



## Legislative Fiscal Bureau

One East Main, Suite 301 • Madison, WI 53703 • (608) 266-3847 • Fax: (608) 267-6873

July 18, 2006

TO: Senator Dan Kapanke, Senate Co-Chair  
Representative Mark Gottlieb, Assembly Co-Chair  
Joint Legislative Committee on Transportation Needs and Financing

FROM: Bob Lang, Director

SUBJECT: Estimates of the Cost to Meet Specified Transportation Funding Thresholds

At your request, this memorandum provides estimates of the cost to reach several benchmarks you specified in various transportation program areas. In order to provide information for the Joint Legislative Committee on Transportation Needs and Financing's deliberations, these estimates are added together in a concluding section.

### **STATE HIGHWAY IMPROVEMENT PROGRAM**

#### **Description of the State Highway Program**

One way that the Department of Transportation assesses the needs for future highway expenditures is through the preparation of a long-range highway plan. The Department's most recent long-range highway plan, which was completed in 2000, covers the period between 2000 and 2020. The plan recommends highway improvements based upon a series of performance and condition thresholds for things like pavements, roadways, bridges, safety, and traffic flow. The thresholds, which are numerical measures, are different for different classes of highways, so that, for instance, lower volume highways are allowed to deteriorate slightly more than higher volume highways before reaching the point at which an improvement is considered necessary.

Computer modeling was used to predict when highway segments will reach thresholds for highway and bridge condition, using information on their current condition and predicted rates of deterioration. Then, the model was used to calculate the total cost of making improvements to substandard segments. The plan recommended a level of funding that, over the period of time covered by the plan, would substantially reduce, although not entirely eliminate, the number of highway segments and bridges that fall below the condition thresholds.

In addition to determining when a highway improvement is triggered, the plan model used information on the age, geometrics, and crash history of the highway to determine what type of improvement should be done. For instance, certain highways that have curves or hills that are considered substandard by current engineering standards would be reconstructed under the plan's recommendations to improve the highway geometrics. As with the condition thresholds, the type of improvement that is projected for a highway varies depending upon the amount of traffic on the highway. The plan's computer model calculates the total cost of the prescribed improvements by applying the average cost-per-mile for that type of improvement. Separate procedures were used to determine whether a community bypass or highway interchange would be justified to improve traffic movement or safety.

Finally, to address traffic congestion on longer highway segments, the plan developed a list of potential major highway development projects by establishing traffic congestion thresholds that trigger capacity improvements and then predicting which highways will reach those thresholds during the planning period. After developing this initial list, some projects were either added or removed from the list based on suggestions of DOT district staff. The total cost of these projects was estimated using average costs-per-mile for the typical expansion projects, except that the cost of adding lanes to the Milwaukee-area freeways was estimated separately.

The total cost of the highway improvement scenario recommended by the plan was estimated at \$20.42 billion, in 1999 dollars, over the 21-year period covered by the plan. The plan notes that the gap between the funding level needed to achieve the plan goals and the amount of funding estimated to be available for the highway program over the period if no tax and fee increases were implemented, was \$5.1 billion. Implementing the plan's recommended improvements would have required a funding increase of \$229.5 million in 1999-00 (above the 1998-99 level) and annual inflationary increases thereafter to maintain the program at the same real level for the entire 21-year period.

### **Measuring Current Funding in Comparison with the Plan's Recommended Funding Levels**

The state has now budgeted for eight of the 21 years of the planning period, so it may be useful, in assessing future highway improvement needs, to compare the funding provided over those eight years with the amount needed to achieve the plan's recommended funding levels. There are a few different approaches to doing this comparison, which are described below and summarized in Table 2 at the end of this section. Under one approach, the goal would be to achieve the total, 21-year funding level recommended by the plan in the 13 years remaining in the planning period, adjusting for inflation using the actual consumer price index (Scenario 1 in Table 2). Since actual funding for the highway improvement programs during the initial eight-year period has fallen below the plan's recommendations, additional increases (above the increases that would have been required in 1999-00) would be needed under this scenario to achieve the plan's funding goals.

Total funding for the highway improvement programs over the first eight years of the planning period was \$6.59 billion (in 1999 dollars) which leaves an additional \$13.83 billion in

funding needed to reach the plan's total 21-year funding level. Since there are 13 years remaining in the period (beginning in 2007-08), the total funding amount needed each year would be \$1.06 billion in 1999 dollars, which translates to an estimated \$1.28 billion in 2006 dollars. Achieving this annual funding level would require an increase of \$273.0 million above the 2006-07 base funding level.

Although this approach is intended to attain the plan's recommended 21-year funding level through 2020, while adjusting for inflation, as several people noted in the Committee's public hearings, the cost of highway construction has significantly exceeded the general rate of consumer inflation over the past few years. To illustrate this point, the following table compares the annual inflation rate for highway construction, using the Bureau of Labor Statistics' producer price index for highway and street construction, with the general inflation rate since 1999.

**TABLE 1**

**Comparison of General Inflation Rate with Highway Construction Inflation**

<u>Year</u>	<u>Consumer Price Index</u>	<u>Highway Construction Price Index</u>
1999	2.2%	2.5%
2000	3.4	7.8
2001	2.8	0.4
2002	1.6	-2.4
2003	2.3	2.2
2004	2.7	8.5
2005	3.4	12.6
2006	2.5	7.4
Average, Annual Change	2.7%	5.1%

Since the average, annual inflation rate for highway construction has exceeded the general rate of inflation, providing the level of funding as described in Scenario 1 may not be sufficient to maintain the purchasing power necessary to attain the plan's highway improvement goals. In effect, the high inflation rate for highway construction in recent years has meant that the state may not be as far along on achieving the highway plan's improvement goals as the previous scenario would suggest.

An alternate approach would be to adjust the funding provided over the initial eight years of the planning period to approximate the 1999 highway construction purchasing power of that funding (Scenario 2 in Table 2). For the purposes of this estimate, the index for 2006 was

estimated by taking the average index for the first four months of the year. Since trends in highway construction inflation are difficult to predict, the estimated 2006 index is also used for 2007.

Using this approach to the calculation, total funding for the highway improvement programs over the eight-year period was \$6.19 billion in terms of 1999 highway construction purchasing power, which leaves an additional \$14.23 billion in funding needed for the remaining 13 years. The annual amount needed for the rest of the period would be \$1.09 billion in 1999 dollars, which translates to \$1.55 billion in equivalent purchasing power in 2006. The annual increase needed under this scenario, relative to the 2006-07 funding level, would be \$544.6 million.

The amount of funding needed under this scenario is significantly higher than the amount indicated under the general inflation analysis. A large part of the reason for the difference can be attributed to the difference between the adjusted amount of funding for highway improvement programs in 2006-07, which in both cases is the base for the annual increase figures. In nominal dollars, funding for the highway improvement programs will total \$1,005.1 million in 2006-07. In 1999 dollars (general inflation), this translates to \$836.7 million. This amount is higher than the \$764.7 million provided for the programs in 1998-99, so in this sense the program has seen a real increase in funding since that time. However, in terms of 1999 highway construction purchasing power, the 2006-07 funding level is equivalent to just \$710.1 million, or \$54.6 million less than the amount provided in 1998-99.

Since the rapid increase in the cost of highway construction has such a large impact on these calculations, future trends in these costs will have a large impact on the amount of funding needed in subsequent years to maintain the purchasing power of the highway program. However, since these cost trends are a relatively recent development, it is difficult to determine what kind of impact they will have on the highway program over the longer term. That is, the amount of funding needed to increase (or, alternatively, just maintain) the purchasing power of the highway program over the next several years will vary substantially depending upon whether the recent increases in the cost of highway construction are a temporary "spike" that will drop closer to previous levels in the future, or whether the recent increases will establish a new "plateau" upon which future cost increases will accrue. If the recent increases represent a temporary spike in prices, a subsequent reduction in prices will, in effect, restore some of the purchasing power of the current level of funding for the highway improvement programs, meaning that the funding increases needed to meet the plan objectives would be reduced.

One final approach to assessing highway needs would be to determine the funding increase that would be necessary to meet the plan's annual recommended funding level, without providing an additional increase to compensate for the funding levels of the past years that have fallen below the recommended levels. In this case, the total, 21-year funding level provided for highway improvements would fall below the level recommended by the plan, meaning that achievement of the plan's goals would be delayed beyond 2020.

As with the previous analysis, this calculation can be done either in terms of the real level of funding recommended by the plan, using the general rate of inflation since 1999, or in terms of the

same highway construction purchasing power as recommended by the plan. Using the general rate of inflation (Scenario 3), funding would have to be increased by \$162.8 million above the 2006-07 funding level to achieve the recommended, annual funding level, whereas, achieving the highway construction purchasing power recommended by the plan (Scenario 4) would require an increase of \$371.3 million above the 2006-07 funding level.

**TABLE 2**

**Scenarios for Providing Funding Increases to Match Recommended  
Highway Plan Funding Levels  
(\$ in Millions, 2006 Dollars)**

	<u>Description</u>	<u>Required Total Annual Funding Level</u>	<u>Increase to 2006-07 Level</u>
Scenario 1	Fund 21-year recommended level in remaining years of planning period, using general inflation rate.	\$1,278.1	\$273.0
Scenario 2	Fund 21-year recommended level in remaining years of the planning period, using construction inflation rate.	1,549.7	544.6
Scenario 3	Provide recommended annual funding level without compensating for previous lower funding level, using general inflation rate.	1,167.9	162.8
Scenario 4	Provide recommended annual funding level without compensating for previous lower funding level, using construction inflation rate.	1,376.4	371.3

**Additional Potential Highway Improvement Needs**

Although the above analysis provides a sense of where current funding for the highway improvement programs stands in relation to DOT's most recent long-range highway plan, it does not necessarily provide an authoritative conclusion on the current state of highway program needs. In the years since the highway plan was developed, various factors may have changed that could or should alter the plan's conclusions. Perhaps the best example of this is the development, in the intervening years, of a plan for the southeast Wisconsin freeway systems by the Southeastern Wisconsin Regional Planning Commission (SEWRPC). For instance, whereas DOT's highway plan recommended capacity expansion to 57 miles of the southeast Wisconsin freeway system, SEWRPC's freeway study, which was completed in 2003, recommended new lanes on 127 miles. To give a specific example of this difference, DOT's highway plan recommended additional lanes

on I-94 between the Mitchell Interchange and the Milwaukee/Racine County line, whereas SEWRPC recommended additional lanes extending all the way to the Illinois border.

The total cost of SEWRPC's recommendations is estimated at \$6.23 billion, in 2000 dollars, which is approximately 20% higher than the estimated cost of freeway improvements in DOT's highway plan. This increase would not necessarily increase the annual cost of southeast Wisconsin freeway work, relative to DOT's highway plan, since SEWRPC's freeway plan covers a 30-year time period, instead of a 21-year period. Nevertheless, this illustrates that regional transportation plans are periodically updated to include elements that may not be reflected in DOT's 2000 highway plan.

Another example of changes in the factors that have an impact on the assessment of highway needs is the growth in the cost of the proposed Stillwater bridge, which is a collaborative project between Wisconsin and Minnesota. Wisconsin's share of the cost of this bridge project is now estimated at \$144.6 million. Although this project was not explicitly discussed in the Department's highway plan, at the time that the Department's plan was completed, DOT estimated Wisconsin's share of the cost of the bridge at \$47.9 million. Even controlling for the effect of highway construction inflation, the current estimate is over \$80 million more than the previous estimate.

### **Bonding for Highway Improvement Program Funding Increases**

The state has used bonds for state highway improvement projects since 1969, with regular use of revenue bonds for the major highway development program beginning in 1984. The case for using bonds on highway projects is that, when complete, they have a long life span. The use of bonds as a financing tool allows the cost of the projects to be spread out over a portion of its design life. In this way, future users of the highways pay for some of the project's cost, since vehicle registration fees collected from them are used for debt service on the bonds. Given the large increases in funding for highways that would be required under the scenarios outlined above, a case could be made that bonding could be used for some part of that increase.

It should be noted, however, that since the state has continued to use revenue bonds on the major highway development program over a long period of time, debt service payments have taken an increasing share of transportation fund revenues. This means that current users, while presumably benefiting from many different improvement projects, are paying a higher percentage of their transportation taxes and fees for the major highway development program through a combination of debt service and cash appropriations, than did previous users.

This set of circumstances raises the question of whether, through the use of bonding, current decision makers adopt policies that require future highway users to pay more for improvements than they would themselves be willing to pay. One principle that may guide decisions on the use of bonds is to limit bonding to a given percentage of total highway improvement program expenditures such that the growth in debt service would be commensurate with expected natural revenue growth. This percentage could be adjusted depending upon an estimate of the expected annual rate of transportation fund revenue growth.

A hypothetical example may help illustrate this principle. If the Legislature were to establish the goal of providing funding increases for the highway improvement program as shown above in Scenario 4 in Table 1, total funding would equal \$1,440.9 million. If this funding were maintained at the same real level each year (assuming a 3.0% annual inflation rate), and bonding was used to provide 10% of the total (\$144.1 million), the sum of cash funding for the highway program plus the debt service associated with the bonding would grow initially at 4.0% per year, declining to about 3.8% at the end of 20 years. If, on the other hand, bonding is used for 15% of the total funding level (\$216.1 million), the sum of cash funding for the highway improvement program and debt service would grow at 4.6% per year initially, declining to 4.2% in twenty years. Therefore, if transportation fund revenues grow at about 4.0% per year, the 10% bonding policy would create a situation in which the total amount of resources devoted to the highway improvement program (cash and debt service) would not increase as a percentage of total revenues, but under a 15% bonding policy, the share of revenues devoted to the highway program and associated debt service would increase.

These examples use several simplified assumptions, but they may help provide a guideline for future bonding policy. The amounts in question could be refined in the context of a discussion of the overall financing strategy in the final stage of the work of the Joint Legislative Committee on Transportation Needs and Financing. But to put these general numbers into perspective with current funding policy, in 2006-07, bonding will be used for just under 15% of the highway improvement program. As illustrated above, if that bonding percentage is maintained over time, revenues would have to increase by as much as 4.6% per year to avoid a situation in which the combination of highway cash funding and debt service require an increasing share of total revenues. However, absent revenue increases, and particularly since the motor fuel tax rate will no longer be indexed to inflation, it is unlikely that the combination of federal highway aid and gross transportation fund revenues will grow at that annual rate.

To offer another perspective comparing the above illustrations with current policy, at the 10% bonding level, the total amount of bonds used under Scenario 4 would be \$144.1 million. In 2006-07, the total amount of bonding used in the major highway development program is \$146.7 million. Consequently, while Scenario 4 would require a funding increase of \$435.8 million, none of it could be provided with bonding if the goal was to establish a 10% bonding policy.

## **HIGHWAY MAINTENANCE AND TRAFFIC OPERATIONS**

### **Recent Maintenance Budget History**

During the Committee's public hearings, individuals representing county highway agencies expressed the opinion that additional resources were needed for state highway maintenance. It was noted that over the last several years a decline in the real level of funding for county maintenance services has required cutbacks in work that counties perform on the state highway system. As a result, various activities have been curtailed, including some preventive maintenance.

The funding situation for the maintenance and traffic operations program has been affected by decisions made over the past several biennia, particularly a decision related to the responsibility for funding traffic operations items (highway signs, pavement markings, traffic signals, and highway lighting) and intelligent transportation systems (ITS) projects. The 2001-03 biennial budget modified the statutory definition of "highway improvement" to exclude the installation, replacement, rehabilitation, or maintenance of traffic operations items and ITS projects, unless the work is incidental to a highway construction project. The effect of this change was to prohibit the Department from funding stand-alone traffic operations items and ITS projects from the state highway rehabilitation or southeast Wisconsin freeway rehabilitation program appropriations and, instead, require them to be funded from the highway maintenance and traffic operations program appropriations. At that time, DOT indicated that it had been spending approximately \$27 million annually from the highway rehabilitation programs on stand-alone projects of both types.

In order to allow the maintenance and traffic operations program to absorb the added responsibility of funding traffic operations and ITS projects, \$27.0 million was provided for the maintenance and traffic operations program in 2001-02, the first year of the change, but this amount was reduced to \$7.4 million in 2002-03. The 2003-05 budget made further reductions for traffic operations and ITS projects by eliminating the \$7.4 million in base funds in both years of that biennium. Despite the elimination of these funds, the Department made the decision to continue expenditures on certain traffic operations projects that were considered critical for safety, such as certain pavement markings. However, this meant that other areas of the maintenance program were affected, including maintenance services provided by counties.

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

### **Restoring Traffic Operations Funding**

As noted above, although funding was eliminated for traffic operations items and ITS projects, the Department has reallocated about \$9.6 million annually from other areas of the maintenance budget to continue performing the traffic operations tasks considered the most critical for safety. This includes certain pavement markings, replacement highway lighting on the southeast Wisconsin freeway system, and replacement of the most seriously deteriorated sign bridges. However, stand-alone traffic operations projects in other areas have been deferred.

To restore funding to previous levels in this area, increases would be needed to reach the \$27.0 million level, in 2001 dollars. Adjusting for inflation using the general consumer price index, an increase of \$21.5 million would be required to reach this level.

As with highway construction, some items in traffic operations have increased at a rate exceeding the general rate of inflation. For instance, the Department indicates that the cost of

pavement marking paint has increased at a rate exceeding 20% in the past year. However, the increases are not uniform and there is no price index (comparable to the one used for highway construction) for the specific items involved in traffic operations items. Consequently, although it is possible that restoring the previous purchasing power of this program area could require increases above the \$21.5 million figure cited above, it is unclear if this is necessarily the case, or if it is, how much more would be required.

### **Funding Optimal Highway Maintenance**

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

The Department's maintenance level of service model identifies the maintenance activities that counties are to perform on the state highway system. For the purposes of the model, the highway system is divided into several classes, depending upon such factors as the type of surface (concrete or asphalt), the number of lanes, and the traffic level. For each highway class, the model specifies the maintenance activities that must be performed and the expected frequency of those activities. For instance, for each class of highway, the model makes assumptions on the number of potholes per mile that will require repairs each year, as well as the amount of time, number of workers, and equipment cost for this operation. Similar assumptions are made for other activities related to pavements and shoulders, bridges, roadside maintenance (mowing, trash pick up, brush cutting), drainage maintenance, and others. For each county, a level of service budget is calculated using the number of lane miles and bridges in each highway class in that county and the assumed cost for each of the specified maintenance activities.

Although the level of service model specifies the activities and the frequency of activities for each class of highway, the purpose of the model is not to specify the precise activities that counties are required to perform, but rather to establish an equitable basis for allocating funds among the counties. Counties, in consultation with DOT, determine what maintenance activities to perform and are reimbursed using a formula designed to approximate their actual costs. The level of service budget for each county establishes a maximum that, with limited exceptions, constrains the amount of activities that counties can do each year on the state highway system.

A notable aspect of the budget for county maintenance services is the fact that since the level of service model was established in 1992, the amount allocated to each county has always been less than the amount that the model estimates is needed to perform all of the specified maintenance

activities. Since, as noted above, the model is used primarily as a method of allocating funds to counties, this is not necessarily problematic. Each county's share of the level of service model is simply prorated based upon the actual amount of funding available for county services. However, many counties have maintained that the gap between the amount of funding specified under the level of service model and the amount of funding actually provided to counties represents, at a minimum, the funding shortfall for the county services portion of the maintenance and traffic operations program.

In 2006, the funds available for distribution to the counties falls short of the total funding level identified by the level of service model budget by \$20.8 million. However, this amount may not provide a true representation of the gap between actual funding and optimal highway maintenance investment. The Department indicates that the level of service model has been adjusted over the last several years to try to bring it closer into alignment with actual expenditures. Consequently, instead of providing an estimate of the level of maintenance funding needed to provide the lowest life-cycle cost for highways, the level of service model has been deliberately constrained to more closely match available funding. Therefore, the gap between the current funding level and an optimal maintenance funding level under the current method of delivering those services is likely higher than \$20.8 million. However, although the Department has begun to do some work in estimating the cost of providing the optimal level of maintenance, it is not yet possible to quantify the extent of this gap. There are a few areas, however, where DOT has estimated specific funding shortfalls, although they fall outside the principal maintenance activity areas. These areas include a \$1.0 million annual shortfall for noxious weed control, and a \$1.0 million annual shortfall for roadside facilities maintenance (rest areas and waysides).

In addition to the gap between current funding for county maintenance services and the funding needed for the optimal level of annual maintenance, the Department indicates that cuts in certain maintenance activities over the past several years have resulted in backlogs of some maintenance work. Consequently, even if funding were provided to meet the optimal level of annual maintenance, some additional funding would likely be required to address these backlogs. The Department's maintenance report for 2005 indicates that some of the problems most in need of repair or attention are cracking and rutting on asphalt pavements, joint deterioration and faulting on concrete pavements, and shoulder cracking and drop-offs. In addition, the regular replacement schedule for signs, roadside delineators, and raised pavement markers has been deferred, meaning that additional funding would be needed to catch up to the previous replacement schedule. As with the cost of obtaining a more optimal annual maintenance program, the Department does not yet have an estimate of the cost to address most of these backlogs.

The following table summarizes the cost estimates provided above for the highway maintenance and traffic operations program.

**TABLE 3**

**Summary of Cost Estimates for the Maintenance and Traffic Operations Program  
(\$ in Millions)**

Restore Traffic Operations Funding	\$21.5
Full Funding for Current Level of Service Model	20.8
Cost to Restore Funding for Noxious Weed Control	1.0
Cost to Restore Previous Roadside Facility Maintenance Level	1.0
Additional Amount for Optimal Life-Cycle Cost Maintenance Funding to Address Backlog of Maintenance Needs	<u>Unknown</u>
Sum of Known Amounts	\$44.3

**LOCAL ROAD AID PROGRAMS**

**General Transportation Aid**

General transportation aid is paid to local governments (counties, cities, villages, and towns) to assist in the maintenance, improvement, and construction of local roads. The aid must be used for transportation-related expenditures. For 2005-06, general transportation aid payments equaled approximately 28.0% of the transportation fund appropriations.

There are two basic formulas by which general transportation aid is distributed: (1) share of costs aid, which covers a percentage of the recipient's six-year average costs; and (2) mileage aid, which is based on a statutorily set amount (\$1,862 per mile for 2006) for each mile of road within a municipality's jurisdiction. Counties receive only share of costs aid, while municipalities receive payments based on either share of costs aid or mileage aid, whichever is greater. General transportation aid payment amounts can also be affected by the formula's minimum guaranteed payment requirement (98% of the prior year payment for counties and 95% of the prior year amount for municipalities), maximum payment increase limitation (115% of the prior year amount for counties and municipalities), and cost-based limitation (85% of three-year average costs).

For those municipalities on the standard share of costs (those not on the minimum or maximum) component of the formula, aid payments are dependent on the change in their six-year average costs relative to the changes in other municipalities' six-year average costs statewide. Those receiving aid on the mileage aid component receive a percentage increase in their aid payment that is equal to the percentage increase in the mileage aid rate in a given year, unless they have significant changes in their jurisdictional mileage or are limited to 85% of their three-year average costs.

The current aid formula provisions were established in 1988. At that time, those receiving aid on the standard share of costs component of the formula were provided aid amounts that covered approximately 30% of their six-year average costs for counties and 24% for municipalities.

However, as indicated in Table 4, the percentage of local transportation costs covered by general transportation aid for those on the standard share of costs provision has declined since 1988, dropping to 22.9% for counties and 18.6% for municipalities by 2006. The table also shows mileage aid rates, which have been increased somewhat consistently over the same period.

**TABLE 4**

**Standard Share of Cost Percentages and Mileage Aid Rates**

<u>Year</u>	<u>Share of Costs</u>		<u>Mileage Aid</u>	
	<u>Counties</u>	<u>Municipalities</u>	<u>Rate</u>	<u>Increase</u>
1988	30.2%	24.2%	\$750	
1989	30.4	24.3	810	8.0%
1990	30.0	24.0	900	11.1
1991	30.1	24.1	1,000	11.1
1992	28.9	23.1	1,100	10.0
1993	28.1	22.5	1,200	9.1
1994	27.7	22.2	1,275	6.3
1995	27.6	22.2	1,350	5.9
1996	27.0	21.4	1,390	3.0
1997	26.6	20.8	1,432	3.0
1998	28.2	22.5	1,596	11.5
1999	27.0	21.3	1,596	0.0
2000	27.8	22.0	1,704	6.8
2001*	N.A.	N.A.	1,704	0.0
2002	25.8	20.6	1,755	3.0
2003	25.9	20.5	1,825	4.0
2004	24.6	19.5	1,825	0.0
2005	23.2	18.7	1,825	0.0
2006	22.9	18.6	1,862	2.0
			Avg. Annual Percentage Change	5.2%

\*The aid formula was suspended for 2001, with each county and municipality receiving the same percentage increase over their prior year aid payment amount.

One way in which a decline in the percentage of local costs covered by general transportation aid could occur would be if annual state funding increases for the program do not keep up with annual increases in local transportation costs. Table 5 provides a history of the state general transportation aid funding received by counties and municipalities from 1988, when the formula was changed, through 2004. For comparison, Table 6 provides a history of county and municipal annual costs for the same period.

**TABLE 5****General Transportation Aid Funding Levels**

<u>Year</u>	<u>Counties</u>	<u>% Change</u>	<u>Municipalities</u>	<u>% Change</u>	<u>Total Funding</u>	<u>% Change</u>
1988	\$55,195,111		\$138,328,356		\$193,523,467	
1989	57,199,552	3.6%	148,404,325	7.3%	205,603,877	6.2%
1990	58,436,695	2.2	158,612,205	6.9	217,048,900	5.6
1991	60,425,393	3.4	169,508,893	6.9	229,934,286	5.9
1992	61,154,896	1.2	178,047,804	5.0	239,202,700	4.0
1993	61,823,943	1.1	186,690,742	4.9	248,514,685	3.9
1994	63,392,900	2.5	197,814,700	6.0	261,207,600	5.1
1995	66,588,900	5.0	209,496,900	5.9	276,085,800	5.7
1996	68,586,600	3.0	215,781,800	3.0	284,368,400	3.0
1997	70,644,200	3.0	222,255,300	3.0	292,899,500	3.0
1998	78,744,300	11.5	247,739,100	11.5	326,483,400	11.5
1999	78,744,300	0.0	247,739,100	0.0	326,483,400	0.0
2000	84,059,500	6.8	264,461,500	6.8	348,521,000	6.8
2001	84,059,500	0.0	264,461,500	0.0	348,521,000	0.0
2002	86,581,300	3.0	272,395,300	3.0	358,976,600	3.0
2003	90,044,600	4.0	283,291,100	4.0	373,335,700	4.0
2004	90,044,600	0.0	283,291,100	0.0	373,335,700	0.0
Avg. Annual Percentage Change		3.1%		4.6%		4.2%

As indicated in Table 5, total state funding increased fairly steadily from 1988 through 1998. The percentage increase exceeded the annual rate of inflation for each of the 10 years. Since 1998, the funding increases have not been as steady or substantial, exceeding annual inflation only in 2000, 2002, and 2003. The increase in total transportation aid funding from 1988 through 2004 (92.9%) significantly exceeded the funding increase that would have been necessary to provide annual inflationary funding increases (68.8%) during the same period. Funding increases varied for counties and municipalities through 1995 when both types of governments were funded from a single appropriation. Because their six-year average costs grew at a higher rate than counties from 1988 to 1995, municipalities derived more funding from the formula during those years, which partially explains the higher percentage increase in funding for municipalities. In 1996, separate appropriations were created for counties and municipalities and their funding has been increased at the same rate since that year.

**TABLE 6****Annual General Transportation Aid Eligible Costs**

<u>Year</u>	<u>Counties</u>	<u>% Change</u>	<u>Municipalities</u>	<u>% Change</u>	<u>Total Costs</u>	<u>% Change</u>
1988	\$203,285,400		\$655,862,904		\$859,148,304	
1989	216,390,525	6.4%	691,967,757	5.5%	908,358,282	5.7%
1990	238,238,274	10.1	744,418,441	7.6	982,656,715	8.2
1991	253,102,037	6.2	798,711,838	7.3	1,051,813,875	7.0
1992	252,652,584	-0.2	816,917,327	2.3	1,069,569,911	1.7
1993	273,457,141	8.2	859,179,436	5.2	1,132,636,577	5.9
1994	279,888,429	2.4	902,460,193	5.0	1,182,348,622	4.4
1995	295,901,975	5.7	940,026,788	4.2	1,235,928,763	4.5
1996	327,849,274	10.8	998,864,678	6.3	1,326,713,952	7.3
1997	321,449,910	-2.0	1,005,480,837	0.7	1,326,930,747	0.0
1998	324,171,135	0.8	1,056,207,725	5.0	1,380,378,860	4.0
1999	373,992,357	15.4	1,231,603,933	16.6	1,605,596,290	16.3
2000	376,456,291	0.7	1,189,536,473	-3.4	1,565,992,764	-2.5
2001	373,992,357	-0.7	1,231,056,456	3.5	1,605,048,813	2.5
2002	405,262,402	8.4	1,208,145,261	-1.9	1,613,407,663	0.5
2003	424,947,851	4.9	1,249,011,770	3.4	1,673,959,621	3.8
2004	422,625,168	-0.5	1,239,466,318	-0.8	1,662,091,486	-0.7
Avg. Annual Percentage Change		4.7%		4.1%		4.2%

Eligible costs have more than doubled for counties over the 17-year period while municipal costs have nearly doubled over the same period. Annual costs declined four times for counties and three times for municipalities on a year-to-year basis during the period. Total annual costs exceeded the annual rate of inflation 11 times during the period, and the total increase in costs from 1988 to 2004 (93.5%) was significantly higher than what costs would have been had they been limited to inflation during the same period (68.8%).

A comparison of the tables shows that the average, annual percentage increase in general transportation aid funding for counties was 3.1% over the period compared to a 4.7% increase in eligible costs over the same period. This would in large part explain why the standard share of costs covered by state transportation aid to counties has declined from 30.2% to 22.9% during that time.

However, for municipalities, the same comparison shows that the average, annual increase in general transportation aid was greater than the average, annual percentage increase in eligible costs over the 17-year period. Despite this fact, the standard share of costs covered by state

transportation aid to municipalities on the share of cost formula also declined over the period, from 24.2% to 18.6%. This decline in the standard share of costs percentage was in part due to the fact that the annual percentage increase in the mileage aid rate exceeded the annual percentage increase in total program funding for municipalities for several of the early years of the period shown on the tables (compare Tables 4 and 5). This resulted in a larger share of the annual funding increases going to those municipalities on the mileage aid rate formula component compared to those on the share of costs formula component.

Also, for the first few years following the implementation of the formula change in 1988, the standard share of cost percentage was not a good measure of the actual percentage of costs being covered by transportation aid for many of those on the share of cost component of the formula. In 1988, a large number of municipalities (76%, or 523 of the 687 municipalities on the share of costs formula component) were not receiving the standard share of cost percentage of 24.2%. Rather, these municipalities were limited to 115% of their prior year payment amount by the maximum payment limitation under the formula, and did not receive the full share of cost percentage. After factoring in the costs of those municipalities on the share of costs formula, including those on the minimum and maximum limits in that first year of the formula change, those municipalities on the share of costs component, in total, actually had only 21.7% of their six-year average costs covered by general transportation aid. Therefore, the standard share of costs percentage overstated the actual percentage of costs that state aid covered for most municipalities on the share of costs formula. This trend continued during the early years of the formula change until funding and annual cost increases came more into balance within the formula and fewer municipalities were on the maximum limit. In 2006, only 14.2%, or 84 of the 590 municipalities on the share of cost formula component, are limited by the maximum payment provision. As a result, the 18.6% standard share of costs percentage in 2006 is very similar to the 18.5% of costs covered for all municipalities on the share of cost formula, including those on the minimum and maximum payment provisions.

You requested information on the additional funding needed to meet the 1988 funding percentages of 30% of six-year average costs for counties and 24% of six-year average costs for municipalities. In order to provide a level of funding in 2007 sufficient to meet these percentages, the annual distribution amount would have to be set at an estimated \$123.2 million for counties and \$350.1 million for municipalities. This would require an increase in 2007 of \$31.4 million for counties and \$61.1 million for municipalities compared to the current 2007 amounts. These amounts assume that because of such a significant funding increase, the maximum limit would not apply in that first year.

It should also be noted that DOT, in conjunction with local governments, is in the process of collecting data based on periodic assessments of the structural condition of local roads in order to identify the level of local road improvement need that exists. Therefore, current local transportation-related cost levels may not reflect the amounts that may be needed to bring the condition of local roads to a specific standard. As a result, an additional need for state and local funding could be identified.

## **Local Road Improvement Program**

You also requested information on the local road improvement program (LRIP), which began in 1991-92. LRIP grants fund capital improvements on existing county and municipal roads and for feasibility studies for such improvements. Grants may cover up to 50% of the total project cost, with the balance being provided by the local recipient.

Funds in the program are distributed from two separate state appropriations. One, funded at \$16,585,700 in 2006-07, provides funding on a formula basis. All counties and municipalities with a population over 20,000 receive their own entitlement under the formula, while all towns and municipalities under 20,000 in population must share a single entitlement with other local governments within their county. Counties receive 43% (\$7.1 million in 2006-07) of the LRIP formula funds and municipalities receive the remaining 57% (\$9.5 million in 2006-07) of the funding.

The other appropriation, funded at \$7,000,000 in 2006-07, provides funding on a discretionary basis to towns, counties, and municipalities. Counties receive 75% (\$5.25 million in 2006-07) of the discretionary funds and municipalities receive the remaining 25% (\$1.75 million in 2006-07). Projects are chosen on a statewide basis for towns and municipalities, and on a regional basis for counties.

The creation of the LRIP program, although it provides project-specific funding, has partially offset the decline in the share of local transportation-related costs covered by general transportation aid. In addition, the 50% of LRIP project costs paid by local governments are aidable under the general transportation program. Subtracting the current level of LRIP program funding from the general transportation aid increases necessary to cover 30% of costs for counties and 24% for municipalities would reduce those amounts by \$12.3 million for counties and \$11.3 million for municipalities.

## **Connecting Highway Aids**

Connecting highways are certain portions of the state trunk highway system passing through municipalities. The maintenance of connecting highways is generally a municipal responsibility. Connecting highway aid payments to assist municipalities with these costs are based on a municipality's population and the lane miles of connecting highway within its boundaries. The rates paid per lane mile of connective highway are based on a statutory schedule (2006 rates are listed in Table 7), with aid on the first two lanes of any connecting highway being paid at 100% of the statutory rate, aid on the second two lanes at 75% of the statutory rate, and aid on any additional lanes at 50% of the statutory rate. In 2006, an estimated 122 municipalities will receive \$12.9 million in connecting highway aid. If the appropriation is insufficient to fully fund the formula, payments are prorated. In 2006, it is estimated that the payments will be prorated to equal 90% of the formula amounts.

**TABLE 7**

**2006 Connecting Highway Aid Rates**

<u>Population</u>	<u>Aid Per Lane Mile</u>
Over 500,000	\$11,724
150,001 to 500,000	10,860
35,001 to 150,000	9,678
10,000 to 35,000	8,525
Under 10,000	7,345

The connecting highway aid appropriation has not been increased since 1998-99, following an average, annual increase from 1988 through 1999 of 3.4%. If the appropriation would have been adjusted each year to reflect the annual increases in inflation since 1988, it is estimated that the 2007 appropriation would equal \$15.5 million. This funding level would represent an increase of \$2.6 million, or 20.2%, over the actual 2007 funding level.

**MASS TRANSIT OPERATING ASSISTANCE**

**Existing Transit Service**

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

Prior to 1995 Act 113, state aid was provided to mass transit systems in the state so that aid amounts equaled 42% of system operating expenses. In addition, the Madison and Milwaukee systems received supplemental aid so that each system's total state and federal share equaled a uniform percentage of operating expenses. Act 113 created five separate tiers of systems based on the size of system and funded each tier from a separate appropriation. Aid payments were made so that the total of state and federal aid equaled a uniform percentage of operating expenses for each system within each tier.

The makeup of the tiers of systems was again modified under 1999 Act 9 to consist of the following four tiers: (a) Milwaukee County Transit in Tier A-1; (b) Madison in Tier A-2; (c) all other urban bus and Chippewa Falls, Onalaska, Stoughton, and Sun Prairie shared-ride taxi systems in Tier B; and (d) all remaining systems in Tier C. Tier A-1 and Tier A-2 systems are provided a statutorily specified amount of funding for a calendar year. For Tiers B and C, aid payments are

made so that total state and federal aid equals a uniform percentage of operating expenses for each system within a tier.

The following table indicates the distribution of state mass transit operating assistance among the four tiers of systems for 2006.

**TABLE 8**  
**State Mass Transit Operating Assistance**  
**By Tier of System for 2006**

<u>Tier</u>	<u>State Funding</u>	<u>Percent of Total</u>
Tier A-1	\$57,948,000	57.6%
Tier A-2	15,470,200	15.4
Tier B	22,192,800	22.0
Tier C	<u>5,023,600</u>	<u>5.0</u>
	\$100,634,600	100.0%

Table 9 indicates the state and federal funding levels, annual transit operating costs, and the percentage of costs funded from state and federal funding from 1994, the year prior to the state formula change, to 2005. The 2005-07 biennial budget provides a 2% annual increase in funding for each tier of systems for 2006 and 2007. DOT is currently in the process of finalizing the 2006 payment distribution for each tier of systems.

**TABLE 9****State and Federal Transit Assistance and Operating Costs**

	<u>State Funding</u>	<u>Percentage Change</u>	<u>Federal Funding</u>	<u>Percentage Change</u>	<u>Operating Costs *</u>	<u>Percentage Change</u>	<u>State Funding as % of Costs</u>	<u>State/Federal Funding as % of Costs</u>
1994	\$68,460,400		\$14,156,039		\$157,783,814		43.4%	52.4%
1995	71,305,600	4.2%	13,019,975	-8.0%	163,129,048	3.4%	43.7	51.7
1996	74,050,000	3.8	10,071,712	-22.6	170,218,290	4.3	43.5	49.4
1997	76,271,700	3.0	10,340,830	2.7	175,992,853	3.4	43.3	49.2
1998	83,592,100	9.6	11,286,910	9.1	190,922,229	8.5	43.8	49.7
1999	86,517,700	3.5	12,012,051	6.4	194,897,817	2.1	44.4	50.6
2000	93,006,500	7.5	21,977,504	83.0	215,201,051	10.4	43.2	53.4
2001	93,006,500	0.0	31,002,266	41.1	233,273,563	8.4	39.9	53.2
2002	96,726,800	4.0	33,392,529	7.7	239,861,178	2.8	40.3	54.2
2003	98,661,400	2.0	35,641,891	6.7	244,083,955	1.8	40.4	55.0
2004	98,661,400	0.0	40,389,402	13.3	251,587,051	3.1	39.2	55.3
2005	98,661,400	0.0	44,811,587	10.9	259,940,165	3.3	38.0	55.2
Average, Annual Increase		3.4%		11.0%		4.6		

\* Projected costs at the time of the aid contracts.

As indicated in the table, the percentage increases in state transit funding were larger during the period from 1992 through 2000, than for more recent years, including the 2% increase in 2006 and 2007. These increases in state transit funding outpaced the change in federal funding during the same period. Conversely, in recent years, after the passage in 1998 of the federal Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), federal operating assistance increases have outpaced the more limited increases in state funding. Annual state funding increases outpaced the annual changes in inflation for eight of the 12 years and the total state funding increase from 1994 to 2005 (44.1%) significantly exceeded the level of funding that would have been necessary to provide annual, inflationary increases over that period (31.8%). Despite these above-inflation increases, state funding as a percentage of costs declined from 43.4% of costs in 1994 to 38.0% of costs in 2005. This is because operating costs grew at a faster pace than state funding during the 12-year period. However, federal funding increases, which outpaced annual inflation for 10 of the 12 years, made up for some of the increases in operating costs.

The annual changes in federal funding and operating costs indicated in the table are somewhat overstated due to a change in the treatment of federal capital funds being used to fund certain ongoing maintenance costs of the state's larger urban systems. These systems receive their aid directly from the federal government, and the reporting of the amount of federal funding used for annual maintenance costs has not been consistent over time. During the early 1990s, changes in the use and accounting of federal capital funds used for ongoing maintenance resulted in some of these federal revenues, and the costs paid for by these revenues, not being accounted for in the

funding distributions indicated in the table. As a result, during these years it appears that federal funding declined. The changes in the treatment of these costs also somewhat overstated the percentage of total operating costs covered by state funding for those same years. Subsequently, the state, under 1999 Act 9, required these transit systems to report the amount of federal capitalized maintenance funds they intend to use each year. Thus, since 1999, these federal funds for the large urban systems, and the associated costs, are again included in the funding distributions indicated in the table. This explains a significant part of the large increase in federal funding and costs since 2000. However, TEA-21 did provide increased federal funding for the smaller urban and rural transit systems during these same years.

Providing a funding level sufficient to cover 42% of transit operating costs in 2006 would require an estimated appropriation level of \$112.5 million, assuming total transit costs increase 3% annually. This would be an increase of \$11.8 million, or 11.7%, over the current 2006 funding level.

However, it should be noted that the costs identified in Table 9 do not reflect the same level of transit service among the years indicated. Several systems increased service during the period, and new shared-ride taxi systems began to provide service, which drove up overall transit costs. Conversely, Milwaukee County Transit, the state's largest system, has made service reductions since 2001 that will total an estimated \$20.1 million in 2006. These service reductions, along with some systems' decisions to defer annual maintenance costs as a means to assist with covering increased costs associated with paratransit service, fuel, and health insurance, may partially explain why total transit operating costs have increased at more modest rates in recent years.

Providing for 42% of the \$20.1 million in operating costs associated with reinstating the 2001 transit service levels in Milwaukee County would require an additional \$8.4 million for Milwaukee County in 2007. It should be noted that funding these costs would require that additional county and farebox funding be available to cover the remaining \$11.7 million in costs of the reinstated transit service not covered by state aid.

### **Transit Service Enhancements**

You also requested information on major service enhancements for transit that have been identified in recent years. Several regions of the state are in the process of planning for transit service expansions in the form of enhanced bus and paratransit services and fixed guideway or rail transit systems, including trolley, light rail, or commuter rail systems. If these service enhancements or expansions occur, the state will have to decide whether to provide additional transit operating assistance funding to cover any additional operating costs that may occur.

The proposed expansions will also have significant capital costs. The state does not currently provide mass transit capital funding. However, in 2003, the state created a commuter rail grant program that provides grants to political subdivisions for the development or extension of commuter rail transit systems in this state. Grants are limited to an amount equal to 50% of the portion of the project cost in excess of the federal aid funding for the project or 25% of the total

project cost, whichever is less. To date, no state funding has been committed to fund the capital costs of any commuter rail project under the state program. At the federal level, capital assistance is available for existing service and for system expansion projects, which, if approved, could be eligible to receive federal funds ranging from 50% to 80% of their capital startup costs.

The following sections, while not a totally exhaustive list of the potential transit enhancements that could be made in the state, provide cost estimates for some of the larger transit system improvements currently being studied.

Southeastern Wisconsin Transit Enhancements. SEWRPC recently completed its thirty-year regional transportation plan for the seven-county region of southeastern Wisconsin, which included several enhancements to the existing transit system. The plan has been drafted and is currently awaiting approval by the full SEWRPC board. The plan envisions significant transit enhancements and the expansion of public transit in the region, including the development of a regional rapid transit and express transit system, the improvement of existing local bus service, and the integration of the local bus service with the proposed rapid and express transit systems. The reinstatement of the 2001 transit service levels provided by Milwaukee County Transit are also incorporated in the plan.

The plan's rapid transit service would consist of buses operating over freeways connecting the Milwaukee central business district with the urbanized areas of the region, the urban centers, and the outlying counties of the region. The proposed express service would consist of a grid of limited stop, higher speed routes located largely within Milwaukee County connecting major employment and shopping areas, other activity centers such as Mitchell Airport, tourist and entertainment facilities, and residential areas. The express routes would replace existing major local bus routes and would initially operate over arterial streets in mixed traffic. The system routes would be upgraded over time to operate on reserved street lanes with priority treatment at traffic signals.

The recommended improvement and expansion of local transit service would occur over arterial and collector streets with frequent stops in the Kenosha, Milwaukee, and Racine areas. The plan recommends a 59% increase in this type of service by 2035. Paratransit service would also be expanded and improved to a level consistent with the federal Americans with Disabilities Act, with all transit vehicles providing conventional, fixed-route transit being accessible to persons with disabilities and those in wheelchairs.

These proposed improvements to the existing system and the proposed service expansions would represent a near doubling of public transit service in southeastern Wisconsin by 2035, or a 2.5% annual increase in public transit service. SEWRPC indicates that the implementation of the plan would be dependent on continued state funding of the maintenance, improvement, and expansion of public transit. The plan indicates that a state funding level equal to 40% to 45% of transit operating costs would be needed to fund the plan. The plan would call for state transit funding for the region to increase from its current level of \$68.0 million in 2006 to \$136.5 million in 2035 (in 2006 dollars). The estimates do not include annual inflationary increases for the 30-year

plan period. SEWRPC officials indicate that annual increases in state operating assistance funding of 5% would be needed to both address the rising costs of transit service and provide operating assistance for the proposed system improvements identified in the plan.

As mentioned earlier, the SEWRPC plan would essentially reinstate most of the 2001 service levels provided by Milwaukee County Transit. That is, much of the service expansion called for in the first few years of the plan would involve bringing the system's service level back up to its 2001 level. As a result, providing the state funding necessary to fund the reinstated service level (\$8.4 million in 2006) would likely be sufficient to meet the required annual state funding increases identified in the SEWRPC plan. Therefore, no additional state operating assistance funds beyond those amounts would likely be needed to implement the plan for 2006. However, beyond 2007, the state would need to provide annual increases of \$1.7 million, plus inflation, in order to cover the 42% of the costs associated with the proposed service expansions included in the plan.

The SEWRPC regional transportation plan also discusses the eventual upgrade of the rapid and express bus service to a bus guideway or light rail system. The plan specifically identifies six potential bus guideway/light rail lines in southeastern Wisconsin and seven potential commuter rail lines, including the Kenosha, Racine, and Milwaukee (KRM) extension of the Metra commuter rail line. The cost estimates of these improvements are not included in the system enhancement and improvement cost estimates included in the SEWRPC regional transportation plan.

However, a separate cost study associated with the Milwaukee Connector, a fixed guideway transit project in downtown Milwaukee, found that while the capital costs could be considerable, a reserved-lane, bus system or guided street tram project would not significantly increase transit operating costs in the region. The study indicated that most or all of the operating costs associated with these improvements would be offset by cost reductions associated with the removal of bus service and the associated costs along the fixed guideway/rail project routes. The study did not indicate any state assistance for the capital portion of the project.

Also, a separate corridor transit study and recommended plan for the KRM corridor was completed in August, 2003. The study recommended, and the local governments approved, a KRM commuter rail project with a medium level of service as the locally preferred alternative. Adjusting the costs identified in the study to reflect inflation, the KRM project would result in an estimated \$20.8 million in annual operating costs in 2006 and the project's capital improvements and purchases would cost an estimated \$170.1 million. Covering 42% of the operating costs of the project would increase state operating assistance for transit by \$8.7 million in 2006 dollars. Covering 50% of the non-federal share of capital costs for the project would cost the state \$17.0 million in 2006 dollars, assuming federal funds would be available to cover 80% of the project costs and the local funding is secured.

Dane County Transport 2020 Enhancements. In Dane County, long term transit improvements were included in the Transport 2020 study, which was jointly conducted by Dane County, the City of Madison, and DOT. The study was initiated in April, 2000, and completed in August, 2002, with a locally preferred alternative (LPA) being selected for transit. The public

transit improvements in the study included enhancements to the existing Madison Metro bus system, the initiation of express bus services, and the possible initiation of rail service.

The locally preferred alternative analysis included a baseline alternative, a start-up alternative, and a full system vision, which is the LPA. The LPA involves a full local and regional express bus network, a four-line commuter rail system, and a downtown Madison, street-running connector system, which was added as part of the LPA at the conclusion of the study.

If the LPA were operational, and adjusting for inflation, the LPA would increase 2006 bus system operating costs by \$11.2 million in the region and would cost \$10.0 million to operate the proposed rail system. The state would need to provide \$4.7 million in order to cover 42% of the operating costs of the expanded bus system costs and \$4.2 million for the proposed rail system costs. Adjusting for inflation, capital costs for the LPA are estimated at \$71.0 million for the expanded bus system and \$321.0 million for the commuter rail system. Covering 50% of the non-federal share of capital costs for the project would cost the state \$39.2 million in 2006 dollars, assuming federal funds would be available to cover 80% of the project costs and the local funding is secured.

Rock County Commuter Rail Extension. Rock County and its larger communities are currently conducting a transportation corridor planning study of commuter rail and bus alternatives. The corridor under study extends from the City of Harvard in McHenry County, Illinois, through the Village of Clinton in Rock County and potentially on to one, or both, of the Cities of Beloit and Janesville. This corridor planning study will compare the benefits and costs of an extension of the Metra commuter rail line from Harvard, Ill., to Beloit, or Janesville, or both, and bus alternatives. The study will recommend alternative means of financing the project and operating the commuter rail, evaluate bus service alternatives, and provide preliminary cost estimates for each alternative.

The following table identifies the state level operating assistance funding that would be needed to cover 42% the annual operating costs for existing transit service levels and for the proposed bus and rail service enhancements. Because the state has not appropriated any funding in the past for capital costs associated with transit or commuter rail projects and since these costs are one-time in nature, no funding for capital costs are included in the table.

**TABLE 10**

**Amounts Needed to Fund 42% of  
Specified Transit Operating Costs  
(\$ in Millions)**

<u>Existing Service</u>	
Existing Operating Costs	\$11.8
Reinstate Milwaukee County Transit Service Reductions	8.4
 <u>Expanded Bus Service**</u>	
Dane County Express Service	4.7
Southeastern Wisconsin Regional Plan Service Expansion*	0.0
 <u>Fixed Guideway/Rail Projects **</u>	
Milwaukee KRM	8.7
Madison Commuter Rail	4.2
Rock County Extension	<u>N.A.</u>
 Total Transit Operating Assistance Increase	 \$37.8

\* Initial operating costs of the plan's bus service expansion are included in costs to reinstate recent service reductions by Milwaukee County Transit. Beyond 2007, state funding would need to increase by \$1.7 million each year, plus inflation, in order to fund the proposed service expansion.

\*\* Indicates potential costs in 2006 dollars, although the projects would not be operational until a later date.

**SUMMARY**

The following table summarizes the earlier estimates. The amounts in the third and fourth columns are expressed in 2006 dollars. Therefore, to provide the benchmark funding levels in 2007-08, these amounts would have to be adjusted using inflation rates in 2007 and 2008.

**TABLE 11**

**Summary of Annual Funding Increase Estimates  
(\$ in Millions)**

<u>Program Area</u>	<u>2006-07 Funding</u>	<u>Benchmark Funding Level</u>	<u>Increase from 2006-07 Level</u>
Highway Improvement Program	\$1,005.1	\$1,167.9 to \$1,549.7	\$162.8 to \$544.6
Highway Maintenance/Traffic Operations	177.2	221.5	44.3*
General Transportation Aids	388.4	480.9	92.5
Less LRIP Funding	23.6	0.0	-23.6
Connecting Highway Aids	12.9	15.5	2.6
Mass Transit Operating Assistance**	102.6	140.4	<u>37.8</u>
 Total			 \$316.4 to \$698.2

\* Does not include unknown amounts to provide annual, optimal life-cycle maintenance or one-time funding to address maintenance backlogs.

\*\* Indicates potential costs in 2006 dollars, although the projects would not be operational until a later date.