Local Transportation Needs and Funding Report

September 1, 2000[1]

Ohio Legislative Budget Office

Research Staff

Don Eckhart, Division Chief

Alex Heckman
Cliff Marsh
Ross Miller
Jean Botomogno
Jeff Petry
Lis Gorenstein
Kathy Schill
Brian Friedman
John Ryan

[1]This version of the report includes corrections made after the initial September 1st release.

Acknowledgements

The Ohio Legislative Budget Office would like to thank the many individuals and organizations who provided valuable contributions and support that helped to make this project a success.

Ohio Legislative Budget Office/Legislative Service Commission: *Steve Mansfield, Matthew Wells, Annice Carter and David Gold*

Ohio Department of Public Safety: *Marji Hyden and Kathy Ludowese of the Bureau of Motor Vehicles*; *Captain Wayne Warner of the Ohio State Highway Patrol*

Ohio Department of Transportation: *Pat Moore, Daryl Weininger, Michelle Holdgreve, and the ODOT Bridge Maintenance and Pavement Management crews*

Ohio Department of Development: *Steve Kelly of the Office of Strategic Research*

Ohio Public Works Commission: *Michael Miller and Laurence Bicking*

Mid-Ohio Regional Planning Commission: *Kim Gibson and Bill Habig*

Central Ohio Transit Authority: *Ron Barnes, Brian Martin, and W. Curtis Stitt*

Federal Highway Administration: *Kim Walraven, Steve Baumann, and Jack Springer*

County Engineers Association of Ohio*: Glen Sprowls, Fred Vierow, and Gaylon Davis – Defiance County Engineer, Bill Shaw - Hocking County Engineer*

County Commissioners Association of Ohio: *Larry Long*

Franklin County Engineer's Office: *Jamie Tickle and Joe Kindler*

Ohio Municipal League: *Sue Cave, John Mahoney, and Ed Albright*

Ohio Public Transit Association: *Gordon Sheerer*

Ohio Township Association: *Mike Cochran*

Ohio Association of Regional Councils

Wisconsin Department of Transportation: *Office of Policy and Budget*

The 359 Ohio local governments that responded to the entire Local Government Transportation Survey.

Executive Summary and Alternatives Section

(short report*)

Contents

*This report included corrections made as of September 15, 2000.

For a full copy of the report (218 pages) contact"

Ohio Legislative Budget Office (614) 466-8734

Local Transportation Needs and Funding Report

Executive Summary

This LBO Local Transportation Needs and Funding Report is in response to the mandate in Section 10 of Am. Sub. H.B. 163 of the 123rd General Assembly. That section instructed the Legislative Budget Office of the Legislative Service Commission to conduct a study to 1) determine the need for additional resources to meet local construction and maintenance needs for highways, bridges, and mass transit; 2) identify possible alternative sources of revenue that could be imposed by local governments, or imposed by the state and distributed to local governments; and 3) consider whether and how the state's allocation of funds to local projects could be done in ways more responsive to local needs and local variations in the condition of highways, bridges, and mass transit systems.

This report does the following:

- Examines local government "needs" by presenting various measures of transportation needs and resources
- Identifies possible alternative sources of revenue and describes other ways for improving local transportation finance
- Analyzes the amount and distribution of revenues received by local governments from local, state and federal sources for roads and bridges
- Addresses the question of whether the current allocation of state funds is responsive to local highway and bridge needs
- Discusses funding and needs for mass transit in Ohio
- Provides a brief review of Ohio law, both constitutional and statutory, as it relates to state and local transportation responsibilities and funding

Study Conditions

To address the issue of local construction and maintenance needs, LBO sought information from state-level sources with an identifiable connection to Ohio's transportation infrastructure network. These sources, viewed as most likely to have useful information, included the Ohio Department of Transportation, the Department of Public Safety, the Public Works Commission, and the County Engineers Association of Ohio.

LBO also sought information directly from local-level sources. LBO distributed over 1,000 Local Government Surveys to officials in Ohio, including: 88 counties, 242 cities,

200 villages, and 482 townships. Due to a low initial response, the survey deadline was extended to accommodate additional responses. A total of 376 local government responses were received over a 12-week period. However, only 359 local governments responded to all four parts of the survey.

To address the issue of transportation finance, LBO again sought information from state-level sources, including the aforementioned state agencies, the departments of Taxation and Development, and the Ohio Rail Commission. Meetings were held with members of the Federal Highway Administration, County Engineers Association of Ohio, Franklin County Engineer's Office, Ohio Association of Regional Councils, Ohio Municipal League, Ohio Public Transit Association, and the Ohio Township Association.

In addition to the Local Government Survey, LBO developed two other survey instruments, one to gather information from regional planners and mass transit providers, and one to gather comparative information from other states. Sixteen metropolitan planning organizations, ten transit authorities, and seven mid-west states were contacted and all responded with financial and program information.

Findings

Transportation systems are by nature complex in terms of structure and operation. The topic becomes more complicated when over 2,300 local governments are involved. The following discussion describes some general findings essential to the understanding of Ohio's local transportation infrastructure, the financing of those public works, and the parameters of this report. These findings are presented in the categories of transportation need and transportation finance.

Transportation Need

1. As LBO began to compile and analyze information from numerous sources, certain research obstacles surfaced which eventually limited the ability of this report to definitively answer the Legislature's mandate. A continual problem was the lack of consistent and comparable data among local government sources. In the absence of statewide reporting guidelines of need, local governments have developed their own reporting standards. Because much of the information was obtained from self-reported statements of need, the need may be overstated to enhance the case for receiving funding and is certainly not comparable across specific local government units.

2. Local transportation needs vary considerably among governmental jurisdictions due to differences in legal responsibility, factors of urbanization, topography, climate, and maintenance schedules. Based on self-reported local government data from the Ohio Public Works Commission, LBO estimates the one-time cost of

LBO estimates the one-time cost of restoring local transportation infrastructure in critical condition to be approximately $527 million.

restoring local transportation infrastructure in *critical condition* to be approximately $527 million. It is possible that, if critical infrastructure were restored to excellent condition at state expense, current funding levels might be adequate to meet local government's *ongoing* maintenance needs. However, existing data is inadequate to determine whether current on-going funding amounts would be actually sufficient.

Transportation Finance

Ohio's largest sources of transportation revenue are the following:

- The **state motor vehicle fuel tax,** or gas tax, generating approximately $1.4 billion in FY 1999. Of this amount, $329 million was distributed to local governments for road and bridge purposes.

- The **state motor vehicle license tax,** or license plate fee, generating $323 million in FY 1999. Of this amount, $304 was distributed to local governments for roads and bridges.

- **Local permissive motor vehicle license taxes**, which are collected by the state on behalf of local governments for roads and bridges. Revenues totaled $138 million in FY 1999 for all local governments, but vary widely across local governments depending on the tax rate and the number of registered vehicles in each jurisdiction. Many local governments assess no local license tax.

- **Ohio Public Works bond proceeds and gas tax revenue**, distributing about $141 million to local governments for transportation projects in FY 1999.

Local governments also use their own local revenues, including general fund moneys, bond proceeds, and other sources for infrastructure purposes, but these funds are not tracked at the state level. Using response data from the LBO Local Government Survey and other sources, LBO estimates total local government revenues at $807 million. Combining all local, state and federal FY 1999 resources, the total amount of revenue received by Ohio local governments for roads and bridges is estimated at approximately $1.8 billion.

Combining all local, state, and federal FY 1999 resources, the total amount of revenue received by Ohio local governments for roads and bridges is estimated at approximately $1.8 billion.

1. Most state-level funding is distributed using a formula allocation, which is based on type of political jurisdiction and not directly related to local infrastructure need. Of the $787 million distributed to local governments in FY 1999, counties received $390 million (or about 50 percent), cities received $246 million (31 percent), townships received $93 million (12 percent), and villages received $46 million (about 6 percent). The total amount of state funding also includes $13 million in grants

awarded by the Department of Development, for which local government type was unspecified.

2. Through the course of this analysis, several viable options to raise additional revenue emerged. These options, summarized in a context of potential advantages and disadvantages, are detailed in Part One of this report. Also, LBO found that some local governments have not fully utilized existing legal authority for generating additional local revenue.

3. Mass transit has not received a large amount of state-level funding relative to other transportation needs in Ohio or when compared to some other states' funding levels. While total 1999 state funding sources going to local governments for local roads and bridges exceed $787 million, state funding for mass transit in calendar year 2000 approximates $76 million, or less than one tenth the amount distributed for other local transportation needs in the previous year. By law, Ohio's top transportation funding sources—the gas tax and license plate taxes—are specifically dedicated for use in the construction and maintenance of Ohio roads and bridges. The Ohio Constitution prohibits the use of these revenues for *any* non-highway related purpose, such as mass transit.

Possible Alternatives: Revenues, Cost Savings, and Responsiveness to Local Need

LBO has developed fifteen options for the General Assembly to consider in its deliberations concerning local transportation needs and funding. A list of these options is presented on the following page, while a detailed discussion of each option can be found in Part One of the report. Some options will boost revenues or save moneys at the state or local level; other options will enhance the responsiveness of fund allocations to better meet local transportation needs. Each option requires some level of action by the General Assembly to achieve the anticipated goal, even for options that require local implementation.

LBO has developed 15 options … that will boost revenues save money or enhance the responsiveness to meet local transportation needs.

LBO Option Summary - Possible Alternative Revenue Sources, Cost Savings Measures, and Responsiveness to Local Need

I. Possible Alternative Revenue Sources and Cost Savings Measures

Alternatives for State Level Implementation

Additional Revenue Possibilities

Option 1: *Provide One-Time Funding to Repair Critical Infrastructure*

Option 2: *Increase the Motor Vehicle Fuel Tax (gas tax)*

Option 3: *Realign Funding for Certain Department of Public Safety Activities*

Option 4: *Increase State Motor Vehicle License Tax (license plate tax)*

Option 5*: Convert to a New Motor Vehicle Registration (license plate) Fee System*

Cost Saving Action

Option 6*: Develop Statewide Pavement Management Guidelines*

Alternatives for Local Level Implementation

Additional Revenue Possibilities

Option 7: *Increase the Cap on Permissive Local Motor Vehicle License Tax*

Option 8*: Allow Counties to Enact a Motor Vehicle Fuel Tax Specifically for Bridge Repair and Replacement*

Cost Saving Actions

Option 9: *Permit Local Governments to Use Design-Build Process*

Option 10: *Encourage Group Contracting with Counties*

II. Alternatives for Improving the Responsiveness of State Resource Allocations

Observations: Ohio's Current Transportation Finance System

Option 11: *Improving the Responsiveness of State Funding to Local Need*

Improve Availability and Use of Information

Option 12*: Create an Annual State of the Local Transportation System Report*

Option 13: *Increase Coordination between Public Works Commission's District Integrating Committees and Municipal Planning Organizations*

Clarify or Enhance Local Government Resource Options

Option 14: *Formalize Municipal Paving Policy for Certain State Routes*

Option 15: *Expand the Use of Motor Vehicle Fuel Tax and Motor Vehicle License Tax Revenues to Include Mass Transit*

LBO Local Transportation Needs and Funding Report

Introduction

Section 10 of Am. Sub. H.B. 163 of the 123rd General Assembly requires the Legislative Budget Office (LBO) to conduct a study of Ohio's local transportation needs and funding in order to:

- Determine the need for additional resources to meet local construction and maintenance needs for highways, bridges, and mass transit
- Identify possible alternative sources of revenue that could be imposed by local governments, or imposed by the state and distributed to local governments
- Consider whether and how the state's allocation of funds to local projects could be done in ways more responsive to local needs and local variations in condition

In an effort to address these concerns, the report is organized as follows:

Part One identifies possible alternative sources of revenue and describes other options for the General Assembly to consider when deciding how to make the allocation of funds more responsive to local needs, how to maximize the benefit from dollars spent on local transportation infrastructure, and how to generally improve Ohio's local transportation system. Information and data supporting these suggestions can be found in the ensuing sections of the report and in the appendices.

Part Two examines local government "needs" by presenting various measures of need. First, a general explanation of road and bridge responsibilities is provided, along with a discussion of other factors that can impact costs for maintaining roads and bridges. Next, local government needs are explored using three sources of information: a) data obtained directly from local governments using an LBO survey, b) data reported by local governments to the Public Works Commission, and c) estimates of road maintenance costs developed from information provided by the County Engineers Association of Ohio.

Part Three analyzes the amount and distribution of revenues received by local governments from local, state, and federal sources for roads and bridges. This information is presented in detail to promote a better understanding of Ohio's complicated transportation funding system and the suggestions included in Part One.

Part Four addresses the question of whether the current allocation of state funds is responsive to local highway and bridge needs. Suggestions of how the distribution of funds could be made more responsive are included in Part One.

Part Five discusses funding and needs for mass transit in Ohio.

Part Six contains a brief review of Ohio law, both constitutional and statutory, as it relates to state and local transportation responsibilities and funding.

Part 1

Possible Alternative Sources of Revenue and Other Options

The purpose of this study is to provide information about Ohio's transportation finance system and how such a system provides local governments with resources to address local transportation needs. During the course of this study, it became apparent that a variety of factors contribute to the condition of infrastructure, which impact the cost of repair and ultimately the need for additional revenue. Also, it became apparent that the availability and distribution of funds varies greatly among governmental units.

After examining the many facets of Ohio's transportation finance system and gathering information about Ohio's local transportation infrastructure needs, LBO has identified 15 options for the General Assembly to consider in its deliberations. Each option, if implemented, would achieve at least one of three desired impacts: 1) produce additional revenue, 2) enhance cost savings measures, or 3) help realign funding allocations with local need. Each option is identified according to place of implementation, e.g. at the state level, local level, or both. At the end of each option description, LBO includes a list of summarizing some of the key advantages and disadvantages of each option.

Researching and analyzing potential funding alternatives is not an easy undertaking. Even the most careful consideration of an issue can produce unforeseen impacts. A seemingly minor change in a funding source can generate numerous concerns among decision makers, administrators and residents alike. With these issues in mind, LBO has compiled the following list of criteria for use when considering this section's options:

- Is the revenue stream predictable?
- Is administration simple and inexpensive to implement?
- Is the revenue source directly linked to transportation?
- Does the action build upon the existing tax system?
- Is the action understandable to the public?
- Is the action consistent with "User-Pays" principle of raising revenues?
- Does the action expand or maintain local government responsibility in providing transportation infrastructure?
- Does the action promote inter-jurisdictional cooperation?

I.Possible Alternative Revenue Sources and Cost Savings Measures

Suggestions for State Level Implementation – Additional Revenue

Option 1: Provide One-Time Funding to Repair Critical Infrastructure

Based on data provided by the Ohio Public Works Commission, the estimated cost of restoring local transportation infrastructure in *critical condition* is in the magnitude of $527 million. One way of addressing this immediate need would be to identify a source of one-time funding, for use over a period of one or more years, to repair these local roads and bridges. Whether the source of funds is GRF or bond proceeds, and whether the amount is $50 million or $500 million, a one-time increase in funding could be a stand-alone option to temporarily supplement existing sources of funding.

Depending on the amount of funding for one-time repairs, the state could direct one-time money for critical infrastructure in various ways. The total cost figure of $527 million is a compilation of costs identified by type of local government jurisdiction and by type of infrastructure in need of repair, e.g. road, bridge, or culvert. Table 1A provides further detail by government and infrastructure type.

Table 1A: Estimated Costs of Repairing Critical Roads, Bridges and Culverts*
(Millions of Dollars)

Local Government	Total Road Repair Cost	Total Bridge Repair Cost	Total Culvert Repair Cost	Total Repair Cost
Counties	$58.1	$57.8	$11.2	$127.1
Cities	279.6	17.4	6.5	303.5
Villages	31.3	2.5	1.5	35.3
Townships	54.6	0.0	6.1	60.7
Total Cost	**$423.6**	**$77.7**	**$25.3**	**$526.6**

*LBO estimates based on data provided by the Ohio Public Works Commission.
Columns or rows may not sum to totals shown because of rounding.

Among the four types of local governments, cities appear to face the highest overall repair cost, about $304 million or 58 percent of the $527 million. Counties account for $127 million or 24 percent, while the combined total for villages and townships is just under $100 million or roughly 18 percent. Among types of infrastructure, a similarly lop-sided situation is revealed. The estimate for fixing critical roads totals about $424 million or 80 percent of the $527 million. The cost of fixing critical local bridges (which may be a higher priority than roads from a safety perspective) is about $78 million or 15 percent, and culvert repairs total $25 million or less than 5 percent.

Providing one-time funding seems to make sense for several reasons. First, assuming the "critical" condition rating provided by local governments is accurate, a number of Ohio roads and bridges are likely hazardous to Ohio drivers. Second, the cost of repairing and maintaining infrastructure that is in critical condition is much higher than maintaining infrastructure in good condition. Therefore, the repair of critical roads and bridges would

likely free-up funding that could be used to improve infrastructure in poor condition or to expand preventive maintenance efforts to slow the deterioration of other roads and bridges. Finally, it is possible that, if critical infrastructure were restored to adequate condition, at state expense, current-funding levels might be sufficient to address ongoing local government infrastructure needs. Providing one-time funding could serve as a pilot program designed to determine whether existing funding is sufficient to meet local government's on-going maintenance needs. Problems with existing data make it difficult, if not impossible, to say whether existing funding would actually be sufficient if critical infrastructure were repaired.

Advantages and Disadvantages of One-Time Funding for Critical Roads and Bridges

Advantages	Disadvantages
Would promote the safety of the transportation network	Would increase the fiscal burden on Ohio taxpayers
Would promote fiscal flexibility for local governments	Might leave local governments with a continuing shortage of funds in the absence of any increase in ongoing sources of revenue
Provides an opportunity for targeting assistance to particular types of local government or particular types of infrastructure where there is significant need	Might provide local governments with additional incentive to overstate cost figures reported to Public Works Commission and to overstate the amount of critical infrastructure
Could serve as a sort of experiment to help determine whether existing revenue sources are sufficient for local governments' on-going maintenance needs	

Option 2: Increase the Motor Vehicle Fuel Tax (or Gas Tax)

The Motor Vehicle Fuel Tax (MVFT), commonly known as the "gas tax," is the largest state revenue source distributed to local governments for their transportation needs. The MVFT is an excise tax assessed on a per gallon basis. The current tax rate is 22 cents per gallon. Implementing this option would require legislative action as the tax rate was "frozen" in 1993.

Assuming there is no sustained increase in the real gas price,[2] changes in the gas tax rate could raise significant revenues, as consumers are less sensitive to relatively small price changes resulting from taxation given the larger effect from actual changes in the price of gas.[3] Table 1B below provides an estimate of additional motor fuel tax revenues for higher excise tax rates when compared to historical tax collections between FY 1995 and FY 2000. These figures may be somewhat high, as they do not allow for a decrease in motor fuel demand that may result from increases in the motor fuel tax rate. Historical gross tax collections are from the Department of Taxation Annual Report, FY 1999. Taxable gallonage for FY 2000 is estimated from historical trends.

[2] The "real gas price" is the price of gasoline after adjusting for inflation. Accordingly, an increase in the real gas price would be a situation in which the price of gasoline was increasing *faster than* other prices in the economy.

[3] Goel, Rajiv. 1994. *Quasi-experimental taxation elasticities of U.S Gasoline Demand*, Energy Economics, 1994 Volume 16, No 2.

The table shows that a one cent increase in the gas tax rate, to 23 cents per gallon, would have increased annual tax collections from $59 to $65 million between FY 1995 to FY 2000. For the same period, an excise tax rate of 25 cents per gallon (a three cent increase) would have increased annual gross receipts from $176 to $195 million.

Table 1B: Estimated Additional Revenues for Higher MVFT Rates, FY1995-FY2000*
(Millions of Dollars)

Fiscal Year	Taxable gallons	Actual Tax Collections[4]	Plus 1 cent: 23 cents/gal	Plus 2 cents: 24 cents/gal	Plus 3 cents: 25 cents/gal
1995	5,905,325,731	$1.29	$58.7	$117.5	$176.2
1996	6,039,674,854	$1.32	$60.1	$120.1	$180.2
1997	6,146,009,562	$1.34	$61.1	$122.3	$183.4
1998	6,309,798,198	$1.39	$62.8	$125.5	$188.3
1999	6,440,072,503	$1.42	$64.1	$128.1	$192.2
2000	6,516,618,240*	$1.43**	$65.2	$130.3	$195.5

*These figures may be somewhat high, as they do not allow for a decrease in motor fuel demand that may result from increases in the motor fuel tax rate.

** Estimated from previous fiscal years (Actual motor fuel consumption data for FY2000 is not available)

Table 1C presents a forecast of additional fuel tax revenues for FY 2000 through 2005 for higher excise tax rates compared to the current rate of 22 cents per gallon. The forecast accounts for decreases in motor fuel consumption following the tax increases. It further assumes annual growth rates of 2.3 percent in Ohio personal income growth and 1.3 percent in gas prices.[5] Table 1C shows that an increase in the gas tax rate to 23 cents per gallon would provide additional revenues of $58 to $64 million in the next few fiscal years. Increasing the excise tax to 25 cents/gallon, or an additional 3 cents, will generate an additional $173 to $188 million.[6] However, a sustained rise in gas prices and/or an

[4]Actual tax collections are usually less than potential tax revenue (obtained by multiplying taxable gallons by 22 cents/gallon) because of deductions, refunds and credits (see ORC 5735.05 and 5735.06) and tax avoidance. For FY95, FY96 and FY97, actual collection rates were lower than in FY98 and FY99. This explains higher additional tax revenue at higher tax rates for those FY95, FY96, and FY97 as opposed to for added revenues in FY98 and FY99. For fiscal year 2000, actual tax collections are assumed to equal estimated potential tax revenues.

[5] To forecast future fuel tax revenues, key assumptions must be made regarding growth rates of disposable income and gas prices, the main drivers of motor fuel demand in the short-term. No assumptions were made for population growth, changes in the stock of cars or fuel efficiency. Growth rate in yearly disposable income was provided by WEFA, an econometric and forecasting group. WEFA's moderate trend outlook predicts Ohio personal income will grow at an annual rate of 2.3 percent. Growth rate for gas prices was obtained from the Energy Information Administration (EIA) of the U.S. Department of Energy, and is based on EIA's long-term outlook for motor fuel prices. These assumptions are maintained in the estimations. However, calculations include a short-term rise in gas prices for CY 2000 and a return to moderate gas prices in CY2001.

[6]Depending upon how the language for an increase in the MVFT was structured, raising the MVFT could also increase the motor vehicle fuel use tax rate and revenues collected. The General Assembly would need to consider this impact when contemplating any MVFT increase. Currently, ODOT receives fuel use tax revenue to retire highway bond debt service and to fund state highway construction. In FY 1999, the fuel use tax generated about $64 million, of which about $48 million went to fund state highway construction.

economic recession could reduce motor fuel demand further than the tax rate changes contemplated above, resulting in less revenues than the amounts estimated in the table.

Table 1C. Estimated Additional MVFT Revenue for Higher MVFT Rates, FY 2002- FY 2005

Tax Rate Per Gallon	FY 2002	FY 2003	FY 2004	FY 2005
23 cents	$ 58,549,645	$ 60,329,918	$ 62,172,652	$ 63,675,355
24 cents	$116,234,260	$119,794,806	$123,480,274	$126,485,681
25 cents	$173,053,844	$178,394,664	$183,922,865	$188,430,975
26 cents	$229,008,398	$236,129,491	$243,500,427	$249,511,240

In addition to raising a significant amount of revenue, an advantage to raising the MVFT is that it involves an existing tax collection system. Administration of the tax is in place and consumers are already accustomed to this tax. Therefore, the costs of implementing changes would be small.

On other hand, there are some disadvantages to increasing the MVLT that merit consideration. Obviously, increasing the tax rate raises the tax burden for all Ohioans. To the extent that Ohio is in competition with its neighbors, increasing the excise tax could negatively impact the competitive balance. Ohio motor fuel tax rates are already higher than Indiana (19 cents/gallon), Kentucky (16.4 cents/gallon), Michigan (19 cents/gallon), but still lower than Pennsylvania (25.9 cents/gallon) and West Virginia (25.35 cents/gallon). This may be of importance to businesses and consumers in border counties. Although it is unlikely a minor tax increase will significantly change the overall demand for motor fuels, a tax hike may push some Ohioans to consider buying motor fuels out-of-state, thus reducing sales in certain counties.

Also, if one assumes that motor fuel consumption is a necessity, a tax rate increase would harm lower-income citizens more because they would have to spend a higher share of their income on motor fuels. Therefore, raising the excise tax rate may increase the regressivity of the gas tax for lower-income citizens.

Advantages and Disadvantages of Increasing the MVFT or Gas Tax

Advantages	Disadvantages
Increases revenues	Increases tax burden on Ohioans
Easy to implement; small changes to an existing system	Increases motor fuel excise tax differential with some neighboring states
Stable revenue source that is sensitive to small changes in tax rates	Makes tax more regressive; lower-income citizens would spend a higher share of their income on transportation needs
May decrease growth of motor fuels consumption, thereby helping to reduce emissions.	May decrease growth of motor fuels consumption, thereby reducing revenue growth

Option 3: Realign Funding for Certain Department of Public Safety Activities

In fiscal year 1998, approximately $161.4 million in motor vehicle fuel tax (gas tax) revenues were used to support expenses within the Department of Public Safety (DHS).[7] As shown in the following table, the bulk of these funds (about $149 million) supported activities of the State Highway Patrol (SHP). Approximately $8 million was used for the Department's Administrative Division and approximately $5.1 million was transferred to the Department of Health (a statutory requirement) to pay for indigent person's hospital expenses if their injuries resulted from auto accidents. Thus, the combined operating costs for the State Patrol and Administrative Division would total approximately $156 million annually. Table 1D shows the history of the State Highway Patrol's draw on MVFT revenue.

Table 1D: Motor Vehicle Fuel Tax Revenue Supporting the State Highway Patrol
(Millions of Dollars)

Fiscal Year	Appropriated	Disbursed
1991	$108.0	$94.8
1992	$115.4	$101.4
1993	$126.4	$111.3
1994	$141.2	$123.4
1995	$144.5	$128.3
1996	$148.5	$136.9
1997	$152.4	$142.7
1998	$158.5	$148.7

If the State Patrol and Administrative Division were funded from a source other than the gas tax, and if the gas tax continued to generate funds at its current rate, then the "freed-up" revenue could be used to increase support to local governments for infrastructure purposes.

Of course, an alternative source of revenue must be found to ensure the continuous and continued operation of these DHS activities. The following funding alternatives are presented as options to examine potential funding alternatives for certain DHS operations, and thus, fully or partially reduce DHS's dependence on the gas tax.

Option 3.1: Shift funding for certain DHS activities from the gas tax to the to motor vehicle license tax (license plate fees)

Under this option, all gas tax revenues supporting the Ohio State Highway Patrol and the Department of Public Safety's Administrative Division would be replaced with existing

[7] A number of legislative changes have been implemented over time to reduce the agency's reliance on fuel tax funding including: (1) allowing funds to retain earned interest, (2) having driver license fee revenues be paid solely into the State Highway Patrol's operating account, (3) increasing various agency fees, (4) shifting funding for the "parking lot detail" at the State Fair from fuel tax revenue to fine revenue, (5) allowing for transfers of cash balances to offset fuel tax funded appropriations – in FY00 $1.3 million was shifted to the State Patrol, and (6) through biennial budget reductions.

state MVLT (license plate fee) revenue.[8] Simultaneously, the exact amount of revenue from the state portion of the MVLT, currently distributed to local governments for transportation infrastructure needs, would be replaced with existing gas tax revenue. The end result is a swap of funding sources, intended to be revenue-neutral for all parties involved. While it does not increase the availability of funds for local governments, this option provides a better alignment of revenue sources with funding uses.

Assuming DHS's funding needs are similar to past years, there would be enough state MVLT (license plate fee) revenue available to replace the amount of gas tax receipts that DHS currently receives. Using 1999 revenue figures and 1998 cost figures, the table below presents an example of how state motor vehicle license tax revenues, currently going to local governments, could be affected under this option.

Table 1E: Impact of Option 3.1 on MVLT Revenue Available to Local Governments

1999 MVLT Revenue Distributed to Local Governments	1998 SHP and DHS Administrative Expenses	Remaining MVLT Revenue Available for Local Governments
$323,209,287	$156,289,446	$166,919,841

Source: Ohio Bureau of Motor Vehicles License and Permissive Tax Revenue table & State Highway Patrol summary information

Table 1E shows there would be approximately $156 million less state MVLT revenue available for distribution to local governments, but this amount would be replaced with $156 million in MVFT (license plate fee) revenues. To maintain revenue neutrality for specific jurisdictions, the gas tax funding would have to be distributed in the same way as current state MVLT revenues are distributed. The relationship between this alternative and any potential future increase in the state motor vehicle license tax might need to be considered jointly.

Advantages and Disadvantages of Funding Shift

Advantages	Disadvantages
As proposed, this alternative could be implemented in a revenue neutral manner for local governments and DHS	Would shift funding from a source provided by in-state and out-of-state residents (all of whom benefit from Department of Public Safety activities) to only in-state residents
Would not require any fee increases for the public	Could require the Department of Public Safety to potentially request fee increases over time if additional revenues are required to support programs
From an oversight perspective, this option may be considered an advantage in that flat fee increases, such as increasing the MVLT, cannot be adjusted to meet additional needs without additional governmental authority	From an agency perspective, this option may be considered a disadvantage because increasing a flat fee like the MVLT to meet additional needs cannot be done without additional governmental authority
Would more closely tie motor fuel taxes directly to construction and maintenance of transportation projects	
Would shift funding source to the	

[8] This would in no way affect permissive local motor vehicle license taxes.

Advantages	Disadvantages
agency that determines expenditure plans (Department of Public Safety) and eliminates the inter-agency competition for motor vehicle fuel tax revenues	

Option 3.2: Increase certain fees to help reduce DHS's use of gas tax revenues

Certain DHS fees could be increased and the additional revenues could be used to pay for some or all of DHS' expenses currently funded with MVFT revenues. Such fee changes could free-up gas tax revenue that could then be distributed to local governments.

The Department of Public Safety is responsible for assessing a wide variety of fees. The following three fees are simply examples to consider for a modest increase. The current fee, a suggested increase, and the amount of revenue that would be generated from that increase are presented below. In total, such changes could result in total additional revenues of $39 million per year.

Title Fee Increase: If the current title fee were increased from $5 to $10, approximately $34 million in additional revenue could be generated annually.

Driver Abstract Fee: Increasing this $2 fee by $1 to $3 could generate additional revenue of approximately $4 million per year.

Commercial Trailer Fee: Increasing this $25 fee to $30 could result in additional revenues of approximately $1 million annually.

Advantages and Disadvantages of Increasing Fees

Advantages	Disadvantages
Would more closely tie a portion of motor fuel taxes directly to construction and maintenance transportation projects	Would shift funding from a source provided by in-state and out-of-state residents (all of whom benefit from Department of Public Safety activities) to only in-state residents
Would shift some additional funding responsibilities to the Department of Public Safety that determines expenditure plans and reduce some of the inter-agency competition for motor vehicle fuel tax revenues	Would require the Department of Public Safety to potentially request fee increases over time if additional revenues are required to support programs
From an oversight perspective, this option may be considered an advantage in that flat fee increases cannot be adjusted to meet additional needs without additional governmental authority	From an agency perspective, this option may be considered a disadvantage because flat fee increases cannot be adjusted to meet additional needs without additional governmental authority
	Would increase fees paid by the public

Option 3.3: Change the distribution of certain fine revenue

In FY 1999, the State of Ohio received over $6 million in fine revenue. Generally speaking, current law requires that 45 percent of any fine revenue resulting from a state law violation be deposited into the state's General Revenue Fund. [9] If all of these funds were distributed directly to DHS to support daily operations, there would be a reduced need for gas tax revenues and ultimately more money could be made available for distributions to local governments.

Under ORC 4501.11, four different Department of Public Safety budget line items receive funding from a portion of the collected fines:

- 764-607, State Fair Security
- 764-626, State Fairground Police Force
- 761-667, Security Assessment
- 764-617, Security and Investigations

Table 1F below provides a six-year summary of Total Fine Revenue and Distributions to the Department of Public Safety. From FY 1994 to FY 1999, total costs for the above line items have ranged from $2.6 million to $5.8 million. This data suggests that State Patrol is using a larger portion of GRF fine revenue over time, and it may make sense to distribute these revenues directly to the department .

Table 1F: Total Fine Revenue and Distributions
Department of Public Safety, FYs 1994 – FY 1999
(Millions of Dollars)

Fiscal Year	State Fine Revenue Remitted to the General Revenue Fund	Fine Revenue Used for DHS Costs	Fine Revenue Remaining in GRF
1994	$10.0	$2.8	$7.2
1995	$11.8	$2.6	$9.2
1996	$11.4	$4.4	$7.0
1997	$11.4	$3.9	$7.5
1998	$11.1	$5.6	$5.5
1999	$12.3	$5.8	$6.5
6-Year Average	**$11.3**	**$4.2**	**$7.1**

[9] The specific distributions are detailed under ORC 5503.04.

Advantages and Disadvantages of Changing Fine Distribution Formulas

Advantages	Disadvantages
More fine revenue could reduce DHS dependency on the MVFT and could free up additional revenues to fund local government transportation needs	Reduces the amount of incoming GRF revenue directly attributable to violations of state law. However any reduction may be mitigated by a similar reduction in GRF allocations to DHS
Provides a more direct link between Public Safety-generated revenues and Public Safety-related expenditures	Possible public perception concern because the Highway Patrol would be directly benefiting from fine revenue generated as a result of Patrol arrests
A large percentage of fines currently support State Patrol purposes, therefore, it may be reasonable to direct all of these revenues to pay for State Patrol operations	

Option 4: Increase the State Motor Vehicle License Tax (license plate fee)

Ohio has not increased the state's share of the motor vehicle license tax since 1980. Increasing the state fee could provide additional revenues for local government transportation purposes. For example, if a $5 increase were enacted, approximately $58 million in new revenue could be generated and dedicated for local government infrastructure uses. If the new revenues were equally divided among all counties, an average of about $659,000 per county would be distributed annually. If equally divided among Ohio's 2,260 municipalities and townships, an average of $25,700 per municipality and township would be distributed per year.

Advantages and Disadvantages of Increasing the State Motor Vehicle License Tax

Advantages	Disadvantages
State MVLT has not been increased in 20 years	The amount paid is not tied to use, like the motor fuel tax, therefore all vehicle owners will pay the same flat rate regardless of how much they actually use local roads
Statewide revenues could be distributed to local governments that lack the capacity to raise revenues on their own	Local governments are best able to determine their needs and revenues should be raised only when additional funds are needed
Easily implemented and easily understood method for raising revenue	Makes the tax more regressive by raising everyone's fee the same amount
From an oversight perspective, flat fee increases my be advantageous because they cannot be adjusted to meet additional needs without additional governmental authority	From a local government perspective, flat fee increases cannot be adjusted to meet additional needs with additional governmental authority
	MVLT is only paid by state residents and does not require additional funds be paid by residents from other states who use Ohio's infrastructure and thus contribute to Ohio's transportation needs

Option 5: Convert to a New Vehicle Registration (license plate) Fee System

Currently, owners of passenger automobiles in Ohio must pay a flat $20 annual vehicle registration fee. Over half of the states in the U.S. have this kind of "flat-rate" registration fee for automobiles. In comparison, nearly all 50 states have a weight-based registration fee system for trucks. Flat automobile registration fees vary throughout the country. For example, Kentucky charges a fee of $11.50 while Illinois charges a $24 fee.[10] Iowa, Louisiana, Michigan, Minnesota, and Oklahoma use vehicle value in the calculation of passenger vehicle registration fees.[11]

States have implemented four basic options for assessing registration fees (these options can be combined and fee amounts can be indexed to increase on a regular basis):

[10] *Ohio's Taxes 1998*, Ohio Department of Taxation.
[11] *Final Report: Transportation Finance Study Committee*, State of Wisconsin, pp. 50, 1996.

- Flat fee
- Fee based upon the age of the vehicle
- Fee based upon vehicle weight
- Value-based fee

For example, a value-based registration system for automobiles would require owners to pay an annual registration fee based upon the value of the vehicle. A fee schedule would be used to determine the fee, based upon each increment of value. One value-based option would have fees ranging from $20 to $50, depending upon the manufacturer's suggested retail price (MSRP) and the age of the vehicle. Cars of the current model year would pay the full fee with the fee decreasing 10% per year to a 50% minimum level. Cars five years or older in the first year of implementation could be grand fathered in and charged a flat fee or the sixth-year fee in the fee schedule. The minimum fee would be $20. Table 1G below presents one possible example for how a value-based fee schedule might be structured and calculated.

Table 1G: Possible Example Schedule for Value-Based Registration Fees

Vehicle Value	***Vehicle Model Year***					
	Year 1 2000 (100%)	Year 2 1999 (90%)	Year 3 1998 (80%)	Year 4 1997 (70%)	Year 5 1996 (60%)	Year 6 1995 (50%)
Up to $9,999	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00
$10,000 - $14,999	$21.25 to $26.25	$20.00 to $23.63	$20.00 to $21.26	$20.00	$20.00	$20.00
$15,000 - $19,999	$27.50 to $32.50	$24.75 to $29.25	$22.28 to $26.33	$20.00 to $23.69	$20.00 to $21.32	$20.00
$20,000 - $24,999	$33.75 to $38.75	$30.38 to $34.88	$27.34 to $31.39	$24.60 to $28.25	$22.14 to $25.42	$20.00 to $22.88
$25,000 - $29,999	$40.00 to $45.00	$36.00 to $40.50	$32.40 to $36.45	$29.16 to $32.81	$26.24 to $29.52	$23.62 to $26.57
$30,000 - $32,999	$46.25 to $48.75	$41.63 to $43.88	$37.46 to $39.49	$33.72 to $35.54	$30.34 to $31.98	$27.31 to $28.79
$33,000 or more	$50.00	$45.00	$40.50	$36.45	$32.81	$29.52

In 1996, the state of Wisconsin estimated the amount of additional revenue that would be generated by switching from a $40 flat fee to a value-based fee, but with fees ranging from $40 to $100. The state of Wisconsin estimated that it could generate an additional $8 million in 1997 if it changed from a flat fee to value-based fee with a schedule increase similar to the example schedule presented above. Wisconsin estimated that over the next decade the additional revenue generated would increase by an average of 15 percent to $30 million in 2006.[12]

Assuming that Ohio would realize a similar percentage increase in its automobile registration revenue if it went to a value based system with fees ranging from $20 to $50, Ohio could expect to raise amounts significantly higher than these estimates for Wisconsin, as Ohio has more than twice as many registered automobiles than Wisconsin.[13] However, the actual revenue generated could vary widely depending upon the particular system implemented.

[12] *Final Report: Transportation Finance Study Committee*, State of Wisconsin, pp. 58, 1996.
[13] Data on registered automobiles comes from *Highway Statistics '98*, Federal Highway Administration.

Advantages and Disadvantages of Value-Based Registration System[14]

Advantages	Disadvantages
Provides a dynamic revenue stream that would grow as car prices increase	Fee has no direct relation to road use and would not be paid by non-residents
Generates revenue in a more progressive fashion than a flat fee, with those able to purchase more expensive cars paying a higher fee	Some residents' fees could increase by more than 100% and the fee structure would likely be confusing to the public
There are several state models that can be examined for application in Ohio	This system would be more complex to administer and changing to a new system would require additional administrative costs, including spending time and money to educate automobile dealers, deputy registrars, and the public
There is software available to estimate vehicle values	Sales not made by automobile dealers may require a deputy registrar to determine the fee

Alternatives for State Level Implementation – Cost Savings Measures

Option 6: Develop Statewide Pavement Management Guidelines

In order to maximize resources used to maintain local roads, a set of statewide pavement management guidelines could be developed to aid local governments. Effective pavement management includes performing preventive maintenance that can add 5 to 10 years of life to existing pavement surfaces, resulting in significant cost savings.[15]

A committee of local government officials, experts, and interested parties, chaired by ODOT, could be convened to develop pavement management guidelines and other road and bridge maintenance standards. When the standards are agreed to, the General Assembly could set aside funding to support a pavement management pilot program, with selected cities and counties participating.[16] ODOT and the local governments in the pilot program would work together to evaluate the usefulness and the financial benefits of these preventive maintenance standards and report their findings to the General Assembly.

Once the standards are finalized, local governments seeking Public Works Commission funding also could be required to follow these standards in order to be eligible to receive funds.

[14] Adapted from *Final Report: Transportation Finance Study Committee*, State of Wisconsin, pp. 54-55, 1996.
[15] According to a study conducted by the Michigan Department of Transportation cited in *Innovative Concepts for Preventive Maintenance*, July 29, 1997, pg. 10)
[16] The state of Michigan began its preventive maintenance program with $12 million annually.

Advantages and Disadvantages of Developing Pavement Management Guidelines

Advantages	Disadvantages
Help ensure that local governments are using the best techniques for managing local infrastructure	Will require a lengthy and time consuming effort on the part of ODOT and local governments
Could result in long term cost savings	Would require up-front expenditures to develop
Could help maximize benefits from dollars spent and improve condition of infrastructure	Another mandate on local governments

Alternatives for Local Level Implementation – Additional Revenue

Option 7: Increase the Cap on Local Motor Vehicle License Tax (license plate fee)

Current law effectively caps the amount of local motor vehicle license tax (LMVLT) that may be charged at $20 per registration. Increasing this cap could allow local governments to generate additional revenue to meet their transportation needs. There are endless possibilities for how the current MVLT system could be changed and the tax increased. Two possibilities are presented here. Under either scenario, total LMVLT fees would not be allowed to exceed $40, thus making the total MVLT fee no more than $60 across the state.

1. Local governments could be permitted to assess additional $5 levies up to an additional maximum of $20, bringing the total possible assessment to 40 dollars. Under this scenario all local governments could raise additional revenue if an additional levy were approved. This option would keep the structure of the current MVLT system in place.

2. Each county, township, or municipality could be permitted to enact up to two $5 levies, regardless of the levies other local have governments already enacted. In addition to generating more revenue for local governments, this alternative would greatly simplify a system that is very complex. This alternative could work as follows:

   - Counties could enact one or two additional $5 levies that would total no more than $10, with all revenues being distributed to the county.

   - Municipalities could enact one or two additional $5 levies that would total no more than $10, with all revenues being distributed to the municipality.

   - Townships would also be able to enact one or two additional $5 levies that would total no more than $10, with all revenue being distributed to the township.

Tables 1H and 1I illustrate potential maximum revenues that may be generated *if all local government units enact either a $5.00 or $10.00 additional levy for a total increase of*

either $10.00 or $20.00. While the tables show the revenue that could be gained if local governments could enact additional levies, it is very unlikely that this amount would be raised. It is more likely that only a portion of local governments will choose to enact additional levies. Past history supports this assumption. For example, between the years 1988 and 2000, on average, 38 of 88 counties, 141 of 984 municipalities, and 301 of 1,309 townships have enacted at least one of their local levy options.

Table 1H: Potential Revenue Gains from Increasing Local MVLT Authority by $20
(Millions of Dollars)

Local Government Vehicle Registration Locations	1999 Vehicle Registration Volumes	New Additional Levy Amount	Maximum Potential Additional Revenue
Municipalities	7,239,024	$10.00	$72.4
Townships	4,342,676	$10.00	$43.4
Counties	11,581,700	$10.00	$115.8
Combined Total Gain	**11,581,700**	**$20.00**	**$231.6**

Table 1I: Potential Revenue Gains from Increasing Local MVLT Authority by $10
(Millions of Dollars)

Local Government Vehicle Registration Locations	1999 Vehicle Registration Volumes	New Additional Levy Amount	Maximum Potential Additional Revenue
Municipalities	7,239,024	$5.00	$36.2
Townships	4,342,676	$5.00	$21.7
Counties	11,581,700	$5.00	$57.9
Combined Total Gain	**11,581,700**	**$10.00**	**$115.8**

Advantages and Disadvantages of
Permitting Additional Local License Plate Tax Levies

Advantages	Disadvantages
Would allow local governments to raise additional revenues for transportation purposes, could be particularly beneficial to certain highly populated jurisdictions.	Not likely to be used by many local governments, particularly less populous jurisdictions
Could provide for a less complex system of raising MVLT revenue	Would result in motor vehicle license fee increases to the public
Existing funding mechanism previously approved by the state and some local governments	

Option 8: Allow Counties to Enact a Local Motor Vehicle Fuel Tax for Bridge Replacement and Repair

During investigation for this report, LBO found that numerous county bridges are in need of repair or replacement, and funding to address this problem is currently unavailable. Of the 25,898 bridges maintained by counties, approximately 16% (or 4,143 bridges) were reported to the Public Works Commission (PWC) as being in poor or critical condition. This finding concerned LBO staff because the failure of a road in critical condition would be dangerous but not life threatening; the failure of a bridge in critical condition could

endanger the lives of the general citizenry. Therefore, the following funding option permits a dedicated revenue source for county bridge repair.

The state currently collects a 22 cents per gallon excise tax on motor vehicle fuel. As stated in Part Three of this report, a portion of this tax is provided to local governments for *general* infrastructure needs. Option 2 discussed increasing the state gas tax to increase that source of revenue. This funding option suggests a change in statute to permit counties to enact a local, one-cent gas tax (in addition to the state excise tax) solely for the purpose of replacing and repairing county bridges.

If all counties in the state exercised the right to increase the motor fuel excise tax by one-cent, all counties together could raise between $58 and $64 million per year. Table 1J below shows the additional revenue increase over a four-year period.[17] Unfortunately, county fuel consumption figures are not readily available to LBO and, therefore, it is difficult to determine how much specific counties could generate.

Table 1J: Estimated additional motor fuel tax revenues at higher excise tax rates, FY02-05
(Millions of Dollars)

Tax rate	FY2002	FY2003	FY2004	FY2005
23 cents/gallon	$58.5	$60.3	$62.2	$63.7

One concern about this funding option would be the tendency of some fuel purchases to shift to counties not exercising the local one-cent option. Although this is possible for people residing on the border, it would appear that the majority of the county would not notice the one-cent difference relative to all other possible fluctuations in the price of fuel. Driving to another county to save a few cents would not result in a true savings to the individual.

As discussed in Part Two of this report, one estimate for need is the information self-reported by political subdivisions to the PWC. [18] Based on this PWC data, LBO estimates a county need of $57.8 million for bridges in critical condition and $220.3 million for bridges in poor condition. Although a number of sources of revenue can be used to address this need, a dedicated local tax option provides counties the ability to raise these funds as deemed necessary. For some counties, bridge repair and replacement is the largest, single infrastructure item they have.

For example, Cuyahoga County is responsible for 24 road miles, due to the large amount of incorporated area in the county, but maintains ongoing responsibility for 209 bridges. Of these bridges, 104 (or 50%) are currently reported to be in poor or critical condition. According to PWC data, Cuyahoga County has no need for funds to fix any of its road miles but has a need around $71.0 million (reported January, 1999) to fix 104 poor and critical bridges within its boundaries. As stated earlier, motor fuel consumption by county

[17] Please note that this option is independent of the previous discussion that would increase the state motor fuel tax from 23 to 26 cents per gallon. If this local option were exercised to raise the motor fuel tax to 27 cents per gallon, less additional funds would be raised because some people would consume less fuel. Fuel consumption is relatively inelastic so this decrease would be small.
[18] Please see Part 2 for a greater discussion of need as estimated by LBO based on PWC data.

is not readily available, so LBO was unable to determine how much Cuyahoga County could raise if they exercised this local option.

In another example, Miami County is responsible for 436 road miles and 349 bridges. The county reported that 16 road miles (or 4%) are in poor and critical condition (PWC, October, 1999). The county also indicated it would cost $1.2 million to repair these 16 road miles. Additionally, the county reported that 75 bridges (22% of the total) are in poor and critical condition. To repair these 75 bridges, the county reports to the PWC that it will cost $12.3 million to bring the bridges to excellent condition. Under this funding option, the county could choose to add the one-cent motor fuel excise tax until these 75 bridges are repaired or replaced.

Admittedly, most counties are not in the same situation as Cuyahoga County and are closer to the situation in Miami County. If a county does not wish to exercise their local option strictly for bridges, then they would not have to pursue this funding option. Most counties do have some poor and critical bridges and could use this dedicated source for a limited number of years and then allow the option to expire. When significant bridge needs again resurface, the option can be reconsidered.

Advantages and Disadvantages of Permitting a Local Option Fuel Tax

Advantages	Disadvantages
Increases revenues for certain counties	Increases tax burden of certain counties
Permits counties to raise funds based on self-determined needs	Increases motor fuel excise tax differential with some neighboring states and counties
Stable revenue source; less sensitive to small changes in tax rates	Increases the regressivity of the tax; lower-income citizens would spend a higher share of their income on transportation needs
May decrease growth of motor fuels consumption, thereby helping to reduce emission	May decrease growth of motor fuels consumption, thereby reducing revenue growth
	Additional administrative costs in collecting fuel consumption data by county.

Alternatives for Local Level Implementation – Cost Savings Actions

Option 9: Permit Local Governments to Use Design-Build Process

The design-build method is a way of consolidating the contracting and building process for public improvements. It varies from the traditional process where the design-phase and the construction-phase of a project are bid separately. This process can be quicker than traditional methods of bidding, and research has also suggested that it can be more cost efficient. Under design-build, a single contract is sought and teams of design firms and construction contractors join forces to bid on a project, incorporating both design and construction elements in their proposal. For certain types of projects, using design-build can result in a notable savings of time and cost.

In recent years, the Ohio Department of Transportation (ODOT) has used the design build process on certain projects. In 1995, the General Assembly authorized use of the

design build technique for state projects after federal legislation permitted federal moneys to be used on design-build projects.[19] Federal law stipulates that states may employ the design-build contracting technique for projects costing $50 million or more. In fact, over 20 states have undertaken projects using design-build. The use of a single contract can save a significant amount of time in the initial review, design, and construction of the project. Whether or not design-build should be used on a project depends upon technical factors and the estimated price of the project.

Initial ODOT experience with six pilot projects using design-build suggests possible cost savings between 10% and 15%, and potential time saving of approximately 6 months. These pilot projects had relatively small contract amounts, ranging from $1 to $10 million. However, with larger projects to be undertaken during FY 2000 and FY 2001, ODOT expects more significant time saving.

For example, ODOT anticipates that it will only take about 6 months from the point of a project's conception to the point when construction actually begins. Under the traditional process, where the bidding and selection of firms for the design-phase and the build-phase occur separately, the time from project conception to the beginning of construction could take from 2 to 3 years. In addition to these initial time and cost savings, ODOT expects to reduce the number of project delays resulting from fewer design/contractor issues. Due to its positive experiences with design-build, ODOT has slated 15 such projects for FY 2000 and 14 for FY 2001.

The ideal design-build project is one that is free of any of the elements that would hamper an accelerated time line. These include environmental documentation, right-of-way purchases, and utility relocation work. ODOT currently includes Local Public Agencies in the design-build process by allowing the agency to include its project tasks in the contract under a separate agreement. Of course this separate agreement is funded 100% by the local government.

Enabling legislation would be required to allow townships and non-charter counties to use design-build methods on local projects. Counties and large cities are most likely to benefit from design-build, as they are more likely to have kinds of projects and the technical expertise needed to effectively use the process.

Advantages and Disadvantages of Design-Build Legislation

Advantages	Disadvantages
Time savings in the project bidding process and less construction delays	Design-build is not beneficial if hampered by unforeseen construction delays or for problematic projects
Cost savings for many projects, particularly for counties and large cities	Many projects may not benefit from the use of design-build and using the process could actually increase costs in certain instances

[19] Six design-build pilot projects were authorized by the General Assembly in 1996. In 1999, ODOT was authorized to undertake construction projects utilizing design-build through June 2001, with a total contract amount not to exceed $250 million.

Option 10: Encourage Group Contracting with Counties

Each year the Franklin County Engineer cooperates with townships in the county to bid one pavement maintenance contract. In doing so, the townships are able to take advantage of the county engineer's expertise and obtain a better price on the cost of road maintenance work. County government responses to the LBO survey suggest that local governments could save more than 15% through group contracting and bidding. However, the survey data also show that over 50% of counties have not participated in a group contract in the past five years.

The General Assembly could take several steps to encourage and facilitate this type of cooperation, which would enable the state, local governments, and Ohio citizens to get more for their money. At a minimum, County Engineers could be required to permit townships to participate in group contracting for transportation related goods and services. For example, if a township needed road resurfacing work to be done, it could seek to include its project work as part of the County's resurfacing project contract. As counties have a long history of cooperating with townships on various issues and many counties already use group contracting in some form, implementing this provision should not be unduly burdensome.

A further expansion of this option would be to permit any village or small city to participate in group contracting with their respective county. Small governments seem most likely to benefit from the expertise and purchasing power of the county because they have small contracts to bid and often do not have work to bid every year. If enough local governments in a county participate in a group bid for goods or services, the county may also realize significant cost savings, and perhaps even additional income if allowed to charge an administrative fee to cover the cost of an expanded bidding process.

However, simply permitting small governments to take advantage of this option does not guarantee it will be used. Therefore, the General Assembly could consider revising the Public Works Commission (PWC) scoring process to award points to county and township projects bid as a group contract.

Advantages and Disadvantages of Group Contracting with Counties

Advantages	Disadvantages
Due to economies of scale, participation should result in cost savings, therefore, maximizing the benefit received from state and local dollars spent	Creates a new mandate for county engineers
Would empower local township officials to work with the county when beneficial	Will not ensure that local governments are taking advantage of the time and cost savings that often result from group bidding
Counties could be permitted to charge a fee to cover administrative costs	
Many counties already engage in group contracting with townships suggesting that it is a workable option	

II. Possible Changes in the Allocation of State Resources to be More Responsive to Local Needs

Observations: Ohio's Current Transportation Finance System

Option 11: Improving the Responsiveness of State Funding to Local Need

Because need is such a subjective term and the possible methods of distribution that could be developed to respond to local needs are limitless, LBO does not attempt to offer a definitive answer to this question. However, some guidance can be offered regarding which factors should be considered in developing a method of distributing resources that is more responsive to local needs.

Many aspects of Ohio's current distribution methods make no attempt to account for need. State revenue distributions initially allocate funding based upon type of government (i.e. county, municipality, township), which has little direct bearing on infrastructure need or repair costs. For example, cities are lumped with villages as municipalities for initial fund allocations, despite the fact that the cities have much greater needs than villages. The current system treats villages and cities similarly even though their circumstances are not at all similar. Also, within government type, allocations for townships and counties too often do not account for any measure of need.

A system maximally responsive to need would have an infrastructure focus. Such a system would allocate money largely based upon some measure of need or cost, not based upon political jurisdiction. If the General Assembly wanted to provide funding to local governments in fiscal distress or with limited taxing capacity, using some measure of community transportation needs and some measure of fiscal distress could accomplish this task.

Obviously, certain need criteria will have advantages over other need criteria. For example, allocating funds based on the number of motor vehicle registrations rewards more populous communities, which are likely to have more roads to maintain and more daily traffic (which hastens the deterioration of infrastructure). However, this measure does not take into account non-resident traffic, which can be significant for some local jurisdictions, particularly at the county level. Also, more populous communities may be better able to raise their own revenue relative to less populous jurisdictions; thus, less populated jurisdictions might require relatively more state assistance.

Because different measures of need reflect different priorities, a maximally responsive system should encompass more than one measure of need to allocate funds. For example, such a system could allocate a portion of funding based on road miles, a portion based on bridge feet maintained, some based on a road condition rating, and some based on registrations, etc. While a *mix* of need criteria can help balance out the advantages and disadvantage of specific measures, it is also important to be sure that the measures chosen can be fairly easily collected and are comparable across jurisdictions.

Presumably, a system could be designed that is significantly more responsive to local needs (allocating funds based upon at least two or more measures of need) and yet is less complex than the current distribution system. Listed below are some commonly used measures of need, with a brief description of their advantages and disadvantages.

Number of Lane Miles/Bridge Feet: This criterion closely measures of the amount of infrastructure requiring periodic maintenance. The criterion does not measure the condition of a road or bridge, the traffic volume on the infrastructure, or other factors affecting maintenance costs. Also, it provides no information regarding the need for new or expanded infrastructure, nor does it reveal if the road or bridge is actually necessary. Data using the number of lane miles/bridge feet is already collected, and should be fairly easy to aggregate or compare across jurisdictions. However, lane mile data likely would need to be verified by the state.

Average Daily Traffic Volume (ADTV): This criterion highlights road or bridge activity, which relates to the level of wear and tear occurring daily. Traffic counts help determine the need for road maintenance and road upgrades, when needed, but this measure is just one of many criteria (truck traffic, weather, topography, road condition, etc.) that impact road maintenance *costs.* ODOT provides ADTV data for local roads to the Federal Highway Administration, although the reliability of that information is uncertain. However, other more reliable and readily available data, such as vehicle registrations or population in a given jurisdiction, could serve as a rough proxy for this measure.

Road/Bridge Condition: This measure reflects both one-time revenue needs and on-going maintenance needs. As road or bridge conditions worsen, on-going maintenance costs, as well as rehabilitation or reconstruction costs, increase.[20] This measure says nothing about use or about the amount of infrastructure maintained.

Comprehensive (and relatively standardized) bridge data exist, including condition and maintenance responsibilities across local jurisdictions. Therefore, incorporating a "bridge condition" measure into any distribution of funds intended for bridges would be relatively easy.

Unfortunately, Ohio currently lacks the use of a common standard or method to assess road condition on a statewide basis. This void prohibits the comparison of road conditions among jurisdictions. This would require conducting a statewide inventory of all local roads; an expensive, 2-3 year process at best. Still, with the help of technology, comparable condition ratings can be developed using pavement management software system that could be made available to local governments. LBO survey data suggest that the average start-up cost of such a system could be about $48,000 and average on-going costs to assess road condition could be about $25,000 per year. Costs vary widely depending upon the number of road miles to maintain.

Road Classification: This measure identifies a road's purpose or type. The Federal Highway Administration (FHWA) system for classifying roads, called the National Functional Classification, aids governments in infrastructure planning.[21] Used since the 1960s, this classification system, or NFC, categorizes each road according to its function, along a scale of long-distance mobility and local property access. (Most roads perform some of both functions). Roads are also designated as urban or rural, based on federal aid urban boundaries established for places with a population of 5,000 or more. Spacing and

[20]Using condition ratings could reward poor management by giving money to those local governments with the worst roads and bridges, even if the condition of the roads is largely the result of poor management. On the other hand poor road conditions can also indicate an inability to raise local revenue to supplement state funding.

[21]More information on the National Functional Classification by local government type is presented Part 2.

density criteria used to classify roads differ between urban and rural systems. The major classifications are:

> Arterials: Roads that contribute most to statewide or regional mobility. Interstate freeways, other freeways, and principal and minor arterials fall into this category. All arterials are designated as urban or rural, depending upon location.
>
> Collectors: Roads that balance mobility and local property access functions. Specific classifications are urban collectors, rural major collectors, and rural minor collectors.
>
> Local-Access: Roads that provide access to property, almost exclusively.

The NFC is used to determine whether a road is eligible for federal aid. Eligible roads include all principal and minor arterials, urban collectors, rural major collectors, and rural minor collectors.[22] Ohio could follow a similar strategy by directing aid based upon road classification. Funding by classification for each mile of road can direct money toward roads based upon usage and purpose. For example, the General Assembly could choose to direct state funding only to roads that contribute to statewide mobility, and specifically exclude roads dedicated solely for local property access.

The NFC for each mile of Ohio's local roads is readily available through ODOT, although the data may require verification to ensure that the classifications are correctly applied and updating to make sure that it is comparable among jurisdictions. Also, the state might want to develop additional classifications under the local-access classification if the General Assembly wanted to fund some, but not all, roads classified as local-access roads.

Improve the Availability and Use of Information

Option 12: Create an Annual State of the Local Transportation System Report

While conducting this study, it became apparent to LBO that there is a dearth of comparable and reliable data regarding the condition of local roads and bridges, and regarding local funding used for transportation purposes. In fact, current local "own-source" funding amounts reported by Ohio Department of Transportation (ODOT) to the Federal Highway Administration may be greatly underestimated. To help remedy this deficiency, ODOT could issue an annual report on the state of local transportation system in Ohio. It could be done in conjunction with the annual State of the State Transportation System Report that it currently issues, which focuses largely on the state-maintained transportation system.

A local transportation system report could provide information on the condition of local roads and bridges, and the available funding for local transportation infrastructure. As a public document, the report could be an informative and useful tool for legislators and other decision-makers, and a reliable source of historical data for local officials and the

[22] Adapted from the *Report of the Michigan Act 51 Transportation Funding Study Committee*, June 1, 2000, pg. 81.

public. The report would complete the picture of transportation infrastructure across the state, filling the current void of information on local infrastructure. In addition, compiling the report each year would enable ODOT to more effectively meet certain federal reporting requirements.

ODOT could coordinate efforts with the Public Works Commission (PWC) to obtain road and bridge condition data for the vast majority of local governments in the state. ODOT could randomly sample local governments that did not have to report data to PWC. To fill some of the information voids, ODOT may choose to survey local governments to obtain more specific local transportation finance data or other relevant information. LBO experience in surveying local governments for this study suggests that local governments would need to be legally required to respond to any ODOT survey instruments in order to collect the necessary data for a local transportation system report.

Advantages and Disadvantages of Requiring an Annual Report On the State of the Local Transportation System

Advantages	Disadvantages
Enhances ODOT's ability to meet federal reporting requirements	Requires additional cost and effort for ODOT to collect data and publish a new report
Could help to educate local officials, the public, and others about transportation revenue sources and expenditures	Local governments will have to complete additional paperwork.
Legislators would have access to important information about the condition and funding of the public roads	

Option 13: Increase Coordination between Public Works Commission's District Integrating Committees and Municipal Planning Organizations

The Public Works Commission (PWC) allocates about $141 million per year for local road and bridge projects. Actual funding decisions are made by District Public Works Integrating Committees (DPWICs) composed of local government officials. The DPWICs accept project applications from local governments wishing to receive funding. Then, committee members rank their district projects based on ten criteria established in the Ohio Revised Code.

To assist the DPWIC and the PWC application review process, input from Municipal Planning Organizations (MPOs), with jurisdiction's overlapping a DPWIC district, could be helpful. MPOs could review the government proposals, evaluate these requests, and provide their own funding preferences based on regional transportation needs. This input could be taken into account by the DPWIC before preparing their project rankings for the PWC. When the DPWIC submits its funding recommendations to the PWC for approval, the MPO's report could also be presented to the PWC for review. Collaboration at the district level will help the DPWIC members better understand regional transportation concerns and support projects that are of most benefit to the entire region covered by each DPWIC.

Advantages and Disadvantages of
MPO Collaboration with DPWIC Applications

Advantages	Disadvantages
Provides the DPWIC a list of preferences and other information on the needs within the PWC district, which may not be not included in requests prepared by local governments	The MPO will provide staff for review and provide recommendations without any compensation to the organization
Provides the PWC additional information it can use to evaluate project rankings	Individual disagreements between the MPO and DPWIC members over preferences may strain other matters of importance to the MPO that are controlled by DPWIC members
Provides the MPO an avenue to provide input into the use of a regionally-funded state program	

Clarify or Enhance Local Government Resource Options

Option 14: Formalize Municipal Paving Policy for Certain State Routes

Although the legal responsibility belongs to municipalities, the Ohio Department of Transportation currently pays for about 80% of the costs for paving state routes within municipal jurisdictions through its Urban Paving Initiative. Responses to the LBO Transportation Survey suggest that some municipalities think that ODOT should pay the full cost for maintaining these routes. At one point in the past, ODOT considered reducing the amount of support provided for state routes within municipalities, although for this biennium, ODOT is committed to current funding levels. Still, the disagreement over this issue suggests a role for the General Assembly to ensure that the policy appropriately considers and is responsive to both local and state transportation needs.

The General Assembly could address this issue during the biennial budget process by working with ODOT and municipalities to determine an appropriate state policy for maintaining state routes within municipal jurisdictions. Language specifying the policy could then be included in temporary language in the transportation budget bill each biennium. Addressing this on a biennial basis would help ensure that the policy changes as local and state needs change.

Advantages and Disadvantages of Formalizing ODOT's Municipal Paving Policy

Advantages	Disadvantages
Provides formal on-going review of the policy so that it can be adapted, as appropriate, with Legislative input	Limits ODOT's discretion to adapt this policy on a more short-term basis, as needs may dictate
Local governments will have a predictable revenue source each biennium	

Option 15: Expand the Use of Gas Tax and License Plate Revenues to Include Mass Transit

Section 5a of Article XII of the Ohio Constitution restricts the use of state motor vehicle license and fuel taxes to highway-related purposes, effectively prohibiting the use of these moneys for mass transit. This constitutional restriction limits the options both state and local officials may use to meet the transportation needs of Ohio. The General Assembly could pass a joint resolution to eliminate the constitutional prohibition on spending gas tax revenue for public transportation purposes, so that local officials would have all transportation options available to them when making decisions concerning the transportation needs of their communities. Similarly, eliminating this prohibition would also give the General Assembly more discretion when considering how to spend gas tax revenue for local and state purposes.

Allowing all types of transportation projects to compete for gas tax revenues could create a more competitive process, permitting a wider consideration of the most effective strategies for meeting transportation needs. While this change might result in less funding for roads and bridges, the overall result could be a more efficient and better quality transportation system for Ohio residents. In some communities and areas, funding an effective public transportation project, in lieu of a road or bridge project, may have the effect of reducing congestion on roads and bridges. In turn, this would improve the efficiency of the overall transportation system, reduce the rate of deterioration of road and bridge infrastructure, and reduce the amount needed for road maintenance and new road construction. Because all modes would be competing for the same dollars, any public transportation project would have to demonstrate to state and/or local decision makers that its benefits outweigh the benefits of other projects.

Advantages and Disadvantages of Allowing Gas Tax Revenues to Pay for Public Mass Transit

Advantages	Disadvantages
Allows greater flexibility in the use of gas tax revenue	Spending more money on transit would reduce spending for other transportation projects
May provide additional funding for transit projects and operations	Gas tax moneys spent on mass transit would not directly benefit payers of the gas tax
Improving mass transit services and facilities could increase ridership and reduce wear on current infrastructure	Increased mass transit ridership would result in decreased MVFT revenue
Ideally, would result in a more efficient and effective allocation of funds for local transportation systems	Costs to educate public about and advertise a ballot initiative