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REFORMING MARYLAND'S SURFACE TRANSPORTATION PROGRAM

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As is the case with many other urbanized states, traffic congestion in Maryland is getting worse. According to the Texas Transportation Institute, congestion measures in Maryland metropolitan areas have increased steadily since 1982, when comparable quantitative measures of congestion were first calculated for American cities. Table 1 shows trends in Maryland's two major metropolitan areas since 1982 as compared to the same measure for 75 of the top U.S. metropolitan areas. While the D.C. area's congestion is worse, Baltimore's has been worsening faster and now nearly matches the national average.

Complicating this condition is a declining state commitment to highway capacity improvement. Nationwide, state transportation budgets have been stagnant or falling. Part of the reason for this is a flattening of fuel tax revenues as Americans limit their driving. Another reason is that some states are diverting transportation funds to non-transportation programs. In response to those trends, some elected officials, often supported by the business community, recommend a tax increase—on motor fuels or on all sales, or both—to raise more revenues for transportation spending.

Taxes and transportation For the most part, surface transportation spending at the federal and state level is funded by fuel taxes, levied on a cents-per-gallon basis, that the motorist or trucker pays when he fills up his tank. Fees for driver's license and car registration, as well as excise taxes on tires and other fuels, are also often dedicated to transportation spending in many states.

TABLE 1
Percent of Daily Travel Spent in Road Congestion

Area	1982	1990	1996	2000	2003
Baltimore	12	22	27	31	33
Washington	25	36	39	40	42
All 75 Areas	16	26	30	33	34

Source: *2003 Mobility Report*, Exhibit A-14 (p. 76), Texas Transportation Institute.

Since 1998, the federal fuel tax has been set at 18.4 cents per gallon. States are free to add their own tax on top of this, and every state takes advantage of that opportunity. The level of taxation ranges significantly from state-to-state; at the time of this writing, Georgia has the lowest gasoline tax at 7.5 cents per gallon while Wisconsin has the highest at 28.5 cents. At 23.5 cents per gallon, Maryland's fuel tax is slightly above the state weighted average of 19.08 cents per gallon, and six cents a gallon above neighboring Virginia's 17.5 cents.

Tax increases At the federal level, House Transportation Committee Chairman Don Young (R-Alaska) has proposed raising the federal fuel tax to as much as 33 cents per gallon in order to

increase federal transportation spending by $125 billion over the next six years. The increase would boost federal gasoline tax revenue from $250 billion over those six years to $375 billion, which means roughly an extra $20 billion in spending per year. But Rep. Young is opposed in this effort by the White House and by many of his congressional colleagues, and this has led to a lengthy deadlock in progress toward a new federal transportation law.

Similar tax increase proposals have been introduced or discussed in many states that now face costly transportation projects that exceed available revenues. In Maryland and in many other states, some elected officials have recently proposed increases in the state fuel tax of five cents or more per gallon to pay for more transportation spending.

Whether those and other transportation-related tax increases will ultimately be enacted is hard to predict. If left to the voters, recent trends suggest that their prospects could be dim. Statewide and local referenda on transportation tax increases in Missouri, Virginia, California, Florida, Washington, Colorado, Ohio, Kansas, and Arkansas have failed, as have two broader statewide tax referenda in Oregon (for general budget needs) and Alabama (for education). Importantly, many of those initiatives failed despite significant political support and financial backing. For instance, in October 2003, voters in Orlando rejected a tax increase although tax supporters outspent opponents by a margin of $1.5 million to $21,000 in the preceding campaign to influence the hearts and minds of the voters.

Although the failures are numerous, some transportation tax increase proposals have been endorsed by voters while others have been enacted by state legislatures. Those political successes have encouraged transportation tax advocates to keep trying in an effort to better address local transportation problems. In Virginia, for example, State Sen. Jim Dillard of Fairfax County supports a 10 cent increase in the state gas tax even though his constituents voted against the 2002 transportation tax referendum. It is tempting to view such determination as contemptuous of his constituents' preferences, but those same constituents are demanding that the region's transportation be improved. Caught between a rock and a hard place, many elected officials come to see tax increases as the path of least resistance, particularly when the proposal is supported by a well-financed campaign and backed by community leaders.

ALTERNATIVES

There is, however, a way for elected officials to hold the line on taxes while making substantial improvements in local transportation. As an analysis of both the federal and Maryland transportation budgets will reveal, significant amounts of money are spent on politically popular projects that benefit only a tiny fraction of the traveling public or have little value in improving the mobility of the average Marylander. If state policymakers were to reallocate those funds to more useful projects, that would go a long way toward getting traffic moving again in the Old Line State.

Federal money This analysis begins with the federal highway program because most federal highway money is allocated to each state by way of a formula that attempts, imperfectly, to measure

TABLE 2
Leakage from Annual Distributions of Highway Trust Fund Money
As Estimated in TEA-21 for FY 2001
(dollars in millions)

Program	Cost	% of total spending
Transit	$7,274	19.2
Congestion mitigation and air quality	1,385	3.6
Federal lands, trails, Appalachian project, etc.	1,206	3.2
Earmarks (High Priority)	1,685	4.4
Ferry, MagLev, covered bridges, scenic easements	422	1.1
Research, misc.	647	1.7
For the Motorist	25,196	66.8

Source: DOT at *www.fhwa.dot.gov/tea21/sumauth.htm*

needs. In Maryland, about $750 million, or 20 percent of the state's transportation budget, is from the federal government's highway trust fund.

That federal money comes with strings attached that determine how the money is allocated among competing uses. Table 2 shows how federal transportation spending was to be allocated in FY 2001 under current federal law. As the table reveals, only about 67 percent of the federal fuel tax revenues paid by motorists actually end up being applied to general purpose roads and highways. The other 35 percent leaks away to such undertakings as historic preservation programs, hiking and biking trails, roadside beautification, national forests, the Appalachian Regional Commission, and "pork barrel" projects. As the table further reveals, the biggest leakage of all is to dubious transit programs that serve a very low percentage of commuters. Some 20 percent of the federal transportation budget is spent on less than five percent of the commuters nationwide who use transit, or less than two percent of all travelers who use transit for one purpose or another.

Thus, the federal money that reaches Maryland may already be biased away from the types of projects that benefit the greatest number of travelers and toward projects favored by narrow special interests where the benefit to the community at large is minimal. Transit ridership is a case in point. According to data compiled from the 2000 Census, over the past decade transit ridership in Maryland fell both absolutely and as a share of the commuting market. In 1990, the Census reported that 196,462 Maryland commuters, accounting for 7.9 percent of the market, used some form of public transit to get to and from work. By 2000 however, that number had fallen to 180,532, or 6.9 percent of the journey-to-work market. To express that rate of usage in another perspective, many more Marylanders car pooled to work (320,992) in 2000 than took all forms of transit that year.[1]

Though transit's share of the Maryland commuter market is small and shrinking, a cursory review of Maryland's transportation spending will show that transit programs absorb a disproportionately large share of Maryland's surface transportation budget. That reflects a degree of distortion even more biased than that of the federal transportation spending.[2]

Trust fund Maryland's proposed FY 2004 Department of Transportation budget amounts to $3.2 billion dollars. It operates on the principle of a "trust fund," essentially an accounting technique to establish a program with a dedicated funding source for certain defined spending programs. Maryland's dedicated funding source is comprised largely of a series of taxes derived from automobile sales and usage. Counting federal aid, which is derived from the federal fuel tax charged motorists and truckers, almost three quarters of the money flowing into the fund is from state and federal fuel taxes, title fees, and auto registration fees. Debt, taxes on corporations, and operating revenues derived from BWI Airport and the Port of Baltimore account for another 20 percent. Although those trust fund monies are technically reserved for transportation purposes, in 2004 about three percent of the fund will be transferred to Maryland's General Fund to help offset the budget deficit.[3]

In turn, the money so raised is spent on a variety of transportation programs that can largely be divided into three types of spending: capital programs ($1.437 billion), operating programs ($1.126 billion), and revenue sharing programs with counties and municipalities ($487 million). Each of those broad types of spending can be further subdivided by whether the money is spent on roads, transit, aviation, or ports.

Highways under-funded Separating surface transportation spending from other modes of transportation that are not used for commuting or intrastate mobility (i.e., by excluding spending for aviation and port programs), and bearing in mind that transit today carries less than seven percent of Maryland commuters, an analysis of Maryland's transportation operating program reveals that transit programs in 2004 (Washington Metropolitan Area Transit Authority and Maryland Transit

1. U.S. Bureau of Census, Table PO49, Means of Transportation to Work (Data Set 1990) and Table P30, Means of Transportation to Work (Data Set 2000).
2. Transit ridership in Maryland fell through 1996 and then increased each year through 2000, but did not reach 1990 levels. Data from Texas Transportation Institute indicate ridership fell in 2001, the most recent year available.
3. *Maryland Department of Transportation, FY 2004 Budget Allowance*, February 2003, p. 12.

Authority) are to receive 59 percent of the $921.1 million operating budget that will be spent on surface transportation, implying that roads, which serve 86 percent of commuters, will receive only a 41 percent share.

For Maryland's capital budget, and again limiting the review to just the $1,233.6 million that will be spent on surface transportation, transit receives a 28 percent share of the budget. When both the operating and the capital budgets are combined, transit gets a 40 percent share of the total surface transportation budget, about 450 percent greater than its share of the journey-to-work market.

Given Maryland's allocation of federal and state transportation dollars, it is no wonder that traffic congestion is worsening and road conditions are deteriorating. Despite transit's marginal share of the journey-to-work market, it gets a disproportionate share of the funds, while roads, which carry the vast majority of commuters and all of the freight and commercial traffic, get much less of a share. Those share imbalances have been worsening over the past several years as spending on transit has grown faster than spending on roads. Despite massive tax subsidies from motorists, transit's share of the journey-to-work market has shrunk in Maryland and in virtually every other state in the union as motorists continue to opt for cars because they are cheaper, faster, and more convenient.

In reviewing the recent Maryland transportation budget trends, two policy implications are apparent:

- First, current and past budget allocations among alternative transportation modes reveal a pattern of under-funding the mode of transportation most Marylanders use—highways—because a disproportionate share of transportation spending is wasted on underutilized transit services. As automobile use rises faster than road capacity expands, congestion worsens.
- Second, if future budget allocations between alternative modes of transportation are similar to those of the present, then only a fraction (about 60 percent) of the proposed increase in state fuel taxes paid by motorists will go to roads to relieve traffic congestion, with the rest spent on underutilized transit programs. As the under-funding of Maryland's roads continues, traffic congestion will only worsen from where it is today.

Flawed strategies The overemphasis on transit spending is not accidental, but rather reflects a flawed transportation strategy common to both the federal government and many states. As urban congestion became more common in the latter part of the 20th century, many transportation analysts came to believe that communities could not build their way out of road congestion and that the best solution was to stop building roads and to shift car passengers on to newly expanded transit systems.

To implement this new transportation strategy, governments at all levels in the United States began shifting resources from roads to transit. Since 1965, those governments have spent slightly more than $500 billion (in 2003 dollars) to build and subsidize transit systems.

Notwithstanding the good intentions associated with this strategy, it has largely failed to accomplish its goal for a number of reasons:

- Despite this huge increase in transit spending and the construction of costly new rail systems in many metropolitan areas, transit's share of the journey-to-work market has consistently fallen throughout the United States. Maryland is no exception to that pattern.
- On a per-passenger-mile cost basis, all types of transit are more expensive than automobiles. For light rail, the average cost per passenger-mile is around $1.37. For bus service, the cost is 76 cents per passenger-mile, and for automobiles it is around 34 cent per vehicle-mile.[4] The implication is that, for a given level of expenditure, an automobile system provides twice as much transportation service as a bus system, and four times as much as light rail. Thus, states that shift money from roads to transit, especially light rail, substantially reduce the level of transportation services they could otherwise provide their citizens for a fixed budget. Conversely, shifting money from transit to roads can increase the level of per-passenger-mile transportation services that could be provided.
- Transit systems are slower and increase the average commute time for workers. An American's average commute to work driving alone

4. "Public Transit: A Bad Product at a Bad Price," by John Semmens, Laissez-Faire Institute, January 2003, p. 13.

in a car is 21 minutes. The average commute time to work by public transit bus is 38 minutes. The average commute time to work by light rail or subway is about 45 minutes.[5]

- Transit systems reach fewer destinations than roads, and slower speeds reduce their scope even further. As noted in a previous paper that I co-authored with transportation consultant Wendell Cox, "At average transit operating speeds of 15 miles per hour, the maximum 'job shed' of 175 square miles can be accessed in 30 minutes…On the other hand a person with an automobile can expect to average 30 miles per hour and reach a job shed of 700 square miles in 30 minutes."[6]

Despite the vast sums spent to expand, subsidize, promote, and upgrade transit, most American commuters reject transit for all of the deficiencies listed above. Instead, a vast and growing majority of people choose to travel by automobile for all of the benefits listed above. Public officials should accept the logic of the public's decision and develop transportation budgets that facilitate that preference while rejecting the current policies that largely work to undermine that preference.

In fairness, the state's elected representatives are only following the advice on how to combat congestion as expressed by the majority of state bureaucrats, planners, academics, activists, and media reporters. The trouble is that advice — almost a conventional wisdom — is profoundly at variance with the public's clear preference for the automobile, and is doomed to failure. It is time that advice was rejected.

WHAT MARYLAND SHOULD DO

To free financial resources for more highway capacity without raising taxes, Maryland should look for opportunities to reduce the cost of current transit services, reallocate budget savings to roads, and develop non-tax revenue sources to increase funding levels. Such opportunities include:

- **Reduce costs in transit by competitive contracting.** With rare exception, most American transit systems are government-owned monopolies that provide services at costs that are often higher than would exist in a competitive market. An increasingly common way to introduce the money-saving benefits of competition into public sector operations is to create a process of competitive contracting whereby qualified service providers bid on specific transit services and contracts are awarded to bidders that can offer the best service at the lowest price. Such services as the operation of individual routes, vehicle cleaning, and vehicle repair and maintenance are some of the services that are typically contracted out by metropolitan transportation service.

  MTA already contracts for bus service on some of its commuter routes, and MARC contracts with both Amtrak and CSX to operate trains on its three commuter lines. But much more can be done, and the savings could be substantial. On average, savings from competitive contracting typically run between 25 and 30 percent off the previous cost of the particular service.[7] While much of the transit contracting in the United States has been piecemeal and implemented by only a few urban systems, in the United Kingdom it has been used extensively and with great success. Operations of London's 6,000-vehicle bus system were incrementally contracted out to private operators over the period 1985 to 1999. By 1997, the system was operating at a profit. More recently, the operations of the London Underground have been contracted out.

  Similar steps were taken in Copenhagen in 1989, and in Stockholm beginning in 1993. Closer to home, Las Vegas has contracted out its entire public transit system, Indianapolis has contracted out 70 percent of its bus service, and Los Angeles has done the same for about 20 percent of its bus service.[8]

- **Eliminate routes that are the least cost effective.** Some transit routes are so costly

5. Semmens, p. 9, cited from *Commuting in America*, by Alan E. Pisarski.
6. "Transit Advocates Want the Working Poor to Use Bikes and Buses, Not Cars," Heritage *Backgrounder* No. 1687, by Wendell Cox and Ronald D. Utt, September 15, 2003, p. 4.
7. "Improving Government Performance Through Competitive Contracting," by Ronald D. Utt, Heritage *Backgrounder*, No. 1452, June 25, 2001, pp. 5–7.

and underutilized that money-saving/service-improving reforms, however vigorously applied, are not enough to bring costs more closely in line with benefits. Under such circumstances, the best strategy is simply to shut them down, or offer existing riders a less costly alternative such as substituting buses for rail service. Recently, D.C.'s Metro transit system announced that it would close down nearly a dozen bus routes in the District of Columbia because low ridership led to high per-passenger subsidies over and above what passengers paid in fares. In California's Silicon Valley, more than 20 percent of the bus and light rail service was canceled by San Jose's Valley Transit Administration because of falling ridership and growing deficits.

Maryland transportation officials recently raised similar concerns about the high per-passenger costs associated with extending the state's commuter rail MARC line to Frederick. According to Maryland Transportation Secretary Robert Flanagan, "The MARC rail line was extended to Frederick at a cost of $53 million, but only carries 300 passengers a day. For that cost, the state could have bought every traveler their own vehicle." Actually, Mr. Flanagan was too modest in his comparative measure of waste: With the $53 million subsidy amounting to $174,000 per Frederick passenger, MDOT could have bought each of the 300 passengers a house! Or better yet, Mr. Flanagan could buy each one an SL600 Mercedes-Benz Roadster with a twin-turbocharged, 36-valve 5.5 liter V-12 engine. At a cost of $126,670.00 a piece, a Mercedes-Benz buyout policy could have saved Maryland taxpayers $14.4 million as compared to extending the line to Frederick.

Unlike highways and roads where user fees paid by motorists usually cover the costs of construction and maintenance, virtually all transit systems in the United States lose money, and fare box collections cover only a portion of the costs—sometimes as little as 25 percent of the cost incurred. So while transit will never become financially self-sufficient under its current institutional arrangement (public monopoly), the magnitude of its losses can be reduced by limiting public resources only to those routes and modes that meet some measure of cost effective operation.

One way to accomplish this is to rank each route and mode by some measure of the subsidy that Maryland taxpayers must pay to keep it in operation. To facilitate meaningful comparisons of the subsidy from one operation to another, subsidies could be expressed as a cost per passenger or a cost per passenger-mile. By establishing meaningful cost comparisons, each operating component could be ranked by such normalized costs, and those above a certain cutoff point would be subject to closure, service reduction, or a fare increase in order to bring future costs below the established cutoff point.

- **Use tolls to finance additional capacity in congested metro areas.** As many states confront the challenge of meeting road construction and repair needs that exceed available financial resources, more and more states and metropolitan areas are looking to utilize tolls as a way to pay for the cost of added road capacity to relieve congestion. Recognizing that the driving public will oppose adding tolls to roads already free, most toll proposals today limit their application to new capacity. Typical are the proposals that would add toll express lanes, or add or convert high occupancy toll (HOT) lanes to supplement existing free lanes, or would add a new highway where none exists at present.

  America's first, and most successful, toll express lanes were those built and operated by private investors between 1995 and 2000 within the median strip of State Route 91 in Orange County, California. In Houston, Texas, the Katy Freeway was built to serve high occupancy vehicles (HOV 3), but excess capacity encouraged the state to convert it to a HOT lane where cars with fewer than three passengers pay a toll.[9]

  Since then, many metropolitan areas have begun to investigate the possibility of utilizing the concept in their own communities. Den-

8. "Competition, Not Monopolies, Can Improve Public Transit," Heritage *Backgrounder*, No. 1389, by Wendell Cox, August 1, 2000, pp. 20–22.

ver, Minneapolis, Seattle, Dallas, and San Francisco are just some of the cities that are seriously investigating HOT lanes or toll express lanes as a way of adding new capacity and mitigating congestion. Wisconsin is looking to tolls to help pay a $6.2 billion renovation project for Milwaukee's freeways.

In Virginia, three serious proposals have been presented to the Virginia Department of Transportation over the past year by private investor groups to build new toll express lanes under Virginia's innovative Public-Private Partnership Act. This Act encourages the state to work with private investor/builder consortiums to develop, finance, and build new road capacity. One proposal would add new toll lanes to the I-495 Beltway between I-66 and the I-95/395 interchange at Springfield, another would add truck-only toll lanes on I-81, and the third would add an additional lane to the existing two HOV lanes on I-95 and extend the three lanes for another 20 miles through Stafford County to Fredericksburg by utilizing the land available in the median strip.

While HOT and toll express lanes offer motorists a choice between free or fee, tolls are also being considered for entirely new commuter routes whose costs will be funded by tolls paid by the motorists who use them. In Maryland, the proposed $1.3 billion Inter-County Connecter (ICC) is endorsed by the governor, state secretary of transportation, and Montgomery County board chairman, but making room for the new project in the budget would require either a tax increase or the delay or cancellation of other transportation projects. With funds limited, much of the discussion on how to finance the ICC focuses on the use of tolls to finance some or all of the construction costs.

Although Maryland has had a history of success in using tolls to help fund portions of I-95 and to build a number of bridges and tunnels, it has not used them to fund roads that primarily serve local commuters. Virginia, by contrast, has taken the opposite tack, avoiding tolls on its interstates but using them to finance the construction of commuter roads in urbanized areas. The Dulles Toll Road and the Dulles Greenway in Northern Virginia, and the Pocahontas Parkway near Richmond are successful examples of this trend, and could serve as models for the ICC.

- **Establish quantitative goals for congestion mitigation.** While greater use of tolls would target the most congested corridors and add financial resources over and above those raised by the several taxes dedicated to the state's transportation trust fund, MDOT should also establish quantitative goals related to congestion mitigation to guide it in choosing projects that provide commuters and travelers with better performance for dollars spent.

  All too often at the federal, state, and local level, the transportation projects selected for financing have more to do with satisfying influential political constituencies and regional interests than in alleviating congestion. As a consequence, few state transportation departments have established quantitative measures of need and performance that, in turn, could be used to establish priorities among competing needs and allocate scarce funds to projects that would have the greatest impact on congestion and safety.

  Recently, the Texas Department of Transportation has taken steps to correct this deficiency by adopting a mobility objective based upon quantitative standards of congestion and access (measured by average travel time), and will use that objective to allocate funding for highway improvements. For example, if the goal is to reduce average travel time by a certain percent in a particular metropolitan area, say Houston, then engineering and traffic management studies would be conducted to determine what investments and projects will achieve that goal in the most effective way.

  Once the study is completed, funds are allocated accordingly, progress and performance are measured periodically against goals, and a reporting system is established to ensure that state policymakers are kept informed of the

9. For more information on toll practices and opportunities, see "Reauthorization of TEA-21: A Primer on Reforming the Federal Highway and Transit Programs," Heritage *Backgrounder* No. 1643, by Ronald D. Utt, April 7, 2003; and "Tolls and Surface Transportation Reauthorization," Heritage *Backgrounder* No. 1650, by Peter Samuel, May 2, 2003.

pace of progress and any deficiencies in it. In this way, all proposals will have to be systematically analyzed as to their congestion mitigation potential, and those not capable of meeting the objective within the time frame and budget established are rejected in favor of those that will.

Although such performance-based proposals are designed to take the guesswork out of transportation investments, they can be structured in ways that do not interfere with broad regional allocations that now take place within states, e.g., high congestion scores in Montgomery County will not take funds from less congested Washington County. Rather, the performance-based process of project selection will be limited to determining allocations within a county or transportation district.

CONCLUSION

Maryland should avoid raising the gas tax to increase funds for transportation programs. As one of the most regressive taxes that governments impose, the burden of a gas tax falls disproportionately on those with modest incomes whose level of automobile usage is not materially different from that of the well-to-do. Moreover, given current spending patterns within MDOT, it is also unlikely that much of the revenues raised by a tax increase would be dedicated to additional road capacity in places where such capacity is needed because of severe congestion.

Instead of a tax increase, MDOT should consider allocating spending among different modes in ways that benefit the highest number of travelers and commuters, rather than narrow but influential constituencies. Within modes, particularly transit, MDOT should take steps to reduce the subsidy on those routes with high per-passenger-mile costs by either reducing service or raising fares. MDOT should also look for opportunities to use tolls and other non-tax fees to add capacity in congested corridors, and to establish quantitative performance goals to help guide future allocations of financial resources among competing opportunities.

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