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Smart Spending?

A Closer Look at Maryland's Transportation Budgets

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A CLOSER LOOK AT MARYLAND'S TRANSPORTATION BUDGETS

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1. Introduction

Taken as a whole, Maryland's Smart Growth Areas Act of 1997 proposes to direct public spending in ways that encourage growth within targeted urbanized areas and protect areas outside these designated areas from intense development. The Maryland Smart Growth Areas Act aims to influence the location of public infrastructure investments within or linking Priority Funding Areas (PFAs), areas considered the traditional core of Maryland's urban development including all incorporated municipalities, the developed areas inside the Washington, DC and Baltimore beltways, and other areas designated by the state's 23 counties. Transportation investments comprise the majority of state infrastructure spending and thus play an important role in the success of this policy. The policy, therefore, attempts to indirectly link transportation and land development through the direction of infrastructure to existing urbanized areas.

Maryland's Smart Growth Areas Act does not address specific modes specifically in the legislation. It only addresses the public provision of infrastructure. However, Maryland has adopted the principles of Smart Growth to guide public policy efforts. These principles promote a range of transportation options, including transit and walking, that are supported by more the compact development that is expected to result from Maryland's policy. As a result of this landmark legislation and the acceptance of Smart Growth principles, one might expect to see a change in the approach to transportation projects, leading to different investment patterns and ultimately resulting in shifts in the travel patterns of residents, businesses and visitors.

Because transportation infrastructure is often slow to plan and implement, it may be premature to evaluate the impact of Maryland's Smart Growth Act on resulting travel

demand after only ten years. Any substantial changes precipitated by the Smart Growth of Act of 1997 can best be observed in terms of resource allocation and commitments to planning efforts. In this paper, we examine the state spending across various categories of surface transportation infrastructure and services over the last 20 years (ten years prior to Maryland's Smart Growth Act and ten years after), including new and expanded highways, transit facilities and services, and pedestrian and bicycle infrastructure and programming. From this longitudinal analysis of spending, this paper aims to discern the changes in transportation investments that may be attributed to the Smart Growth Act.

If the Maryland Smart Growth Act is successful in its aims, we should observe changes in types of transportation projects, levels of funding, and the spatial location of investments within PFAs that reflect a changing paradigm in transportation planning. Specifically, spending on projects should become more concentrated within the priority funding areas (or in corridors linking them), show a marked increase in investment in alternative modes, and a decline in the types of projects that promote the use of single-occupant automobiles after enactment of the Smart Growth Act.

2. Maryland's Smart Growth Act and Transportation Spending

The policy lever of the Maryland Smart Growth Areas Act was to direct public investments designated as growth related within areas targeted for growth or PFAs. For transportation-related investments, growth related projects include major capital projects or projects that appear in the Maryland Department of Transportation capital program. Projects that are in the planning and evaluation phase, involve system preservation, such as repairing roads or bridges, or are considered minor are exempt from the legislation.

Given that transportation networks, by nature, must extend beyond the PFA areas, concessions were made for certain types of transportation projects. Language was added to the state code that allows for investments outside of PFAs, if the project receives a special exemption from the Maryland Board of Public Works. Projects that maintain the existing road or transit networks, connect PFAs or are needed for the sole purpose of access control can receive an exemption. In addition, exceptions were made for projects deemed important for public safety or health and in support of commercial or industrial activity. Since the legislation was passed, a total of six projects have received exemptions. Projects that were already in the planning pipeline that had secured financial approvals, obtained valid permits and/or successfully completed the National Environmental Policy Act (NEPA) and/or the Maryland Environmental Policy Act review approval process prior to 1998 were grandfathered. Grandfathered projects were significant portion of spending in the early years after the legislation, comprising 53% of project budgets. Grandfathered projects now make up only 28% of capital expenditures. Existing and new facilities financed by the Maryland Transportation Authority were exempt from the Smart Growth Act. This will prove to be an important exception and will be discussed in more detail later in the paper.

3. Analysis of Transportation Spending 1986-2007

This information for this analysis was derived from the Maryland Consolidated Transportation Program (CTP), which lists all transportation projects on state facilities and funding anticipated for each project. After the Smart Growth Areas Act passed, state agencies where required to report compliance with the regulation for major capital

projects in the construction phase[1]. We have analyzed the major projects included in the CTP for fiscal years (FY) 1986 through 2007, adjusting all dollar amounts to 2006 dollars, in order to shed light upon the spending patterns in Maryland before and after the Smart Growth Act[2]

Figure 1 shows the transportation spending by agencies primarily responsible for surface transportation investments: State Highway Administration (SHA), Maryland Transit Administration (MTA), Maryland Transportation Authority (MdTA) and the Secretary's Office (SO). Washington Metropolitan Area Transit Authority (WMATA) is not a state agency; however, Maryland contributes to the Washington, DC regional transit agency for capital projects within Maryland and a portion of the system operating costs. Not included in this analysis are expenditures from the Motor Vehicle Administration. While an important source of revenue and subject to the Smart Growth Areas Act, the agency does not invest in significant capital projects related directly to infrastructure.

Total transportation spending in Maryland has fluctuated over the twenty year study period, showing peaks from the period between the late 1980s to early nineties and from FY 2002-FY 2007. Spending in FY 2007 was budgeted at over $1.5 billion dollars, with a projected expenditure over the study period (FY 1986- FY 2007) of over $25 billion[3]. The State Highway Administration received just fewer than 50% of these funds over the study period. Over the same time period, the Maryland Transit Administration's share was around 19%, Washington Metropolitan Area Transit Authority received over

[1] Construction phase includes some planning activities, environmental studies, design, right-of way, construction, or purchase of essential equipment related to the facility or service. Projects in the planning phase are exempt from the legislation.
[2] Note no CTP was published for 1992. All figures reported in the figures below average 1991 and 1993 for 1992 data points.
[3] These total expenditures reflect spending from other transportation agencies in addition to those discussed in this paper, including the Maryland Port Administration, Maryland Motor Vehicle Administration, and the Maryland Aviation Administration.

11%, and Maryland Transportation Authority cumulated over 9% of total spending. Although not obvious from Figure 1, the Secretary's Office has seen a dramatic increase in spending. The Secretary's Office budget increased from less than a $1 million per year in FY 1989 to over $16 million in FY 2007, with a peak of $43.5 million in FY 2004. However, it is not clear from the data what the implications of this increasing funding in this office are. But as Figure 1 shows, most agency spending varies from year to year based upon scheduled projects.

Figure 1 Maryland's Transportation Spending FY 1986-2007

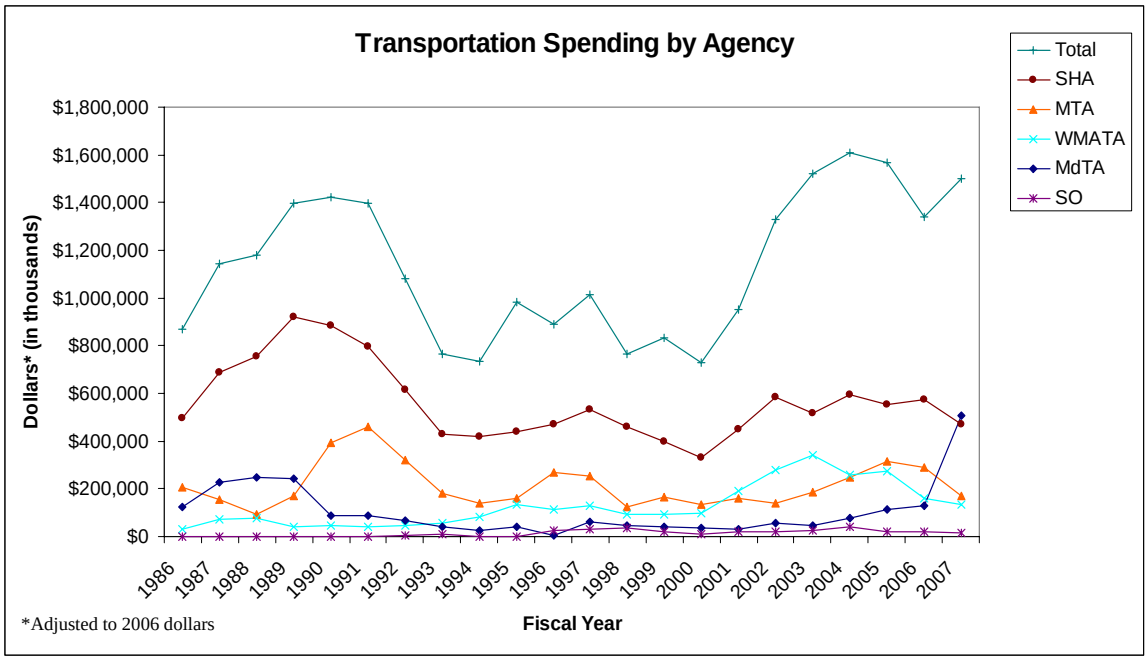
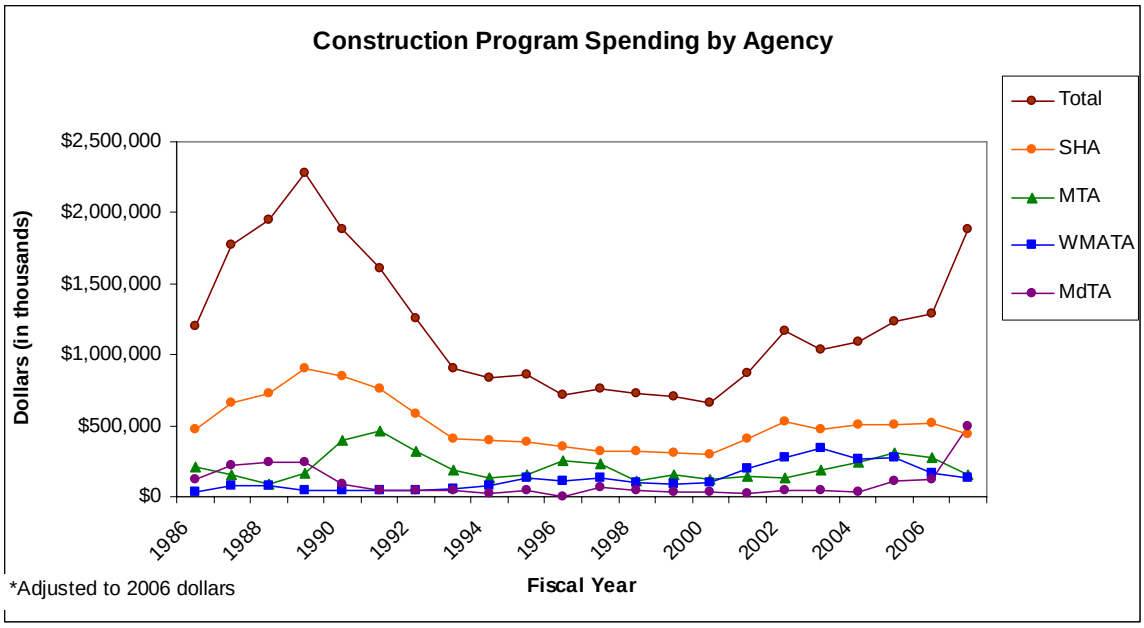


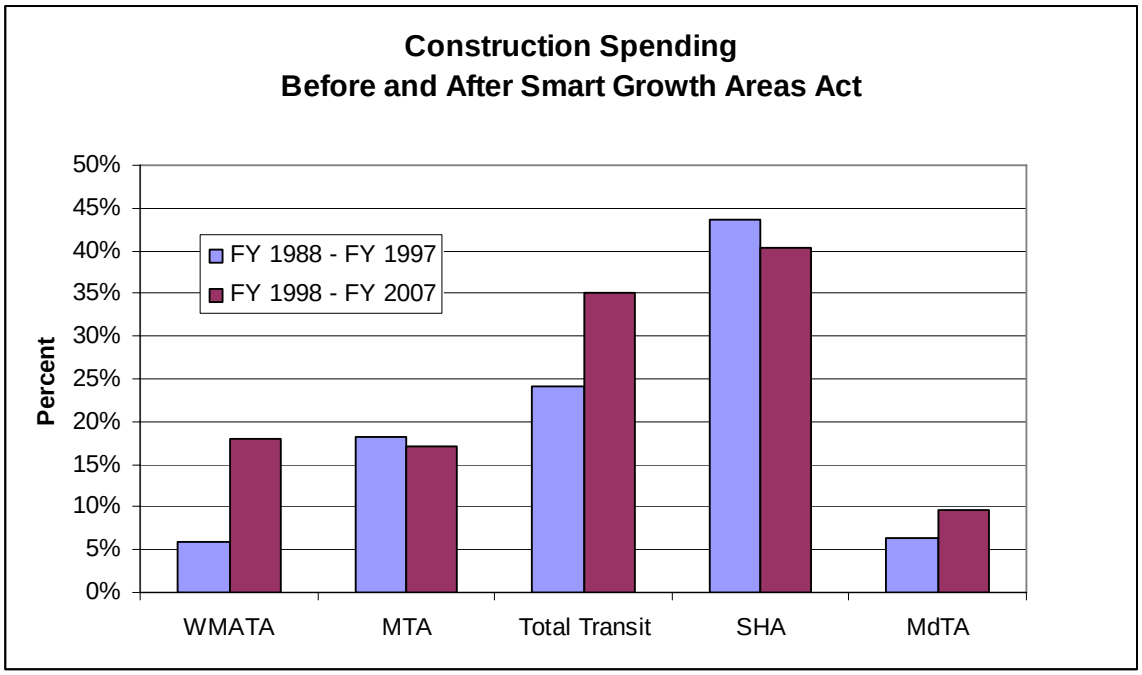
Figure 2 Construction Program Spending by Agency



As mentioned earlier, only projects in the construction phase are subject to PFA restrictions. Figure 2 shows only the construction program budgets by year. With a few modifications, these trends follow the total spending shown in Figure 1.

The spending trends ten years before and the ten years after the Smart Growth Areas Act were in effect are shown in Figure 3. From FY 1988 to FY 1997, SHA budgeted $5.7 billion in its construction program (43.6% of the total construction program), compared to $4.3 billion for FY 1998 to FY 2007 (40.5%). Over the same two periods, spending on transit projects increased since the Smart Growth legislation, although only slightly, from $3.1 billion (24.2%) to $3.7 billion (35.1%). While SHA's budgets are greater in both absolute and relative terms for both periods, these trends would suggest a shift away from spending on highway projects and toward transit investments.

Figure 3 Construction Program Before and After Smart Growth Areas Act



3.1 Directing Transportation Investments to Priority Funding Areas

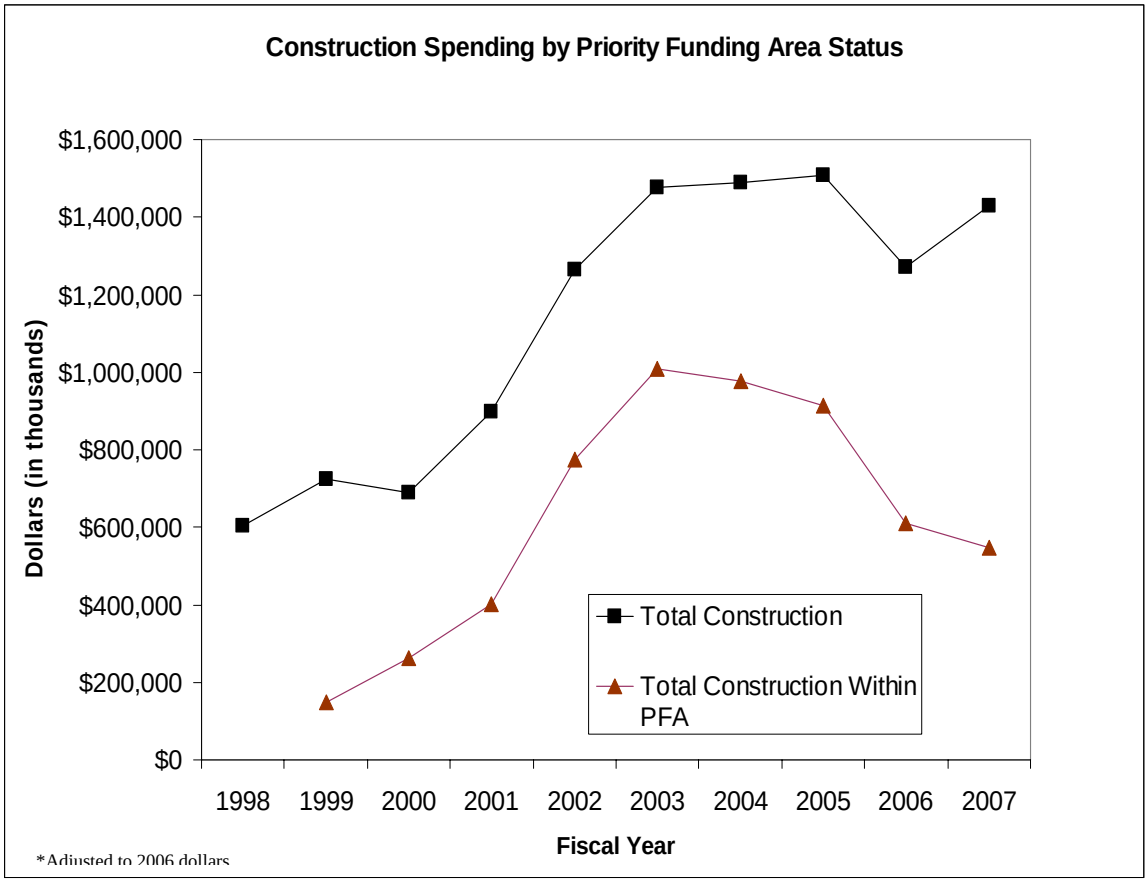
In the CTP, projects must report their status with respect to the Smart Growth Areas Act. Projects in the CTP prior to FY 1998 cannot be directly compared because the exact locations of these projects relative to PFA boundaries cannot be easily determined. Also, some projects are listed as not location specific and do not report a PFA status. This are not insignificant but cannot be analyzed.

Figure 4 below shows the trend in construction dollars spent within PFAs relative to the total construction budget since FY 1998. The difference between the two lines is due to projects granted exceptions, grandfathered, or otherwise exempt from the Smart Growth Act. The projects within PFAs have followed the trend in overall total construction budget although significant differences exist. From FY 1999 to FY 2001, there were a number of grandfathered projects under construction resulting in a lower

share of construction projects in PFAs. Until FY 2003, spending within PFAs rose due largely to investments in the Woodrow Wilson Bridge, improvements to the Baltimore Washington Airport, and Addison Road Metrorail extension. In FY 2005, the two lines diverge sharply, due in part, to the allocation of construction funds for the Intercounty Connector, which is funded by the Maryland Transportation Authority. Although not necessary because it will be a financed as toll facility, this project went through the exemption process and was granted an exception (it connects PFAs).

Trends suggest a move away from investments in PFAs; however, with grandfathering, exceptions and spending by Maryland Transportation Authority, it is difficult to discern the underlying trend. Given that transportation spending constitutes the majority of state infrastructure spending subject to the Smart Growth Areas Act, it appears that the success of the policy to direct spending into developed areas cannot be determined with any certainty.

Figure 4 Construction Spending by Priority Funding Area Status

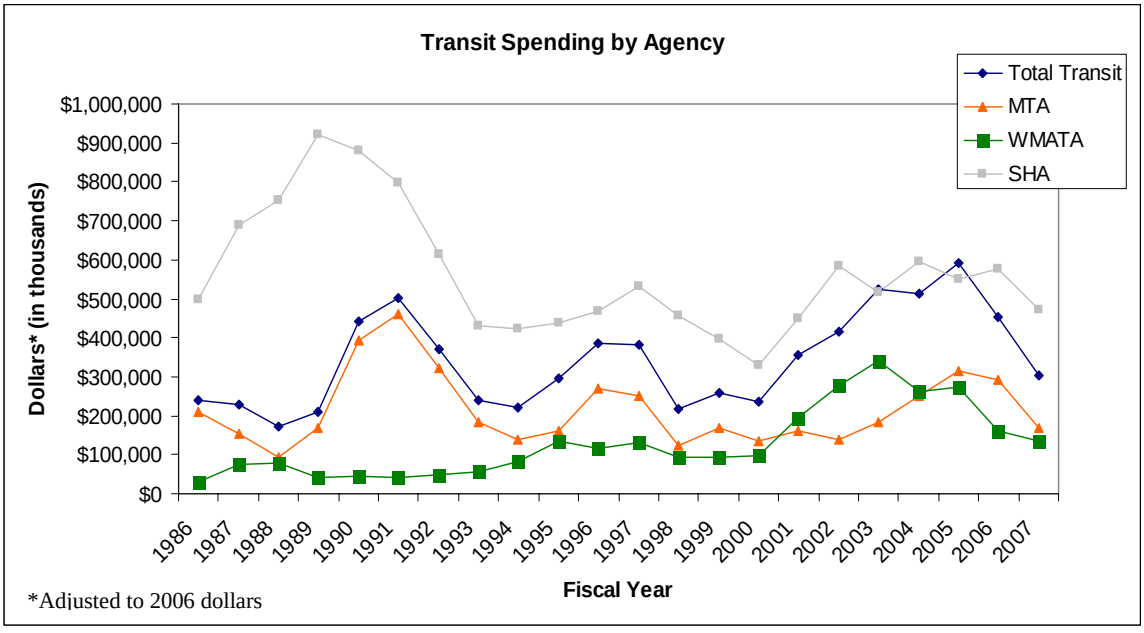


3.2 Spending On Alternative Modes

Maryland's Smart Growth Areas Act does not directly address investment in alternative modes, such as transit, pedestrian and bicycling infrastructure and services. The regulation only directs infrastructure investments to the Priority Funding Areas. However, the ten principles of Smart Growth emphasize transportation choices and promoting environments that support non-motorized modes. One would then expect to see increases in spending for these modes at the state level if the state were embracing Smart Growth, even if not directly mandated to do so in the legislation.

Total transit spending for the Maryland Transit Administration and the Washington Metropolitan Area Transit Authority is shown in Figure 5. Total spending for the State Highway Administration is also shown for the basis of comparison. Like total transportation spending trends over the twenty year study period, there is variation in total transit spending from year to year based upon the various projects planned or under construction, and the operating expenses for various existing projects. Transit spending saw significant peaks in FY 1991 and FY 2005, signifying construction on the Baltimore Light Rail Transit and WMATA Branch Avenue and Addison Road Metro stations, respectively. In FY 2003 and FY 2005, Maryland's total spending on transit was more than the allocation to the State Highway Administration, demonstrating a commitment to transportation choice. When the total amounts committed to transit tens years before (FY 1988-FY 1997) and ten years after (FY 1998-FY 2007) the Smart Growth Act, we see a 20% increase in the total amount allocated to transit projects.

Figure 5 Transit Spending

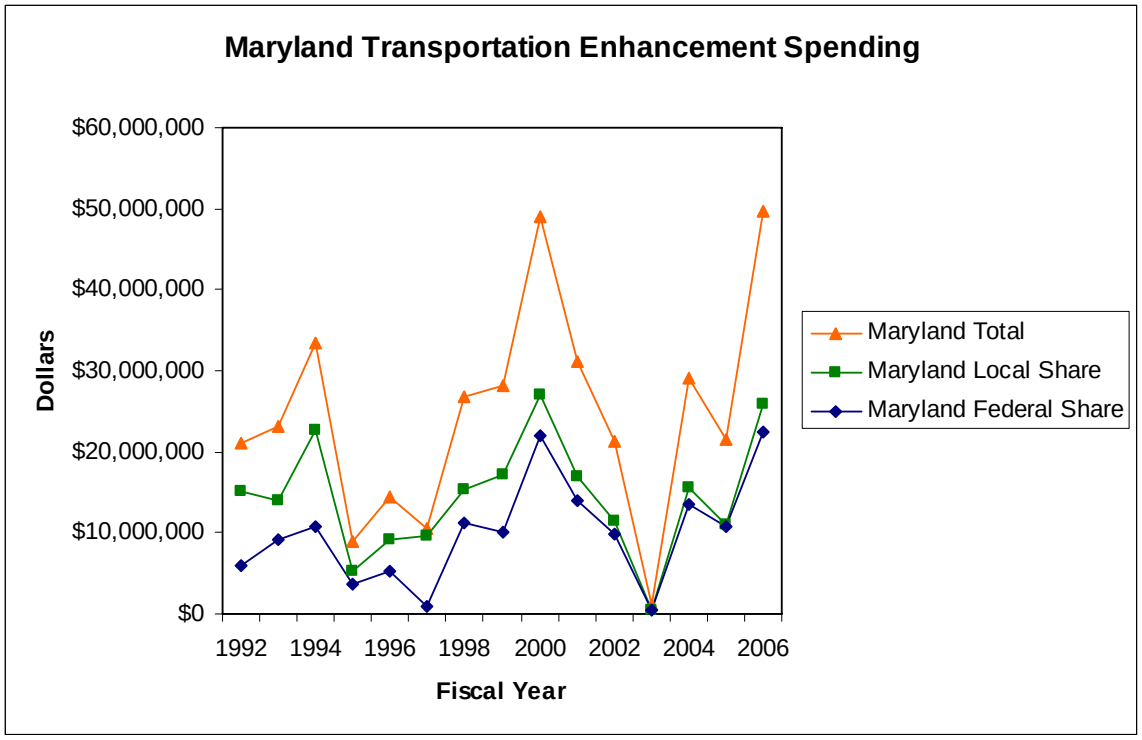


The Intermodal Surface Transportation Efficiency Act (ISTEA), the federal surface transportation spending bill passed in 1992, is considered a landmark piece of legislation, in part, because for the first time, federal funds were made available for non-motorized modes and enhancements to the transportation environment. The Transportation Enhancements Program (TEP) funds projects such as the creation of bicycle and pedestrian facilities, streetscape improvements, refurbishment of historic transportation facilities, and other investments that enhance communities and access. Typically the federal government funds up to 80% of eligible costs for such projects. The subsequent surface transportation spending authorizations - Transportation Equity Act for the 21st Century (TEA-21 – 1998-2003) and Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU - 2005-1010) have continued federal funding for the Transportation Enhancements program.

Figure 6 below shows data for Maryland's Transportation Enhancements spending since the inception of the program in FY 1992. These data come from the Transportation Enhancements Clearinghouse, which tracks Transportation Enhancements Program spending by project (http://www.enhancements.org). This figure shows an increase in Transportation Enhancements spending in the period directly following the passage of the Smart Growth Act with a peak in spending centered around FY 2000. On average, Maryland's average annual expenditure on the Transportation Enhancements Program has increased since the passage of the Smart Growth Act, contributing nearly $28.6 million per year to these projects since FY 1998, compared to $18.5 million prior. There is a gap in funding as shown in FY 2003 when TEA-21 expired and Congress did not reauthorize a new transportation bill until FY 2005. Since then, projects that enhance

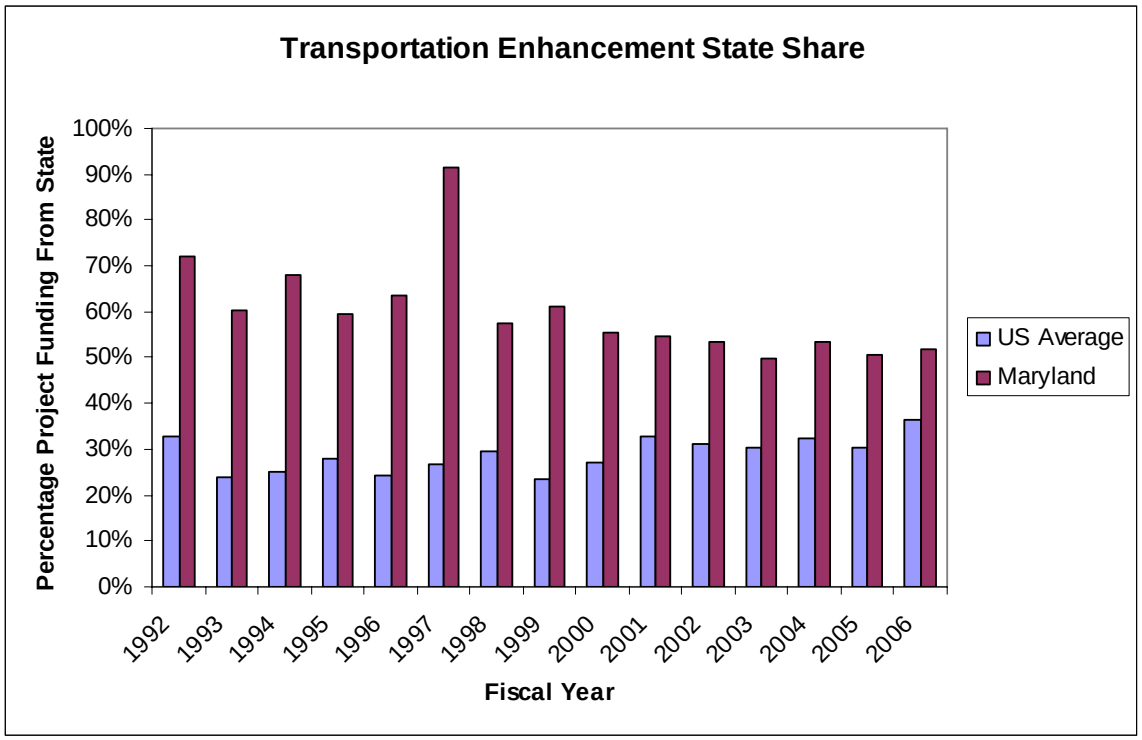
the transportation environment have been on the rise. This trend suggests a commitment to projects that support walking and cycling, improve the transportation environment and are consistent with the principles of Smart Growth.

Figure 6 Transportation Enhancement Program



This point is punctuated by the portion of funding contributed by Maryland for these projects. Figure 7 shows the portion of Transportation Enhancement funding that is contributed by the states. Maryland is well above the national average, contributing an average of around 60% of project costs, compared to an average of 30% nationally. Since FY1998, Maryland has averaged $28.6 million per year in this funding category, compared to the national average of $17.5million over the same time period.

Figure 7 State Contributions to Enhancement Projects



3.3 Maryland Transportation Authority – A Major Loophole in the Legislation

One important transportation agency that is not subject to Maryland's Smart Growth legislation is the Maryland Transportation Authority (MdTA). Considered an independent agency, MdTA was established in 1971 and is responsible for managing, operating, building, and improving the state's tolling facilities and financing new revenue-producing projects for the Maryland Department of Transportation. Facilities currently operating under MdTA's network include 100 miles of highways, two tunnels and five bridges. In addition to traditional transportation infrastructure projects, the agency is authorized under the Maryland Smart Growth Act to finance parking facilities within PFAs. Because MDTA is considered an "off budget" agency, generating its own revenues through tolls, its capital expenditures are not subject to the Maryland Smart Growth Act and thus, the location of projects relative to PFAs is not reported in its spending reports.

This exemption could prove troubling for future implementation of Smart Growth Policies as more states turn to tolling to finance transportation projects. Federal Highway Trust Fund (HTF)—a major source of funding for the maintenance and improvement of the Interstate Highway System and other major highways—will not have money to fully fund the nation's highway programs.[4,5]. States and local governments are also struggling to keep up with maintenance and construction needs. The gasoline tax, an important source for both federal and state transportation revenue, is the source of 35% of transportation spending in the US[6]. However, the tax has not been raised at the federal level since 1993 and less than half of states have raised their gasoline tax in that time (six have gasoline tax indexed to inflation with automatic rate increases).

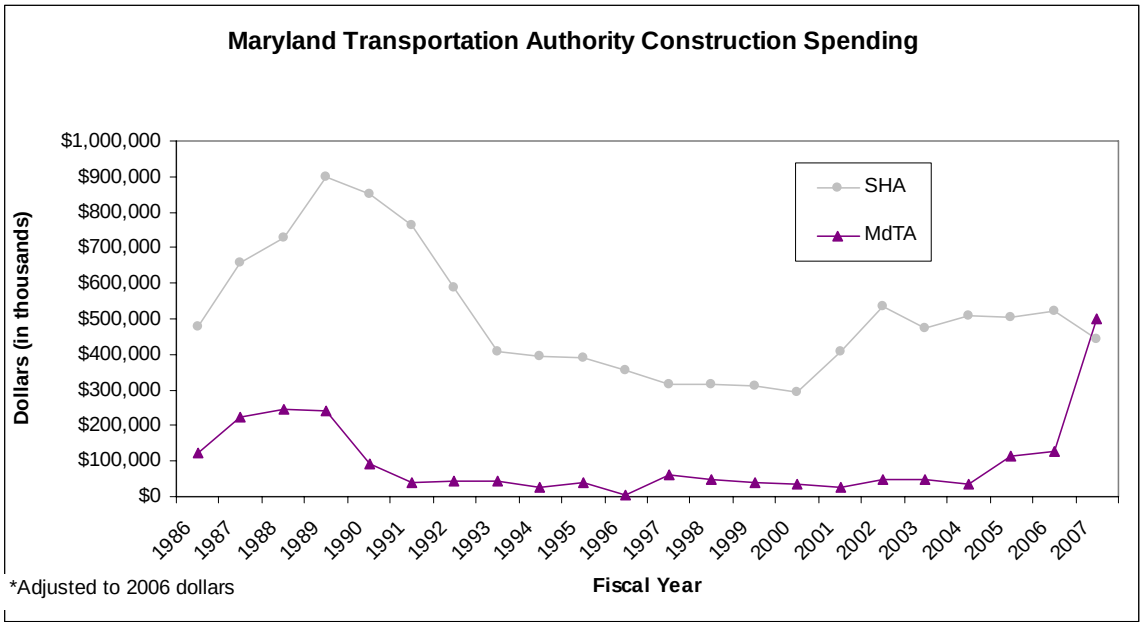
As traditional revenue sources fall short, more states are turning to tolling and congestion pricing for financing all or part of future transportation projects. Maryland is no exception. Figure 8 tracks the Authority's spending over 20 years. In FY 2007, the Authority's anticipated spending topped $500 million – marking a 900% increase since the FY 1998 budget. Most notable for FY 2007 is the fact that construction spending by MdTA exceeds that of SHA.

[4] Kriger, David,, Shiu, Suzette, and Naylor, Sasha. 2007. National Cooperative Highway Research Program Synthesis 364: Estimating Toll Demand and Revenue, Transportation Research Board of the National Academies, Washington, DC. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_364.pdf

[5] Cambridge Systematics, Mercator Advisors, LLC, Pisarski, Alan, and Wachs, Martin. 2006. Future Financing Options to Meet Highway and Transit Needs, National Cooperative Highway Research Program 102, Transportation Research Board of the National Academies, Washington, DC.

[6] Puentes, Robert and Prince, Ryan. 2003. Fueling Transportation Finance: A Primer on the Gas Tax, Center on Urban and Metropolitan Policy, Brookings Institution, Washington, DC. http://www.brookings.edu/es/urban/publications/gastax.pdf

Figure 8 Spending by Maryland Transportation Authority



The most significant project in the MdTA's capital construction program, and the primary contributor to the sharp increase in spending in FY 2007, is the Intercounty Connector (ICC). The ICC is an 18- to 20- mile-long, six-lane controlled-access toll highway project that will link the I-270 and I-95/ US 1 corridors in Montgomery and Prince George's Counties. Although the Maryland State Highway Administration is the lead agency in project development, the MdTA has programmed $2.4 billion for planning, design and construction of the ICC and will own and provide substantial funding for the project[7].

It is likely that the controversial ICC project may become the model for financing future construction projects. If so, the exemption of MdTA's projects from the Smart Growth Areas Act legislation poses a potential threat to meeting the goals of the Smart Growth Areas Act. As federal dollars become more scarce and tolling becomes a

[7] Maryland Transportation Authority. 2007. Strategic Plan: Planning for the Future, Maryland Transportation Authority, Baltimore, MD. Accessed online: http://www.mdta.state.md.us/mdta/About/StrategicPlan.pdf

favorable means for financing transportation projects, namely highway projects, the Smart Growth in Maryland may be compromised both in terms of meeting the PFA requirements as well as the modal investments in transit.

4. Discussion

Only 6% of the state budget is dedicated to the "growth related" projects that are subject to PFA restrictions under the Smart Growth Areas Act. This fact illustrates the limitations of conditioning infrastructure funding as the only mechanism to manage growth, without other regulatory policies in place. Of the 6% of the budget subject to Smart Growth legislation, the construction program for transportation projects comprises 85%. For this reason, Maryland's Smart Growth policies must leverage transportation investments in meaningful ways or it will likely fail to meet its goals. In this section, a discussion of the lessons learned from this analysis is presented.

There are some glaring issues with the way the policy is structured and implemented that does not consider the nature of most transportation projects. First, roads and rail transit routes are linear features. By design, they cross jurisdictional boundaries and connect areas of economic activity. Requiring these linear features to conform to PFA regulatory boundaries is challenging. To deal with these challenges, special regulations were developed to help the Department of Transportation interpret the PFA requirements with respect to transportation projects. As a result, projects that connect PFAs or form the boundaries of PFAs are exempt. On one hand these seem to be reasonable exemptions; on the other, most major highway or transit efforts are likely to fall under the justification of connecting PFAs in some ways. The PFA approach to

managing growth should be reconsidered for transportation projects. Maryland may look to other states that have attempted growth management for lessons learn in transportation. For example, Florida's approach is ties land development to transportation through concurrency, or adequate public facilities, requirements. While not without its own failings, lessons from Florida's policies may inform Maryland's future efforts.

Second, the exclusion of MdTA from the regulation altogether opens the door for future compromise of Smart Growth. The exemption is based upon the rationale that the agency is "self" funded through user fees (tolls) and therefore, it should not be subject to funding restrictions. At the time the legislation was passed, the role that tolls and congestion pricing might play in future transportation finance may not have been foreseen. As suggested by its prominence in the construction program in FY 2007, the agency will clearly be influential in transportation finance in the near and quite possibly far term. Future Smart Growth legislation needs to take this into consideration and

There are some limitations to this analysis that could mask important changes in the transportation planning paradigm. It is not possible through examination of budgets alone to determine the full effects of the Maryland Smart Growth Areas Act on transportation. One important impact that cannot be determined is the effect on the culture of transportation planning. From budgets alone, one cannot examine the projects that were not pursued because of a shift in perspective or the perceived difficulties in getting state funding for projects inconsistent with the Smart Growth Areas Act approved. For example two notable bypass projects in Manchester and Westminister were removed from the capital budget as a result of the Smart Growth Areas Act. There may be other similar projects that did not make it out of the early planning stages. Qualitative

methods, such as interviews with state and local planning officials, would be needed to understand the legislation's effect on planning culture.

Other transportation planning programs such as the Neighborhood Conservation/Urban Reconstruction Program, which aimed to enhance areas along state highways, particularly through neighborhoods and urban centers, were relatively small in absolute dollars compared to the overall capital budget. However, this program was well received in the communities that received funding and leveraged transportation dollars for sidewalk construction, drainage, landscaping and streetscaping to support local investments in economic development and urban design projects. Restricting access from state roads is another tool used to limit development in less developed areas and was another way transportation policies could support Smart Growth in Maryland.

Transportation projects take a long time to plan, fund, and construct. Also comprising a smaller percent of the total spending, grandfathered projects remain in the FY 2007 budget, ten years after the legislation. Many of the projects in the pipeline when the Maryland's Smart Growth legislation took effect are just now being constructed. For this reason, it may be premature to evaluate the impact of the policy on construction budgets. Ideally want to examine not just changes in investment but also changes in travel patterns, including vehicle miles travel and mode choices. But these data are not yet available. Nonetheless, this analysis still reveals important trends and points to ways in which the next generation of Smart Growth policies may be improved.

On the positive side, Maryland has seen a marked increase in funding for transit and non-motorized projects since passage of the Smart Growth legislation, even though these modal shifts in spending are not mandated in the legislation. This suggests that the

state is following the principles of Smart Growth by providing choice and supporting alternatives to the automobile. Maryland also appears to be a national leader in it contributions to the Transportation Enhancements Program. A closer examination of all of these projects is needed before Smart Growth can be deemed a success. As with most policies, the devil is in the details. But at first glance, spending trends appear to reflect some of the goals set forth in the legislation. Achieving them all will require a second generation of Smart Growth policies for Maryland.