Fixing the Roads: A Blueprint for Michigan Transportation Infrastructure Policy

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Executive Summary

The Michigan transportation infrastructure system is crucial to the state's economic progress and a strong case can be made that the expensive task of maintaining it should be given a new level of priority in Lansing. This blueprint for identifying Michigan's infrastructure needs rests upon several crucial findings: 1) substantial repairs and improvements are necessary; 2) policy makers must fundamentally reinvent the planning, funding, construction and maintenance procedures in Michigan; and 3) increases in motor fuel taxes should be offset by tax and spending reductions in other areas of state government.

Between 1982 and 1992, Michigan Transportation Fund revenues rose by 46.9 percent in *real* terms. In that same time period, the number of miles driven on the state's roads increased by 37% and the number of registered vehicles went up by 13.7%. The increased traffic helped boost revenues but also produced an increasing need for capital projects and maintenance. The percentage of state system roads rated "poor" increased 36% between 1982 and 1993. That's important to understand because fixing "poor" roads is three to five times more expensive than fixing "fair" condition roads. It makes economic sense in the long run to invest in halting the deterioration of roads before they become "poor."

Michigan's gasoline tax has remained at 15 cents per gallon since 1984, while the diesel fuel tax has stood at an effective 9 cents per gallon since 1980 when a 6-cent discount for commercial users took effect. Revenues from these taxes are committed to the Michigan Transportation Fund and, at $737.7 million in Fiscal Year 1995, comprise 56.2% of the Fund total (another 38.2% of Fund revenues comes from registration and weight taxes). Additionally, Michigan levies a 6-cent sales tax on both fuels but the revenue from the sales tax is not used for transportation purposes. *Each penny of state gasoline tax is estimated to raise approximately $45.7 million of revenue, while each penny of the diesel tax discount eliminated would raise about $5.6 million.*

Heavy duty commercial trucks pay a considerable amount in fuel taxes and registration fees in Michigan, but are still not paying their full share of costs. Both the taxes and the fees they pay are below the average in other states and are below what is needed to cover the maintenance costs that their use on the roads imposes. Those who argue that Michigan should place a limit of 80,000 pounds on trucks that travel on its roads to minimize damage miss an important point: *axle weight determines damage*, not gross weight. By spreading their weight over 11 axles compared to just five for 80,000-pound trucks and paying nearly twice the registration fee per vehicle, the 164,000-pound trucks that ride Michigan's roads are not imposing a disproportionate burden on the state.

Michigan Department of Transportation officials have created a prioritized list of transportation projects that require an additional $410 million of funding per year for the state system, but some

of the items on the list are hard to justify. One example is $25 million for high speed rail between Chicago and Detroit. This report examines MDOT's claimed needs and finds that something on the order of $375 million is more justifiable. The report estimates a need for an additional $281.8 million per year for city and county road investments, *for a total identified gross need of $656.8 million per year for 10 years.*

Not all of that $656.8 million, however, must necessarily come from higher fuel taxes or registration fees. In discussing possible funding alternatives, some of which are admittedly remote because of political realities in either Lansing or Washington, the report makes a number of important points:

- The federal government has broken the user fee principle by allocating federal fuel tax revenues to purposes other than highways, such as deficit reduction and mass transit. If Michigan received back the 6.8 cents in gasoline and diesel taxes that it sends to Washington for deficit reduction alone, we would have an additional $357.7 million per year--an amount that almost completely eliminates the shortfall in investment for state run roads. *In other words, Michigan sent $698 million to Washington in 1992, but slightly more than half of that never came back because it ostensibly went to deficit reduction.*

- If the federal government used the Highway Trust Fund balance it collected from highway users in fuel taxes but refused to spend, Michigan would get back another $663 million of one-time monies.

- Of the federal taxes actually deposited in the highway account of the Highway Trust Fund, Michigan gets back the smallest percentage of what it pays in of almost any state in the union.

- Even at the state level, not all of our highway user taxes and fees are going for highway purposes. Some $176.7 million of state funds are being diverted from highway uses to mass transit subsidies and other non-highway activities of often dubious value.

- Reforms at the federal level could save millions of dollars. Repealing "environmental justice" rules, limiting projects requiring NEPA environmental reviews, rolling back unfunded mandates, cutting the bureaucratic requirements of the ISTEA legislation, reducing the excesses of the Coastal Zone Reauthorization Act, and repealing the Davis Bacon Act top the list.

- Reforms at the state and local levels could save millions more. A list, explained in some detail in the report, includes further progress in reducing MDOT administrative costs, reform or elimination of separate county road commissions, increased efficiencies through privatization, changing the terms of land acquisition, changing design standards and applying value engineering concepts, repealing the state's archaic Prevailing Wage Act, discouraging frivolous and costly lawsuits against the state through reforms in tort law, selling the state's network of railroad track, and eliminating unnecessary environmental regulations.

Total state and local needs after implementing these and other viable cost saving measures are estimated at $485.2 million, more than $171 million less than the gross need of $656.8 cited above. State needs make up $293.2 million of the total, while local needs comprise the remaining $192 million. All cost savings assumed in these numbers can be implemented by the state.

In raising $485.2 million—or any portion thereof—policy makers must have two factors uppermost in mind: the Headlee Amendment to the Michigan Constitution, which is exerting a powerful restraint on further state taxation, and the need to protect the progress Michigan has made in recent years toward improving its business climate by cutting the burdens of government. *In addition to the adoption of cost-saving strategies proposed in this report, the author strongly recommends that increases in motor fuel taxes or vehicle registration fees be offset dollar-for-dollar by tax and spending reductions elsewhere in government.*

The report concludes with a specific funding proposal. To fund state needs, the proposal suggests obtaining $60 million from bonding as proposed by MDOT, $33.6 million from a 6-cent increase in diesel taxes, and a 4.4-cent increase in the gasoline tax (which would raise $199.6 million, for a total of $293.2 million). To fund local needs, the proposal suggests a combination of a local registration fee hike option and establishment of a matching contribution program for local governments to obtain access to a 1.4-cent per gallon gas tax dedicated for local use. Locals would have to put up two dollars for every dollar to be received from the state fund. This program would raise $64 million in state funds to be matched by $128 million in net new local money. The total gas tax increase under this proposal would be 5.8 cents.

Michigan's transportation infrastructure needs must be addressed in a timely, constructive, but aggressively cost-conscious fashion. It will not suffice to blindly pursue business as usual--simply adding up what the bureaucracy says it needs to fix the roads and raising taxes to bring in that amount of revenue. Policy makers and the citizenry at large must understand what is at stake, the imperative of innovative thinking, and the need to keep state government on the track toward making Michigan a less expensive place to live and do business.

I INTRODUCTION

Will Michigan's motor fuel taxes rise in the near future? More importantly, *should* they rise and if so, by how much? Those questions are before the Legislature and may well be resolved in 1995. One way to handle them is to blindly pursue business as usual--simply add up what the bureaucracy says it needs to fix the roads and raise taxes to bring in that amount of revenue. A more creative approach involves strategies to reduce costs and get more "bang" for the taxpayers' dollars. Furthermore, even with implementation of substantial cost savings, policy makers must not jeopardize Michigan's recent progress in reducing the burdens of government and making its business climate more competitive. If fuel taxes are raised, offsetting spending and tax cuts should be identified.

An efficient transportation system has played an important part in Michigan's economic development over the years, and government has had an important role in assuring that appropriate transportation infrastructure has been in place. However, the organizations and

methods for planning, funding, maintaining, and constructing a transportation infrastructure need to be reevaluated to assure we are getting the most effective system for the money invested. In short, we need to reinvent the planning, funding, constructing and maintaining of transportation infrastructure in this state. Serious questions need to be raised about the kinds of projects we fund, how we raise funds, and the organizations that we use to build and maintain roads and other transportation systems.

There has been much press coverage in recent months about the issue of a gas tax increase, but this discussion has not addressed the real question. The question is not how much funding is needed, but instead how can we obtain the required transportation infrastructure in the most efficient and effective manner? When one redefines the question in this way, the issues that need to be addressed include the amount of investment needed, the cost of obtaining that infrastructure, and only then, the amount and form of any possible tax increase that may be needed.

If additional investment can be justified and a tax increase is required, those who use the highway system will have to decide whether the benefits of improved infrastructure will outweigh the additional direct costs. For citizens and other automobile users, the potential benefits of additional investment relate to less congestion and delays, and a better overall quality of life. Auto owners could also benefit from lower auto maintenance and repair bills if road conditions are improved.

For businesses, employees and consumers that use the system to transport intermediate and finished goods, potential benefits are lower distribution costs and prices, improved competitiveness and more Michigan-based manufacturing facilities as a result of reliable, delay-free delivery times and reduced damage and maintenance costs for trucks and their cargos. Users of the freight transportation system do not have any interest in infrastructure for its own sake; instead, they need a system that offers the lowest possible transportation costs with the best reliability. Economic deregulation of trucking services and prices now required by the federal government will help to lower costs and improve service, and infrastructure improvements might provide additional benefits that would exceed any increased costs. If diesel tax increases are justified, users of the freight distribution system would want to see at least some offsetting benefits, such as complete trucking economic deregulation, and a move towards "one-stop" shopping for permits which now must be secured from five state departments.

One must understand Michigan's existing transportation system, spending levels and funding in order to analyze the level of need and consider potential methods and benefits of funding any additional investment. The following section examines the current system and its funding. Then, issues related to the trucking industry, and revenues and costs associated with the industry are examined. Additional sections consider the level of funding needs, opportunities to fund increased investment through reduced costs, net investment needs after all savings, and some options for raising any additional revenue that may be needed.

II MICHIGAN'S TRANSPORTATION INFRASTRUCTURE SYSTEM

Michigan's transportation infrastructure is owned and maintained primarily by counties and cities. However, the state owns and maintains the state trunkline system which is critical to economic development and interstate and intrastate commerce.

Michigan funds its transportation infrastructure investments primarily with state fuel and registration taxes, in part with federal aid, and finally, with a small amount of local tax compared to other states. The low level of local funding is very important when considered in light of the Headlee Amendment's limitation on state taxation to 9.49% of personal income. Michigan has also largely avoided the toll road system that many other states have employed.

The following subsections discuss the control of the current system, Michigan transportation funding, the disposition of Michigan state revenues, and Michigan's current revenue sources.

Control of the Michigan System

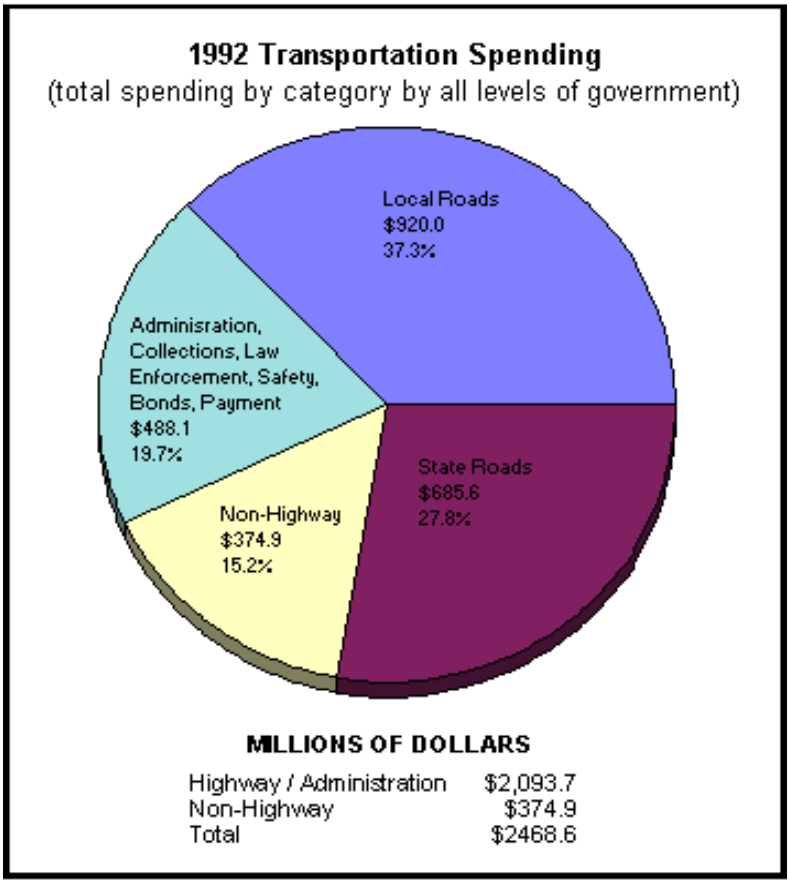
The Michigan highway system consists of 117,659 miles as of September 30, 1993. The state controls 8.2% of this system, a relatively small percentage compared to other states. Michigan counties control 75.1% of the roads, and cities and villages control the remaining 16.7%. In 17 reference states studied by the Citizens Research Council of Michigan in 1992, the states controlled an average of 23% of their total systems.(1)

Michigan's state-owned system carries 53% of the state's total traffic, even though its total mileage is only 8.2% of the total system.

Michigan Transportation Funding

Figure 1 breaks out total transportation spending by category. In 1992, $2,468.6 million was spent by all levels of government on all forms of transportation.(2) Of this total, $2,093.7 was spent on highways or highway related administration, and $374.9 million was spent on non-highway purposes. The non-highway spending, some 15.2% of the total, was primarily for mass transit purposes.

Figure 1



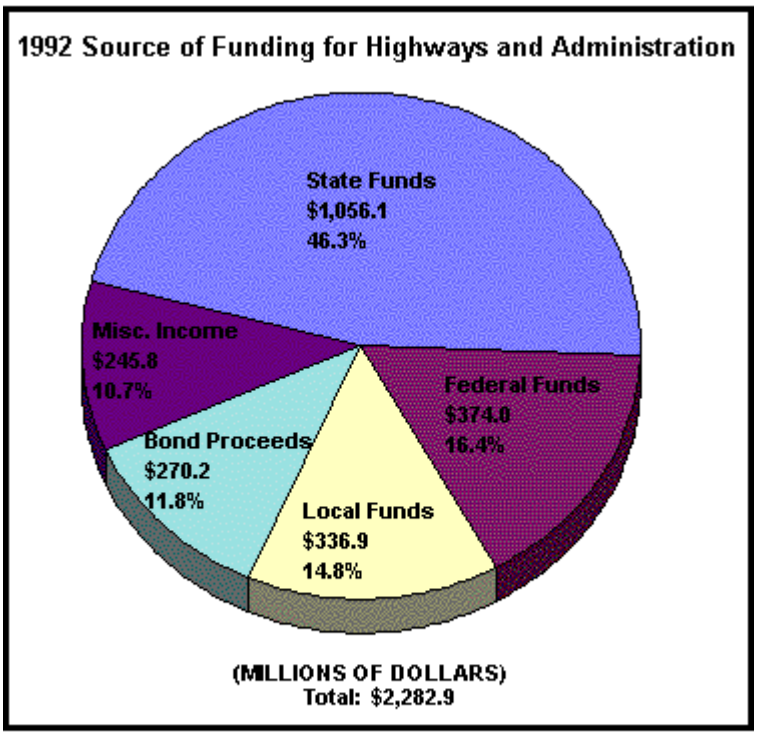
Source: MDOT Bureau of Transportation Planning, Summary Memo, February 24, 1995.

Of the $2,093.7 million for highway related purposes, just $1,605.6 million was actually spent on highway construction and maintenance. The remaining $488.1 million was spent on administration, law enforcement and safety, and interest and bond retirements. Bond principal and interest payments included in the above figure total $80.6 million. For actual highway construction and maintenance, $920.0 million of the total was spent on locally administered roads, and $685.6 million was spent on state administered roads. Capital outlay expenditures accounted for $823.6 million of the total highway spending, while maintenance accounted for $782 million of the total. On the local system, 69.9% was spent on maintenance (generally including resurfacing), and 30.1% was spent on capital outlay for new construction. On the state system, 79.8% was spent on capital outlay (including resurfacing), and 20.2% was spent on general maintenance such as mowing and snow plowing.

Figure 2 shows the revenue sources for highway spending by all levels of government in 1992, and for related administration, collection expenses and safety enforcement. Receipts for highway related purposes totaled $2,282.9 million in 1992.(3) All units of Michigan government received $1,056.1 million from state fuel and registration fees (after collection expenses), $374.0 million from the federal user fees, and $336.9 million from local governments. Additional

revenue came from $270.2 million in bond proceeds, and $245.8 million in miscellaneous income (land sales and rentals, various fees, etc.).

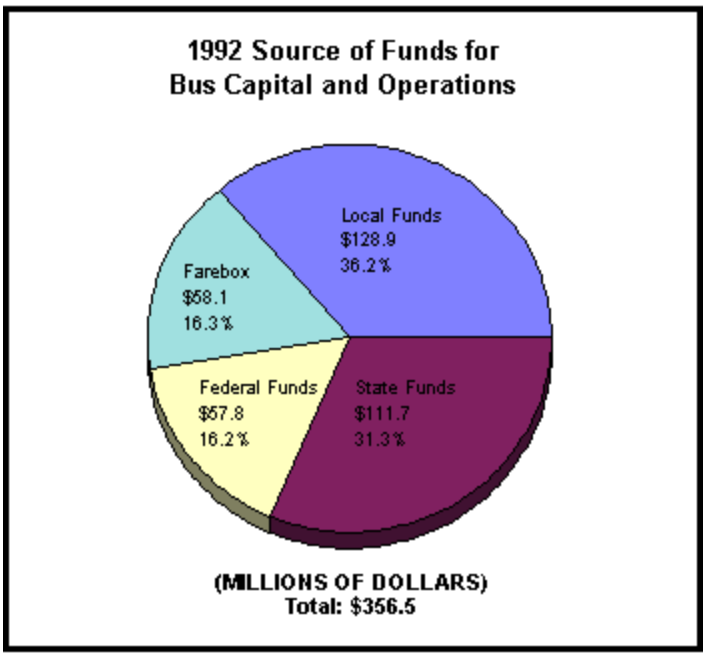
Figure 2



Source: Federal Highway Administration, *1993 Highway Statistics*, Tables IV-9 and MDOT *1994 Facts and Figures*, *pp. 90-91.*

For the non-highway spending of $374.9 million, 95.0%, or $356.5 million, was spent for bus capital and operating expense purposes.(4) Bus operating expenses accounted for the vast majority of that total, at $328.7 million. Figure 3 shows the source of funds for bus capital and operations spending. Local government dollars accounted for 36.2% of the bus funding, state dollars represented 31.3% of the total, federal dollars were 16.2% of the total, while fareboxes provided just 16.3 % of the funding. The bulk of the state and federal funding goes to Southeast Michigan bus systems. For instance, in 1992 state and federal expenditures on bus systems statewide totaled $141.7 million, with SMART and DDOT receiving approximately $100 million of the total.

Figure 3



Source: MDOT Bureau of Transportation Planning, Summary Memo, February 24, 1995.

Disposition of State Transportation Revenues

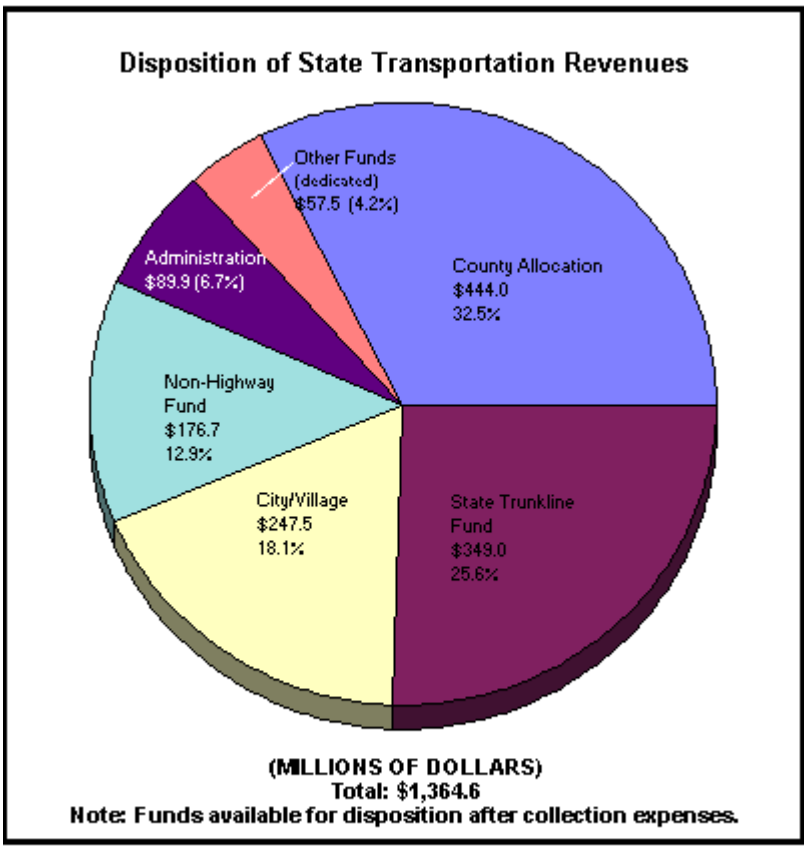
The Michigan Constitution dictates that taxes and fees collected on items used "for the operation of a motor vehicle on the state highways," including fuel and registration taxes but with the exception of general sales taxes, are to "be used exclusively for 'transportation' purposes." Not less than 90% of these taxes must be spent on the planning, designing and construction of roads and bridges designed primarily for the use of motor vehicles using tires.

Public Act 51 of 1951 (MCL 247.667) governs how transportation revenues are to be raised and spent in Michigan. The Act establishes a number of state funds that receive and distribute transportation monies and establishes a formula which governs the disbursement of state collected monies to the state highway system, county roads, and city and village roads. The most important fund is the Michigan Transportation Fund, which receives most state monies. These monies are then allocated to the other funds by formula. The formulas in Act 51 require that monies be spent first to pay administrative costs, primarily of the Michigan Department of Transportation (MDOT), and to pay the principal and interest due on outstanding bonds and notes.

Secondly, monies go to funds required for special projects, such as the Critical Bridge Fund and the Rail Grade Crossing Account, and the Recreation Improvement Fund. Ten percent of the remaining money is allocated to the Comprehensive Transportation Fund, which is primarily for mass transit. This fund also receives a small portion of state vehicle sales tax fees which is then also used for mass transit. The balance of money is used to finance snow removal and

construction and maintenance of the highway system by apportioning 39.1% for state highways, 39.1% for distribution to counties, and 21.8% for distribution to cities and villages.

Figure 4



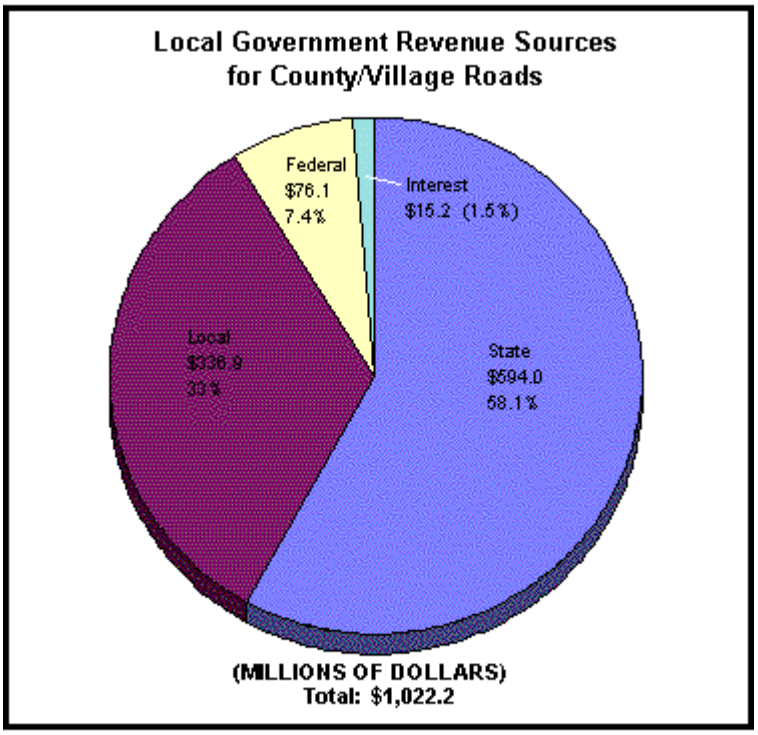
Source: MDOT Financial Planning and Budget, *State Flow of Funds for Transportation,* FY 1995.

Michigan's total state user fee revenues dedicated to transportation for fiscal 1995 are budgeted at $1,364.6 million, with the Michigan Transportation Fund representing $1,308.2 of the total.(5) Figure 4 indicates the disposition of these funds. $176.7 million (12.9%) of the funds are budgeted for mass transit and other non-highway projects, with $56.4 million of this total coming from auto related sales taxes and the remainder coming from the 10% of Michigan Transportation Fund monies dedicated to non-highway purposes under Act 51. Of the $1,187.9 million budgeted for highway infrastructure, $349.0 million or 25.6% of the total transportation budget is for the State Trunkline Fund to support state roads. An additional $36.8 million is budgeted for the Economic Development Fund to support all types of roads, and $5.0 million and $3.0 million, respectively, are budgeted for critical bridges and railroad crossings. $444.0 million is budgeted for counties, or 32.5% of the total state revenues, and $247.5 million (18.1%) is budgeted for cities and villages. The county and city percentages relate to total revenue sources including the auto sales taxes going into the Comprehensive Transportation Fund. This is somewhat less than the percentages relating to the Michigan Transportation Fund stated in Act 51. State transportation administrative costs are budgeted at $89.9 million.

Local Government Revenue Sources and Spending

Figure 5 depicts the source of funds for county, city and village owned and operated systems. In 1992 local governments' receipts for spending on county and city/village owned highways totaled $1,022.2 million, but just $336.9 million (33.0%) was raised locally. State transfers accounted for $594.0 million of the total local spending, or 58.1%, while federal transfers accounted for the remaining $76.1 million.(6) According to a March 1994 Public Sector Consultants report on Michigan transportation funding, state governments on average provided 29.6% of local transportation spending.(7) Michigan's state contribution of 58.1% of local revenue sources makes it the country's third largest state contributor to local needs.

Figure 5



Source: MDOT *1994 Facts and Figures*, pp. 90-91.

These figures show the state's major role in collecting state user taxes and allocating these taxes to local governments. The figures also point out the relatively low level of locally raised transportation spending in Michigan compared with other states. This is an important consideration given the limitations that the Headlee Amendment places on state taxation. It also raises the question of whether additional transportation spending for local needs should be raised at the local level.

Michigan Revenue Sources

Of the $1,308.2 million budgeted for the Michigan Transportation Fund for fiscal 1995, $734.7 million or 56.2% is from fuel taxes, $500.1 million, or 38.2% came from registration and weight taxes, and the rest came from miscellaneous sources.

Fuel Taxes

The state fuel tax for gasoline and diesel is based on a 15 cents per gallon charge. However, a 6 cent discount for commercial users of diesel fuel limits the effective diesel tax to 9 cents per gallon. In order to qualify for the discount, in-state commercial users must buy a $92 permit for each truck, while out of state registered trucks must pay $25 per truck. There is also a 6% state sales tax on gasoline and diesel fuel. In addition, there is an 18.4 cent federal gasoline tax and 24.4 cent federal diesel tax per gallon. This brings total gasoline and diesel effective fuel taxes to 33.4 cents per gallon plus the sales tax.

Each penny of state gasoline tax is estimated to raise approximately $45.7 million of revenue, while each penny of diesel tax raises between $5.6 and $6.9 million.(8) Michigan's gas tax was last increased in 1983 and 1984 when an extra 4 cents per gallon (36.4%) was added in two 2 cent increments. The state diesel tax has remained at 9 cents per gallon since 1980 when the 6 cents per gallon discount was instituted.

Michigan's state fuel tax rates before sales taxes and other add-ons are considerably lower than those assessed nationally and in some neighboring states. Table 1 provides a summary of state and federal gasoline and diesel tax rates per gallon in Michigan, nationally, and for some neighboring states, both before and after sales tax and other add-ons. For instance, in 1993 the national average state gasoline and diesel tax rate was 19.1 cents per gallon before any add-ons for sales taxes or other per gallon fees.(9) In Ohio the rate was 21 cents for gasoline and diesel in 1993, and in Illinois the rate was 19 cents and 21.5 cents. However, in Indiana the gasoline rate was just 15 cents per gallon, identical to Michigan's rate, and diesel was taxed at 16 cents per gallon.

The other key point is that, unlike many states making up the national average, Michigan also assesses a sales tax of 6% on gasoline and diesel sales prices including the federal taxes. After taking into account this tax, Michigan's taxation of gasoline is slightly higher than the "without add-ons" national average. For instance, assuming a dollar per gallon gasoline price, Michigan's 6% sales tax adds 6 cents per gallon to gasoline. This brings Michigan's effective state gasoline tax to 21 cents per gallon, slightly above the national average state gasoline volume tax. On diesel fuel, the sales tax adds an effective 6.0 cents per gallon, bringing Michigan's tax to an effective 15.0 cents per gallon. This is 4.1 cents per gallon below the "without add-ons" national average.

Table 1: State Gasoline and Diesel Tax Comparisons (cost per gallon)

State	Gasoline		Diesel	
	Base	w/Add-ons	Base	w/Add-ons
Michigan	15.0¢	21.0¢	9.0¢	15.0¢
Indiana	15.0¢	20.0¢	16.0¢	27.0¢
Illinois	19.0¢	23.2¢	21.5¢	31.6¢
Ohio	21.0¢	21.0¢	21.0¢	24.0¢
National Average	19.1¢	N/A	19.1¢	N/A
Federal Tax	18.4¢	18.4¢	24.4¢	24.4¢

Note: Add-on includes sales tax and other motor carrier surcharges levied on each gallon sold as of December 31, 1993. Diesel add-ons column assumes for-hire motor carriers.

Sources: Federal Highway Administration 1993, *Highway Statistics*, Table IV-50/51

However, some of our neighboring states also apply a sales tax to gasoline purchases. Indiana has a 5% sales tax on the base price of gasoline excluding federal and state taxes, and this tax adds 3.3 cents per gallon. This brings Indiana's total state taxes per gallon on gasoline to 20 cents per gallon, similar to Michigan's current tax on gasoline. Illinois has a 6.25% sales tax on the base price of gasoline and this adds 4.2 cents per gallon, for a total per gallon state tax of 23.2 cents per gallon. This tax is 2.2 cents per gallon greater than Michigan's tax. Ohio does not have a sales tax on gasoline so its total state tax rate per gallon is 21 cents, identical to Michigan's 21 cents.

For diesel, the neighboring states have a variety of polices regarding sales taxes or other per gallon fees. In Indiana the effective diesel tax is 27 cents per gallon after inclusion of an 11 cents per gallon surcharge on for-hire motor carriers (companies trucking their own goods on their own trucks do not pay this surcharge), almost double Michigan's level. Indiana exempts for-hire motor carriers' trucks from the sales tax, but other trucks must pay the, sales tax. In Illinois the effective diesel tax is 31.6 cents per gallon, including a "Part B" tax rate on the average retail pump price excluding federal and state taxes, and a 5.9 cents per gallon surcharge on motor carriers. The resulting Illinois tax is more than double Michigan's level. In Ohio there is no sales tax; however, motor carriers of all types pay an additional 3 cents per gallon bringing the total charge to 24 cents per gallon for diesel, some 9.0 cents per gallon higher than Michigan's charges.

Even though the Michigan sales tax is not used for transportation purposes, it nonetheless is a cost for users that must be taken into account when making comparisons. It should also be noted that a number of other states do dedicate at least a portion of their sales taxes on fuel to transportation purposes. Most analyses of the gasoline tax issue which rank Michigan among the lowest five states for gasoline taxes fail to take into account the sales tax.

Registration Fees

Registration fees on passenger and commercial vehicles including heavy duty trucks are the other major source of Michigan transportation revenue. Average passenger vehicle registration fees increased from $24.77 to $48.22, or by 94.9% between 1982 and 1992.(10) This increase was primarily due to changing the fee from a weight based to a value based charge beginning in 1983. This change capitalized on the revenue negative trend towards lighter vehicles and the revenue positive trend towards increases in car prices that exceeded the rate of inflation. The registration fees for lighter commercial vehicles increased from $69.24 to $93.79 during the same time period, while the fees for heavy duty trucks increased from $514 to $851. The change in heavy duty truck fees represents a 65.6% increase over 10 years.

Total Revenue Impacts

How much have total revenues, and inflation adjusted total revenues in the Michigan Transportation Fund, gone up in recent years? Table 2 shows how Michigan Transportation Fund revenues have grown since 1982. Between 1982 and 1992, total nominal revenue increased from $697.8 million to $1,196 million, a 71.4% increase. Gasoline tax revenue increased 46.1% to $631.0 million, diesel revenue increased 125.6% to $54.6 million, and overall passenger and commercial registration fees increased 107.2% to $441.8 million.(11) The gasoline revenue increases came because of increased travel and the 4 cents per gallon increase in taxes, despite an increasing number of more fuel efficient cars. While total nominal revenue grew considerably during the overall period, growth slowed between 1987 and 1992. During that period total revenue grew just 19.2%, or 3.8% per year.

Table 2: MTF Nominal Revenue and FHWA Composite Construction Index

Fiscal Year	Gasoline Tax	Diesal Tax	Registration Fees	Other	MTF Total	FHWA Compatible Price Index
1981-82	$432,000	$24,200	$213,200	$28,400	$697,800	88.5
1982-83	$434,500	$28,800	$237,700	$27,000	$728,000	87.6
1983-84	$527,700	$40,400	$255,900	$32,100	$856,100	92.6
1984-85	$569,700	$45,400	$286,700	$33,700	$935,500	102.0
1985-86	$595,700	$47,900	$300,000	$34,500	$978,100	101.1
1986-87	$604,500	$50,700	$315,900	$31,600	$1,002,700	100.0
1987-88	$628,500	$52,200	$363,200	$54,600	$1,098,500	106.6
1988-89	$625,000	$54,100	$397,000	$74,500	$1,150,600	107.7
1989-90	$626,200	$53,300	$409,800	$71,200	$1,160,500	108.5
1990-91	$622,500	$53,100	$420,200	$69,000	$1,164,800	107.5
1991-92	$631,000	$54,600	$441,800	$68,700	$1,196,100	105.1

Source: Public Sector Consultants, Inc., *Transportation Funding: A Key to Michigan's Economic Future*, March 1994, and Federal Highway Administration, *1993 Highway Statistics*, Table IV-43

Revenues also increased substantially in real terms. Though the Consumer Price Index increased 50% during this time period, a far better measure of highway construction and resurfacing price changes is found in the Federal Highway Administration's Composite Index.(12) This index measures changes in unit prices for excavation, resurfacing and structures work, but not light maintenance. *The index increased just 18.7% between 1982 and 1992*. The Federal Highway Administration maintenance and operations index does measure costs for items such as snowplowing, mowing, and other light maintenance (this index was terminated in 1992), and had a 38% increase over this time period.(13) A good estimate of unit inflation costs would be a weighted average inflation rate based on the relative share of dollars spent on construction resurfacing vs. light maintenance. This weighted average unit inflation rate would have been 24.5% between 1982 and 1992. Using this weighted average index, real revenue from the Michigan Transportation Fund grew 46.9%, or considerably faster than the growth in traffic levels. This contradicts the general perception that transportation revenues have not kept pace with inflation due to increasing fuel economy and fast growing costs.

What are these numbers telling us? First, though it is true that gasoline tax revenues have not grown at a strong rate, especially in recent years, it is clear that the switch to value based registration fees more than made up for this and allowed total revenues to grow at a very fast rate. On the inflation side it is also clear that at least unit costs have not gone up as fast as some have suggested. However, the unit cost indexes do not reflect the increasing inputs per mile of road that have been required due to environmental standards, safety standards, and other design changes which have added to costs. For instance, if we use 12 inches of concrete instead of 11 inches, costs will go up but the index will only look at changes in the cost of concrete per cubic yard. Though it is impossible to quantify these impacts, it is likely that costs have gone up more than the 24.5% indicated by the weighted average index inflation, and that real revenues have not grown by the full 46.9%. Nor have real or nominal revenues grown as fast since 1987. Using just the FHWA composite index inflation, real revenues grew 14.1% between 1987 and 1992, during a time period when total travel miles grew 10.9%.

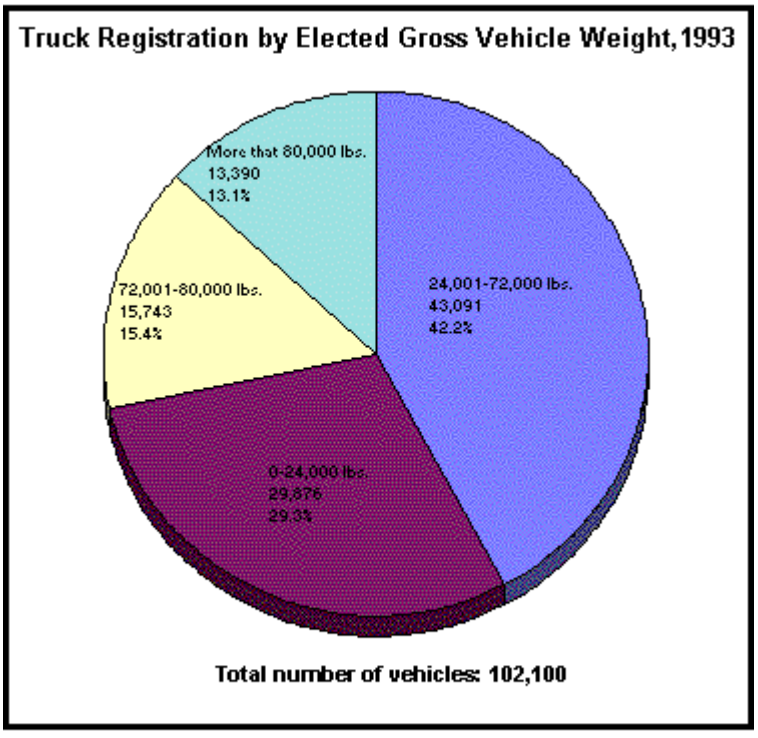
In summary, between 1982 and 1992, nominal revenue grew 74.1%, unit road costs grew 24.5%, and real revenue grew by approximately 35-40% even after adjusting for more units of input being required per mile. Overall, real revenue grew at least at about the same rate as increases in travel miles between 1982 and 1992. Between 1987 and 1992, nominal revenues grew 19.2% and unit inflation was just 5. 1 %. Again, even after assuming more input units being required, it appears that revenues kept pace with increases in both costs and travel demand. Though it may well be true that there was insufficient revenue in 1982, and that a tax increase is necessary for this reason, it cannot be argued that revenues fell behind the growth in traffic levels or unit costs during this time period.

III THE TRUCKING INDUSTRY, TRUCK TAXES, AND COSTS

Trucks require special attention because of the number of people suggesting that any additional investment needs be paid for by the trucking industry. In order to properly evaluate this suggestion, it is important to understand the number of trucks on the road relative to cars, the tax revenues currently collected from this sector and how those taxes have changed in recent years, estimates of the highway damage done by this industry, and the impact of Michigan's heavier than standard 164,000 pound trucks.

102,100 commercial trucks were registered in Michigan in 1993.(14) Figure 6 indicates that 42.2% of these were medium sized trucks between 24,000 and 72,000 pounds gross vehicle weight. The standard five axle tractor trailer combination truck, with an elected gross vehicle weight of 72,000-80,000 pounds accounted for 15.4% of the total. Finally, there were 13,390 of the trucks that exceed the federal standard of 80,000 pounds, or 13.1% of the total. 743 of these exceeded 160,000 pounds. While many trucks use Michigan's roads without being registered in Michigan as a base state, this provides some indication of the total. By comparison, there were 5,686,692 autos registered in Michigan, with trucks over 24,000 pounds representing 1.27% of the auto registrations.

Figure 6



Source: MDOT *1994 Facts and Figures*, p. 32.

Truck Taxes and Revenue

Trucking companies pay significant taxes, and those taxes have been increasing at a rapid pace over the last 10 years. The trucking industry paid $5.3 billion into the Federal Highway Trust Fund in 1992, or 31.4% of the total. In 1987, before recent increases, the average five axle, 80,000 pound tractor-trailer combination truck paid $4,241.50 in federal taxes.

In Michigan, heavy duty commercial trucks paid an average of $1,306.00 in state registration fees. As of 1991-1992, the average heavy duty truck fee was $851, not all of which went into the Michigan Transportation Fund.(15) This was an increase of 65% over 1982. Total registration revenues increased from $32.6 million in 1982 to $87.6 million in 1992, or a 169% increase due to a doubling in the number of commercial trucks and the per truck fee increases. Diesel fuel revenue totaled $54.6 million in 1992, up 102.9% from 1982. In total, Michigan Transportation Fund tax collections from the trucking industry increased from $59.5 million in 1982 to $142.2 million in 1992, a 138.9% increase over the ten years. In total, heavy duty commercial trucks paid 11.9% of total Fund revenues.

Compared to other states, Michigan has some of the lowest truck user fees.(16) According to the Michigan Trucking Association, total per unit registration fees, considered alone, are similar to neighboring states. For instance, our registration fee of $1,306 per truck compares to $1,308 in Indiana, $2,200 in Illinois, $1,367 in Ohio and $1,900 in Wisconsin. After fuel taxes are added in, assuming 80,000 miles per year, the total user fees in Michigan are $3,495 per truck compared to $5,169 in Indiana, $6,060 in Illinois, $4,875 in Ohio and $5,142 in Wisconsin. On average, the Michigan user fees are 34.2% less than the average of the other four states. While not specifically related to road taxes, the trucking industry does point out that the total tax costs of operating a trucking company in Michigan are considerably higher than the costs in neighboring states. For a typical 20 truck Michigan firm with 30 employees and sales of $1.76 million, the estimated costs total $344,449 for use taxes, workers compensation, sales tax, property tax, corporate tax, unemployment compensation insurance, and miscellaneous fees. The average cost in the neighboring four states is just $307,500.

Truck Cost Studies

Although trucks pay significant taxes, and there have been large percentage increases over the last ten years, they still do not pay their full share of costs. However, the rate of underpayment is considerably smaller than most of the public believes, and in some states trucks are paying more than their share of estimated costs. Two federal studies have been conducted on this issue since 1982.(17) The first of these two studies was done in 1982 by the Federal Highway Administration (FHWA), and was based on 1977 data. That study found that five axle tractor-trailer combination trucks were paying 68% of their cost responsibility on federal aid highways. In response, federal truck taxes were increased 231% on a combination of fuel, truck and trailer excise sales tax, federal use tax, and tire tax. A 1987 study by the FHWA found that five axle trucks weighing between 70,000 and 80,000 pounds were paying 86% of their costs. In response, federal fuel taxes were increased 5 cents in 1990 and another 4.5 cents in 1993, although not all of the funds were committed to the Highway Trust Fund. FHWA is conducting a new cost allocation study for release in about two years.

Fifteen states have conducted their own cost allocation studies since 1986(18) The average finding was that five axle tractor-trailer trucks were paying 96% of their cost responsibility. Based on a review of these states' total fuel taxes, but not considering registration fees, the average fuel tax was 23.6 cents per gallon including sales taxes and surcharges. Michigan's effective rate of 15.0 cents per gallon would be 61.4% of these other states' fuel taxes. Without any consideration of registration fees one might conclude that Michigan trucks are paying about 60% of imposed costs. This rough estimate may indicate of the magnitude of Michigan's truck underpayment problem.

Michigan's Extra Heavy Trucks

Michigan's allowance for trucks up to 164,000 pounds elected gross vehicle weight has caused considerable concern. Most states allow just 80,000 pound maximum. However, many engineers believe that Michigan's super heavy trucks actually impose less damage than the lighter trucks in other states. Michigan's 164,000-pound trucks must spread their weight over 11 axles, compared to just five axles on conventional 80,000-pound trucks. In Michigan, the 11-axle trucks are allowed a maximum weight per axle of 13,000 pounds, compared to 18,000 pounds per axle on 80,000-pound trucks. Axle weight determines damage, not total gross weight.

Blanchard Administration MDOT Director Jim Pitz offered testimony on truck weights and damage before the House Transportation Committee's Subcommittee on Truck Weights on November 27, 1990.(19) Mr. Pitz indicated that based on American Association of State Highway and Transportation Officials (AASHTO) tests, a truck with two 13,000-pound axle loads would exert 62% less stress on the road than an axle loading of 18,000 pounds. Other outside academic experts made the same point.

Opponents of 164,000-pound trucks who concede this point about axle weights often point out that bridges must absorb the entire weight of the truck and that this would cause damage to the state's bridges. However, during the same hearings MDOT testified that all state trunkline system bridges built since 1973, and all bridges reconstructed since that date, have been designed and built to withstand these higher weights. There are just 10 of 4,500 bridges in the state that could not accommodate 164,000-pound trucks without an adverse impact on bridge life as of 1990. Mr. Pitz further testified that "an additional 4% cost is incurred for each bridge built to Michigan specifications, with the 4% resulting in an average expenditure of $16,000 per bridge at today's [1990] average bridge costs." These additional costs are more than made up for by the average $2,304 in various registration fees for a 164,000-pound truck in Michigan, compared to the average 80,000-pound registration fee of $1,306.

Heavy 164,000-trucks have provided a significant competitive advantage for Michigan manufacturers. Without them, an additional 17,000 trucks would be necessary, according to testimony to the 1990 Subcommittee on Truck Weights by Sullivan and Leavit, P.C. One of the major impacts of elimination of such trucks would be an increase in highway construction costs. For instance, according to testimony to the Subcommittee, the I-696 project in Detroit would have required an additional 115,500 truck-trips over four years if 164,000-pound trucks had not been available. The Michigan Trucking Association has estimated that an 80,000-pound truck

weight limit would result in a need for 21,500 additional trucks, with a first year acquisition cost of $2.15 billion and an annual operating cost increase of $.77 billion, assuming 2,000 hours per year at $45 per hour .(20)

IV HIGHWAY INFRASTRUCTURE NEEDS

Any comprehensive review of highway infrastructure needs must conclude that additional highway construction and maintenance investment is necessary. *However, there is an urgent need to distinguish between "wish lists" and priority requirements that will truly contribute to improved productivity and quality of life.* It is also possible that better prioritization of spending and aggressive cost management strategies can eliminate or at least reduce the size of any tax increase that might be needed.

Claimed State and Local Investment Needs

Michigan Department of Transportation officials estimate that the state has some $20-$30 billion in long range transportation needs .(21) However, state officials have developed a priority list of some $3.1 billion in state trunkline needs over and above current funding levels. In 1992 the Engler Administration initiated the $200 million "Build Michigan" bonding program to allow initial planning and construction on the priority trunkline needs and in order to match new federal aid. The program allowed the state to begin planning and design for key roadway construction projects, to begin repairs or replacement of some 1,000 highway bridges, and to begin actual construction on portions of some 7,500 miles of roadway. Table 3 lists some of the key projects. The program also allowed the state to dedicate about $45 million per year in administrative efficiency savings to local governments. The bonding program, which concludes in 1995, raised sufficient funds to begin many of these projects but only provided a small portion of the total dollars required to complete the identified program. As a result of the program, Michigan now has some $1.0 billion of projects ready to proceed to construction but additional funding is necessary to complete construction.

Table 3: Build Michigan—Sample of Long-Term Projects

Completion of the South Beltline in Grand Rapids
Construction of a Haggerty Road connector in Oakland County
Completion of a M-59 in Macomb County
Completing of US-131 near Cadillac
Construction of US-27 near St. Johns
Construction of a new northbound road on US-41 in Houghton
Construction of US-23 east and north of Standish
Work along M-20 from Mt. Pleasant to Midland
Reconstruction of I-94 in Detroit
Construction of US-31 around Petosky and Travers City
Construction of an intermodal transportation facility in Lansing
Construction of a passenger rail terminal in Detroit
Replacement of half of Michigan's deteriorating bus fleet

Source: MDOT, *1994 Facts and Figures*, p. 87.

After reassessing total needs and costs on the above projects, MDOT officials have concluded that an additional $410 million of funding per year will be necessary to carry out the priority

construction projects and begin to reduce the backlog of deferred maintenance on state trunkline roads.(22) (MDOT statements regarding $350 million in need assume that an additional $60 million will be raised from annual bonding.) Other uses of new funds are high speed rail, mass transit and bridge projects. Table 4 summarizes the planned uses of this additional investment, and what the author believes to be true priority needs.

Table 4: Priority Annual Incremental Investment Needs (millions of dollars)

State Trunkline System	
MDOT Priority Needs	
Improve and Expand	$245
Maintenance Program	$80
Bridge Replacement and Repair	$50
High Speed Rail	$25
Mass Transit	$10
Subtotal	**$410***
Unjustified Programs	- $35
Net State Trunkline Need	**$375**
Local Needs	
County Stated Needs	$900
Non-priority	- $700
Net Needs	$200
City Needs	$82
Total Local Costs	**$282**
TOTAL STATEWIDE NEED	**$657**

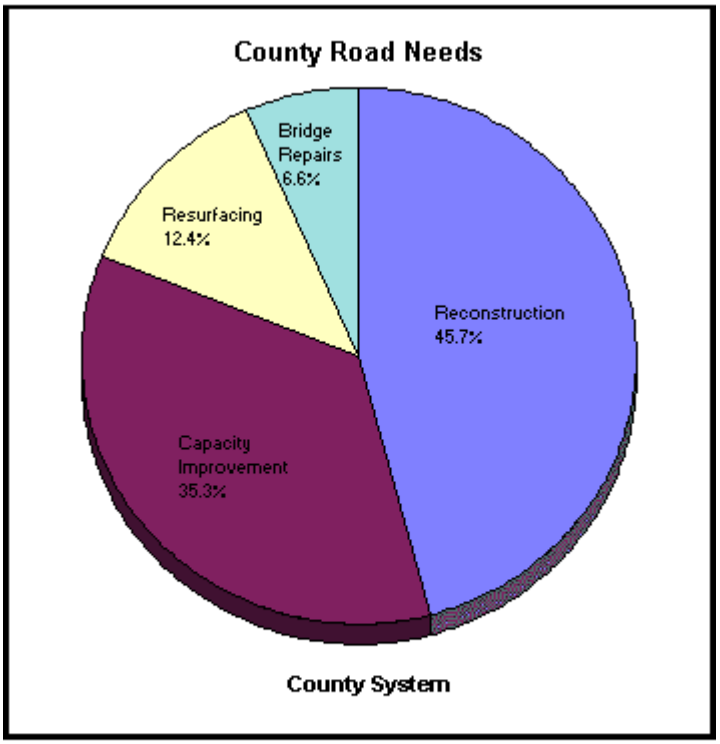
*Includes $60 million per year in planned bonding

Source: MDOT, Bureau of Transportation, *Build Michigan: Setting the Priorities,* MDOT draft briefing papers and interviews, February, 1995 and Trip Report for CRAM, 1994.

Some of the projects on Table 3 are hard to justify. This is especially true of the high speed rail funding of $25 million per year, and of the additional mass transit funding of $10 million per year. The high speed rail projects between Chicago and Detroit cannot be justified on economic grounds, and is unlikely to draw any private investment. Nor is the federal government likely to come through with the $250 million over 10 years that the overall $1 billion plan assumes. In fact, the U.S. House voted on March 16, 1995 to eliminate $110 million in high speed rail development money, and the Budget Committee has voted to eliminate funding for Amtrak over five years. Finally, even if the project could be justified, it should not benefit from any potential tax increase that is sold to the public on the basis of needy highway improvements. There is already a disproportionately large contribution of state funds to local systems when the ridership of mass transit is compared to highway use. In addition, MDOT is already providing major funding to local systems. For instance, MDOT is currently funding half the operating costs of the SMART system in the Detroit metropolitan area. No additional funds can be justified. After deducting for these projects, the total state system investment need is left at $375 million per year, as shown in Table 4.

The projects listed in Table 4 do not address county and local needs, even though they are the state's "priority" projects. A recent survey of county road commission needs by the Road Information Program found that $8.9 billion in needed improvements are claimed by the counties.(23) Figure 7 summarizes the needs by project type. Reconstruction needs account for 45.7% of the total requirements, capacity improvements account for 35.3% of the total, and resurfacing accounts for another 12.4% of the total. The counties indicate in the survey that 90% of their 14,138 miles needing resurfacing are unfunded, and that 97% of the 10,814 miles needing reconstruction are unfunded. The unfunded need represents some 57% of the total county paved road system. The counties also report in the survey that 39% of their bridges are deficient. No information is available on city/village needs. The County Road Association of Michigan has proposed a package of state tax increases to fund an additional $900 million per year in spending.(24) This package would raise $305 million for counties using the current allocation formulas.

Figure 7



Source: The Road Information Program for Citizens for Improved Transportation, *Michigan's County Roads and Bridges: A Needs Report,* Washington, D.C., November, 1994.

Are the county claims realistic, and have they been prioritized? First, the $8.9 billion of needs over ten years clearly represents a wish list for the county officials that were surveyed. There has been no effort to rate the importance of these projects, or to prioritize the need. Many of the individual county needs statements also seem suspect. For instance, it is hard to envision how Berrien County can have $420.5 million in needs, when neighboring counties have needs in the range of $20-$50 million, and Wayne County's total needs are stated to be just $410 million. In fact, the County Road Association of Michigan's own proposal for funding, surely an initial

negotiating position, limits their request for funding to $305 million per year for counties. Their request would generate an additional $171 million for cities, or a total for local needs of $476 million.

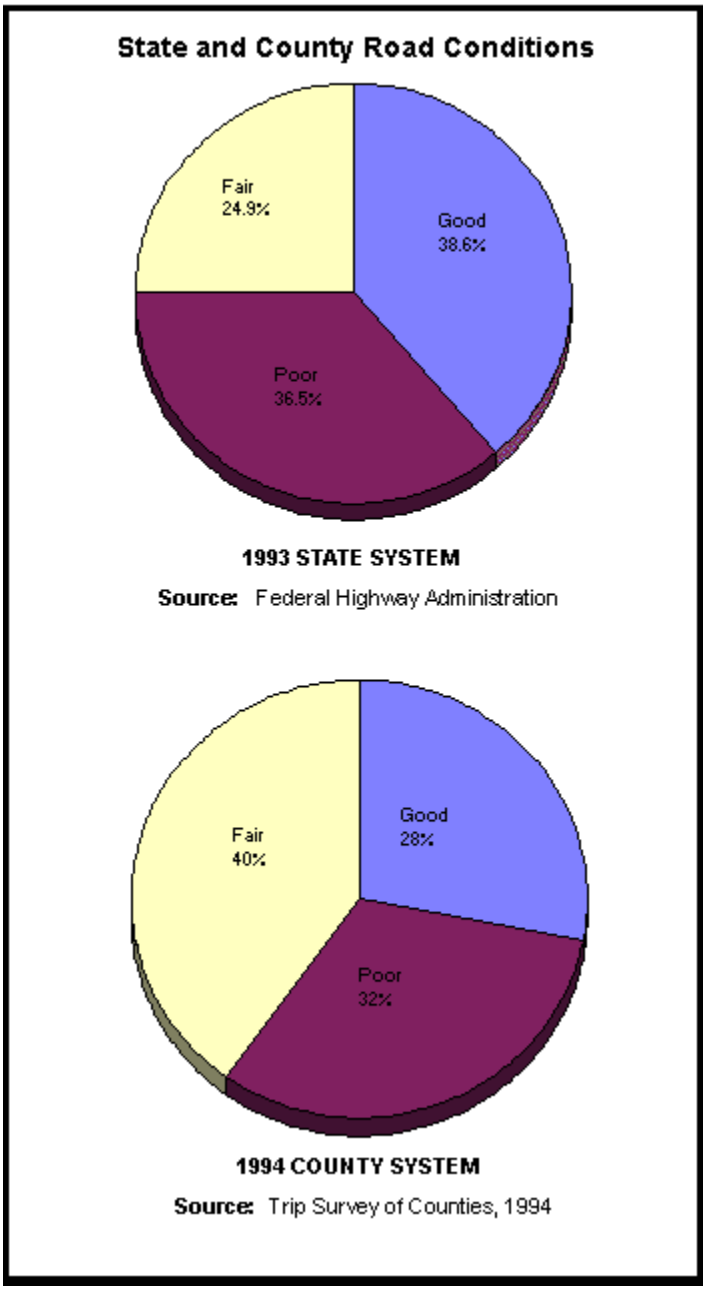
After evaluating the $8.9 billion list of county needs, the author believes that approximately $200 million per year in additional county investment can be justified. This amount would mean that the most important 25% of county needs could be funded, a figure similar to the percentage of total state needs that are being proposed for funding. This estimate is based on the stated needs, general knowledge about road conditions, and overall experience. While $200 million would not begin to add all the roads that counties say are needed, or allow all the roads to be paved, or all the bridges to be brought up to current standards, it would allow the most important projects to go forward over time. Such a spending increase would represent a 34.1% increase over current spending by counties on county roads. There is no information available on city needs. However, if city needs were added in proportion to their spending as a percent of county spending, an additional $81.8 million per year could be required. This would leave a total possible need of $281.8 million per year.

Needs Justification Analysis

Between 1982 and 1992, the number of miles driven on Michigan roads increased by 37.0%, placing additional demand on the system.(25) Since 1982, the number of registered vehicles rose 13.7%. The increase in travel and registered vehicles produced an increasing need for capital projects and maintenance, but the increased traffic also led to increased revenues. Michigan Transportation Fund revenues increased 46.9% in real terms between 1982 and 1992, substantially exceeding traffic growth rates and inflation. Real revenue grew by 14.0% between 1987 and 1992 during a period of slower nominal revenue growth. These traffic increases do not justify an increase in taxes to fund incremental investment, even though they do create additional need.

Some of the best support for incremental investment in the highway system comes from the road and bridge condition data. On the state trunkline system the percent of "poor" state system roads increased by 36.0% between 1982 and 1993, and the percent of roads rated at least "fair" decreased by 47.0% over the same time period. On the other hand, the percent of roads rated good increased by 92.0% during this time. As shown in Figure 8, as of 1993, some 36.5% of state trunkline roads were rated poor and 24.9% were rated fair.(26) Fixing poor roads is three to five times more expensive than fixing fair condition roads so it is important to halt the deterioration of fair roads. The 36.5% of Michigan trunkline roads rated poor compares to a national average of 8.4%.(27) Michigan also has a slightly higher percentage of deficient bridges on the state system compared to other states, with 37.6% rated deficient. On the county road system a recent survey of county road commissions by the Road Information Program found that 32% of county roads are claimed to be in poor condition, with 40% rated in fair condition.(28)

Figure 8



The information on road and bridge conditions tends to support the need for additional investment in maintenance and reconstruction to slow the growth in the percentage of "poor" roads. Future investment costs will be substantially reduced if roads can be repaired while they are still in fair condition. Repairs to the existing road network can also help lower maintenance costs for automobile owners. According to calculations by The Road Information Program in their report for the Michigan Road Builders Association, the Congressional Budget Office has calculated that the "variable cost to operate vehicles was 11% higher on fair roads than on roads in good condition, and 29% higher on roads with poor surfaces." Using this information, Michigan motorists are spending $679 million more per year to operate on our substandard state

road system, or $105.43 per driver per year.(29) Although this estimate may somewhat exaggerate the cost claims, it seems plausible that there is a cost penalty of higher repair costs, increased fuel use and increased tire wear.

The congestion on Michigan roads could also be an indicator of need. Michigan's major urban roads are quite congested. The Federal Highway Administration considers an urban road with a volume capacity ratio above 0.80 to be congested.(30) 62.9% of the urban interstate system exceeds this standard, along with 45.9% of "other principal arterials." For all major Michigan urban roads, 49.5% are considered congested. This compares to a national average of 29.9% of major urban roads being congested, and a Great Lakes state average of 31.0%. Overall, Michigan has double the national average percentage of major urban roads that are considered "congested." However, "congested" is a term of art that simply means volumes exceed 80% of capacity on average. It does not necessarily correlate to hours of delay, which is more dependent on peak hour traffic flows relative to capacity. Nonetheless, it is clear that about half of Michigan's major urban roads are close to theoretical design capacity.

A comparison of Michigan's roadbuilding and maintenance spending with that of other states also provides insight into whether there is a need for additional investment in Michigan's road system. Michigan's overall spending levels are well below the national average, with state and local spending of $208 per person ranked 46th in the country according to Public Sector Consultants, Inc.(31) Michigan's roadbuilding and maintenance spending equal to 1. 1% of personal income ranked 47th in the country. Finally, on a per mile basis, PSC reports that Michigan's capital outlay spending of $5,420 ranks 30th in the country, and that the $1,181 of maintenance expenditures per mile rank 37th in the country.

What do these figures tell us? The fact that Michigan spends less than other states does not necessarily mean that we should raise our spending and taxes to their level. It may instead be a reflection of Michigan's earlier commitment to major roadbuilding in the 70s and 80s compared to other states, or a reflection of greater efficiency in Michigan transportation investment compared to other states. The per capita and personal income comparisons may also reflect the fact that we can spread our expenditures over a larger population base than other states, and that we have personal income that is higher than most states. However, the very low level of spending compared to other states is probably some indication of a need for additional spending to avoid falling behind other states on the quality of our transportation infrastructure.

Conclusions on Need

Michigan has substantial current unfunded highway system investment needs. *Based on the priority lists and overall spending requests, there is a potential need for an additional $375 million per year in state trunkline system investment, and a potential need for an additional $281.8 million per year in county and city investment, or a total of $656.8 million.*

How can such a level of increased investment be justified?

First, the list of projects which have been identified on the state system have the potential to increase tourism and improve manufacturing productivity and competitiveness by reducing

delays, decreasing travel time uncertainty, and reducing repair costs to vehicles and damage to cargo. The same is true for investment in local roads in the Southeast Michigan and Greater Grand Rapids area. Beneficial projects include reconstruction of major Detroit area interstates, the beltway around Grand Rapids, upgrades to U.S. 23, improvements to U.S. 31 and 131, and additional state and local lane mileage around Oakland and Macomb counties.

Several factors support an increase in direct investment. Most importantly, the condition of Michigan roads has deteriorated badly over the last ten years, with a 36% increase in the number of state system roads rated poor between 1982 and 1993. With over 36.5% of state roads and 32.0% of county roads rated poor, there is a pressing need to make improvements on these lanes to slow the deterioration of roads from fair to poor. Major savings in eventual repair costs can be achieved by fixing fair roads before they reach poor status. Improving the poor roads will also reduce damage to vehicles by more than $ 1 00.00 per vehicle per year.

Michigan's very low road spending per capita, per mile, and by percentage of personal income compared to other states suggests that additional investment may be necessary. On the other hand, the level of Michigan Transportation Fund revenue growth between 1982 and 1992 does not support the popular notion that revenues have not kept pace with at least unit inflation. While revenue growth has kept up with unit inflation, it has probably not kept up as well if mandated increases in design inputs are taken into account. These mandates require more cement, more environmental mitigation, and more safety factors per mile of road and increased costs over and above the unit inflation rate. Finally, even if revenue growth kept up with inflation, if the original base levels of revenue were insufficient there may still be a need for additional investment.

This does not necessarily mean that all or even a part of the additional $656.8 million of identified investment needs must be funded through fuel tax and/or registration fee increases. Other sources of funding include reductions to non-highway programs, cost reductions and other efficiencies at both the state and local level, and the securing of an increased share of federal transportation dollars collected from state users. These other "sources" of investment dollars are explored in the following sections.

V DIVERSIONS OF FUNDS

Before Michigan considers tax increases we need to take a careful look at how both our federal and state dollars are already being spent. Federal dollars are being diverted into a number of non-highway uses, and Michigan is not getting back its fair share of overall spending. At the state level it is also important to understand that we are spending a great deal of money on non-highway purposes.

Federal Diversion Issues

Almost all federal transportation expenditures are made from monies deposited in the Highway Trust Fund from taxes on highway users. In 1993, the fund had receipts of $19.6 billion and expenditures of $18.6 billion. Some $5.3 billion of the receipts were from truck operators.(32) However, beginning in 1990 the federal government ended the decades-old practice of depositing all fuel taxes into the fund and began using some funds for general deficit reduction.(33) While gas and diesel taxes were increased by 5 cents at that time to a total of 14.1 cents per gallon for gasoline and 21.1 cents for diesel, 2.5 cents per gallon was committed to deficit reduction thereby diverting some $2.5 billion of Highway Trust Fund receipts per year. In 1993 an additional 4.3 cents per gallon of federal fuel tax was added to both gasoline and diesel sales with the entire amount diverted to deficit reduction. The 1990 deficit reduction increase of 2.5 cents is scheduled to begin reentering the Highway Trust Fund on October 1, 1995, but many observers believe the federal government will continue to use these funds for deficit reduction.

Two reforms would allow Michigan to increase its road investment without any state tax increase. They are the recommitment of highway user taxes to the Highway Trust Fund, and the release of trust fund spending from the constraints of the federal Budget Reconciliation Act of 1990. *For instance, if we received back the full 6.8 cents per gallon in gasoline and diesel taxes currently being collected by the federal government for deficit reduction purposes, this would raise an additional $52.6 million per penny, or $357.7 million. This would completely eliminate our state system investment shortfall.*

In addition, the federal government has purposely underspent from the trust fund in order to help reduce the apparent size of the federal deficit. As a result, a trust fund balance of $22.1 billion existed at the end of 1993, although half of the balance is in the mass transit account. If these funds, collected from highway users with the promise that they would be spent on transportation infrastructure investment, would in fact be spent, Michigan would get back approximately 3%, or $663 million of one-time monies. This would go a long way toward meeting Michigan's needs without raising state or local taxes.

Over the years, increasing levels of federal spending have been directed at mass transit. In 1993, $1.9 billion in Highway Trust Fund money was spent on mass transit with no contribution to the fund by mass transit users. Recent federal proposals call for eliminating all restrictions on how Highway Trust Fund monies could be spent. Total spending would be reduced by $2.5 billion per year and all remaining spending would be given to states as part of block grants that could to a large degree be spent on whatever purpose the state desired.(34)

While block grants with minimum restrictions and wide flexibility make sense for general fund spending, such-freedom does not make sense when the money is raised from one class of users with a promise that the funds would be spent on the stated purpose. In this case money has been raised from highway user taxes that is supposed to go for highway spending. However, under the proposal, states and local governments would be free to spend large portions of the money on private rail freight, mass transit and other purposes. If such spending flexibility on other modes is to be allowed, these other transportation modes should also be asked to contribute to the fund. Currently, there is no contribution from mass transit and very little contribution from rail freight. Any reduction in highway spending from federal sources could lead to later needs for increased state spending on highways.

Finally, the amount of Michigan gas tax that may be needed in the future is directly related to Michigan's status as a net "donor state" for highway spending from the Highway Trust Fund. Apportionments and allocations to each state are based on a formula that results in Michigan getting back the least of almost any state in the country compared to what is raised from federal taxes collected in Michigan. In 1992 the federal government collected $698 million in gas taxes and expended just $382 million in Michigan.(35) *A staggering $317 million of the federal fuel taxes raised in Michigan were committed to deficit reduction, given to other states, held in the trust fund to build balances that mask the size of the deficit, or were awaiting programming and release for future projects.*

Whatever the reasons, Michigan got back just 45.3% of the total collected from it in 1992. By comparison, California got back 81.3% of its contribution in 1992.(36) If Michigan had a similar rate of recovery we would have received $185.7 million more in federal aid, enough to offset 4.1 cents per gallon of state gas tax. If we had Indiana's recovery rate we would have been able to offset 2.9 cents per gallon of state gas tax, and at Ohio's rate we would have been .5 cents per gallon better off.

Looking only at the share of money we pay into the Highway Trust Fund compared to apportionments and allocations from the fund to each state (a better measure than expenditures because of fewer timing issues), we appear to do considerably better but the return ratio is somewhat misleading. In 1993, Michigan received back 100.0% of what was paid into the fund (see Table 5). Although this seems quite good, the average return for all states was 127.0% according to the FHWA's 1993 Highway Statistics Table IV-16, and we ranked 45th in the country in 1993 for the percent of funds returned to us.(37) Massachusetts, probably because of the $5 billion plus Central Artery Project in Boston, got back 362% of its contributions in 1993 and the District of Columbia got back 484%. On a cumulative basis going back to 1957, we received back 90% of the taxes we deposited in the trust fund, compared to a 114% average return rate for other states.

Table 5: Federal Highway Trust Fund: Ratio of Deposits to Apportionments/Allocations

	1993			Since 1956		
	millions of dollars					
STATE	**Payments**	**Apportionments**	**Ratio**	**Payments**	**Apportionments**	**Ratio**
Michigan	$538.8	$536.6	1.00	$9,844.3	$8,873.4	.90
Massachusetts	$298.6	$1,080.7	3.62	$5,042.0	$8,474.8	1.57
Illinois	$590.3	$768.2	1.30	$11,234.3	$12,578.3	1.12
Ohio	$622.5	$677.1	1.09	$11,993.8	$11,035.1	.92
Indiana	$412.1	$414.6	1.01	$7,112.0	$6,249.9	.88
NATIONAL	$16,046.3	$20,333.2	1.27	$263,585.2	$302,115.4	1.15

Note: 6.8 cents per gallon of the federal gas and diesel tax, or approximately $6.8 billion per year, is currently not deposited in the Trust Fund and is used for deficit reduction. As of October 1, 1995, this will be reduced to 4.3 cents with 2.5 cents being deposited in the Trust fund. With the revision of 2.5 cents to the Trust Fund the amount deposited in the Mass Transit Account will increase from 1.5 to 2.0 cents per gallon of gasoline and diesel.

Source: Federal Highway Administration, *1993 Highway Statistics,* Table IV-16.

The above figures indicate that Michigan's poor performance in 1992 relative to other states on a total user taxes-to-expenditure basis may be worse than most years due to timing of the expenditures. However, one cannot help wonder why we send this highway user tax money to Washington in order to get back just half on a total collections-to-expenditure basis. *We are to a large degree funding other states' highway needs, and contributing a larger portion than most states to deficit reduction.*

State Diversion Issues

Not all of our highway user taxes are going for highway purposes. $176.7 million of state funds are being diverted from highway uses to mass transit and some other non-highway purposes. If $25 million of this is for administration, there is still $151.7 million being spent on non-highway programs. This represents 3.2 cents per gallon worth of gasoline tax, and the state contributions to the Comprehensive Transportation Fund are large enough to represent 43.6% of the amount Michigan contributes to the State Trunkline Fund for state administered highways.

Michigan's mass transit systems and non-highway modes of transportation are being subsidized using $270.6 million in local, state and federal funds per year. In 1993 the Michigan bus systems received $106.9 million in assistance from the state, and $35.6 million from the federal government. Total ridership was just 96.3 million in 1993, or a subsidy of $1.69 per ride.(38) The two largest systems in Southeast Michigan are receiving the largest subsidies, totaling $100.3 million in fiscal 1995. In addition, the City of Detroit is spending $32 million per year in subsidies on its DDOT system. SMART, the suburban bus system, is seeking an additional regional or suburban county tax that would raise an additional $18-$24 million per year.(39)

There is a need for mass transportation of some form in southeast Michigan, but the current centralized and traditional bus systems may not be capable of satisfying that demand economically. The current bus systems were designed for downtown and suburb-to-downtown commutes and are not capable of dealing with today's suburb-to-suburb low density travel patterns. Such travel patterns require highly flexible providers using low volume equipment such as small vans and mini-buses and can best be provided by small community-based public agencies and/or private operators. In such a system, the role of a public agency such as SMART and DDOT may be limited to providing Intelligent Transportation System (ITS)-like communications and technology networks such as dial-a-ride 800 numbers, automated vehicle identification systems, dispatch and other capital intensive functions. The public agency might also provide a limited number of main line bus routes if necessary. SMART and DDOT have the management talent to coordinate such a system and should consider a major role change in the transportation system. Solving the economic problems of mass transit also requires the elimination of regulations restricting private operators.

Some portion of existing public subsidies could still be used to support low income commuters. This could be accomplished through a voucher system that would provide discount coupons through an employer based program. For instance, if half the $132.3 million in DDOT and SMART subsidies were made available to the most needy riders for 50% of all existing rides, this would provide $66.2 million for 32.95 million rides (half of the 1992 total passengers) with a voucher of $2.01 per ride. This would leave $66.2 million which could continue to be used for administration, limited main-line bus services or other purposes. While this savings will not be used to offset the possible size of a necessary gas tax increase, the savings could ultimately be applied to other transportation purposes such as local road needs.

VI THE COST OF HIGHWAY CONSTRUCTION PROJECTS

Before the state considers any tax increase, it must consider possible cost savings from modernizing and privatizing the current system for creating highway infrastructure. Any tax increase that may still be needed should be tied to state legislation designed to eliminate or reduce costs imposed by state governed practices, and a commitment from state officials to aggressively seek federal reforms on non-state issues such as federal environmental regulations.

State Issues Affecting Costs

Michigan must completely rethink the system of MDOT and county road commission organizations that are used to plan, build and maintain the highway system and find ways to improve the productivity and efficiency of the system. That means considering elimination of some organizations, consolidation of organizations, elimination of some agency functions, and privatization of some activities. It also means re-evaluating the way we acquire land for projects, reevaluating design standards we are imposing on projects, using value engineering techniques to lower costs, eliminating prevailing wage laws, considering tort reform for highway related claims, and imposing strict cost-benefit analyses of environmental and other regulations that increase the costs of construction.

State Organizational, Collection and Administrative Issues

First, the whole process of administering highway construction and maintenance at both the state and county levels must be re-examined. MDOT has made major progress in controlling its costs in recent years and has plans to further reduce those costs. It has, for instance, cut its number of full-time employees from 4,950 in 1984 to 3,850 in 1994, and has plans to reduce the workforce to 3,525 by 1998.(40) MDOT program size per FTE (Full-Time Equivalents) has also been increasing. In 1984 MDOT produced $140,000 of program per FTE. That has increased to $250,000 in 1994, and MDOT plans to improve that ratio to $510,000 by 1998. MDOT's administration costs as a percent of total budget have also fallen from 10.3% in 1984 to 9.6% in 1994, with plans to decrease this level to 7.2% by 1998. However, a somewhat controversial article by a University of North Carolina-Charlotte professor in the October 1994 issue of *Governing* claims that Michigan ranks fourth highest in the country on a measure of state administrative costs.(41) While substantial progress has been made, additional efforts must be made to increase MDOT productivity and control costs related to administration and fees collection.

Because additional improvements in MDOT administrative costs are already factored into MDOT's needs assessment, no savings are assumed available for offset against the administrative costs. However, it is possible to obtain savings in collection costs. MDOT provides large sums of money to both the Secretary of State and Treasury Departments, and there is little control over costs incurred by these agencies.

For instance, MDOT makes some $80 million per year available to the Secretary of State for administration, and $6 million per year to Treasury for collection of fuel taxes, including taxes on trucking companies. However, the Secretary of State, Public Service Commission, and

Department of Transportation also collect various fees from trucking companies. Both Treasury and the Secretary of State audit companies and there are numerous other duplications. An effort to institute "one stop shopping" and administration of truck fee collections would save both the state and the trucking industry money. Michigan government, at the urging of the National Association of Governors, has been working on such a program since 1985 but has made little progress while other states such as Iowa and Virginia have completed their programs. With this program and a few other savings MDOT can save at least $3.0 million per year.

Increased legislative oversight and public visibility of MDOT operations might help management to control planning and administrative costs related to excessive regulations and obsolete mandated procedures. Such visibility would help build the case to undo such regulations. For instance, both federal and state environmental and long-term planning regulations are driving up MDOT administrative costs. Increased legislative oversight would help build the case for more careful cost-benefit analysis of environmental and other regulations that drive up the cost of highway construction with little offsetting benefit. Such oversight might also better familiarize legislators with federal highway planning and roadbuilding regulations that drive up costs with little benefit, and increase pressure on the Congress to eliminate these requirements. Currently, because all funding is from restricted funds, there is almost no legislative oversight and public visibility of MDOT administrative costs.

Duplication of State, County and City Roadbuilding and Maintenance Organizations

Michigan also must consider reform of its somewhat unique county road commission system, and the way it interfaces with city and highway related organizations. Should such commissions even exist? While MDOT contracts with 63 road commissions for maintenance work, there is still extensive duplication among MDOT, county road commission and city public works functions, and it is not at all clear that the current system leads to cost effective construction and maintenance.

For instance, few counties and cities have sophisticated productivity and cost control measurement systems in place, and compared to private sector operators, very little is done to benchmark operations against other providers. Nor are there aggressive "continuous improvement" management programs in place to increase productivity and efficiency. Nor are county road commissioners always known for their roadbuilding expertise. Possible reforms include elimination of separate county road commissions with elected commissioners and integration of such operations into county government, increased MDOT use of road commission staffs and/or facilities for plowing and general maintenance of state highways in lieu of state garages and staff, and turning over major county construction design projects to MDOT design staff.

While there are many exceptions, the commissioner positions and the entire commission organization are often patronage machines at their finest. A recent effort by county commissioners to have the legislature pass a bill (H.B. 5080) to allow county road funds to be used for commissioner insurance and retirement programs points out some of the potential problems.(42) Recent stories about delays in spending Detroit Department of Public Work

monies for road repairs, and the $70 million in funds which have accumulated unspent primarily from state user taxes, are more evidence of potential problems.(43)

It may be possible to reduce duplication between county highway operations and city public works departments by providing legislative incentives for cities and counties to contract with each other to reduce costs. County road commissions and city public works departments are also suspected of being highly patronage-oriented, and it would appear that many of their functions could be privatized with major savings on maintenance expenses. A careful evaluation might well find out that counties should limit their operations to design and procurement functions, with all snow removal, maintenance, repaving and new construction functions carried out by private contractors. With the state and federal governments providing the bulk of money for county and local operations, there is little incentive for local government to consider changes to an age-old system that offers many public employment jobs and tolerates poor performance in maintaining roads.

Privatization

MDOT also must consider speeding up efforts to privatize a number of transportation functions now performed by the state, or by county governments on behalf of the state. One of the state's first efforts in this regard led to Wayne County dramatically lowering its bid for services to the state in order to keep the contract from being awarded to private bidders. While it is doubtful that MDOT is really saving as much as it would have from awarding this contract to an outside contractor, the process did bring about significant re-evaluation of Wayne County's operations. MDOT needs to bid out much more of its work in a similar manner, including tasks currently being performed by MDOT district garages. One recent example includes a snow removal contract for work on I-496 in Lansing. There are also state bridge facilities where maintenance and toll collection services could be privatized with likely savings. One example is the U.S. side of the Blue Water Bridge at Port Huron.

Re-Inventing the Highway Roadbuilding and Maintenance System

As part of any possible tax proposal, the Governor should form a Michigan Commission on Highway Infrastructure Reform to study and report on ways to reinvent the roadbuilding and maintenance system. *Just as with welfare reform, we need to re-examine the entire system, and consider fundamental changes.* Possible changes that a Commission should consider include reforms in the organization and operations of state, county and city road operations, and the interface between these entities. The role of county road commissions as independent entities should be specifically considered. Such a review makes good sense given the $691.5 million in Michigan Transportation Fund monies that will be turned over to local governments this year with little oversight or knowledge about how well the money is being spent.

The proposed commission should also investigate the way other states operate at the local level, the productivity of existing operations relative to other states, the potential for savings, and possible state incentives to eliminate duplication and improve productivity and efficiency. The Commission should also examine opportunities to eliminate duplication between state and county operations and potential savings from consolidations or increased contracting

relationships, and the potential to increase the privatization of state, county and city highway operations.

Aggressive reforms in the organizational structure and methods of securing highway infrastructure construction and repair could generate substantial savings that would help to reduce the size of any tax increase. In 1992 counties and local governments spent $920.0 million on road work, with most of the money coming from federal and state user taxes. A reinvention of how government and the private sector function in the roadbuilding and maintenance business can save at a bare minimum 10% of the current maintenance costs. This would lead to savings of $64.3 million per year, or 1.4 cents per gallon of gas tax which could be used for needed local government investment increases. In addition, the author believes that the above reorganization and privatization ideas can save money on the state trunkline system. Even if a 10% savings were limited to additional privatization of the $138.8 million in state trunkline maintenance activities, a total of $13.8 million per year would be saved, or .3 cents per gallon.

Land Acquisition Costs

Michigan highway construction costs have long been inflated by overly generous condemnation laws. Current law has allowed developers to buy up land after road alignments are known, and to receive the appreciated value of the land years later when state purchases are actually made. This has been a major problem on routes such as M-59. Landowners should be compensated at land values prior to increases related to the highway development. In addition, when partial packages are being acquired, the compensation for the acquired package should be reduced by any increase in value on remaining land that is due to the new highway project. Attorneys should also be prevented from receiving excessive compensation related to highway condemnation cases. Currently, attorney fees are based on the difference between the MDOT appraised value and the actual settlement value even though MDOT may initially offer more than the appraised value. Changing this provision to the difference between the initial offer and the settlement value would be a step in the right direction.

Currently, MDOT has a bill in the final stages of drafting for introduction in the Legislature. *While there are no MDOT estimates available on the potential savings from this bill, it would seem reasonable to assume a 10% savings on annual land acquisition costs of $57.5 million, or $5.8 million.*

Roadway Type, Design Standards and Value Engineering

The type of road to be built in a given area can obviously have a dramatic impact on infrastructure costs. Unfortunately, when strategic and policy decisions must be made about whether to build four lane limited access and grade separated divided highways, as opposed to four lane roads without limited access, the more expensive options seem to be chosen. For instance, both the US-31 and US-23 projects in northern Michigan are being planned as grade separated facilities, yet traffic forecasts and congestion analyses may not support such extensive investments. The Grand Rapids Bypass project may also be overbuilt and now has a project cost estimated at $400 million.

MDOT engineers have been opting for expensive designs with increasing frequency. Increasingly elaborate and expensive highway construction designs have resulted from safety related liability concerns, lack of budget pressure and cost control at the individual project level, and concern over possible environmental confrontations. This has led to many highway designs that exceed federal standards, and that are driving up costs to the state.

Costs of northern Michigan projects could increase substantially if new federal passing lane construction standards are not challenged. These new standards do not allow passing lanes to be constructed in just one direction on existing two lane roads. They result in four lane roads on projects that would have previously allowed a single lane to be added. Many of the minor congestion problems in northern Michigan could have been solved with the traditional one direction passing lane, but now will require far more expensive four lane passing zones in both directions.

Extensive savings are possible from the application of value engineering concepts whatever the road type and design standard being used for a particular project. Studies done for MDOT have suggested potential savings on capital outlay costs of 20%-30% per project. MDOT must aggressively pursue methods of controlling costs and manage more actively at the project level.

Although the savings from more reasonable design standards and value engineering are difficult to estimate, some "what-if" calculations are possible. Current capital outlay spending of $546.8 million on state administered roads, along with an additional estimated $200 million per year from incremental funding increases would result in average spending over the next ten years of $746.8 million per year for capital outlay. The state system could save $37.3 million per year, equal to a gasoline tax reduction of 0.8 cents per gallon, if changes in design standards and value engineering processes resulted in 5% annual savings. Similar savings are possible at the local level. Capital outlay spending of the current $276.7 million on local roads, plus an assumed $100 million increase from new funding, results in $376.7 million per year in local capital outlay spending. Local systems could save $18.8 million annually, equal to a gasoline tax reduction of 0.4 cents per gallon, if just 5% could be saved by improving design standards and value engineering processes.

Prevailing Wage Law

The state's Prevailing Wage law, modeled after the federal Davis-Bacon Act, should be statutorily repealed, and the Legislature should place limits on the ability of local governments to impose such rules. The courts have recently struck down the state law but the Legislature needs to finish the job as part of any gas tax increase that might be necessary. Professor Gary Wolfram of Hillsdale College estimates that repeal of the state law could save 35% on the wage component of many construction projects, although significant savings in actual construction outlays will require repeal of the federal Davis-Bacon Act as well.(44)

Potential savings from removal of the state law would affect primarily local capital outlay projects, where there is less likelihood of federal funds being involved, and where local governments are most likely to be contracting out work. If one assumes that half of the $186.6

million in local capital outlay projects in 1992 were contracted out, and that wages represented 20.6% of costs, then $19.2 million in wages would be subject to increased competition.(45) If Professor Wolfram's savings estimate of 35% is used, a cost savings of $6.72 million per year would be possible on the local system, or. 15 cents per gallon.

Tort Reform

State liability for accidents on highways and the need for tort reform greatly affects the costs of Michigan roads. In the 1993-1994 fiscal year Michigan paid out $12.4 million in tort litigation claims and between 1981 and 1994 these claims totaled $191.9 million. Tort reforms must be addressed as part and parcel of any proposal for increased gas taxes. Reforms should address increased governmental immunity, limitations on joint and several liability, and a cap on non-economic damage awards. While true negligence by the state should result in liability, the current system encourages frivolous claims and payments. Reforms should save the state an estimated $4.9 million per year, with the average costs over the last 13 years reduced by one-third. This would result in savings of 0.1 cents per gallon.

Selling Railroad Tracks

During the early part of this century, Michigan acquired a number of railroads and then decided to get out of the railroad business by privatizing all of the assets. However, during the 1980s Michigan once again got into the railroad business and now owns 733.62 miles of right-of-way, with some 706.64 miles of operational track.(46) The Transportation Commission recently renewed leases on much of this track.

There is no valid reason for the state to continue to be involved in railroad track ownership. As a general rule MDOT supports getting out of this business, but more needs to be done to implement that position. This track should be sold to the highest bidder in an open process that assures the state the best possible price. *Sales revenue will not be substantial, but the state would save several million dollars a year in maintenance costs.*

State Environmental Regulations

MDOT also must develop a comprehensive proposal for reforms to state related environmental laws that are driving up the cost of providing highway infrastructure without sufficient offsetting benefits. State legislation is needed, similar to proposals in the U.S. Congress requiring cost-benefit analysis of existing regulations. Regulations that do not generate sufficient benefits should be submitted to the Legislature for review with the power for recision of such regulations. If necessary the Legislature should consider reforms to any laws that mandate the offending regulations. MDOT should be required to annually submit a list of regulations to the Department of Management and Budget (DMB) for review. DMB should be required to perform a cost-benefit analysis and to annually submit a list of regulations that do not generate sufficient benefits to the Legislature for review.

A recent requirement for MDOT to pump out "catch basin effluent," or residual water, at the bottom of every catch basin on the entire highway drainage system is an example of an

unacceptable regulation. *This effluent must now be transported to authorized disposal sites by authorized liquid waste haulers.* This regulation came about because Part 121, entitled Liquid Industrial Waste, of P.A. 451 of 1994, specifically included storm water effluent on public roadways in the definition of liquid waste. According to MDOT sources, the estimated annual cost for disposal alone, excluding collection and transportation, at a quoted price of 49 cents per gallon, is $2.3 million. Additional costs for collecting and transporting this runoff water are estimated by the author to be approximately another $4.0 million for a total estimated cost of $6.3 million, or .13 cents per gallon worth of gas tax.

A recent story in the Lansing State Journal points out the impact that state and federal environmental regulations can have on Cost.(47) A new bridge on the Vermontville Highway will cost $847,000; however, $100,000 of the cost is for replacement of a "wetland" being used for construction of a roadway to the new bridge site. The project was also delayed 18 months while a study was conducted to determine whether a colony of "endangered" Indiana bats would be affected. While no impact was found, the study yielded a recommendation that 100 new trees be planted, and allowed to mature and die, so that the bats, which prefer to nest in dead trees, would have additional nesting habitat in the future.

It should be possible to save at least $15 million per year by institutionalizing a review process and an approach for eliminating unnecessary regulations.

Federal Issues Affecting Costs

It is also high time for Michigan to more aggressively challenge federal regulations that are unreasonable or excessive. The new regulatory climate in Washington should make this the perfect time for reform.

Environmental Justice

Though often well intentioned, the onslaught of federal regulations affecting transportation results in substantial increases in planning, construction and maintenance costs. An example is a recent Clinton Administration Executive Order (no. 12898) entitled "Federal Actions To Address Environmental Justice in Minority Populations and Low Income Populations." This was followed by a draft DOT Order implementing the executive order dated December 21, 1994 entitled "DOT Actions To Address Environmental Justice In Minority and Low-Income Populations," and a follow-up letter from Secretary of Transportation Pena of February 15, 1995.(48) This order requires all federal agencies or recipients of federal aid to determine whether any rule, program, project or activity that affects human health or the environment would have a "disproportionately high and adverse effect on minority and low income populations."

To comply, agencies must consider 12 listed adverse effects, and any others, including "destruction of man-made resources," "diminution of aesthetic values," "disruption of community values," and "disruption of the availability of public services." An adverse impact will be presumed to be disproportionately high for minority and low-income populations if "it adversely affects a population which is predominantly minority and/or low income;" or "when an

adverse impact that will be suffered by such populations is more severe or greater in magnitude than the adverse impact that will be suffered by non-listed populations."

When disproportionate adverse impacts occur and continue to be disproportionately high despite required mitigation strategies to reduce such impacts, the project, rule, activity, etc. may not be carried out unless special conditions are met. These include that "a substantial need based on the overall public interest can be demonstrated;" and alternatives that would have less impact would have other comparable adverse impacts, or "would involve increased costs of extra-ordinary magnitude." In the case of populations protected by title VI of the Civil Rights Act of 1964 there must also be a "compelling governmental interest in proceeding."

This regulation obviously has the potential to force major planning costs, and also has the potential to allow almost any group to stop or delay a project. Secretary Pena's letter of February 15, 1995 also indicates that the rules requirements for open access to such groups also means that agencies must provide training and tools to such groups so that they can be active and meaningful participants in required public meetings held to address the adverse impact determination.

Even though this rule does not yet include even draft definitions, the FHWA has indicated that it will not approve the EIS (environmental impact statement) for the M-84 project MDOT is planning until the environmental justice review is completed. There is some indication that DOT is attempting to push this rule through so that it will not be subject to proposed legislation creating a moratorium on the issuance of new regulations. It is impossible to place a cost on this "environmental justice" regulation, but it is obvious that the rule could cause long delays, and dramatically increase the costs of completing projects.

ISTEA

The 1991 highway authorization act, known as ISTEA, also created a number of requirements for coordination of planning with Clean Air Act requirements. These provisions often include penalties for non-compliance that can result in loss of federal highway funds. One example includes the requirement for centralized auto test centers in ozone non-attainment areas. Aggressive efforts by several states to challenge those requirements, including efforts by Michigan Governor John Engler, have led the EPA to back away from more onerous provisions. However there are a number of other ISTEA and Clean Air Act planning requirements that the state should also challenge.

For instance, the Act requires extensive planning and documentation to add traffic lanes in non-attainment areas, and eliminates needed flexibility. Projects that will increase single occupancy vehicle (SOV) traffic must be included in state or Metropolitan Planning Organizations' (MPO) long range and three year plans. Furthermore, the state must demonstrate quantitatively why travel demand management and mass transportation operations cannot eliminate the need for the project.(49) The state then must also make commitments to reduce SOV traffic, and must demonstrate that an approved car pooling program is in place on the corridor.

ISTEA and the Clean Air Act also require states to demonstrate that all projects in non-attainment areas are included in "conforming" long range plans, and that such plans conform with the state's implementation plan for target pollution reductions. The resulting bureaucratic maze is enough to stop almost any project from progressing.

Coastal-Zone Reauthorization

The Coastal-Zone Reauthorization Act (CZARA) and the Clean Water Act could also have major impacts on state roadbuilding costs. Under CZARA, all of Michigan, except for one small strip down the center of the state, is considered a coastal zone. As a result, MDOT projects cannot increase the amount of suspended contaminants in runoff from completed highways. This requires a demonstration of before and after contaminated runoff levels, or if this is not possible, the construction of treatment facilities that remove 80% of the pollutants.

It is estimated that the Coastal Zone Act will cost Michigan $90 million in fiscal 1996, with costs after that going up and down depending on the nature of projects.(50) The Clean Water Act's Phase I requirements have already forced the state to apply for storm water discharge permits for highway runoff but compliance costs are not known because the permits and related regulations have not been issued. Phase II of this Act will require Michigan to spend some $10 million just to apply for additional permits, let alone comply with their requirements.

Even though it will be difficult to get changes to all of these requirements, MDOT must be aggressive about pointing out the costs to the public and the Governor. In extreme cases the Governor should order MDOT not to comply and should sue the federal government to stop enforcement, or seek changes in the laws and regulations in Washington. As part of the overall education effort MDOT should also be required by state legislation to report to the Legislature and the public annually on estimated annual compliance costs for each major piece of environmental legislation. This legislation should also be a condition for any possible gas tax increase.

Federal Davis-Bacon Act Reforms

Permanent repeal of Michigan's prevailing wage law will have some limited benefit in lowering highway construction and maintenance costs, but any significant impact will require reform of the federal Davis-Bacon Act. This is especially true at the state level where almost all projects have some federal aid in them that then require adherence to the Act. It has been estimated that Davis-Bacon repeal would save $3.3 billion per year in construction costs on federal projects. Major reforms could save Michigan some $29.6 million of its $546.8 million capital outlay budget assuming 3/4 of this work is contracted out, that wages represent 20.6% of costs, and that the 35% reduction in wages proposed by Professor Wolfram is possible. Because it is not clear that this reform can be achieved, no savings are assumed in the later analysis.

VII NET INVESTMENT NEEDS AND FINANCING OPTIONS

The following sections examine the amount of investment need which remains after reasonable cost savings are taken into account, and options for raising the necessary monies. There may be a legitimate need for additional taxes to fund increased investments, but legislators and the public will have to judge whether the investment generates sufficient benefits to justify a tax increase or a reallocation of general fund spending that would make the funds available. At least in the short term, it is likely that private investment of an equal amount would generate greater returns than public investment. However, over the long term, the economy requires a strong transportation infrastructure, and with careful investment, such spending can increase productivity and competitiveness, lower damage and repair costs for auto owners, and improve the quality of life for drivers.

State and Local System Needs

Earlier analysis of the highway construction and maintenance requirements for the state system suggested a possible need for an additional $375 million of funding after elimination of non-highway items. However, the need for a tax increase can be eliminated or reduced by implementation of cost saving proposals that the state can control. Other measures can be taken, such as lobbying for an increased share of our own federally collected highway user taxes that could further reduce the size of any necessary increase in funding. However, these potential revenue gains and cost savings that the state cannot directly control are not considered in analyzing the amount of additional investment funding needed. Potential savings related to reductions in mass transit funding are also excluded from this analysis because of the difficulty of implementing such programs.

Table 6 shows the amount of net new annual revenue needed for the state and local system after deductions for potential savings. The originally stated MDOT need for $410 million per year has been reduced by $35 million to eliminate non-highway programs, and by $81.8 million to reflect additional annual cost savings, leaving a net new revenue need for the state system of $293.2 million. On the local system, the $281.8 million in justified need is reduced by $89.8 million in potential savings, leaving net revenue requirements of $192.0 million per year. Total state and local needs after cost savings are estimated at $485.2 million annually.

Table 6: State and Local System Annual Net New Revenue Needs (millions of dollars)

MDOT IDENTIFIED NEED		**$410.0**	
New High Speed Rail	$25.0		
New Mass Transit	$10.0		
Total Reductions	**$35.0**		
MDOT NET NEED		**$375.0**	
Collection Expenses	$3.0		
Land Acquisition Reforms	$5.8		
Privatization	$13.8		
Design Standards & Value Engineering	$37.3		
Tort Reform	$4.9		
Railroad Privatization	$2.0		
State Environmental Regulations	$15.0		
Total Cost Savings		**$81.8**	
MDOT NET REVENUE NEED			**$293.2**
LOCAL COUNTY & CITY NEED		**$281.8**	
Reorganization & Privatization	$64.3		
Design Standards	$18.8		
Prevailing Wage	$6.7		
Total Cost Savings		**$89.8**	
Net Local Need			**$192.0**
TOTAL STATE AND LOCAL NEED			**$485.2**

Funding Options

The $485.2 million can be raised from a number of potential sources. These sources include an annual appropriation from general funds, bonding, private toll roads, developer fees, increases in truck registration and fuel taxes, and increases in auto registration and fuel taxes. Each of these taxes has advantages and disadvantages which are briefly considered in the following sections.

General Fund Appropriation

Historically, general funds have been used for road needs, and local governments continue to raise the bulk of their local source funding from general funds. One advantage of such funding is the increased legislative scrutiny and prioritization of needs that results. Any increase in spending on transportation requires an offsetting cut in other expenditures that are not deemed as important unless general taxes are to be increased. However, if transportation is as critical a function of government as some believe, there may be merit in taxing the users of the system so as to assure a dedicated source of funds for investment on a regular basis. Users have generally expressed a willingness to pay taxes for roads, if they could be assured that the funds would indeed be invested in the road system. General fund appropriations do not provide this dedicated

source of funds which users and taxpayers know will be spent on the roads. The other disadvantage of general fund appropriations is the potential for annual fluctuations in the level of funding. This can create problems in an environment where projects may take up to seven or eight years to complete.

Public Bonding and Tolls

Long term public bonding can also be an appropriate source of funds for capital projects with a 30 year plus expected life. However, bonds have to be repaid with interest, and absent toll roads, funding must come from general funds or other user taxes. At the end of 1993, Michigan had $605.5 million in outstanding debt obligations.(51) This total included some $200 million in "Build Michigan" bonds issued since 1992. MDOT's current plans call for $60 million per year of the need identified above to be funded from the issuance of state bonds. This would increase Michigan's level of bond funding to the level found in many other states. For instance, in 1993 ten states had indebtedness over $1 billion. However, many of these states use toll roads to repay bonds.

Obviously, bonding increases the total costs because of the interest charges which must be paid over time. However, inflation can reduce the costs of repayments in real dollars, and it makes some sense to match funding to the life of the project. This allows future users to contribute to the payments for the project. Ultimately, bonding makes more sense if tolls are to be collected to back the bonds. While this is an option, Michigan has a long history of avoiding tolls, so it is doubtful that the public would accept such a system. Tolls make more sense in states with large numbers of through or tourist vehicles, such as in Illinois, Ohio, or Florida.

Private Roads and Tolls

Private roads were once the norm, and other countries such as Mexico are engaged in extensive private toll road projects. A number of projects have also been proposed in the U.S., although only a handful have progressed to construction. The assumption is that private contractors can build and operate toll roads faster and less expensively than public agencies. Typically, the private builder is guaranteed a given profit margin from tolls, and the road reverts to the public agency at completion of construction, with the contractor operating the facility until the concession period ends. The builder is usually responsible for maintenance.

Although this approach can make sense if no other public funds are available, under the current tax and regulatory environment, the public will generally pay more for a private road than a public one. There are several reasons for this. First, it must be remembered that Michigan already contracts out a good deal of the design, and virtually all of the construction for roadbuilding. In a completely private road project, the contractor must generate enough efficiencies over and above what is found in the above system to overcome some costs that the publicly funded road does not incur. The private road costs to the public include higher capital costs due to funding which does not include tax exempt interest as in the case of publicly funded roads.

Theoretically, one would expect the private builder to offset these costs by completing the project faster and more efficiently. However, a private builder will have a much more difficult time than government in acquiring land and in securing environmental permits. At best, the private operator will have no worse performance than the government general contractor. The private contractor may also have added incentive to speed the planning and design process, and to get the construction done as fast and as inexpensively as possible. *It is not at all clear that Michigan citizens would accept a toll system to pay for such roads at this time.*

Private roads make more sense at unique locations such as international border crossings, and Michigan already has several examples of private facilities, including the Ambassador Bridge at Detroit. It is also clear that private organizations can perform maintenance more efficiently than government agencies and there are potential savings in maintenance budgets from privatization. However, it is not as clear that government can acquire such services for less cost and at service levels equal to what are obtained from public agencies and employees.

Developer Fees

Another potential source of funds, especially for local road needs, is developer fees. The advantage of such fees is that they have the potential to assign costs to the persons that create the need for new roads. Of course, these fees get passed on to the users of such developments.

The problem with such fees, especially if they relate to arterials leading into and out of local developments, is that it is very difficult to assess up front what the true future increases in traffic will be as a result of a given development. It is also difficult to administer such a system.

Another potential problem is that the system will be used not just to recover the actual costs of greenfield development, but to penalize such developments in order to promote a social agenda related to center city urban development and increasing the viability of mass transit. Nonetheless, such fees, which are already charged for local roads in many jurisdictions, are an option, especially for city and county road needs.

Truck Registration and Fuel Taxes

Increased truck taxes are one viable way to raise additional revenues; however, unit taxes would have to be raised a great deal to raise significant levels of revenue. For instance, the diesel tax raises just $5.6 million to $6.9 million per penny compared to $45.7 million for a penny of gasoline tax. It is also important to note that Michigan truck taxes went up 138.9% between 1982 and 1992. However, Michigan truck user taxes are some of the lowest in the country even after consideration of sales taxes, and both registration fees and fuel taxes are lower than in neighboring states.

The rationale for raising truck taxes further is that trucks are still not paying their full share of costs imposed on Michigan roads. There are no Michigan cost allocation studies, but the latest federal study indicates that trucks are paying 86% of their costs nationally. Studies in fifteen states indicate an average cost recovery of 96%; however, those states have higher fuel taxes than in Michigan. In those fifteen states the average gas tax with various add-ons is 23.6 cents

compared to 14.5 cents per gallon in Michigan, making the Michigan rate about 60% of the rate in these fifteen states. It is likely that Michigan's fees are no higher than the rate these fifteen states.

On the other hand, there is a very good rationale for keeping truck taxes down. Lower truck user taxes offer one of the few competitive advantages Michigan has on the tax front, and overall state taxes on truckers are higher in Michigan than in neighboring states after workers' compensation, corporate taxes and unemployment taxes are taken into account. An increase in truck taxes should not be taken lightly in a state with extensive movements of heavy industrial products and components for the auto industry, and where there is extensive aggregate mining.

It also must be realized that such an increase will be passed on in the form of higher costs for Michigan manufactured goods, and for the goods that Michigan residents buy in stores.

Auto Registration and Fuel Taxes

Auto registration fees and fuel taxes dedicated to a trust fund are the only funding source that can raise the magnitude of revenue needs identified, and that offer a consistent and reliable revenue stream over the life of highway construction projects. The disadvantage, as with any tax, is that monies are taken out of private hands, and the resulting investments generally have a lower return than private investment, at least over the short term.

VIII A FUNDING APPROACH FOR THOSE WHO BELIEVE THE BENEFITS OUTWEIGH THE COSTS

Ultimately, citizens and legislators will have to decide whether additional investment in highways is needed, and whether the benefits of such investment exceed the costs. A good transportation system is clearly beneficial to both manufacturers and automobile users, but at what cost? For manufacturers a well functioning system can allow more reliable and faster deliveries that allow the removal of inventories from the system and improved customer service. A congestion free transportation system is critical to just-in-time logistics systems, and to shippers and receivers using services such as UPS and Federal Express. The freight system can also benefit from reduced damage to goods and lower repair costs if roads are better maintained. For auto users, the key issues are the level of congestion and the quality of life implications of congestion. Better roads can reduce the costs associated with accidents, and lead to fewer fatalities. Poorly maintained roads increase the wear and tear on autos and increase repair costs by significant amounts.

In this study we have estimated total system priority revenue needs at $485.2 million after cost reductions. State needs make up $293.2 million of the total, while local needs total $192.0 million. By dedicating the proposed cost savings to investment in roads, a total of $656.8 million in additional investment would be generated if the additional revenue is raised.

The rationale for these additional revenues is that first, there are a number of identified priority needs, such as those related to I-94, a Grand Rapids beltway, a better north-south route on the east side of the state, and various bridge projects to name a few. those in favor of a funding increase would also have to conclude that we have been underfunding roads for a number of years, and that revenues have not really kept up with cost increases and increases in traffic. While revenues increased some 48.9% faster than unit inflation between 1982 and 1992, and traffic was up 37%, one could argue that additional "units" of investment are required per mile due to new design requirements related to safety, the environment, and project design life, and that this has used up all of the revenue growth.

Those supporting additional revenue would argue that the results of this underfunding can be seen in the large increase in the percentage of roads rated poor, in the increase in repair costs for auto owners, and in the large percentage of roads considered "congested," compared to other states. Supporters of an increase in funding would also argue that Michigan's low spending relative to other states (46th per capita and 47th as a percentage of personal income) is indicative of the need.

Those opposed to an increase would cite the large increase in existing revenues after unit inflation costs, and the need to reduce costs even beyond those that have been outlined in this analysis. They also might suggest that a better return on investment can be obtained by spending in the private sector, and that any increase in funding should come about as a result of reprioritizing existing state spending and shifting resources to transportation. Those opposed to an increase would also argue that an increase in transportation taxes would offset the progress that has been made in improving Michigan's business climate relative to other states.

Possible increases in tax revenues for transportation come with several caveats. Legislation should be enacted to implement the identified cost savings, and to implement the other recommendations identified in the cost savings section. Secondly, any tax increase should include political commitments to pursue reductions or elimination of federal mandates that are driving up environmental labor costs. Third, any tax increase legislation should identify offsetting tax cuts in other areas of government that at least equal the proposed tax increase. One way to effectively accomplish this would be to dedicate the sales tax on gasoline and diesel to transportation. Fourth, any increase should be dedicated to highway use, and not made available to mass transit. Finally, any tax increase should pursue the goal of increasing the percentage of local road needs obtained from local sources.

Following are proposed revenue raising approaches for those who believe the benefits of a transportation tax increase outweigh the economic costs.

The State Administered System

The state system's needs after cost reductions and elimination of non-highway projects total $293.2 million per year. This need could be funded through a combination of bonding, truck, and automobile user taxes as outlined in Table 7. As proposed by MDOT, $60 million per year of the need should be funded through public bonding. This spreads the funding costs out over the useful life of the projects and charges future users for a portion of the costs. After bonding, this leaves $233.2 million per year of funding needs.

Table 7: Tax Revenue Funding Options (millions of dollars)

STATE ADMINISTERED SYSTEM		
NET NEED AFTER COST REDUCTIONS		**$293.2**
State Bonding		$60.0
Diesel Tax Revenue		
Eliminating Diesel Discount[1]	6.0¢	$33.6
Replace Discount Sticker[2] ($95 out of state / $25 in state)	2.9¢	
Replace MPSC Authority Fee[2]	0.5¢	
Gasoline Tax Revenues	4.4¢	$199.6
Total Net New Tax Revenues		**$293.2**
LOCAL ADMINISTERED SYSTEM		
NET NEED AFTER COST REDUCTIONS		**$192.0**
State Gasoline		
Tax for Local Needs Fund	1.4¢	$64.0
Local Matching Revenues		$128.0
Total Net New Tax Revenues		**$192.0**

[1] Assumes $5.6 million per penny revenue
[2] Assumes $6.9 million per penny revenue

An increase in truck taxes through elimination of the 6 cents per gallon commercial discount could raise an additional $33.6 million per year at the $5.6 million per penny rate related to commercial diesel volumes. Revenues from the truck commercial discount sticker should be retained, but in the form of an equivalent increase in the diesel tax of approximately 2.9 cents per gallon at the $6.9 million rate applicable to all diesel fuel consumption. The diesel discount sticker fee of $92 for in-state trucks and $25 for out-of-state trucks raises some $20 million per year in revenue, with about three fourths of the total coming from out of state registered trucks. However, when Michigan joins the International Fuel Tax Agreement (IFTA) in 1996 as mandated by ISTEA, the state may be limited to charging $10 per out-of-state truck. These fees were initially imposed in part to offset the diesel discount, but the state should consider continuing them as part of the effort to increase the trucking industry's contribution to the costs they impose on the system. These changes would allow the existing $20 million in revenue to continue to be collected after 1996, would reduce administration costs for industry and state government, and would facilitate implementation of a "one-stop" shopping program for the trucking
industry.

The fees collected from the $100 per truck motor carrier authority sticker, interstate registration fees and related items should also be eliminated along with passage of complete economic deregulation of the for-hire intrastate trucking and moving industries. These changes would eliminate $6.25 million per year in revenue; however, the approximate $3.5 million per year of this revenue being spent on safety related payments to the Michigan State Police and Truck Safety Commission would have to be made up for in some manner. The necessary revenue could be raised by increasing the diesel tax approximately 0.5 cents per gallon and including an authorization in Act 51 for this money to go to the safety related programs currently being funded by the fees. The elimination of remaining economic regulation and accompanying fees would result in lower trucking prices for office and household moves, would eliminate some $2.75 million in state charges to the trucking industry, would reduce administrative costs related to these fees for both the trucking industry and state government, would facilitate and simplify "one-stop" shopping for all trucking permits, and would spread the costs of truck safety programs more equitably over both private and for-hire trucking companies.

The result would be a 9.4 cents per gallon increase in taxes for diesel users. However, for the trucking industry, 3.4 cents per gallon represents a replacement of other fees, leaving a net increase of 6 cents per gallon. The net revenue increase would be $33.6 million per year, an approximate 15% increase in total trucking industry registration, fuel tax and fee payments.

Those in favor of new revenues could raise the remaining $199.6 million through a gas tax increase. At the $45.7 million per penny rate, an increase of 4.4 cents per gallon would be required. Table 7 summarizes the impact of these tax increases. The additional revenue raised from both the diesel and gas taxes should be dedicated to the State Trunkline System, and would not be split with local governments under the existing formulas in Act 51.

The Locally-Administered System

An annual priority need of $281.8 million was estimated for the locally-administered system. Cost savings of $89.8 million per year are feasible, leaving a net revenue need of $192.0 million per year.

It may be necessary for historical precedent and political reasons to raise some statewide gas taxes which would be passed on to local units of government if a revenue increase is desired. A strong case can be made for requiring local governments to raise a greater share of local road needs from local funds. Such an approach would allow those areas of the state with major local needs to obtain necessary local funding, while allowing other areas of the state which have not experienced fast growth to avoid extra taxation. This approach also makes sense given the Headlee limitations on the amount of money the state can raise, given recent decreases in local property taxes brought about by Proposal A that free up local tax base, and given the relatively low level of local financing in Michigan compared to that in other neighboring states. Nationally, states provide just 29% of local needs, but in Michigan we are providing 58.1 %.

The best way for the county and city needs to be funded is to provide for a local option maximum $25 increase in auto registration fees, and for local governments to raise funds for road purposes through property taxes and other sources such as developer fees. A registration fee could raise $142.3 million if applied to all autos in the state. A local gasoline tax would be very disruptive, would result in extensive driving to avoid counties with the higher taxes, and should not be allowed as an option. Local registration fees were allowed for five years in Michigan between 1987 and 1993, but local efforts to pass ballots allowing such fees failed at that time. For instance, in Oakland County a $25 registration fee proposal failed by a 4:1 margin in 1989. There has been more success lately in using property taxes to fund roads, with 20 counties now having such millages and two having been approved in the last 12 months. With increasing need becoming evident in some counties with fast growth, it is quite possible that local voters will support local road taxes if they can be convinced the funds will be used wisely.

Increased local funding of highways would result in more local visibility and interest in controlling the costs of local highway agencies, and would lead to better choices on what to spend money on. Currently, local voters are being asked to approve millage or other funding for a variety of local non-highway projects at the very time that local officials are outlining their needs for additional funding of highway needs. For instance, Lansing officials recently announced a $20 million shortfall in funds for highway needs, suggested more money was needed from the state for these needs, and then discussed whether to accept substantial financial risks related to a proposed bus station and private retail development. Likewise, in Oakland and Macomb counties, county road commission officials are engaged in a campaign about the need for additional road and bridge money from the state at the same time that other county officials are discussing a local 1/4 to 1/3 millage for SMART. If local voters were forced to choose between road needs, SMART, or both projects, it is likely that better decisions would be made based on voters' priorities.

While local option funding is the best alternative for increased local road funding needs, historical precedent requires that the state raise some of the funds for local needs. Table 7 summarizes a local funding approach. For those that believe a tax increase is justified, the best approach is to split the identified local needs at a 1:2 ratio between state and local revenue

sources, reducing the percentage of local needs funded by the state. Under such a system, an additional statewide gasoline tax of 1.4 cents per gallon would be levied, raising $64.0 million per year. This money would be deposited in a local match fund and allocated to local governments using present formulas (see Table 7). Any monies not matched by local governments at a 2:1 ratio from new dedicated local transportation revenue sources within two years would revert to the state trunkline fund. Local monies could be raised at the county level by the registration fee or other dedicated taxes, and at the city/village level by millages. A total of $128.0 million in dedicated new local revenues would be necessary.

Total Taxes

The approach outlined above would raise the state gasoline tax 5.8 cents per gallon, to a total of 20.8 cents per gallon before sales taxes, and to approximately 25.8 cents per gallon after sales taxes. Before sales taxes this rate would be higher than the national average, and higher than all but one neighboring state. After sales taxes, this rate would be 2.5 to 5 cents per gallon higher than neighboring states.

Diesel taxes would increase by 9.4 cents per gallon to a total of 18.4 cents per gallon. However, 3.4 cents per gallon of the increase would be related to elimination of fees, leaving a 6 cents per gallon net increase in revenue. Diesel taxes would continue to be 4 cents per gallon below the national average before sales taxes and other add-ons. After sales taxes, Michigan's diesel tax would be slightly higher than Ohio's, some 3 cents per gallon below Indiana's, and considerably less than Illinois' tax.

IX CONCLUSIONS

In conclusion, $375.0 million in annual priority state system highway needs were identified. Of this total, $81.8 million can be funded through cost savings on existing expenditures, leaving a net new revenue need of $293.2 million. On the local county and city system an estimated $281.8 million in priority annual needs were identified. $89.8 million per year of this need should be funded through cost savings that were identified, leaving $192.0 million to be funded from revenue increases. The cost savings relate to privatization of maintenance and reorganization of state and local operations, changes in design and value analysis, tort reform, changes in prevailing wage laws, and reforms in some environmental requirements.

There are pluses and minuses associated with a tax increase. For those who believe an increase has benefits that outweigh the economic costs, a funding proposal was offered. For the state system, one approach to raising the $293.2 million in new revenues would be to obtain $60.0 million per year from bonding, $33.6 million from the trucking industry with a net 6 cents per gallon (9.4 cents per gallon overall including replacement of fees) increase in diesel taxes, and $199.6 million from a gasoline tax increase of 4.4 cents per gallon. For the local system the $192.0 million in tax needs could be raised through a state-local matching program with a 1:2 ratio. The state revenues could be raised through a 1.4 cents per gallon statewide gasoline tax which would raise $64.0 million. The result would be a 5.8 cents per gallon increase in the state gas tax. This money would be made available to locals under current per-jurisdiction formulas if they generated their share of $128.0 million in local matching requirements. Locals could raise their 2:1 match for this money by raising new dedicated sources of revenue for highways. Counties would be given the option of raising their share through a local option for up to a $25 registration fee per auto. Specific steps the legislature would have to take include:

- Raising the gas tax 5.8 cents per gallon with 4.4 cents dedicated to the state trunkline system and 1.4 cents placed in a fund for local use.

- Raising the diesel tax 6 cents per gallon by eliminating the diesel discount for commercial users, and an additional 3.4 cents to replace fees collected on trucks for diesel discount stickers and MPSC registration.

- Establishment of a matching contribution program for locals to obtain access to the 1.4 cents per gallon in gas tax dedicated for local use. Such a program should require $2 of new local revenue dedicated for roads for every $1 available from the state fund, should specify the formula to be used in apportioning state money by county/city, and should specify the disposition of state local fund monies not used each local government.

- Reinstating the $25 local option auto registration fee for counties.

As part of any tax program, legislators should pass or at least begin considering all programs and reforms outlined below. *In addition, tax reduction offsets equal to any increased transportation taxes should be identified, and all new transportation tax revenues in the package should be dedicated to highways.* New tax revenues raised for state system roads would also have to be exempted from the current Act 51 distribution formula for the Michigan Transportation Fund.

As part and parcel of any possible tax increase, the Legislature should include several specific reforms. Specifically, the Legislature should:

- Pass a law eliminating the state's remaining economic regulation of trucking and household/office moving and eliminating the authority registration process at MPSC.

- Require "one-stop shopping" and single agency administration and processing for truck permits at the Secretary of States' office instead of the existing five departments.

- Replacing the current diesel discount and MPSC registration fee structure with increases in the diesel tax as outlined above.

- Pass a law prohibiting local economic regulation restrictions on "jitney" private passenger transportation services.

- Repeal state and local prevailing wage laws

- Reform liability laws relating to highways, separately from any broader tort reform package.

- Change right-of-way acquisition laws to lower costs.

- Pass a resolution requiring increased committee scrutiny of MDOT expenditures.

- Require MDOT to report annually on the costs of collecting Michigan Transportation Fund monies, and steps being taken to reduce such costs within the various departments.

- Require MDOT to produce an annual report on the cost of annual compliance with all major federal and state environmental regulations.

- Require annual cost-benefit analyses and legislative review of regulations not achieving specified ratios, with legislative votes to retain programs with below specified ratios, and;

- Eliminate Michigan's state owned railroad program.

The Governor's Office and the Legislature should also commit themselves to obtaining several concessions from Washington. These concessions should include:

- A reduction in the share of highway user fuel taxes going to deficit reduction instead of the Highway Trust Fund. Currently, 6.8 cents per gallon, or $54.2 million per penny of Michigan fuel taxes are going to deficit reduction instead of the originally intended purpose of highway infrastructure.

- A requirement that authorized ISTEA spending levels be implemented. The Clinton Administration's proposed fiscal year 1996 budget calls for a $2.5 billion per year reduction in spending in order to build Highway Trust Fund balances and mask the size of the deficit.

- A requirement that fuel taxes collected for the Highway Trust Fund and deposited in the Trust Fund be spent on highway infrastructure purposes and not freed up for non-highway Amtrak and mass transit spending as states wish via the Clinton Administration's proposed block grant program in the 1996 fiscal year budget.

- A strong effort to renegotiate the ISTEA funding formula to reduce the percentage of Michigan federal gas tax collections being donated to other states to no less than the national average. Michigan received 90% of its contributions since 1957, while the average state received 114% during this time period, and Massachusetts received 362% in 1993.

- Elimination of the Clinton Administration's "environmental justice" regulations.

- Modification to the Coastal Zone Reauthorization Act (CZARA) to reduce Michigan's estimated $90 million first year costs related to treatment of stormwater runoff from roads.

- Modification of the Davis-Bacon Act to reduce costs of road construction and maintenance.

Finally, the Governor's Office and MDOT should commit to implementing the cost reduction programs identified in this report. Specific actions should include:

- Formation of the Executive Commission on Highway Infrastructure Reform and implementation of potential Commission recommendations related to MDOT/County/City duplication, reforms to county road commissions, and privatization cost saving opportunities.

- Cost benefit analysis of existing state environmental laws and regulations affecting roadbuilding costs and modification of laws and regulations imposing costs which are not justified by the benefits.

- An order prohibiting MDOT from making the potential $90 million per year expenditures related to CZARA required stormwater runoff procedures until requirements can be negotiated or changed.

- An Executive Order implementing "one-stop" shopping and economic deregulation for the trucking industry.

- A review of current high speed rail expenditures to determine whether such expenditures are justified given the economic feasibility and the future federal funding probabilities.

- A review of planned new major highway corridor planning and designs to determine whether designs can be justified given realistic traffic projections.

- A review of MDOT and other agency administrative and collection costs paid for out of the Michigan Transportation Fund and implementation of identified cost saving opportunities.

- A review of design standards and implementation of value engineering processes.

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