



Michigan COMMENTARY

Running on Empty: Michigan's Transportation Needs

by Robert Kleine and Frances Spring

The quality of Michigan's roads, highways, and transportation system affects all of us in our daily activities and in our recreational travel. Our economy rests on transportation, which is essential to the efficient production and delivery of goods. And the value of Michigan as a potential location for future industries is partly a reflection of our transportation system.

Governor James Blanchard
1988 Michigan State Transportation Plan

If the economy of Michigan rests on the transportation infrastructure, then the foundation is shaky. More cars are being driven more miles than ever before, but due to diminishing federal aid and a "cap" on the state motor fuel tax, the Michigan Department of Transportation (MDOT) forecasts that highway needs will outstrip means by \$2.7 billion in the 1990s. This paper looks at the transportation needs in Michigan and pending legislation attempting to address those needs, discusses the benefits and disadvantages of increasing federal and state tax taxes, and suggests a course of action for the state.

THE REVENUE SHORTFALL

Motorists are traveling Michigan roads in record numbers owing to the state's economic resurgence, high employment, and flat fuel prices. Drivers logged 78.7 billion miles in 1988, up 28 percent since 1980, in 6.7 million cars. This is increasing the need for highway maintenance expenditures. In the *1989-98 Highway Investment Plan*, the MDOT estimates annual construction and repair needs in Michigan of \$890-950 million over the next decade, but existing state and federal revenue sources provide only \$620 million a year.¹ When local roads are included, 61 percent more state-local funding will be needed annually through the year 2000 to catch up with the current construction backlog and keep pace with continuing deterioration, according to the Michigan Roadbuilders Association. If repairs are delayed, the roadbuilders say, the system will crumble faster and eventually cost more to fix.²

Spending in Michigan has not been keeping up with these needs. Adjusted for need (vehicle miles traveled and lane miles of road maintained), Michigan ranks 36th among the 50 states in highway spending.³

- 1 Michigan Department of Transportation, *1989-98 Michigan Highway Investment Plan* (Lansing: MDOT, November 1988), p. 19.
- 2 The Road Information Program, *Analysis of Current and Future Deterioration on Michigan's State, County and City Roads*, August 1988, Summary.
- 3 *State Policy Reports* (February 1989):5. The adjustment for need takes into account each state's total number of road miles requiring maintenance and vehicle usage rates; those states with more road miles and high rates of utilization require greater expenditures levels than those with fewer road miles and lower usage rates. The adjustment is made so that spending levels can be compared.

Those who use Michigan streets, roads, and bridges pay directly for the system through gasoline and diesel fuel taxes, which have been 15 cents a gallon since 1984. Motor fuel taxes generated \$673 million in 1988, and vehicle registration and other fees produced another \$418 million; about 40 percent went to the state and 60 percent to localities. Registration fees, which are based on weight for pre-1984 vehicles and on price for subsequent models, were raised last in 1987, the first increase of this type since the 1960s.

The federal government also levies a motor fuel tax—9.1 cents a gallon on gasoline and 15 cents on diesel fuel. These revenues go into the Highway Trust Fund, which is distributed to states on a reimbursement basis for construction and repair. Scrambling to offset the federal budget deficit, Congress has built a “surplus” in the fuel-tax-financed Highway Trust Fund by “freezing” distribution of 9 to 14 percent of the dollars earmarked by law for state aid; as of June 3, 1989, the amount of undistributed funds totaled \$16.9 billion. This has cost Michigan an estimated \$212 million in federal aid since 1985—and roadbuilding contractors some big projects. Michigan received \$372 million in federal highway aid in 1988.

Several variables and constraints affect the planning, funding, construction, and maintenance of the highway system. These economic, social, and political factors have led Michigan highway planners to project that revenues from existing user fees will fall far short of needs during the next decade.

- Federal highway aid to Michigan has fallen sharply in the last five years, from \$388.8 million in FY 1985 to \$308.5 million in FY 1990, a decline of 20.7 percent. Even assuming the states could persuade Congress to allocate the Highway Trust Fund in full—which would bring Michigan \$70 million more annually—state planners are counting on only \$1.9 billion over the next ten years.
- More fuel-efficient cars and trucks permit motorists to drive more, on less fuel. As a result, state highway revenue, generated mostly by the fuel tax, is not keeping pace with demand. The average driver in this state paid 6 percent less in fuel tax in 1987 than in 1981, according to the Michigan Roadbuilders Association. For example, a motorist who drove 12,000 miles in 1981 (at 14.8 miles per gallon of gas) bought 811 gallons of fuel and paid \$125.65 in fuel tax, or \$8.11 per penny of tax. The same number of miles in 1987, at 15.8 miles per gallon, required 759 gallons of fuel and generated \$113.85 in fuel tax revenues, or \$7.59 per penny of tax.
- The “cap” on automatic state fuel tax increases was enacted by the Michigan legislature in 1982. A formula was established that allowed fuel tax rates to rise with inflation and vehicle fuel efficiency, but a tax cap was set at 15 cents a gallon, which the state reached in 1984. Without the cap, the tax would be 17.1 cents a gallon in 1989.
- Economic and social trends beyond the direct control of state government affect highway use. Three are particularly noteworthy. First, greater involvement of Michigan companies in world trade has led to about 15 percent of the state’s manufactured products being exported. Approximately 2,000 firms are involved, and the state’s transportation system must be linked closely to points of entry and exit. Second, traffic congestion in and around urban areas requires new and wider roads to alleviate some of the problems. Third, new and improved highways are needed in rural Michigan to attract industries and employment as well as to serve urban “migrants” and retirees.
- When the flow of foreign oil imports was disrupted in 1981, U.S. fuel prices rose to about \$1.35 a gallon. Travel declined, and Michigan’s highway revenue dropped \$32 million that year. Imports now supply almost 42 percent of U.S. oil consumption, up from 31.5 percent only three years ago and approaching the 1977 peak of 48 percent.⁴ In November 1988 members of the Organization of

⁴ *New York Times*, December 23, 1988, p. 22.

Petroleum Exporting Countries (OPEC) agreed to cut production drastically in order to force prices up, and if this occurs, the 1981 scenario could be repeated.

MICHIGAN'S CHANGING HIGHWAY NEEDS

Five years ago the MDOT solicited regional and local highway needs in statewide forums and reviewed \$2.5 billion in projects stalled on the drawing board. It was decided that the first priority was to preserve the existing system, and 60 percent of the state's highway dollars have gone since 1985 to repair 2,300 miles of "poor" and "very poor" roads, 25 percent of the state-owned system. The second and third priorities were to abandon projects that no longer made sense and to find more money, which the legislature delivered in December 1987 as the \$53 million Transportation Economic Development Fund.

By 1988, however, the MDOT was confronted with another \$1.8 billion in unmet local project requests, most of them for economic development and traffic bottleneck relief. The department then overhauled its 1985-94 projections and produced a ten-year investment plan through 1998 that totals \$9.5 billion, but it anticipates revenue from existing state and federal sources of only \$6.2 billion.

The plan suggests four ways to shave spending by \$600 million annually over the next ten years, which would reduce the projected shortfall to \$2.7 billion.

- Hold the line on routine maintenance, administration, equipment, debt service, and legal expenses.
- Cut miles to be repaved from 670 to 393 a year, well below the recent annual treatment of between 500 and 550 miles.
- Target dollars into priority commercial highways.
- Slow construction of major projects, that is, meet current commitments but do not move beyond the engineering stage on others unless more money materializes.

To improve the revenue flow from existing sources, the MDOT plans to continue aggressive pursuit of federal aid, to maximize the use of state funds and the Transportation Economic Development Fund, and to work with private developers on private/public partnerships to defray state costs. The department has not projected how many dollars these initiatives might produce.

THE TRANSPORTATION SYSTEM AND THE ECONOMY

Building and maintaining a good transportation system as well as other public infrastructures are good investments. The U.S. Bureau of Labor Statistics estimates that every \$1 million spent on transportation construction projects creates 25.6 jobs, on and off site. This means that Michigan's 1989-90 highway appropriation of \$375 million would equate to 9,600 jobs at construction sites and in supplier industries. (According to the MDOT, another 714 jobs are involved in airport construction and an estimated 1,163 in mass transit construction.)

David Aschauer, an economist at the University of Michigan, also makes a strong case for investment in public works as an economic stimulant. He found that from 1950 to 1970, as the U.S. public infrastructure expanded at an annual rate of 4.3 percent, "total factor productivity" (the output from given amounts of labor and private capital) rose in the U.S. private economy at an annual rate of 1.8 percent. In contrast, from 1970

to 1985, as the investment in public infrastructure declined to only a 1.5 percent increase annually, productivity rose only an average of 0.8 percent per year. In sum, Aschauer found a "striking similarity" between the slowdown in U.S. public capital growth and the decline in productivity growth.⁵ While other factors contributed to the latter, there is little question that public infrastructure is important to economic development.

It is an article of faith in the Blanchard administration that the Michigan economy "rests on transportation." It is asserted in the opening lines of the state's 1988 transportation plan and drives the MDOT's *1989-98 Highway Investment Plan*. The \$243 million the state has targeted since 1983 in highway improvements to facilitate commercial and industrial development has stimulated \$4 billion in private investment and the creation of 120,000 jobs, according to the 1988 state plan.

Another indication of the importance of transportation to the economy was the creation in 1987 of the Transportation Economic Development Fund. The legislature, looking for more money for transportation without uncapping fuel tax rates, increased driver's license, vehicle registration, and title transfer fees. It then earmarked half the revenue, about \$53 million a year, for the fund established in companion legislation. The first \$11 million accumulated in the fund for targeted industrial development attracted applications from 78 local governments for a total of \$235 million to help build or improve roads for new, renovated, or expanded plants. Another \$42 million per year is generated by the fund and is funneled by law into primary state highways, forest roads, and projects in urban counties—Wayne, Oakland, Macomb, Genesee, and Kent—as well as rural counties and small towns.

In 1988 the fund financed 22 industrial development projects ranging from \$272,500, to help a plastic automotive parts company with 170 employees relocate elsewhere in Bay County rather than go out of state, to \$5.3 million, to help plan and begin building a road network for the Chrysler Technology Center in Auburn Hills, which is expected to employ 6,000 people. In 1989 there are 35 reapplications and 28 new applicants with needs in excess of \$200 million.

THE NEED TO DO MORE

Despite forecasting a major mismatch between needs and means, the MDOT's ten-year investment plan is silent about higher taxes to close the gap, and Governor Blanchard did not even hint at such a possibility in his 1989 State of the State Message to the legislature or in his FY 1989-90 state budget. There is, however, a key legislative proponent of a gas tax increase, House Speaker Lewis Dodak (D-Montrose), who is worried by the possibility of a preemptive federal fuel tax increase. Warning Michigan to be prepared to protect its primary transportation funding source, Dodak told the *Detroit Free Press* editorial board in January: "You know, we are very dependent on these roads. The rail systems aren't what they used to be, and today the roads are our lifelines. I definitely support a gas tax [increase]. I think we need to take a look at where the needs are and then proceed from there."⁶ In mid-April legislation increasing the gas tax rate by 2 cents was introduced in the House; similar legislation was introduced in the Senate in June (see the discussion below). Both bills are currently in committee. State transportation officials say the additional revenue would be used for road widening and economic development.

5 *Business Week*, August 29, 1988, p. 16.

6 *Detroit Free Press*, January 17, 1989, p. 7A.

Reinforcing the state's finding that at least \$2.7 billion more revenue for construction and repairs will be essential in the 1990s are statistics from the U.S. Department of Transportation. (See exhibits 1 and 2.) These data show that 14.8 percent of the interstate highway system in Michigan is deficient, which ranks the state 37th, as are 20.7 percent of the bridges that qualify for federal aid (Michigan ranks 21st in this regard).

Several bills currently pending before the state legislature are aimed at increasing the amount of revenue available to MDOT in order to improve the quality of Michigan's roads and highways:

- House Bill (HB) 4119, proposes an increase in the tax paid on motor fuel equivalent to 15 percent of any rise in the statewide average price of gasoline, diesel fuel, or alcohol-gasoline. The tax rate would be reassessed twice each year and increases limited to two cents per gallon above the amount imposed during the previous six-month period.
- HB 4630 (tie-barred to HBs 4631 and 4632) would increase the tax on motor fuel by 2 cents to 17 cents per gallon. [The Senate is considering legislation similar to HB 4630; currently before the Senate is Senate Bill (SB) 488, which also proposes a two-cent-per-gallon increase in the gasoline tax.]
- HB 4631 (tie-barred to HBs 4630 and 4632), the Rebuild Michigan Program Funding Act, would impose a one-cent-per-gallon fee on petroleum that is refined or stored in the state, and a portion of the funds would be allocated to service debt on bonds issued to improve and expand the state's roads, highways, streets, and bridges.
- SB 489 would allow for the issuance of bonds by the State Transportation Commission, revenues from which would be paid to the Michigan Road Capital Improvement Fund, established in the bill. The funds would be used for \$352 million of improvements to road and highway sites in Wayne, Oakland, Macomb, Kent, and Wexford counties. Two cents of the tax currently levied on motor fuel would be earmarked to service the debt on the bond issue.

If Michigan were to raise fuel taxes, would it be at a competitive disadvantage with other states? The answer is "no." The state's tax of 15 cents a gallon is less than the national average of 15.7 cents per gallon, and in the Midwest it matches Indiana, is one cent lower than Illinois, is 3 cents less than Ohio, and is well under Wisconsin (at 20.8 cents, the third highest in the country) and Minnesota (20 cents). Overall, Michigan ranks 33rd. (See Exhibit 3.) Michigan is one of only twelve states that have not raised gas tax rates since 1984. But in per capita spending on its highway system, Michigan is last among midwestern states, investing \$4,276 per mile, compared with the regional average of \$6,056.⁷

In two neighboring states with which Michigan competes directly for economic development, steps are being taken to improve the road system. In 1988 Illinois adopted a five-year highway construction program totaling \$3.6 billion, which included an increase in the gas tax; Ohio recently enacted an increase in their gasoline taxes, with additional increases becoming effective in 1990 (in both Ohio and Illinois); and a \$500 million highway bond issue recently was approved by voters in Ohio. (See Exhibit 4.) The Highway User Federation estimates that gas tax increases will be considered in 28 of 36 state legislatures meeting in 1989. Based on a 50-state review, *State Budget and Tax News* predicted gas tax increases will pass in at least one-third of the states this year. Increases in state motor fuel taxes were enacted in 16 states and the District of Columbia during the last legislative session, the highest number of increases since 1981 when 19 states raised their levies on gas.⁸ (See Exhibit 4.)

7 The Road Information Program, news release, August 31, 1988, p. 3.

8 Federation of Tax Administrators, *Tax Administrators News*, August 1989 (forthcoming).

EXHIBIT 1

**Percentage of Interstate Mileage in Deficient Condition,
Pavement Condition Rated 2.5 or Less, 1987**

Rank	State	Pct.	Rank	State	Pct.	Rank	State	Pct.
1	Delaware	0.0%	18	Vermont	4.4%		Average, 50 states	11.5%
1	Hawaii	0.0	19	Illinois	4.7	35	New Mexico	12.9
4	South Dakota	0.0	20	Indiana	5.2	36	Arizona	13.3
4	Alabama	0.1	21	Colorado	5.8	37	MICHIGAN	14.8
5	Wyoming	0.2	22	New York	6.2	38	Georgia	15.0
6	Maryland	0.3	23	South Carolina	6.5	39	Iowa	15.0
7	Washington	0.9	24	Florida	6.7	40	Idaho	15.4
8	Utah	1.0	25	Texas	6.7	41	Virginia	15.6
9	Connecticut	1.5	26	California	8.1	42	Oklahoma	23.6
10	West Virginia	1.7	27	Nevada	8.4	43	Rhode Island	24.3
11	Nebraska	2.1	28	Maine	9.0	44	Wisconsin	24.7
12	North Carolina	2.5	29	Montana	9.1	45	North Dakota	25.4
13	Kentucky	2.8	30	Louisiana	9.2	46	Oregon	35.2
14	Minnesota	3.6	31	Pennsylvania	9.3	47	Tennessee	36.3
15	New Jersey	3.8	32	Ohio	10.2	48	Mississippi	39.2
16	Massachusetts	4.1	33	New Hampshire	10.8	49	Missouri	40.0
17	Arkansas	4.4	34	Kansas	11.0	50	Alaska	41.8

SOURCE: *State Policy Reports 7* (February 1989): 9.

EXHIBIT 2

Percentage of Bridges in Deficient Condition on Federally Aided Systems, 1988

Rank	State	Pct.	Rank	State	Pct.	Rank	State	Pct.
1	Arizona	6.0%	18	Texas	18.2%	34	Massachusetts	32.2%
2	Utah	6.2	19	South Carolina	18.6	35	Tennessee	33.8
3	Wyoming	7.4	20	Illinois	20.4	36	Vermont	33.9
4	Alaska	8.1	21	MICHIGAN	20.4	36	Wisconsin	34.3
5	Nevada	11.0	22	Hawaii	23.3	38	Pennsylvania	34.9
6	Oregon	11.4	22	New Hampshire	23.3	39	Georgia	35.6
7	Idaho	13.8	24	virginia	23.5	40	Oklahoma	37.7
8	California	14.5	25	Nebraska	26.3	41	Maryland	38.2
9	Delaware	15.6	26	Iowa	26.6	42	Missouri	38.4
10	Rhode Island	16.4		Average, 50 states	28.1	43	North Dakota	38.6
11	Maine	16.6	27	Arkansas	28.5	44	Alabama	39.7
11	Minnesota	16.6	28	Kansas	29.8	45	Mississippi	42.0
11	South Dakota	16.6	28	Louisiana	29.8	46	Kentucky	44.2
14	Florida	16.9	30	Washington	30.2	47	West Virginia	49.5
15	Colorado	17.0	31	North Carolina	30.4	48	Montana	53.8
16	New Mexico	17.5	32	New Jersey	30.8	49	New York	60.8
17	Ohio	17.9	33	Indiana	31.6	50	Connecticut	65.0

SOURCE: *State Policy Reports 7* (February 1989): 10.

EXHIBIT 3

State Gasoline Tax Rates, August 1989 and Five-Year Changes

Rank	State	1989 Rates ^a (cents/gallon)	Total Increase, 1984-89 (cents/gallon)	Rank	State	1989 Rates ^a (cents/gallon)	Total Increase, 1984-89 (cents/gallon)
1	Nebraska	22.3	7.4	26	Oregon	16.0 ^{a,b}	7.0
2	North Carolina	20.9 ^a	8.9	26	South Carolina	16.0	3.0
3	Wisconsin	20.8	4.8	32	West Virginia	15.5 ^a	5.0
4	Montana	20.0	5.0	33	Kentucky	15.0	5.0
4	Iowa	20.0	7.0	33	MICHIGAN	15.0	0.0
4	Connecticut	20.0	5.0	33	Texas	15.0	10.0
4	Tennessee	20.0 ^a	11.0	33	Indiana	15.0	3.9
4	Rhode Island	20.0 ^a	7.0	33	Kansas	15.0 ^{a,b}	4.0
4	Colorado	20.0 ^{a,b}	7.0	38	New Hampshire	14.0	0.0
4	Minnesota	20.0	3.0	39	Arkansas	13.5	4.0
11	Utah	19.0	5.0	40	Pennsylvania	12.0	0.0
12	Maryland	18.5	5.0	41	Alabama	11.0 ^c	0.0
13	Mississippi	18.0	9.0	41	Missouri	11.0	4.0
13	Washington	18.0	0.0	41	Massachusetts	11.0	0.0
13	Washington, DC	18.0 ^a	2.5	41	Hawaii	11.0 ^c	2.5
13	Nevada	18.0	7.8	45	New Jersey	10.5	0.0
13	Ohio	18.0 ^{a,b}	6.0	46	Florida	9.7 ^c	5.7
13	Idaho	18.0	3.5	47	California	9.0	0.0
13	South Dakota	18.0	5.0	47	Wyoming	9.0 ^a	1.0
20	Virginia	17.5	6.5	49	Alaska	8.0	0.0
21	Oklahoma	17.0 ^a	8.0	49	New York	8.0	0.0
21	North Dakota	17.0	4.0	51	Georgia	7.5 ^d	0.0
21	Maine	17.0 ^a	3.0				
21	Arizona	17.0	4.0		U.S. Median	16.0	4.0
25	New Mexico	16.2 ^a	5.2		U.S. Average	15.7	4.1
26	Vermont	16.0 ^a	3.0				
26	Illinois	16.0 ^{a,b}	4.0				
26	Delaware	16.0	5.0				
26	Louisiana	16.0	0.0				

SOURCES: Advisory Council on Intergovernmental Relations, "Significant Features of Fiscal Federalism," 1989 ed., vol. 1, #M-163 (Washington, DC: January 1989), p. 65; Federation of Tax Administrators, *Tax Administrators News*, July 1989, p. 78, and August 1989 (forthcoming).

NOTE: State tax rates are in addition to federal tax of 9 cents per gallon on gasoline and 15 cents per gallon on diesel fuel.

^aRate increased by 1989 legislative action.

^bRate will increase in 1990.

^cAlso subject to local sales tax.

^dAlso subject to retail sales tax.

FEDERAL FUEL TAXES

Complicating prospects for raising the gas tax in Michigan is talk of an increase at the federal level. Already frustrated by the partial federal freeze on state highway aid—which has created a surplus of \$10 billion in the U.S. Highway Trust Fund and has cost Michigan an estimated \$212 million in federal assistance since 1985—now state officials and highway lobbies here and across the nation are fighting the latest proposal

EXHIBIT 4

Changes in Gasoline Taxes in States and the District of Columbia, 1989

State	Change in Tax
Colorado	Increased gas tax by 2 cents, with an additional 2-cent increase effective July 1, 1990; increased diesel fuel rate to 20.5 cents per gallon
District of Columbia	Increased gas tax by 2.5 cents
Illinois	Increased gas tax and diesel fuel rate by 3 cents, with an additional 3-cent increase effective January 1, 1990
Kansas	Increased gas tax and special fuel rate by 4 cents, with an additional one-cent increase in each of the years 1990-92
Maine	Increased gas tax by one cent
Nevada	Increased diesel fuel tax by 2 cents
New Mexico	Increased gas tax by 2 cents
North Carolina	Increased gas tax by 5.25 cents
North Dakota	Increased gas tax ^a and special fuel rate by 3 cents
Ohio	Increased gas tax by 3.2 cents, with an additional 2-cent increase effective July 1, 1990
Oklahoma	Increased tax on underground storage tanks by one cent
Oregon	Increased gas tax 2 cents effective January 1, 1990, with an additional 2-cent increase effective in 1991
Rhode Island	Increased gas tax by 5 cents; increased diesel fuel rate by 3 cents
Tennessee	Increased gas tax by 4 cents; increased special fuel rate by 2 cents
Vermont	Increased gas tax and special fuel rate by 2 cents
West Virginia	Increased gas tax by 5 cents
Wyoming	Increased tax on underground storage tanks by one cent

SOURCE: The Federation of Tax Administrators, *Tax Administrators News*, August 1989 (forthcoming).

^aSuspended pending voter approval.

from Washington. It has been suggested that huge chunks of new federal gasoline and diesel fuel tax revenues be raised and diverted from transportation into the general fund to close the budget gap.

Such influential Washington figures as Rep. Dan Rostenkowski (D-Illinois), chair of the House Ways and Means Committee, and Alan Greenspan and Paul Volcker, respectively the present and past chairs of the Federal Reserve Board, are on record as favoring diversion of the fuel tax. They find the idea appealing for several reasons: Energy prices are relatively low (oil is two-thirds the price it was in the early 1980s); other tax increases are unattractive to voters; the collection system is already in place; and the gas tax is stable and is expected to produce \$1 billion a year for every tax increase of one cent per gallon.

Proponents also anticipate energy, trade, and environmental benefits, arguing that the tax hike would

- push U.S. motorists toward fuel-efficient vehicles, just as much higher gas taxes have done in Europe (\$2.41 a gallon in France, \$1.76 in Great Britain, \$1.46 in West Germany) and Japan (\$1.62 per gallon).

Federal fuel taxes in this county now amount to 9.1 cents per gallon (the 0.1 cent is a “superfund” tax on petroleum companies), and state fuel taxes average 15 cents a gallon;

- cut U.S. dependence on foreign oil, which would improve national energy security and reduce the deficit-plagued balance of trade; and
- lower fuel consumption, thus cutting carbon dioxide and monoxide emissions and mitigating the greenhouse effect.

Spearheading the states’ resistance to diversion of fuel tax revenues is MDOT Director James Pitz, president of the American Association of State Highway and Transportation Officials. Pitz argues that the states, now drawing 81 percent of their highway revenue from motor fuel taxes on highway users, would suffer a double blow, since their own plans for higher fuel taxes would be virtually preempted, and the decline in fuel consumption induced by a higher federal tax would slice state fuel tax revenues—by \$800 million in the first year alone, according to the U.S. Department of Energy. Furthermore, there would be a small negative effect on the national economy. Wharton Econometric Forecasting Associates estimates that an increase of ten cents would reduce gross national product by \$10 billion the first year, which equates to 80,000 lost jobs and would mean cuts in automobile and housing production. Finally, Pitz maintains, the burden of deficit reduction would fall unfairly on lower-income motor fuel users and on residents in rural areas and in large states (where more driving is necessary).

As shown in Exhibit 5, gasoline consumption per vehicle ranges from 148.5 percent of the U.S. average in Arkansas to 61.4 percent in New Hampshire. A federal gasoline tax increase of ten cents would cost the average motorist \$130.40 per year in Arkansas but only \$53.90 in New Hampshire. In Michigan, where gasoline consumption is 87.6 percent of the U.S. average, the increase would cost the average motorist \$76.90 a year. In all states, those earning less than \$10,000 annually would pay more than three times as much relative to their income as would more affluent motorists.

CONCLUSION

Several steps should be taken to ensure that Michigan maintains a sound transportation system into the next century.

First, enact a tax increase of two cents per gallon, which would yield another \$90 million a year and keep the highway maintenance and improvement program moving.

Second, remove the lid from the state fuel tax. The formula was designed to stabilize and gradually increase transportation revenue in keeping with the rise in construction costs due to inflation and the increase in fuel-efficient cars. If uncapped, the formula should reach current levels in Wisconsin and Minnesota—20 or 21 cents a gallon—within five years.

Third, earmark another hike of one cent per gallon for bond issues to enable the MDOT to finance borrowing for pressing projects. Among these are U.S. 131 north of Cadillac, U.S. 27 north of Lansing, the North Belt in Grand Rapids, and several “connector” roads in metropolitan Detroit. The MDOT is paying \$23.7 million this year on highway debt service, which is small compared with other states (see Exhibit 6). The law permits bonding of up to \$170 million, or 50 percent of the State Trunkline Fund (which currently amounts to approximately \$300 million).

EXHIBIT 5

Gallons of Gasoline Used per Registered Vehicle, by State, 1986

Rank	State	Gallons Per Vehicle	Percent of the U.S. Average	Cost per Vehicle of Gas Tax Increase of \$.10
1	Arkansas	1,304	148.5%	\$130.40
2	Wyoming	1,251	142.5	125.10
3	Texas	1,184	134.9	118.40
4	Alaska	1,130	128.7	113.00
5	Louisiana	1,124	128.0	112.40
6	Montana	1,028	117.1	102.80
7	Kentucky	1,024	116.1	102.40
8	Utah	1,022	116.4	102.20
9	Missouri	1,019	116.1	101.90
10	W. Virginia	1,014	115.5	101.40
11	Arizona	1,001	114.0	100.10
12	North Dakota	981	111.7	98.10
13	South Carolina	980	111.6	98.00
14	California	978	111.4	97.80
15	Nevada	969	110.4	96.90
16	South Dakota	959	109.2	95.90
17	Georgia	950	108.2	95.00
18	Oklahoma	938	106.8	93.80
19	New Mexico	930	105.9	93.00
20	North Carolina	928	105.7	92.80
21	Mississippi	918	104.6	91.80
22	Nebraska	909	103.5	90.90
23	Maine	904	103.0	90.40
24	Delaware	890	101.4	89.00
25	Idaho	888	101.1	88.80
	Average, 50-states	878	100.0	87.80
26	Wisconsin	856	97.5	85.60
27	Tennessee	844	96.1	84.40
28	Indiana	837	95.3	83.70
29	Minnesota	829	94.4	82.90
30	Vermont	829	94.4	82.90
31	Kansas	826	94.1	82.60
32	Oregon	803	91.5	80.30
33	Alabama	798	90.9	79.80
34	Colorado	785	89.4	78.50
35	Virginia	784	89.3	78.40
36	Illinois	781	89.0	78.10
37	MICHIGAN	769	87.6	76.90
38	Pennsylvania	741	84.4	74.10
39	New Jersey	737	83.9	73.70
40	Maryland	732	83.4	73.20
41	Washington	731	83.3	73.10
42	Massachusetts	729	83.0	72.90
43	Rhode Island	729	83.0	72.90
44	Ohio	721	82.1	72.10
45	Iowa	719	81.9	71.90
46	New York	717	81.7	71.70
47	Florida	693	78.9	69.30
48	Hawaii	581	66.2	58.10
49	Connecticut	574	65.4	57.40
50	New Hampshire	539	61.4	53.90

SOURCE: Data on gallons of gasoline from *State Policy Reports 7* (February 1989): 5.

EXHIBIT 6

**Major Bonded Highway Debt Outstanding at the End of FY 1986-87
(millions of dollars)**

State	Amount	State	Amount
Pennsylvania	\$1,642	Mississippi	\$229
Louisiana	1,418	North Carolina	227
Illinois	1,118	Minnesota	160
Kentucky	1,013	Montana	150
Massachusetts	910	Kansas	149
New Jersey	882	Hawaii	148
Connecticut	797	Florida	134
Arizona	766	MICHIGAN	132
West Virginia	636	Alaska	103
Georgia	623	Rhode Island	103
New York	602	Oregon	102
Washington	473	Maine	91
Ohio	415	New Mexico	63
Wisconsin	301	Tennessee	58
Delaware	280	Nevada	54
Alabama	238		

SOURCE: *State Policy Reports 7* (February 1989): 16.

Fourth, review and evaluate the statutory mechanics of the Transportation Economic Development Fund. Much of the \$1.8 billion that local governments need for road work is targeted toward industrial development. At least doubling the \$53 million fund would make sense, and some or all of the additional money could be borrowed if other funds were made available for debt service.

The need for increased highway spending is clear, but the political will may be lacking. Any action prior to the 1990 gubernatorial election is unlikely. Also, it will be particularly difficult to raise the gas tax in Michigan if there is an increase at the federal level, but without additional revenues the state's transportation infrastructure will continue to deteriorate, which will have serious consequences for economic growth.

NOTE: Research for the Commentary was contributed by William Merriman, a freelance journalist and writer on public policy.

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