Paving New Paths: The Search for More Highway Dollars – *Version 3*

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According to the Ohio Department of Transportation, its funding needs are far in excess of the available resources. The author outlines the limitations of the three primary current sources of transportation revenue: federal aid, fuel tax, and bond revenue. Three methods used by other states to supplement these transportation revenue sources — increasing the fuel tax, the use of motor vehicle registration fees, and public-private partnerships — are discussed. The author concludes that fuel taxes will probably remain the most important source of the state's surface transportation funding, although it is feasible to phase in additional sources. An appendix examines the use of innovative techniques for infrastructure financing in Ohio.

The biennial transportation budget debates in early 1995 centered around growing needs and limited funding sources. Shortly after the budget's enactment, legislators approved a joint resolution that proposed to amend the Ohio Constitution. In part, the amendment would raise the Department's debt ceiling on highway construction bonds. Although the increased ceiling was acknowledged as a short-term solution, the voters soundly approved the issue.[1]

In February 1996, Governor George Voinovich held a press conference addressing the Ohio Department of Transportation's (ODOT) funding problems. He stated that in his next executive budget he would attempt to get a gas tax increase or license fee increase through the legislature, as well as get Washington to give all federal gas tax dollars back to the states. Yet, by the end of the year, the Governor said he was pessimistic about solving either problem before the end of his term. He had no hopes for legislative consensus, nor for help from Congress.

Question: How much money does Ohio need for transportation?

Answer: It depends on what we want. Do we want to expand our highway system, maintain our current system, or provide alternative forms of transportation?

Funding Needs for ODOT's Plan

In 1995, ODOT officials released the second phase of *Access Ohio*, the State's long-range, statewide, multi-modal transportation plan. The result of this three-year effort to identify needs for the next twenty years verified what the Department testified to during its 1995 budget hearings: needs far

[1] The ballot issue combined two proposed constitutional amendments: the increased debt limit and renewal of the State's Capital Improvement Plan.

surpass available resources. The plan identified $11.2 billion in highway capacity deficiencies. At Ohio's current annual construction program of about $130 million it would take:

- 23 years to improve deficiencies on the 580-mile interstate system;
- 42 years to make the currently planned and programmed 209 major improvements; and,
- 24 years to address deficiencies on the 943-mile rural highway system.

When these needs are considered for all transportation modes, the Plan's total capacity deficiency costs are $23.6 billion.

This paper examines the current situation, and selected alternatives that Ohio may pursue to improve funding if continued highway expansion is desired.

Current Situation

Ohio's transportation funding is powered by three primary sources: federal aid, fuel tax, and bond revenue. These sources are interwoven. The federal government's belt tightening is putting more pressure on the state fuel tax, our most prominent source. This tax provides the 'fuel' for our bonding authority. Obviously, the current situation is not a comfortable one.

Federal Aid

When the Intermodal Surface Transportation Efficiency Act of 1991 (better known as ISTEA) was passed, it was touted as a major breakthrough in

Federal Aid Alternatives

In the waning days of the 104th Congress, several proposals surfaced concerning transportation funding. Debate included taking the Highway Trust Fund off budget, continuing to divert moneys to deficit reduction, and devolving taxing authority to the states. Additionally, at the end of the day on September 30, 1996, the President signed the Transportation and Related Agencies Appropriations Act which created another issue. Although most transportation funding increased, Amtrak took a hard hit of 11 percent. Drawing on the fuel tax as a continuous funding source for Amtrak will be just one more proposal to mull over in 1997.

One previously introduced proposal that is likely to return is legislation sponsored by Ohio Representative John Kasich and Florida Senator Connie Mack that turns taxing authority over to the states. During a two-year transition period the Federal fuel tax would be lowered to two cents to fund a downsized Federal program. In the first year, a portion of the tax (seven cents) would be distributed to each state as a block grant to be used for transportation purposes without restrictions or regulations. The remaining seven cents would be distributed under a simpler version of the current program. In the second year, the block grant would be increased to 12 cents, still without Federal restrictions. The remaining two cents would be used to run the remaining program (primarily maintaining the interstate system). At the end of two years, states would have the option to replace the tax with one of their own that would remain within each state's boundaries. Other such proposals guarantee a percentage return of dollars to the Highway Trust Fund. One proposal guarantees 95 percent, whereas another guarantees 100 percent.

Another proposal is closer to home. *The Ohio Plan*, formulated by Ohio's Governor Voinovich, in part, addresses the Highway Trust Fund balance which consists of $18.4 billion in IOUs. This amount represents interest owed to the fund from an eight-year period of interfund borrowing by the U.S. Treasury from 1967 to 1975. This is money that is owed by the federal government to the states. The Plan entails forgiving this debt, taking the trust fund off budget, and exempting the fund from discretionary spending caps. To provide for the portion of the fuel tax that is used for deficit reduction, there would be an annual off budget sale of seven-year bonds. The bond proceeds would go to the federal General Fund for a seven-year period, and at the end of this time, bonds would no longer be issued and all debt would be retired in 13 years.

It is uncertain what will happen in Washington, but what is certain is that ISTEA runs out at the end of federal fiscal year 1997. Prior to reauthorizing the transportation act, however, funding distribution issues will have to be resolved.

infrastructure legislation. It restructured federal-aid highway systems, provided unprecedented funding levels, and gave states and local governments flexibility to spend dollars where they wanted to spend them. Although it seemed to be the answer to the state's funding prayers, federal discretionary spending caps prevented full release of these moneys.

This bureaucratic roadblock further diminishes an already restrained funding source. First, there are the diversions. From the per gallon federal fuel tax (18.3 cent gas tax and 24.3 diesel tax), portions are divvied out to deficit reduction (4.3 cents), and to mass transit (2.0 cents). Congress then earmarks highway dollars for demonstration projects. A sum is also used to pay the U.S. Department of Transportation's administrative costs.

Remaining revenues are then apportioned back to the states based on a series of complicated mathematical calculations. Not all states necessarily receive what they pay in. The tax remaining after the diversions (12 cents in gas tax and 18 cents in diesel tax) is placed into the Highway Account of the Highway Trust Fund. The Fund operates on a donor-donee basis, meaning that some states pay more in than they receive, and vice versa. The reasoning behind this is to provide aid to less populated states, particularly the larger western states, which obviously do not have the potential to generate the level of highway revenues that more populated states do. Since the early 1980s, each successive federal transportation act has moved closer to equalizing each state's payments in to payments received. Ohio, which has historically been a donor state, is now receiving about one for one. This applies to the Fund's Highway Account *only*. Overall, Ohio pays in over $1 billion in federal fuel tax dollars annually, but receives back just over $700 million.[2]

Motor Fuel Tax

Proponents of fuel taxes cite several advantages to using these taxes to fund highways. The tax is a strong revenue producer because the demand for fuel is fairly insensitive to small price changes. In Ohio, as long as consumption remains stable, one penny in tax equates to about $56 million.

Gauging by the lack of public response to fuel tax increases, it can also be said that the tax is fairly palatable to consumers. This may be because the tax is absorbed into the price paid at the pump, so it usually is not so noticeable. Another reason may be that, unlike property or sales taxes, those who pay the tax are those who benefit from how the tax is spent ("benefits principle"). It is a direct and preferable relationship. The tax is widely accepted, easily understood, and, generally speaking, is considered fair (since the amount paid depends on the miles traveled). In short, it is like a user fee.

The Ohio Constitution provides that the fuel tax is to be used for highway-related purposes, although throughout history additional agencies and funds have been added to the receiving end of the revenue stream. From the amount of tax collected, amounts are set aside for highways and bond retirement. Then, 0.5 percent is transferred to the *Waterways Safety Fund*, and an amount equal to one cent of the fuel tax is set aside for the *Local Transportation Improvement Program*. Additionally, the *Turnpike Commission* receives 5 cents per gallon of fuel sold

[2]For a detailed discussion see L. Bailiff, "Federal Aid to Highways and Ohio's Share of Those Dollars," in *Budget Footnotes*, Volume 19 No. 8, published by the Ohio Legislative Budget Office, February 1996, pgs. 138-142.

The "frozen" variable fuel tax formula is as follows:

$$\frac{\text{Calendar Year Average CPI-U (preceding calendar year)}}{\text{Calendar Year Average CPI-U (2 years previously)}} \times \frac{\text{Net Gallons (2 years previously)}}{\text{Net Gallons (preceding fiscal year)}} \times \text{Total Gas Tax Rate} - 7$$

As can be seen, in order for there to be a rate change (if the formula is reinstated), there must be a change in inflation and/or consumption.

by the Commission's stations. The remaining receipts are distributed in approximately the following proportions: 75 percent to the state, 10.7 percent to municipalities, 9.3 percent to counties, and 5 percent to townships.

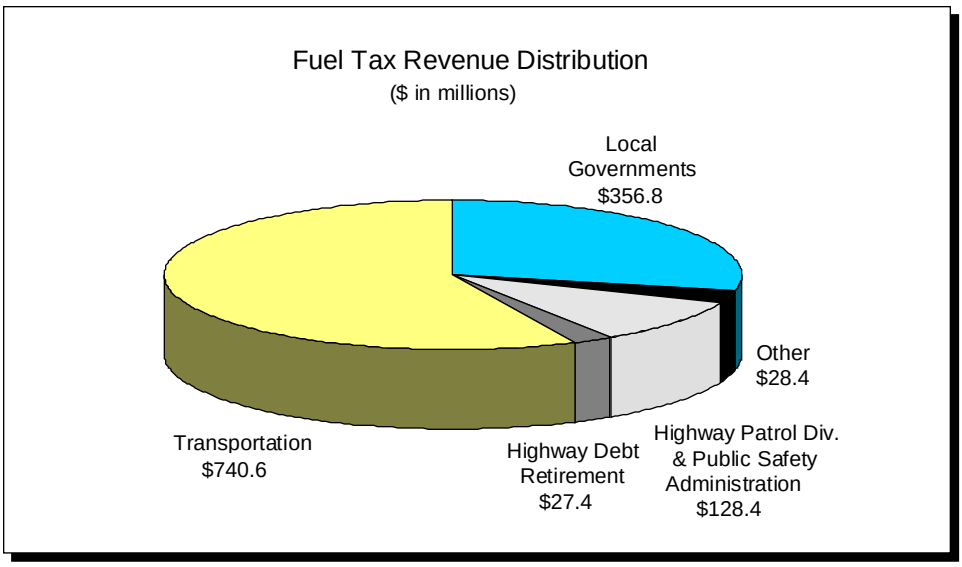
The state portion is doled out as follows: to *ODOT* for highway construction and maintenance; to *Public Safety and the State Highway Patrol*; to the *Department of Development* for road improvements associated with economic development; to the *Department of Health* to pay for medical expenses of indigents injured on state highways; for road improvements in state and local parks by the *Department of Natural Resources* and *metropolitan park districts*, respectively; to the *Grade Crossing Protection Fund* (administered by the Public Utilities Commission); and, to the *Department of Taxation* for administering the fuel tax laws. In the end, ODOT receives less than $800 million of the $1.3 billion collected annually.

The fuel tax is made of up five separate levies: three two-cent levies, one one-cent levy, and the cents per gallon levy (variable rate) which is currently frozen at 15 cents per gallon. Each of these levies is distributed in a different manner. The fuel tax was initially enacted in 1925 at two cents per gallon. Irregular increases brought the tax to seven cents in 1959 where it remained for the next 22 years. Since the birth of the variable rate in July 1, 1981, the rate has grown sporadically until it was frozen on July 1, 1993.

State Bonding Authority

Bond appropriations are used last for project authorization, so, historically, some has not been appropriated in the fiscal year for which it was authorized. Bonds are issued when cash is needed to meet obligations, and at the level which can be supported by revenue from one cent of the fuel tax and income from the International Truck Registration Plan (IRP). (That is, these two revenue sources are earmarked to retire bond debt.) Bonds provide up-front funds. This assures a shorter construction period which, in turn, assures less risk of inflation. These funds can be obtained for relatively low costs, depending on market conditions. In fact, ODOT has a reputation for obtaining excellent rates and a AAA bond rating. This past September, the Department issued it last bond series under its old authorization and its first series under its new authorization. The net interest costs have been less than five percent for the past three bond sales.

As noted earlier, ODOT received this new authorization in November 1995, when voters approved a Constitutional amendment to raise the ceiling on



highway construction bonds from $100 million to $220 million annually, and from $500 million to $1.2 billion overall. The September releases of $150 million total brought the overall total to about $510 million. The new approval came at a time when ODOT was facing one of its biggest funding shortages. If voters had not approved the new ceiling, the Department would have had to pool all its resources (fuel tax, bond authority, and "soft match") in order to fully leverage federal funds. The State recognizes, though, that the new bond authority is only a short-term solution.

Although increased issuances enhance current revenues, the debt eventually has to be paid off. Ohio's bonds are backed by the fuel tax, which has had little growth. Without new revenue in the near future, ODOT will have to suspend bond sales since it will become increasingly difficult to afford the debt service. By the end of fiscal year 1999, the Department will reach about a 19 percent debt threshold.

This illustrates a criticism of the use of bonding authority. Another criticism is that debt ceilings, once reached, make this option impossible(although Ohio is far below its ceiling.) Once at the ceiling, debts must be paid down before new projects can be started. Also, future dollars are tied up paying for current projects, so future projects may be foregone.[3] On the other hand, capital costs are shared by current and future beneficiaries. Current taxpayers are bearing the burden for the benefit of future users.

Policy Options

In response to a survey by the American Association of State Highway and Transportation Officials (AASHTO)[4], states indicated that they had taken or were planning to take actions to increase existing state transportation revenues. Changes to the fuel tax included inflation indexing or instituting percentage taxes. Other fuel or vehicle-related tax strategies included increased vehicle registration fees, alternative fuel taxes, vehicle weight taxes, new vehicle impact fees, rental car surcharges, and general sales taxes. Some states even have methods to reduce dependency on fuel taxes. Florida charges a one-time $100 "Initial Vehicle Registration Fee" on vehicles registered to new owners, and a $2 daily surcharge on rentals and leased vehicles for the first 30 days of the rental or lease period.[5]

[3] Grant M. Davis, Ph.D., and William A. Cunningham, Ph.D., *A Primer on Highway Finance* (Lanham, MD: University Press of America, Inc., 1994), p. 149.

[4] American Association of State Highway and Transportation Officials (AASHTO), *Innovative Transportation Financing: A Report on the Results of a National Survey*, April 1995.

[5] Ibid, p. 4.

The table, Financing Methods, lists a variety of financing options. This paper devotes attention to a few selected methods.

Increasing the Fuel Tax

The inelastic (unresponsiveness to price changes) nature of the fuel tax has

State Transportation Revenues
Existing & Potential Financing Methods

User Fees

Fuel Taxes	
Gasoline Tax	Federal rate is 18.3‡; Ohio rate is 22¢
Gasohol	Gasoline with a 10% minimum ethanol content by volume; Ohio rate is 22¢
Diesel Fuel Tax	Federal rate is 24.3‡; Ohio rate is 22¢
Liquified Petroleum Tax	Federal rate is 18.4¢; Ohio rate is 22¢
Methanol & Ethanol	Federal rate for methanol is 7.1 or 8.1¢;ethanol is 7.1 or 8.7¢ (depends on if obtained from natural gas)
Natural Gas & Electricity	Collection for highway purposes is complicated due to the multi-use of these fuels
Sales & Gross Receipt Taxes	Varies widely in how applied, especially in how state and federal taxes are treated
Liquid-Fuels Inspection Fees	Generally, this is a nominal fee in the states that apply it
Petroleum Release Fees	Used to cover remedial action costs
Fees for Retailer & Wholesaler Licenses	Charged by most states, with some depositing the revenue into the state's highway fund
Fees for Fuel-Use Licenses	Most states require fuel-use reporting of heavy trucks and charge a license fee for such vehicles
Vehicle Related Taxes & Fees	
Registration Fees	Flat Fee; weight-based for light vehicles; or based on combinations of weight, age, horsepower, or value
Federal Heavy-Vehicle Use Tax	Annual tax on trucks with gross vehicle weights (GVWs) exceeding 55,000 pounds
Vehicle Property Taxes	Property Tax on vehicle's assessed value (same as registration fee based on value)
Vehicle Transfer or Sales Taxes	Percentage of vehicle's original sales price
Federal Excise Tax on Heavy Trucks & Trailers	12% tax on retail price of vehicles with GVWs exceeding 33,000 pounds & trailers exceeding 26,000 pounds
Federal Tax on Tires	Graduated tax on new truck tires exceeding 40 pounds
Federal Gas Guzzler Tax	Graduated fee schedule applies to vehicles with fuel economy ratings indicating excessive fuel consumption
Other	Certificate of title transfers, vehicle inspections, temporary operating permits
Vehicle Activity Related Taxes & Fees	
Mileage Taxes	On number of miles traveled by heavy vehicles; e.g. weight-distance tax
Tolls	Generally based on number of axles & distance traveled
Oversize & Overweight Permit Fees	Usually partly based on GVW
Externality & Related Fees	
Emissions Fees	Tax on vehicle miles traveled at a rate determined by a vehicle's emissions
Energy Taxes	Surcharges on certain energy forms to reduce energy consumption by increasing energy prices
Congestion Pricing	Such as peak period toll surcharges, parking taxes, or pricing of entry into certain areas
Pavement-Damage Fees	Based on the estimated impact of axle loads on pavements
Other	User fees for use of public transit
Transit Charges	User fees for use of public transit

Nonuser Fees	
Concessions	From landowner and developers; e.g. land contributions
Impact Fees & Extractions	Charge on developer to pay for government's cost of providing infrastructure for project
Special Assessments	Imposed on property owners to pay for government programs benefiting these owenrs
Value Capture Tax Increment	Increased property value as result of improvement is shared with government upon property's sale
General Revenue Sources	General taxes (e.g. sales), special excises (e.g. liquor), or other (e.g. lottery)
Debt Financing & Private Ownership	
Debt Financing	Usually revenue bonds or general obligation bonds; sometimes tax increment bonds
Private Ownership	When the facility can generate enough revenue for a worthy financial return to investors

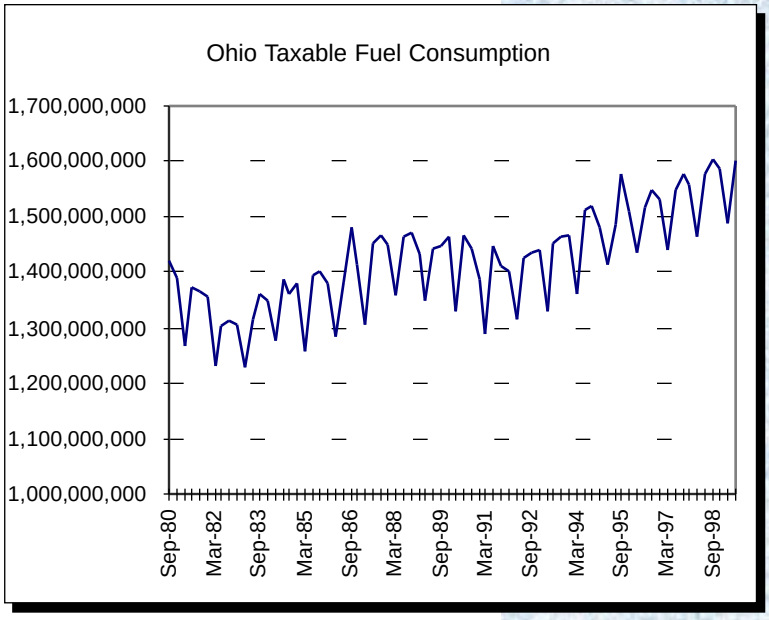
Primary Source: Reno and Stowers, pp. 39-49.

forced states to increase their rates in order to maintain or increase these revenues. Traditionally, many of these taxes were levied at a flat rate. In response to the tax's inelasticity, however, some states have indexed their taxes to inflation or price, or have instituted percentage mechanisms. Without a "trigger" of some sort, inflation erodes the value of the revenue. As stated earlier, Ohio's fuel tax formula, though frozen since 1993, has a trigger. This is the CPI-U (inflationary index). ODOT, with a $1.6 billion annual budget, loses the equivalent of a penny in fuel tax with an inflation rate of 3 percent per year.

Technology changes, such as design changes to increase fuel economy, also slow fuel tax growth. Technological advances are also widening doors to the use of alternative fuels. These fuels are not taxed as highly as the gas and diesel fuels.

Fuel tax growth is predicated on consumption. Despite small incremental increases and decreases, consumption has been climbing at a slight, steady rate. Although the LBO has estimated that this trend will continue, consumption may be increasing at a rate slower than inflation.

The fuel tax can be increased by fixed legislative increases, or by formula. Shown below are two scenarios based on the existing inactive formula. In the first scenario (see accompanying table below), the formula is permitted to work.



Gasoline consumption was forecasted using a multiple regression model, including third-party forecasts. Due to limited information on the variables, the LBO estimated only three years. As shown, with consumption hovering around a one percent increase, there is no effect on the rate.

In the second scenario (see table below), the consumption variable is removed from the formula, so the increase relies strictly on inflation.[6] The result is a regular annual increase of one cent.

There are several considerations to be made before raising the fuel tax. One is where it puts Ohio in comparison to other states. Nationwide, rates range from 7.5 cents to 37 cents. Ignoring the few outliers, 82 percent of the states fall between 15 cents and 25.35 cents. The average is 19 cents.[7] So, just a small increase in Ohio's rate can put us at the top of the range of the majority of states (if states with comparable rates hold steady). Below is a comparison to our neighbors.

West Virginia	25.35
Pennsylvania	22.35
Ohio	*22.00*
Kentucky	16.40
Michigan	15.00
Indiana	15.00

Some states have **sales tax** on fuel as well. (Ohio does not.) When taking these taxes into consideration, the revised comparison is as follows:

West Virginia	25.35
Michigan	23.00

Increasing the Fuel Tax

Scenario One: Reinstate Current Formula

Fiscal Year	*Consumption*	*Growth*	*CPI-U*	*Variable Rate (formula)*	*Rounded Variable Rate*	*Total Rate*
1990	5,711,206,739	0.32%	130.7			
1991	5,563,249,404	(2.59%)	136.2			
1992	5,555,777,685	(0.13%)	140.3			
1993	5,656,638,481	1.82%	144.5			
1994	5,805,674,297	2.63%	148.3			
1995	5,905,325,731	1.72%	152.5			
1996	6,039,674,854	2.28%	156.6			
1997	6,068,111,804	0.47%	160.4	15.08894	15	22
1998	6,177,252,232	1.80%	164.2	15.42824	15	22
1999	6,283,896,690	1.73%	167.8	15.12329	15	22

Scenario Two: Formula without Consumption Factor

Fiscal Year	*CPI-U*	*Inflation Rate*	*Variable Rate*	*Rounded Variable Rate*	*Total Rate*
1994	148.3	2.6%			
1995	152.5	2.8%			
1996	156.6	2.7%			
1997	160.4	2.4%	15.591475	16	23
1998	164.2	2.4%	16.558117	17	24
1999	167.8	2.2%	17.568579	18	25
2000	172.0	2.5%	18.548112	19	26
2001	176.6	2.7%	19.650775	20	27
2002	181.1	2.5%	20.722093	21	28
2003	185.7	2.6%	21.713477	22	29

[6] The inflation rate forecasts are from the WEFA Group, a national economic forecasting and econometric analysis firm.

[7] Whether using or excluding the outliers, the median (middle number) is 19 cents. The mean (average) with outliers is 19.53, and without outliers is 19.75.

Pennsylvania	22.35
Ohio	*22.00*
Indiana	19.00
Kentucky	16.40

Another consideration is consumer acceptability. Although fuel taxes are fairly acceptable, consumers have been experiencing price spikes, and recent history may make people a little more sensitive to increases. Also, fuel taxes are regressive: people with low income pay proportionately higher taxes.

In considering adjusting the fuel tax rate, policymakers may also consider special treatment for diesel fuels. At first glance, Ohio treats its gas and diesel the same — both are taxed at 22 cents per gallon. Commercial vehicles, however, also pay a three cent fuel use surcharge on all fuel used in Ohio, regardless of where it is purchased. This tax, over $60 million annually[8], is imposed explicitly to offset part of the revenue loss due to the repeal of the highway use tax, effective January 1, 1991.

The federal government instituted a diesel differential in 1984. It increased the rate as part of a compromise that decreased the heavy vehicle tax; intending to reflect that trucks do more road damage than passenger cars.[9] Thirteen states also have a higher rate, although in some states the difference is fairly insignificant. Nine states have diesel tax rates that are lower than the gas tax rates. This may be to take into account the differing efficiency of gasoline versus diesel fueled engines, or the fact that trucks pay more overall in user fees. Nationwide, the trucking industry pays approximately one-third of all highway user taxes but accounts for only 17 percent of all vehicles registered, and heavy trucks represent only four percent of registered vehicles.[10]

Registration Fees

In considering the fuel tax situation in Ohio, it has been suggested that motor vehicle registration fees be used to fund the State Highway Patrol and Public Safety Administration. According to the Office of Budget and Management, the 1997 draw for these entities is $145.5 million in fuel tax dollars. So, at a minimum, that much would need to be raised from an alternative source.

The Ohio Bureau of Motor Vehicles (BMV) collects nearly $400 million in motor vehicle license taxes annually. Approximately 68 percent of this revenue is generated by the mandated state tax. The $20 state tax is paid for each passenger vehicle (7.9 million passenger cars), but varies for other vehicle classifications (3 million vehicles). The balance of the revenue (32 percent) is generated from local permissive taxes (a maximum of $20). All of the money is distributed to local taxing districts for local roads.[11]

The BMV recently surveyed states and the District of Columbia on the cost of vehicle registration including the basic plate fee, excise taxes, title application fee, and any miscellaneous fees. Sales and excise taxes paid at the time of purchase were segregated from total licensing costs. Direct comparison is difficult since some states' fees are based on *value* or *age*. To illustrate this grave disparity, in the survey, the Bureau used a *new* vehicle (at the time of the survey) — a 1995 Ford Taurus GL with a total value of $19,125. Maryland's registration cost ranked the highest at $1,006.25 and Utah came in the lowest at $26.50. However, the bulk of the Maryland fee is an excise tax which decreases yearly according to the vehicle's value. In comparing the annual state registration fees solely, Ohio ranked 38th ($20 state fee). The

[8] Funds are distributed in the same manner as the highway use tax: first to pay the debt service on highway bonds, and then to the Highway Operating Fund for highway construction.

[9] Congressional Budget Office, *Paving for Highways, Airways, and Waterways: How Can Users Be Charged?*, May 1992, p. 14.

[10] Davis and Cunningham, p. 163.

[11] Before distribution to local governments, moneys are first used for bond obligations and administrative expenses.

average fee was $38.58.[12] The following shows how we fared against our neighbors.

Michigan[13]	$35.00
West Virginia	$31.50
Pennsylvania	$24.00
Ohio	*$20.00*
Kentucky	$15.00
Indiana	$12.75

Note, however, that Kentucky also has annual ad valorem taxes that vary by city, county, and school district based on NADA value (National Automobile Dealers Association used vehicle price guide), and a state rate of $0.45 per $100. Indiana has an annual variable excise tax and county surtax. So, compared with our neighbors, Ohio's registration costs are fairly low.

If one does not consider the different vehicle classifications within the 10.9 million registered vehicles, then each vehicle would need to pay a little over $13 dollars to support the State Highway Patrol and Public Safety Administration. Of course, since the vehicles range from mopeds to motorhomes to semis, so does the range of costs. Rates should be graduated for the different classes. This illustrates that such an option appears to be financially feasible, and the level of these fees can be as high as politically feasible. Additionally, increasing the fees does not increase the administrative costs.

Regarding equity, care must be taken in the determination of how the tax is to be graduated. This graduation should consider the distribution of cost responsibility among vehicle classes.[14]

Public-Private Partnerships

As stated previously, ISTEA attempted to address some of the barriers of highway finance. As for private financing, it allows the use of federal funds on privately owned facilities. Despite this encouragement, there are various barriers that stand in the way. On December 6, 1993, the Federal Highway Administration held a symposium to discuss these barriers and what could be done about them.[15]

The discussions addressed types of partnership structures, identification and discussion of barriers, and ways to overcome these barriers. The types identified ranged from low to high private participation, with the typical mix combining private financing with public oversight. Barriers were financial, legal, and institutional in nature. For instance, one of the most attractive aspects of these partnerships is the use of private financing. However, participants stated that financing is difficult to obtain in the early project stages because of the difficulty in estimating project risks such as traffic levels, income streams, tax treatment and depreciation, and exposure to tort liability, to name a few. Another barrier is the permitting process. Environmental concerns have added significant time and expense to infrastructure projects. Private equity partners may hesitate to get involved until assurances can be made.

A number of methods to overcome these barriers were suggested. These included: the creation of an attractive investment climate, continuous government and community-wide support, incentives to use private bonding (such as relaxing tax law restrictions), and ways to limit environmental protests.

According to the AASHTO survey, several states are looking to public-private partnerships, or to state-local partnerships. For instance, Alaska has an industrial development agency that finances business infrastructure

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[12] Four states use variable fees making them difficult to use for comparison. They were excluded when computing the average.

[13] Registration fees are based on Manufacturers Suggested Retail Price (MSRP) before options. Renewal fees are 90 percent of the previous year's fee for the next three years. The fee range is from $35 to $93.

[14] Reno and Stowers, p. 145.

[15] U.S. DOT, Federal Highway Administration, *Summary of The Federal Highway Administration's Symposium on Overcoming Barriers to Public-Private Partnerships*, (Searching for Solutions: A Policy Discussion Series, No. 11, [September 1994]).

including transportation systems.[16] State dollars provided initial agency funding but have been replaced with a revenue bond portfolio. The portfolio contains one major system: the Johnnie Mountain System, developed as a joint venture with a mining company. Other Alaskan public-private partnerships include the support road for the Trans-Alaskan Pipeline, built by the oil companies, and an upgrade of the Klondike Highway, courtesy of a transport company.

Ohio also uses public-private and state-local partnerships; the latter on a much greater scale (see Appendix). Private dollars aid the construction of interchanges built to benefit economic development. For example, in Franklin County, the New Albany Co. financed design work for the New Albany Expressway.

Tollways

A recently rediscovered partnership is private tollways. Tollroads, public or private, tend to be unpopular with a multitude of advocacy organizations as well as the motorist who must wait in line to pay the toll.[17] Despite pressure from these interest groups, transportation officials, both here and abroad, have turned to this method. This financing mechanism makes it possible to provide improvements many years in advance of when they could have been done with traditional sources. Additionally, tolls are equitable. There is a close relationship between those who pay and those who benefit. (Of course, those who earn income from the tollway also benefit.) This relationship can be even closer if the tolls are set according to vehicle classes and each class's cost responsibility.[18]

Last December, California broke new ground when it added private toll lanes to the State Route 91 median in Orange County.[19] By doing so, the ten-mile long project earned three distinctions: the first privately owned and operated toll road in the nation in 50 years, the first fully-automated toll road[20] in the world, and the first U.S. example of congestion pricing ($2.50 toll in rush hour and $0.25 off-peak). The state legislature made way for the project when, in 1989, it passed legislation permitting the department of transportation (Caltrans) to award four demonstration franchises to the private sector. The $126 million project was financed and operated by California Private Transportation Co., a partnership of engineering, finance and construction companies. The company's profits may not exceed 17 percent of the investment, and in the event of financial failure, the tollway reverts to the state. The company is authorized to collect tolls for 35 years to retire debt, to pay operational and maintenance costs, and to realize a reasonable profit margin. Law enforcement and road maintenance is provided by state agencies but paid for by the company. At the end of the period, the state takes over ownership.[21] Similar projects are being considered or undertaken stateside in Virginia, Colorado, Washington, and in Michigan, and abroad in Britain, Spain, France, and China, to name a few.[22]

Summary of Policy Options

- Increase the fuel tax by formula *("frozen" on July 1, 1993)* or by fixed legislative increases
- Use registration fees to fund the State Highway Patrol and Public Safety Administration
- Develop more public-private partnerships and/or state-local partnerships such as tollways

Conclusion

Due to the prominence of fuel taxes, it is likely that they will remain an important component of Ohio's surface transportation funding for years to come. Rather than seek a replacement,

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[16] AASHTO, p. 24.

[17] Peter Samuel, "The Transportation Lobby: The Politics of Highway and Transit," *Capital Research Center,* February 1996; available from http://www.pff.org/crc/trends/ot-0296.html; Internet; accessed 19 August 1996.

[18] Reno and Stowers, p. 153.

[19] "Innovative Financing Makes California Toll Roads a Reality," *American City & County*, October 1993, p. 50.

[20] Motorists electronically pay tolls by using a small electronic transponder affixed near their rearview mirrors. Tolls are automatically debited from prepaid accounts.

[21] "Innovative Financing Makes California Toll Roads a Reality."

[22] Samuel.

it is more feasible to phase in new revenue sources to help boost fuel taxes. All current and potential revenue sources must be thoroughly evaluated for how much revenue they can generate, their equity, their feasibility, and their acceptability to taxpayers and government decision makers. Coupling revenue streams with project prioritization, cost containment, innovative financing options, and continued discussions with state and federal lawmakers will help ease the funding challenge.

Appendix

Innovative Financing Tools

A number of innovative tools or techniques are available to leverage dollars for infrastructure projects benefiting economic development. By working together, the state and local governments can combine and enhance resources. Further, local governments can form special districts to raise revenue. This revenue is then used in conjunction with state dollars to provide for a variety of infrastructure needs. In Tax Increment Finance Districts (TIFs), locals "capture" the increase in property value caused by development to finance infrastructure. Joint Economic Development Districts (JEDDs) are formed by contracts in which the participants share personal and corporate taxes generated by the development.

Third, Transportation Improvement Districts (TIDs) are created specifically for financing transportation projects. A TID is permitted to levy a motor vehicle license tax by a vote of the affected electors. This is to be used to pay for the costs of planning and construction, debt service charges, and costs associated with administering the tax. The tax can not exceed $20.

Although there is no cap on the number of TIDs that can be created, ODOT can provide financial aid to no more than five. The Butler TID[23] agreement provides for various improvements associated with the Butler County Regional Highway. This project involves relocating State Route 129 and extending it to Interstate 75. To pay for its share of the project, revenues include: tolls, land sale proceeds, tax increment financing, interest earnings, parking fees, motor vehicle license tax, and money from income taxes from a JEDD.

The Stark TID project involves improvements for an intermodal facility. Total project costs of $38 million are divided nearly equally between local and state shares. At the time of publication, other potential TID agreements were Licking, Muskingum, and Medina. The latter decided on a district to finance its own bypass, when it learned the project would not begin until 2003.[24]

Revolving Loan Funds

One of the more frequent complaints states make about ISTEA is that it does not provide enough flexibility. The National Highway System Designation Act of 1995 attempted to address this concern. Among other things, the Act authorized a pilot program for State Infrastructure Banks (SIBs). Ohio was one of ten states initially chosen for the pilot. This

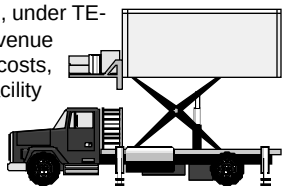
[23] Initially created by Am. Sub. H.B. 154 of the 120th G.A. *(effective June 30, 1993)*; additional TIDS created by Am. Sub. H.B. 107 of the 121st G.A. *(effective June 30, 1995)*; and modified by Sub. H.B. 117 of the 121st G.A. *(effective June 30, 1995)*.

[24] Vindu P. Goel, "State May Not Have Funds for Road Projects," *Cleveland Plain Dealer*, 21 February 1996, p. 5-A.

TE-045

In 1994, the Federal Highway Administration (FHWA) initiated TE-045, Test and Evaluation.* This program tests nontraditional financing ideas submitted by states, local governments, and the private sector. Ideas use one or a combination of financing tools classified as those that leverage funds (such as bonds, or loans authorized under ISTEA), and those that produce cash flow (such as advance construction which allows projects to begin sooner).

Ohio is the test site for several innovative financing initiatives. For instance, under TE-045, a state may loan federal funds to a project that has a dedicated revenue stream. The advantages include lower interest rates, lower overall project costs, and greater project feasibility. The $38 million Stark County Intermodal Facility will provide for the loading/unloading of truck trailers and freight containers onto railroad flat cars. The revenue source will be provided by lift fees (paid by trucks using the facility).



Rebuilding America: Partnership for Investment. Innovative Financing Handbook, U.S. DOT FHWA, October 1995.

enables ODOT to use up to ten percent of its annual federal highway and transit funding as seed money for its own SIB. Moneys are for loans and credit options to provide additional security or credit support resulting in lower interest rates. Loan repayments (via new local taxes or tolls generated from the project) are then turned around to make new loans or loan guarantees. All capital improvement projects including highways, transit, rail, aviation, and intermodal facilities are candidates for funds. An eligible project must:

- be in a development stage (in order to help reduce the risk of repayment);
- have an identifiable revenue stream or source to amortize the debt; and,
- provide revenue payments within two years of project completion.

The first loan (both in Ohio and in the nation), totaling $10 million, was approved by the Controlling Board on September 16, 1996. It was awarded to the Butler County TID for the Butler County Regional Highway. The Butler TID will issue $120 million in revenue bonds for the advance construction. The Department will then enter into a lease agreement to pay (using federal funds) the amount needed to amortize the bond issue. The Butler TID intends to collect tolls on the Butler Regional Highway (SR 129) to pay for the roadways' operation and maintenance.

Other potential projects include the Spring/Sandusky corridor in the City of Columbus, a bypass for the City of Wilmington, and an intermodal facility in the City of Springfield to serve an industrial park adjacent to I-70 and a rail line there.

The Department of Transportation is responsible for the program's administration and project selection. The approval process will also include Metropolitan Planning Organizations if federal funds are to be used for a specific project.

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