U.S. 41 between Oconto and Peshtigo.<sup>58</sup> Six years later, a formal project study was released by WisDOT outlining the need for action and a proposal for construction. In a project that would ultimately cost \$180 million, WisDOT proposed widening U.S. 41 to four lanes and constructing bypasses of downtown

Oconto and Peshtigo.<sup>59</sup> WisDOT completed work on this project in 2009.<sup>60</sup>

Relative to baseline counts in 2001, WisDOT forecast significant growth in traffic volumes by the design year of 2027. Overall, the number of vehicles using the highway on a typical day was projected to rise between 43 and 51 percent depending on location along the project route.<sup>61</sup>

By 2012 traffic volumes had barely risen. Just south of Oconto where traffic volumes were predicted to surge 51 percent by 2027, the number of vehicles using U.S. 41 in 2012 had inched up just 8 percent and still stood below even the 2007 projection. North of Peshtigo, at the northern end of the project area, traffic levels had climbed just 12 percent. Given current usage of the highway, WisDOT's traffic forecasts for 2027 are far from realization. The number of cars using U.S. 41 will need to grow an additional 28 to 40 percent to meet predicted levels by 2027.

**Table 7. Projected and actual average daily number of vehicles on U.S. Highway 41**

Location	2001 Baseline Count	2007 Projected	2012 Actual	2027 Projected
South of Oconto	10,400	12,000	11,200	15,700
North of Peshtigo	14,900	16,900	16,700	21,300

# Despite Changing Driving Habits and a Tough Fiscal Climate, Big Spending on Highways Continues

In the face of Wisconsinites' changing driving patterns – which have manifested themselves in lower-than-expected traffic on many recently completed highways – big spending on highway construction continues unabated.

Governor Scott Walker has prioritized big spending on questionable highways. The state budget for the 2011-2013 biennium appropriated \$1.2 billion for highway construction projects.<sup>65</sup> As WISPIRG Foundation's 2011 *Building Boondoggles?* report highlights, many of the projects funded in the 2011-2013 budget are open to question as inappropriate or larger or more costly than necessary.<sup>66</sup> At the same time, Walker slashed state

transit aid by 10 percent even after years of budget pressure at transit authorities that forced service reductions and fare increases. State support for local road maintenance was also cut.<sup>67</sup>

This big spending on new or expanded highways is increasingly squeezing funding for other priorities – especially given the recent decline in transportation revenue from the gasoline tax as a result of improved vehicle fuel economy and reduced driving. In inflation-adjusted (2011) dollars, motor fuels taxes bring in 7 percent less revenue than they did in 1998.<sup>68</sup>

With less revenue flowing into the dedicated Transportation Fund, the

legislature and the Walker administration have been forced to dip into the state's General Fund in order to fund highway expansion projects. The 2011-2013 biennial budget transferred millions of dollars from the state's General Fund, supported by general taxation, to the Transportation Fund, sapping the dollars that finance other government services and public goods.<sup>69</sup> In 2012 and 2013, those General Fund raids amounted to more than \$160 million.<sup>70</sup>

The recently proposed 2013-2015 budget contains more of the same, increasing highway spending, particularly for highway megaprojects in southeastern Wisconsin, which receive \$550 million in funding. Other major highway construction projects receive \$735 million.<sup>71</sup> To support this spending, the proposed budget siphons an additional \$23 million from the state's General Fund to the Transportation Fund while jeopardizing the future of transit in Wisconsin by adding state transit aid to the long list of items supported by the strained General Fund account.<sup>72</sup>

The Walker administration's continued emphasis on highway spending means that the state is investing about the same share of total transportation spending in highway construction as it did 15 years ago – despite changing transportation

preferences. In 2012, the state devoted about 56 percent of transportation funding to highway construction. At the same time, the percentage of state transportation spending devoted to debt service – the majority of which is used to retire bonds on highway construction projects – has increased from 5 percent in 1998 to 11 percent in 2012.<sup>73</sup>

By contrast, state support for transit operating expenses has declined both absolutely and in percentage terms over the last decade. Between 2003 and 2013, state support for transit declined by 6 percent in inflation-adjusted dollars, and the share of state transportation spending devoted to transit fell from 6.2 percent to less than 5 percent.<sup>74</sup> Over the same period, local governments saw a 21 percent reduction in the amount of money they received for road and bridge assistance.

The Walker administration has gone big on highway spending at precisely the moment decision-makers should be reassessing the state's transportation infrastructure in the face of changing needs. With Wisconsinites now driving less than they used to, state officials and decision-makers should rethink how the state's tax dollars are spent on transportation.

# Investing in 21<sup>st</sup> Century Transportation Infrastructure

In recent years, Wisconsin has completed construction of a number of highway expansions, bypasses and interchanges only to find that the anticipated levels of traffic have failed to materialize. With Wisconsin residents – like most Americans – now driving less, state officials must factor changing driving trends into future transportation investment decisions.

With the release in January 2013 of the official report and recommendations of the Commission on Transportation Finance and Policy, public attention is currently focused on the question of Wisconsin's future transportation needs and how to pay for them. Wisconsin officials should take this opportunity to reconsider the state's policies and direct tax dollars to support 21<sup>st</sup> century transportation priorities.

## Reassess Demand for Highways

With Wisconsinites now driving fewer miles than we did a decade ago and with recently built highways failing to meet earlier traffic projections, now is the time for the state to reevaluate whether expectations of future traffic growth really require massive investments in highway expansion. Wisconsin's recently convened Commission on Transportation Finance and Policy, for example, expects vehicle travel to remain stagnant for the next decade.<sup>75</sup>

To ensure highway construction in Wisconsin serves the public interest, the state should:

- Recalculate future traffic projections and review the case for all highway

construction projects currently in the pre-construction phase. In light of new information, highway projects like U.S. 8, discussed above, may no longer warrant the full-scale expansion originally proposed. To his credit, Governor Walker recommended such a review of major highway construction projects in his 2013-2015 budget proposal.<sup>76</sup>

- Require that all proposals for new roads and expansion projects include the most recent population growth and traffic volume data available.
- Acknowledge that future driving trends are uncertain and prioritize solutions that will deliver benefits under a wide variety of possible scenarios of future traffic growth. In some cases, the installation of passing lanes, traffic demand management strategies or expansion of carpooling, transit or other alternatives may prove sufficient to mitigate problems on a roadway in a more cost-effective manner than the construction of additional capacity.<sup>77</sup>

Wisconsin is far from the only state to experience declining revenue from the gasoline tax at the same time that highway repair needs and demands for transit, pedestrian and bicycling infrastructure are increasing. States such as Tennessee and Pennsylvania have adopted or considered changes to their transportation investment practices that have eschewed “one size fits all” solutions to transportation problems and pared back their spending on new highway capacity.<sup>78</sup> Gov. Walker’s proposed review of major highway projects is a good first step, but much more can be done to align Wisconsin’s highway program with the needs and challenges of the 21<sup>st</sup> century.

## “Fix it First”

Rather than pouring millions into new highway construction, Wisconsin should adopt a “fix it first” policy focused on repairing (and, where necessary and cost-effective, rebuilding) roads already in place. According to a 2013 report by the American Society of Civil Engineers, fully 71 percent of Wisconsin’s roads are of “mediocre” or “poor” quality.<sup>79</sup> Road disrepair leads to more than just a bumpy ride for drivers – through accelerated depreciation, reduced fuel economy, and increased damage to tires and suspension, it costs vehicle owners money. Each year Wisconsinites pay \$281 in additional vehicle operating costs due to the state of their roads.<sup>80</sup>

Badger State bridges also need attention. All told, 1,142 bridges in Wisconsin are “structurally deficient” according to federal guidelines.<sup>81</sup> This represents approximately one in every 12 bridges statewide and a daily traffic count of almost 3.5 million vehicles.<sup>82</sup>

The sooner Wisconsin attends to its deteriorating roads, the better. According to the American Association of State Highway and Transportation Officials, the per-lane-mile cost of rebuilding a road after 25 years of neglect is three times as high as the financial commitment required for regular upkeep on a well-maintained highway.<sup>83</sup>

In some cases, highways and bridges that have outlived their useful lives will need to be rebuilt, not just repaired. The rebuilding of a highway is often seen as an opportunity to add new capacity, since it can be done at lower cost and with less disruption than having to undertake a separate construction project years later. Given changing trends in driving, however, public officials should eye such proposals critically to ensure that public



dollars are not wasted on “supersized” infrastructure and to ensure that alternative solutions to transportation problems – from investments in transit to traffic demand management approaches – are considered on a level playing field.

Wisconsin’s network of local streets is far more extensive than the state highway network. Keeping local roads and streets in good repair should be a critical component of any “fix it first” strategy. Unfortunately, recent cuts in local transportation assistance have shifted more of the burden of maintaining this critical infrastructure to local taxpayers, while new limits on property taxes have left local governments strapped for cash. Before spending increasing sums of public money on new highways and bigger roads, Governor Walker and his administration should look again at the state’s pressing repair needs and restore the funding cut from local transportation assistance in the 2011-2013 biennial budget.

## Invest in Transportation Solutions for the 21<sup>st</sup> Century

With Wisconsinites driving less and recently completed highway projects serving traffic volumes lower than originally anticipated, the state should reconsider its traditional investment priorities and dedicate public money to the transportation infrastructure Wisconsinites want and need in the 21<sup>st</sup> century.

Though Governor Walker’s 2013-2015 biennial budget proposal increases spending on transportation to \$6.4 billion, it fails to allocate the increased funding in common-sense ways. In the face of increased ridership on the bus networks of cities like Madison and La Crosse, unprecedented declines in driving, and

severe cutbacks in transit systems in cities like Milwaukee leaving thousands unable to get around, the 2013-2015 budget fails to provide adequate support for cash-strapped transit authorities to enable them to maintain – much less expand – Wisconsinites’ access to high-quality transit.<sup>84</sup>

Wisconsin should invest in a modern transportation system that meets 21<sup>st</sup>-century needs. As a starting point, the state should implement the recommendations of the state’s bipartisan Commission on Transportation Finance and Policy to:

- restore the transit funding cuts implemented as part of the 2011-2013 budget and provide an additional \$9.5 million in annual support;
- secure the future of transit funding by allowing it to remain in the dedicated Transportation Fund rather than supporting it from the strained General Fund account; and
- appropriate \$10 million annually to create a competitive, state-funded program to fund bicycle and pedestrian projects.<sup>85</sup>

A modest reduction in Wisconsin’s bloated highway budget would fulfill these common-sense reforms that reflect the changing travel trends of Wisconsinites.

With Wisconsin’s population of older, more transit-dependent residents growing and an increasing desire to use transportation alternatives among younger people, investing in the state’s transit systems and bicycle and pedestrian facilities is crucial if the state’s transportation infrastructure is to keep pace with the changing needs of Wisconsinites.

# Methodology

## Traffic Data

The central findings of this report were derived through a comparison of traffic volume projections with actual traffic volume counts. WisDOT's Traffic Forecasting Section develops traffic volume projections for use in highway planning and these are reported in the "Purpose and Need" chapters of the environmental impact statements produced as part of formal highway construction proposals. Actual traffic counts are conducted by WisDOT at thousands of locations across the state. Some locations use automatic traffic recorders to

measure traffic continuously but most traffic counts are conducted over short periods of time – typically 48 hours – on a three-year cycle. More than 26,000 rural and urban locations are used for these periodic, short-term counts. WisDOT presents the data collected using an interactive traffic count map, printable county-by-county maps available as PDF files and through an online database managed by the Wisconsin Traffic Operations and Safety Laboratory. This report used the most recent traffic counts available and, except where indicated in footnotes, all counts were sourced from the state's

interactive traffic count map available at [www.dot.wisconsin.gov/travel/counts/](http://www.dot.wisconsin.gov/travel/counts/). To measure traffic volume on a highway, transportation officials use a statistic known as “annual average daily traffic,” often abbreviated to AADT. This is the measure of the number of vehicles expected to pass a given point on a road on an average day of the year and is expressed in terms of absolute number of vehicles. Traffic comparisons in this study were made between the most recent AADT figure available from WisDOT’s traffic counts and the relevant AADT figures and projections reported in the highway project’s environmental impact statement. The environmental impact statements studied often described traffic counts and projections using the term Average Daily Traffic, or ADT, rather than AADT. However, in WisDOT’s environmental impact documentation these terms and acronyms are generally used interchangeably.

Where traffic projections were reported for specific locations on a highway, this study compared them to the most recently recorded traffic count at those same locations. This was made possible by the fact that traffic counts are typically conducted at the same location. Where traffic projections were reported as a range to convey the scope of the increase expected along the entire project length, the lowest and highest actual counts along the project route were found for purposes of comparison.

## Other Data

All per-capita data were calculated by dividing the overall figure for a given statistic in a given year by Wisconsin’s population for that year as reported by the Wisconsin Department of Administration.

# Appendix: Traffic Count Locations

To follow are the specific locations used for the traffic counts referenced in this report. All traffic counts, unless otherwise noted, were sourced from the state's interactive traffic count map available at [www.dot.wisconsin.gov/travel/counts/](http://www.dot.wisconsin.gov/travel/counts/).

1. **I-39/US51/STH29:** Site# 370104 at USH 51 STH 29 between CTH N & CTH NN, Marathon County (11/29/2010): 50,400 AADT; Site# 370274 at USH 51 South of CTH N, Marathon County (5/10/2010): 54,900 AADT.
2. **STH 26, between CTH Y and Townline Road:** Site# 530111 at STH 26 1.0 mi N of I-90 interchange Harmony Township, Rock County (4/26/2010): 18,600 AADT.
3. **STH 26, Ft. Atkinson Bypass:** Site# 281011 at STH 26 between 106 & BUS 26 Fort Atkinson, Jefferson County (5/18/2009): 7,400 AADT; Site # 281015 at STH 26 between STH 106 & USH 12 Fort Atkinson, Jefferson County (5/18/2009): 7,200 AADT.
4. **Burlington Bypass:** Site# 511280 at STH 83 between Pine St & STH 142, Racine County (7/25/2011): 7,000 AADT; Site# 511281 at STH 83 between STH 142 & STH 11, Racine County (7/25/2011): 7,400 AADT.
5. **U.S. 151 immediately south of Dickeyville:** Site# 220885 at USH 61/151 between CTH HH & CTH H, Grant County (2010): 12,800 AADT.
6. **U.S. 151 east of Platteville, approaching Belmont:** Site# 330905 at USH 151 SE of CTH G interchange, Lafayette County (2010): 7,900 AADT.
7. **STH 64 between Houlton and Somerset:** Site# 550724 at STH35-64 NE of CTH V Somerset Township, St. Croix County (6/18/2012): 13,700 AADT.
8. **STH 64 between Somerset and New Richmond:** Site# 550893 at STH 64 between 89<sup>th</sup> and 85<sup>th</sup> streets E of Somerset, St. Croix County (7/16/2012): 8,100 AADT.
9. **STH 64 east of New Richmond:** Site# 550102 at STH 64 west of CTH T Stanton Township, St. Croix County (5/1/2012): 5,600 AADT. Note: this reading was taken at a location that appears to be just to the east of the study area. There are no readings closer to town.
10. **US 141,** Counts taken from this map: [www.dot.wisconsin.gov/travel/counts/docs/oconto/oconto2009.pdf](http://www.dot.wisconsin.gov/travel/counts/docs/oconto/oconto2009.pdf) All counts are 2009 measurements.
11. **U.S. 41, south of Oconto:** Site# 420252 at USH41 north of CTH SS Pensaukee Township, Oconto County (6/4/2012): AADT 11,200.
12. **U.S. 41, north of Peshtigo:** Site# 386106 at USH41 – N of Schact Rd. Marinette, Marinette County (9/18/2012): AADT 16,700.
13. **U.S. 8, west of Turtle Lake between CTH D and CTH H:** Site# 480250 at USH 8/STH 46 E of CTH H Apple River Township, Polk County (11/5/2012): 9,000 AADT; Site# 480260 at USH 8 1 mi east of CTH E Apple River Township, Polk County (7/16/2012): 5,100 AADT.
14. **U.S. 8, east of Almena:** Site# 030391 at USH 8 east of CTH P Clinton Township, Barron County (6/21/2011): 7,000 AADT.

# Notes

1. Ranges represent comparisons of measured versus projected traffic volumes at different locations along a segment of highway. See “Methodology” for more detail.

2. Wisconsin Department of Transportation, *Road Mileage and Annual VMT in Wisconsin*, accessed at [www.dot.wisconsin.gov/travel/counts/](http://www.dot.wisconsin.gov/travel/counts/), 13 May 2013.

3. Except where otherwise indicated, all data in this section of the report were sourced from Wisconsin Department of Transportation, *Road Mileage and Annual VMT in Wisconsin* at [www.dot.wisconsin.gov/travel/counts](http://www.dot.wisconsin.gov/travel/counts).

4. All per-capita data in this study were generated using a methodology described in the Methodology section of this report. (Raw population data for Wisconsin downloaded from Wisconsin Department of Administration at [www.doa.state.wi.us/subcategory.asp?linksubcatid=96&locid=9](http://www.doa.state.wi.us/subcategory.asp?linksubcatid=96&locid=9).)

5. See note 2.

6. Benjamin Davis and Tony Dutzik, Frontier Group, and Phineas Baxandall, U.S. PIRG Education Fund, *Transportation and the New Generation: Why Young People Are Driving Less and What It Means for Transportation Policy*, April 2012, 8.

7. Ibid.

8. See note 2.

9. Federal Transit Administration, *National Transit Database Historical Data Files, TS2.2 - Service Data and Operating Expenses Time-Series by System*, downloaded from [www.ntdprogram.gov/ntdprogram/data.htm](http://www.ntdprogram.gov/ntdprogram/data.htm), 10 April 2013.

10. City of Madison Metro Transit, *2011 Record Ridership*, downloaded from [www.cityofmadison.com/metro/2011ridership](http://www.cityofmadison.com/metro/2011ridership), 13 May 2013.

11. Data through 2011: Federal Transit Administration, *National Transit Database*

*Historical Data Files, TS2.2 - Service Data and Operating Expenses Time-Series by System*, downloaded from [www.ntdprogram.gov/ntdprogram/data.htm](http://www.ntdprogram.gov/ntdprogram/data.htm), 10 April 2013; Data for 2012: Federal Transit Administration, National Transit Database *Monthly Module Adjusted Data Release January 2013*, downloaded from [www.ntdprogram.gov/ntdprogram/data.htm](http://www.ntdprogram.gov/ntdprogram/data.htm).

12. Tier C definition: Wisconsin Transportation Finance and Policy Commission, *Keep Wisconsin Moving: Smart Investments, Measureable Results*, January 2013, 35; Ridership: Wisconsin Transportation Finance and Policy Commission, *Keep Wisconsin Moving: Smart Investments, Measureable Results*, January 2013, 76.

13. E-mail communication between Tom Waby, Manager of Bay Area Rural Transit, and Bruce Speight, Director of the WISPIRG Foundation, 12 December 2012.

14. Lloyd Grant, Jr., *Comments to the Wisconsin Commission on Transportation Finance and Policy*, 22 March 2012.

15. Dave Schlabowske, “Bike Commuting Drops in Madison, Up Slightly in Milwaukee,” *Wisconsin Bike Fed*, 27 September 2012, downloaded from [www.wisconsinbikefed.org](http://www.wisconsinbikefed.org). (Note: though the number of bicycle commuters fell in 2011 relative to 2010, hard traffic counts on city bike paths show a doubling in bicycle traffic between 1987 and 2011 highlighting the overall trend.)

16. See note 6.

17. Larry Copeland, “Public Transportation Hits 10.5B Rides in 2012,” *USA Today*, 11 March 2013.

18. Wisconsin Department of Transportation and the Federal Highway Administration, *Interstate 39/USH 51/STH 29 Environmental Assessment*, 1999.

19. Ibid., 2.

20. Ibid., 4.

21. Wisconsin Department of Transportation, *Facilities Development Manual Attachment 1.1: Design Criteria for Rural State Trunk Highways Functionally Classified as Arterials*, 4 March 2013.

22. See note 18; Wisconsin Department of Transportation, *Traffic Counts*, accessed at [www.dot.wisconsin.gov/travel/counts/](http://www.dot.wisconsin.gov/travel/counts/).

23. Liz Hayes, "Local, State Politicians Celebrate US 51/WIS 29 Corridor Completion," *WSAW.com*, 19 September 2010.

24. Wisconsin Department of Transportation, *Construction Schedule: Map*, downloaded from [www.dot.wisconsin.gov/projects/dr/us51wis29](http://www.dot.wisconsin.gov/projects/dr/us51wis29) via [www.web.archive.org](http://www.web.archive.org), captured 2 June 2010.

25. Wisconsin Department of Transportation and the U.S. Department of Transportation Federal Highway Administration, *Janesville to Watertown STH 26 Rock, Jefferson, and Dodge Counties: Final Environmental Impact Statement*, March 2005.

26. Population: U.S. Census Bureau, *State & County QuickFacts*, downloaded from [www.quickfacts.census.gov](http://www.quickfacts.census.gov); research on bypasses: Wisconsin Department of Transportation, *The Economic Impacts of Highway Bypasses on Communities: Summary*, January 1998, 4.

27. See note 25.

28. Wisconsin Department of Transportation, *Report to the Transportation Projects Commission on the Status of Major Highway Projects*, February 2013, 11.

29. Work on a series of smaller installations and modifications to Highway 26 between County Y and Townline Road began in 2012 per Ann Marie Ames, "Project Will Make Changes on Highway 26 between Janesville and Milton," *Janesville Gazette*, 18 April 2012.

30. U.S. Census Bureau, *State & County QuickFacts*, downloaded from [www.quickfacts.census.gov](http://www.quickfacts.census.gov).

31. Highway design: Wisconsin Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration, *Burlington Bypass, State Trunk Highway (STH) 36, STH 11 and STH 83,*

*Racine and Walworth Counties, Wisconsin: Final Environmental Impact Statement*, I-3; Cost: Paul Sloth, "Getting Around Burlington – Bypass Opens in Its Entirety," *The Journal Times*, 1 November 2010.

32. Wisconsin Department of Transportation and the U.S. Department of Transportation Federal Highway Administration, *Burlington Bypass, State Trunk Highway (STH) 36, STH 11 and STH 83, Racine and Walworth counties, Wisconsin: Final Environmental Impact Statement*, I-15.

33. *Ibid.*, I-20.

34. Paul Sloth, "Burlington Bypass Set to Open Thursday," *The Journal Times*, 21 October 2008.

35. A 2006 road safety audit reported that the bypass expected to handle average daily traffic of just 7,000 vehicles on its western segment and 11,000 vehicles on the middle portion (Wisconsin Department of Transportation and Opus International Consultants, Inc., *Burlington Bypass: Road Safety Audit*, November 2006).

36. See note 21.

37. Though a traffic projection was made for the western portion of the bypass, no traffic count exists for purposes of comparison.

38. See note 31, S-7.

39. Project cost: Wisconsin Department of Transportation, *Report to the Transportation Projects Commission on Status of Major Highway Projects*, February 2010, 25.

40. Craig Reber, "Work Nearing End on U.S. 151; Some Lanes of the Dickeyville Bypass Could Open in 2 Weeks, with All Work Expected to Be Done in a Month," *Dubuque Telegraph-Herald*, 1 November 2005; Wisconsin Department of Transportation, *New Segments of U.S. 151 to Open Today in Grant County* (press release), 14 November 2005.

41. Wisconsin Department of Transportation and U.S. Department of Transportation Federal Highway Administration, *Dickeyville to Belmont, USH 151, Grant and Lafayette counties, Wisconsin: Final Environmental Impact Statement*, 1999, I-11 – I-12.

42. Except where otherwise noted, all recent AADT data used in this study were sourced from WisDOT using their online traffic mapping tool available at: [trust.dot.state.wi.us/roadrunner/](http://trust.dot.state.wi.us/roadrunner/).

43. Wisconsin Department of Transportation and U.S. Department of Transportation Federal Highway Administration *State Trunk Highway 64, Houlton–New Richmond, St. Croix County, Wisconsin: Final Environmental Impact Statement*, 1994.

44. Wisconsin State Journal, “Fastest Growing County? It’s St. Croix That’s Due to Sprawl of Twin Cities,” *Wisconsin State Journal*, 13 March 1999; Terry Fielder, “River Sprawls? Tranquil Wisconsin Town Now in Path of Twin Cities Growth,” *Minneapolis Star-Tribune*, 24 August 2002.

45. See note 43, I-1.

46. *Ibid.*, I-5.

47. *Ibid.*

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82. Transportation for America, *The Fix We're In: The State of Wisconsin's Bridges*, 2-4, undated.

83. See note 80, vi.

84. See note 72.

85. See note 75.