

1000 FRIENDS *of* MARYLAND

The Intercounty Connector:

Financial, Economic, and
Regional Development
Costs and Choices

March, 2007



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Introduction

Governor Martin O'Malley will soon decide on whether to proceed with financing and letting bids for the construction of the Intercounty Connector (ICC), a critical decision for the State of Maryland and its many communities, especially Baltimore City. Since the state has expended only a small fraction of the estimated \$2.446 billion cost to build this proposed 18-mile, six-lane highway, Governor O'Malley has the opportunity to reexamine this massive public works commitment before rendering a final decision, aided by the findings of this report and other information.

It is certain that building the ICC will force Governor O'Malley and the General Assembly to raise state transportation taxes sooner and more substantially if other state transportation priorities are to be funded. For the governor specifically, a decision to advance the ICC will constrain his ability to move forward on other campaign pledges (especially his commitments to public transit investment), bind him to financial and policy commitments of the outgoing administration, and sharply define his transportation, environmental, and economic development legacy.

Project delays and pending lawsuits give the new governor an opportunity to reexamine this project's many impacts to determine if the ICC—*at this time*—is the best use of scarce state resources when compared to other urgent needs, including a multi-year structural deficit of more than \$4 billion and a growing backlog of unfunded transportation projects. The state's transportation needs, specifically, have intensified not only because of the proposed plan to build the ICC but because of slow growth in state transportation revenues and rising construction and maintenance costs.

This report, for its part, highlights the key financial, fiscal, and regional economic development issues and considerations about the project that heretofore have not been clearly articulated. Key findings in the section on Regional Growth and Economic Development are supported by appendices to this report.

ICC in its Broader Context

Since candidate Martin O'Malley pledged support for completion of the ICC, the state's financial and development outlook has changed considerably. First, the new governor has inherited a large structural deficit in the state's General Fund budget. The scale of the state's deficit was not well-documented during the gubernatorial campaign, but already this issue is dominating the debate in the General Assembly and even appears to be threatening new initiatives by the governor. In addition, debt features of the project further reduce the capacity of the state to finance other long-term capital needs.

A fuller accounting of the condition of the state's transportation finances is now underway, a process that is certain to uncover new information about underlying resource constraints and unmet needs. Already it has led state transportation officials to acknowledge that the purchasing power of the state's Transportation Trust Fund is so eroded that current funding will not support major new transit investments and available funds will be focused on system preservation.

Despite modest outreach efforts, the general public does not understand the financial implications of the project. Many do not know that this will be a toll facility where the public will pay hefty tolls to use it, estimated to average about \$7.00 for a roundtrip over the full length of the highway. The public does not know that these high toll rates are needed even after proposing to commit more than \$1.4 billion in state revenues from other sources.

In addition to financial details of the project, new information is now available on regional growth and economic development impacts of this highway. ICC development impacts are at odds with Governor O'Malley's expressed commitment to "smart growth" development principles. As detailed in the final section of this report, the ICC will likely induce significant development in and around the corridor, divert growth from Washington DC, urban Prince George's County and Baltimore to suburban areas, and cause the ICC to fill up prematurely at subsidized toll levels.

Finally, as the state was developing its plans for the ICC, little was known about how military base realignments would affect development and job growth patterns in the state. A new state report documents these likely impacts, calling attention to the need for costly state-funded facility improvements, most especially transportation improvements, in a North-South swath from Harford to Prince George's Counties.¹

These key externalities and others are discussed further in this report and underlie its conclusion that Governor O'Malley should undertake a thorough reexamination of the ICC before rendering decisions on the project that will be extraordinarily difficult and expensive to retract.

ICC and its Financing Elements

As approved by the previous Administration, the state, led by the Maryland Department of Transportation (MDOT), proposes to finance the ICC through a combination of current revenues and borrowed funds. Using different forms of long term debt, the state intends to incur new debt obligations, which this analysis estimates will total about \$1.9 billion, with the remainder of the project costs funded largely from current revenues.

Table 1 shows the various program accounts, including proposed dollar amounts from each source, as set forth in MDOT's Initial ICC Financial Plan (6/06). As displayed in the table, the state to date has expended only a small fraction of the total costs of the project – about \$57 million through Fiscal Year 2006. Governor O'Malley is now confronted with the decision on whether to commit the roughly \$2.4 billion that will be needed to complete construction of the ICC (as currently estimated), a commitment that also binds the state to pay many hundreds of millions more in interest payments on borrowed funds well into the future.

Table 1. Summary of Project Funding by Fiscal Year

Fiscal Year	MdTA Funds	GARVEE Bonds (Federal Funding)	Maryland General Fund	Maryland Transportation Trust Fund	Federal Funding Earmark	Total Funds
Contributions through FY2005	\$26.8	\$0.0	\$0.0	\$22.0	\$0.0	\$48.8
FY2006	\$0.0	\$0.0	\$0.0	\$38.0	\$18.5	\$56.5
FY2007	\$0.0	\$380.0	\$50.0	\$30.0	\$0.0	\$460.0
FY2008	\$298.7	\$0.0	\$50.0	\$30.0	\$0.0	\$378.7
FY2009	\$90.0	\$370.0	\$50.0	\$30.0	\$0.0	\$540.0
FY2010	\$436.3	\$0.0	\$114.9	\$30.0	\$0.0	\$581.2
FY2011	\$210.5	\$0.0	\$0.0	\$0.0	\$0.0	\$210.5
FY2012	\$154.1	\$0.0	\$0.0	\$0.0	\$0.0	\$154.1
FY2013	\$16.2	\$0.0	\$0.0	\$0.0	\$0.0	\$16.2
Total	\$1,232.5	\$750.0	\$264.9	\$180.0	\$18.5	\$2,445.9

Source: ICC Initial Financial Plan (6/06)

By proposing to borrow so much money for the project, which is typical of larger transportation projects, most of the project costs are shifted into the future. Over the near term, this reduces the impact of the project on current transportation revenues.

Features of the financial plan, most notably the General Fund input and the use of GARVEE bonds, have the effect of moderating the project's impact on the state's Transportation Trust Fund (TTF). The General Fund revenues are actually repayments to the TTF for funds previously borrowed to balance the state budget (although it is not shown as such in the financial plan). Similarly, the GARVEE bonds simply substitute for borrowing that might otherwise have been TTF debt, conveying the impression that the TTF is being shielded by this financing technique (even though MDOT forgoes a substantial share of its future federal transportation dollars which generally would be used for the same purposes as TTF funds). Both of these features were pivotal to the prior administration's effort to win the General Assembly's support for the ICC.

Importantly, the project's financing structure helped minimize public debate about the need for new state transportation revenues—specifically, higher gas taxes and fees—until after the previous governor's "first" term, when construction of the ICC was to have been underway. By limiting draws on current revenues, including TTF resources, project supporters were essentially shielded from coming to terms with both the actual financial costs and opportunity costs associated with building the ICC.

ICC and the General Fund: Under the current financial plan, the state is scheduled to make a series of General Fund payments—\$265 million through 2010—to pay for ICC construction costs in the same fiscal years when new revenues and potentially substantial budget cuts will be needed to close the state's structural deficit. Ironically, honoring General Fund pledges to repay the TTF (although assigned directly to ICC project costs) will make the state's deficit even larger, forcing the Governor and Members of the General Assembly to find greater spending efficiencies, adopt even higher taxes and/or make deeper budget cuts, for a project that would not be completed until 2013, at the earliest. Notably, this General Fund commitment to the ICC was made when the state budget was perceived to be in surplus, not in substantial deficit.

Finally, by assigning these General Fund revenues directly to ICC project costs, there was little or no debate on how these revenues could have been used for other, customarily TTF-funded projects throughout Maryland or other funding priorities.

ICC and State Debt Capacity: Subsequent to the development of the ICC's financial plan, specifically its reliance on GARVEE bonds, the state received a stern reminder that this form of debt will affect the state's debt limit, according to a recent analysis by the state's Department of Legislative Services (DLS). DLS found that existing state debt and authorized debt, including the issuance of \$750 million in GARVEE bonds, will push the state to about 93 percent of its debt capacity.²

The state's limited debt capacity should be a concern to the Governor and Members of the General Assembly who soon will be struggling with various proposals to deal with the state's structural deficit. A decision to construct the ICC will consume a significant share of the state's remaining debt capacity, foreclosing certain options for addressing the state's future spending and revenue imbalances. As one example, the state will be less able to finance its long-term capital needs (e.g., school construction and repair) in areas with older infrastructure, specifically Baltimore City. In other states, tapping available debt capacity has often been part of a package of budgetary initiatives to bring state budgets into balance, helping forestall the need for higher taxes and/or deeper cuts in state services.

ICC and Current Toll Payers on Other State Facilities: As shown in Table 1, a key feature of the state's ICC financing plan is the funding provided by the Maryland Transportation Authority (MdTA), which is responsible for one-half of the project costs, now estimated at about \$1.23 billion.

The MdTA will finance most of its share of ICC project costs through debt (i.e., 30-year bonds and federal federal TIFIA loans), backed by current and future revenues from toll payers at the state's other toll facilities as well as future revenues from users of the ICC. The agency has also pledged cash payments from its current revenues, although the financial plan does not specify the amount of cash and debt service to be paid by toll payers using the state's existing toll facilities. In assessing MdTA's role in financing the ICC, it is important to note that the agency is empowered to finance a range of transportation investments, including public transit (e.g., Baltimore area's proposed Red Line – see below).

- **Impact on Other Priorities.** For Baltimore-area residents especially, this substantial commitment to the ICC should be a cause for some concern. After all, about half of MdTA's toll revenues (about \$136 million in 2005) are derived from the three toll facilities serving Baltimore City.³ This is an important consideration for the Baltimore region, which has several major projects in the funding pipeline. One example is the Red Line, a proposed major east-west rail line, which is now scheduled for construction in 2010. MdTA's commitment of such a large share of its debt capacity to finance the ICC means there is less borrowing capacity available to finance the non-federal share of the Red Line. In effect, Baltimore-area toll payers will be underwriting an investment in another region that ultimately could impact upon the agency's ability to help in financing important transit facilities in Baltimore City.

For the Eastern Shore, diversion of toll revenues from the Bay Bridge to pay for the ICC will similarly reduce the capacity to fund bridge maintenance and additional Bay-crossing capacity. Governor-elect O'Malley specifically mentioned water ferries as a potential investment priority during his campaign. Financing new ferry service to and from the Eastern Shore expands travel options and could provide some congestion relief for existing toll facilities, including the Baltimore tunnels and the Bay Bridge, which are MdTA facilities. Such potential investments provide additional value for longstanding toll payers in these corridors.

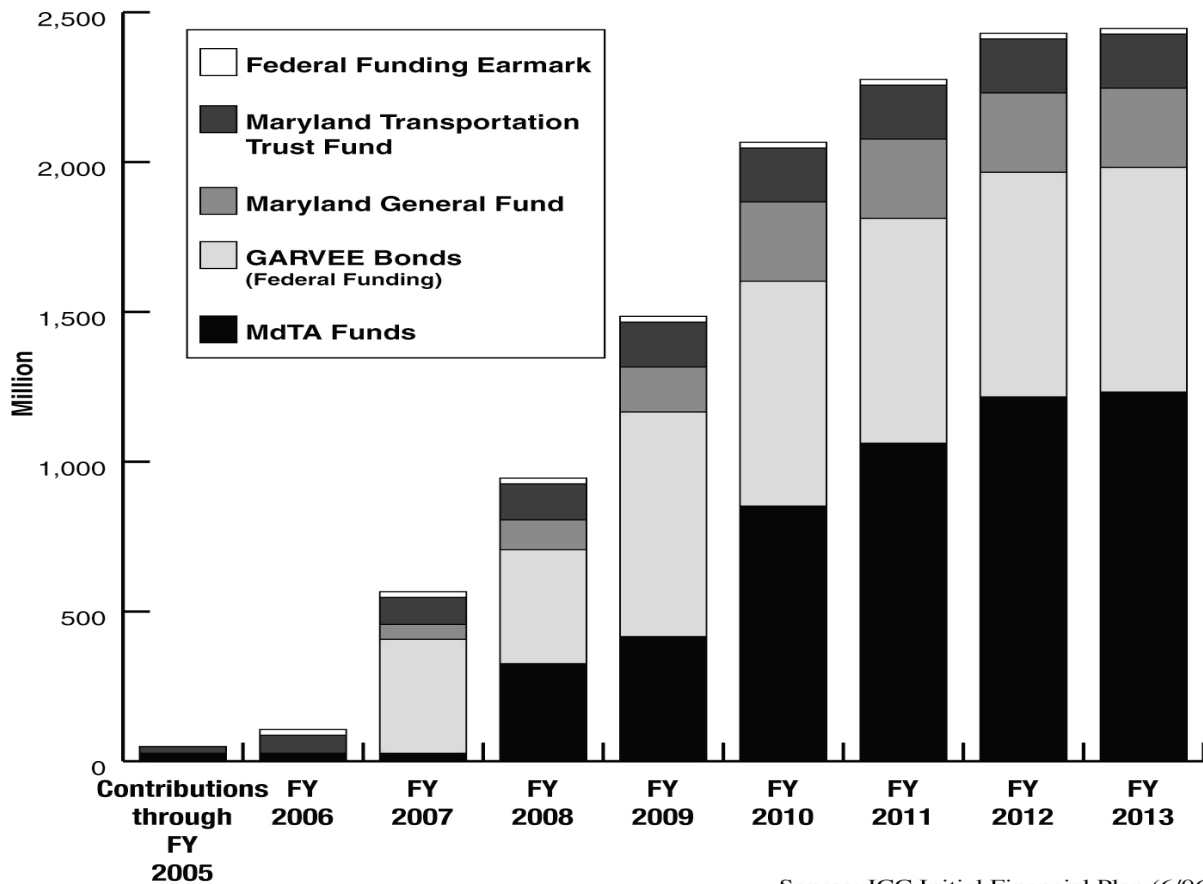
The interests of existing toll payers, the transportation needs in corridors where toll facilities exist, and the impact of ICC costs on the capacity of the Maryland Transportation Authority to fund other priorities are among the issues that should be examined by the Governor and his transportation team before any decision is made to advance the ICC to construction.

ICC and Federal Funds (GARVEE Bonds): The state plans to issue two Grant Anticipation Revenue Vehicle (GARVEE) bonds—\$380 million during FY 2007 and \$370 million in FY 2009—generating \$750 million of the project's estimated completion costs. Including interest payments, the state will pay about \$1 billion in principal and interest over the term of the bonds, but it uses expected or "anticipated" federal revenues from highway program accounts, not state revenues, for that pay-down.

This \$1 billion commitment is satisfied by forgoing future federal highway funds, resources that could otherwise be made available for other state and local transportation needs. In fact, federal highway dollars are so flexible that this same amount could have been made available for transit improvements, if the state so decided, despite any claims to the contrary.

As shown in Figure 1, the state's financing plan relies heavily on GARVEE bond proceeds during the initial phases of ICC construction.

Figure 1. ICC Project Cumulative Sources and Uses Forecast



Source: ICC Initial Financial Plan (6/06)

This reliance on GARVEE financing during the initial stages of construction means that the state must start using a share of its federal highway funds to pay debt service beginning next year. In FY 2008, more than \$46 million in future federal highway funds will be diverted to pay debt service on the first GARVEE bond; by FY 2012, debt service will consume about \$84 million annually. To put this commitment in some context, \$84 million represents about one of every five federal highway program dollars now provided to the State of Maryland.

- Future Federal Funds More Uncertain.** The outlook for future federal transportation funding is now more uncertain than when the General Assembly signed off on the ICC’s initial financial plan. In early February, President Bush released his Fiscal Year 2008 Budget Request, officially acknowledging for the first time that the federal Highway Trust Fund will be in deficit during Fiscal Year 2009. This is the same year the second GARVEE bond will be issued, committing an important share of the state’s future federal highway funds to bond repayments.

ICC and Maryland’s Ongoing Transportation Expenditures and Needs

Maryland and many other states are confronting a “perfect storm” in their transportation programs, as costs for operations, maintenance, and capital expenditures continue to rise much faster than the growth in state transportation revenues and traditional measures of inflation. This is occurring as driving rates and gasoline use continue to fall below historic growth rates, reducing anticipated state gasoline and other tax receipts. For many states, debt service on previously borrowed funds is claiming a larger share of available transportation revenues. If Maryland moves forward with the ICC, the project will absorb more than \$160 million annually in new debt service costs, an amount that equates to what Maryland now collects each year with six cents of its gasoline tax.⁴ The effects of these trends can be seen in Maryland’s transportation budget. The estimated growth in state

highway user revenues (e.g., state gas tax receipts) is less than two percent annually through 2011. This very limited growth in revenues cannot sustain the state's current transportation program. At the same time, the costs of maintaining the existing state transportation system pose serious challenges for the state, according to state transportation leaders. This is the stark reality faced by the O'Malley Administration, even prior to launching construction of the ICC.

- **Base Realignment and Closure.** During the initial planning for the ICC, the impacts of the coming Base Realignment and Closure (BRAC) job and housing relocations to Fort Meade and the Aberdeen Proving Ground were not fully understood. Current state estimates show potential transportation and other infrastructure needs for these two areas of the state could cost in the billions of dollars. Expansion of area highways, local road networks, MARC and Metro service, bus and rail service, and transit center facility development may be required.⁵ Increasingly, it is becoming apparent that ICC funding commitments could crowd out funding for critical projects to support BRAC residential and job relocations. A recent state study on BRAC impacts shows that nearly all of new jobs and housing growth is expected to occur outside of areas directly served by the ICC.
- **Major Transit Projects.** Governor O'Malley has made several public pronouncements indicating his strong support for several major rail transit investments, including the Purple Line, Red Line and the Green Line extension to BWI. Baltimore-area residents, especially, are eager to keep the proposed Red Line on schedule, which is the most advanced of these projects and is slated to begin construction in 2010. Nonetheless, state transportation leaders have recently indicated that existing state transportation resources are insufficient to support new commitments to these projects. What is particularly notable about major *transit* investments is that, unlike the ICC, which is predicated on spending future federal transportation dollars to pay for the project, major transit projects—Red Line, Purple Line or even the proposed Green Line—hold the potential to attract additional federal dollars into the State of Maryland.

Every dollar invested in the ICC is simply one less dollar that is available for other needs in the state. Yet every dollar made available for rail transit holds the potential to attract one new federal dollar to the state (the Federal Transit Administration shares project costs on a 50-50 basis, on average). Deferring the ICC would keep a sizable share of existing state resources on the table as potential funding for the Red Line, as opposed to waiting for increased state transportation taxes to help finance this project.

- **Local Government Needs.** Local elected officials throughout the state are becoming more vocal about the erosion in the purchasing power of state transportation funds provided to their jurisdictions. Currently, 30 percent of state gas-tax receipts are returned to local governments, a resource that is now growing at about one percent annually, well below the level that is needed to keep pace with rising costs. To the extent dollars are available for construction of the ICC, these same resources could be shifted to local governments to help address rising maintenance needs or could be used to advance more modest capacity and system improvements. For example, among the local highway needs in Central Maryland are improvements to U.S. 29, which provides a key link between Baltimore City and the Washington, D.C., metropolitan area. Numerous improvements in this major corridor have been identified but lack funding. In every part of Maryland, local leaders can point to examples of such investments, many of which are relatively inexpensive, that could be advanced if additional funds were made available.
- **Cost Overruns.** If the ICC exceeds current cost estimates, Maryland DOT will have to commit additional state revenues to complete the project, further reducing resources for ongoing transportation projects and even forcing the state to postpone the startup of others. Maryland Department of Transportation officials have given assurances that the estimate to complete the ICC is realistic, indicating that the cost figures include some cushion for unbudgeted cost increases. However, the record of major transportation and other public works across the country indicates that even the so called "best estimates" often miss the mark, largely because of rising energy and construction costs. In the event that ICC costs exceed current

estimates, the financial plan sets forth potentially available funding sources to pay for these cost overruns: (1) annual federal program funds, (2) other unspecified federal funds and bond proceeds (presumably, additional MdTA debt or additional GARVEE bonds); and (3) other state funding sources (e.g., Maryland Transportation Trust Fund or the General Fund). The plan, however, does not describe how these additional costs will be allocated or might affect other state funding priorities.

ICC and Financing: Who Pays and When?

To characterize how the ICC's costs are allocated among state taxpayers, it helps to draw an analogy to a home mortgage. The state plans to put down slightly more than 20 percent of the purchase price (the estimated cost of the project), and it proposes to borrow the remainder through a long-term mortgage (including 30-year bond commitments). The down payment is paid by all state highway users (through General Fund and Transportation Trust Fund revenues) and toll payers using existing toll facilities.

Who actually pays the mortgage is somewhat more complicated. During the initial years, mortgage payments are to be roughly divided between toll payers (revenues from tolls at six of the state's seven existing toll facilities) and state highway users (about 2 cents per gallon of federal gas tax allocations). At some undetermined point, ICC toll payers (and existing toll payers on other facilities, as needed) and state highway users would share the mortgage payments. During the later half of the mortgage, users of the ICC would purportedly be the sole payers.

The home mortgage analogy falls short in one important respect: *The final purchase price—the cost of the ICC—is actually uncertain.* In the likely event of cost overruns, the financial plan does not describe how additional costs are to be allocated among taxpayer groups.

- **Costs to Drivers and Other Taxpayers.** Surprisingly, state officials have done little to educate the public about the toll structure that will be deployed once the highway is operational. The state estimates tolls on the ICC will average about \$7 for a roundtrip on the 18-mile highway. It also plans to use “dynamic tolling,” which adjusts tolls upward to manage demand on the highway during peak periods. As such, some drivers would pay more to use the highway during congested periods, and others would pay less at other times of day. If ICC toll revenues paid for the project entirely, tolls for a roundtrip on the full length of the ICC would exceed an estimated \$16 per day. The state's financing plan for the project—by relying on General Fund revenues, future federal dollars, and existing toll revenues from other parts of the state—helps keep planned tolls for the ICC lower, effectively subsidizing a daily roundtrip driver in the amount of about \$190 per month.

At the same time, Consumer Expenditure Survey data issued by the U.S. Bureau of Labor Statistics (BLS) show that the Baltimore region has the lowest household transportation costs in the nation of the 28 metropolitan areas tracked by BLS.⁶ Baltimore-area families spend about 14 percent of their household budgets on transportation each year, a level substantially lower than the national average of 19 percent.

This lower cost for transportation is a competitive advantage for the Baltimore region; keeping this advantage is directly tied to how the State of Maryland invests its transportation dollars. Whether the state invests its available dollars in the ICC or uses them to help expand travel options, such as rail and other transit services, has an effect on transportation costs for residents and regions. For the Baltimore region, the timely completion of the Red Line, for example, is the type of investment that will help the City and region, and keep average family transportation costs down.

Regional Growth and Economic Development

In assessing the case for the ICC, regional growth and economic development considerations have not been adequately vetted. The concepts of induced traffic and induced development should be central to the discussion. The notion of induced traffic challenges the view that expanding existing roads or building new ones will necessarily relieve highway congestion. The idea of induced development challenges the view that highway investments are a *response* to growth and development, as opposed to a *cause* of them.

Investments in major transportation facilities increase the accessibility of locations near the facilities relative to the rest of the region, making these locations more attractive for development and thereby redirecting growth. Induced development means additional travel demands on existing and new facilities, and ultimately reduces the accessibility advantage of these favored locations. In time, such effects create a new equilibrium of land use and transportation, usually with higher vehicle miles traveled in the region and greater suburban sprawl.

To assess how the ICC is likely to affect development in the Washington-Baltimore region, the technical appendices to this report provide detailed information on:

1. effects of previous major highway investments in the region;
2. official forecasts for the ICC itself; and
3. research on highway-induced development generally, applied to the ICC.

The three paint a fairly consistent picture of likely development impacts of the ICC.

- ***Effects of Previous Highway Investments.*** In 1999, the *Washington Post* compared actual traffic volumes on I-270 with projections before construction (“Widen the Roads, Drivers Will Come—MD’s I-270 Offers a Lesson,” *Washington Post*, 1/4/99). The article declared the widening a failure based on the amount of induced travel, which quickly filled the added capacity. By 2000, traffic volume for certain sections of I-270 already exceeded forecasts for year 2010.

The Maryland-National Capital Park and Planning Commission (MNCPPC) and Metropolitan Washington Council of Governments (MWCOC) responded with a study in 2001 that suggested that induced development was mainly responsible for the high and premature levels of congestion on I-270. The study also cited a failure to build all transportation facilities in the adopted regional transportation plan of the time—some projects had been delayed, others dropped—as a reason for the premature congestion.

On the impact of induced development, MWCOC concluded that “higher observed traffic volumes relative to the 1984 forecast appear to be due in large part to shifts in population, employment, and travel to the I-270 corridor from other areas in the region, rather than to entirely new travel.” For the region as a whole, population growth was 5 percent lower than had been forecasted in 1984, while employment growth was 9 percent higher. The two together suggested small (if any) net impacts of I-270 on regional growth.

However, population and employment had clearly *shifted* to the I-270 corridor, at the expense of other areas. Specifically, population and employment in the I-270 corridor were, respectively, 23 percent and 45 percent higher than forecasted in 1984. For all of Montgomery County, they were 7 percent and 21 percent higher than forecasted. Meanwhile, population and employment were 9 percent and 23 percent lower than forecasted in Prince George’s County, and 29 percent and 3 percent lower than forecasted in the District of Columbia. A reasonable conclusion is that, even with dynamic tolling, the ICC is likely to fill up faster than projected, in part because of development shifts to the ICC corridor from elsewhere in the region.

- **Official Forecasts for the ICC: Regional Growth Implications.** There is only one comprehensive forecast of induced development due to construction of the ICC. This forecast, based on growth allocations by the ICC Expert Land Use Panel (ELUP), is the forecast cited in the Final Environmental Impact Statement (FEIS) and the ICC Secondary & Cumulative Effects Analysis (SCEA). It almost surely understates the induced impacts of the project.

Working with ELUP growth allocations, the FEIS and SCEA assert the amount of induced development related to the ICC would be 4,945 acres for Corridor 1 (the “Preferred Alternative”) and 5,546 acres for Corridor 2. These acreages are beyond what is expected in the way of new development without the ICC.

These aggregate, predicted, induced development figures mask deep divisions within the ELUP. The idea of an ELUP is to bring together knowledgeable people with different perspectives and expertise, who through a deliberative process eventually agree on a “consensus” forecast. But for the ICC, the process did not result in convergence or consensus. Instead, differences among panelists averaged out to small impact values.⁷

Three panel members, concerned about the subjective and ad hoc nature of the panel’s forecasts, collaborated on the development of a simple land-use forecasting model, which they tempered with expert judgment. The modelers’ growth forecasts for the entire study area were higher than those of the other panel members. Other differences are illustrated in Figures 2 and 3:

- For Montgomery County, where the ICC seemingly would have its greatest impact, model-based forecasts of growth in both jobs and households were about three times higher than those based only on expert opinion. Differences were not uniform across the county: The model predicted larger increases in jobs at locations near the ends of the ICC facility, such as Rockville, Gaithersburg, Germantown, and Montgomery Village, as well as in places with an existing commercial character that would be given new direct access via the ICC, such as Wheaton, White Oak, Aspen Hill, and Burtonsville. With regard to households, the model predicted increases in the interior of the county that have had limited accessibility in the past, such as Deer Park, Cloverly, Burtonsville, and Potomac. In these instances, growth potential would overwhelm existing zoning capacity, as many of these zones are currently zoned rural or agricultural.
- For Prince George’s County, panelists relying on expert opinion predicted modest growth of households and jobs related to the ICC. Using accessibility information, the modelers forecasted considerably larger increases. Much of the new growth would be located in the more suburban portions of Prince George’s County, not in the older inner core, and particularly in places that would be well served by the ICC eastern extension into Prince George’s County—Beltsville, Muirkirk, Laurel, and Laurel Pines.
- For Frederick County, most panelists felt that construction of the ICC in Montgomery County would have no effect on this trend. The model forecasted a large increase in households and jobs related to the ICC.
- For Washington D.C., the model projected somewhat greater losses for the District than did the rest of the panel.
- For Howard County, the model forecasted greater impacts than expert opinion alone would indicate.
- For Anne Arundel County, the panelists projected additional households and jobs, while the model forecasted losses.

Such an effort on the part of the three expert panelists was necessary because in the Baltimore–Washington region no integrated land-use and transportation-modeling capability currently exists. Hence, there is no objective means

of forecasting growth with and without the ICC. For a region this large, the absence of integrated modeling capability is remarkable.

Land-use impacts of the ICC are likely to be much greater than assumed in the FEIS. Montgomery County likely will attract much more growth than officially forecasted. Growth will spill over into Frederick County, exacerbating sprawl. Likely losers are Washington, D.C., Anne Arundel County, and Baltimore City (which falls outside the study area of the ICC expert land-use panel but likely will supply the net jobs and households projected by the simple land-use forecasting model).

Figure 2. Modeled Forecasts of Highway Impacts on Households

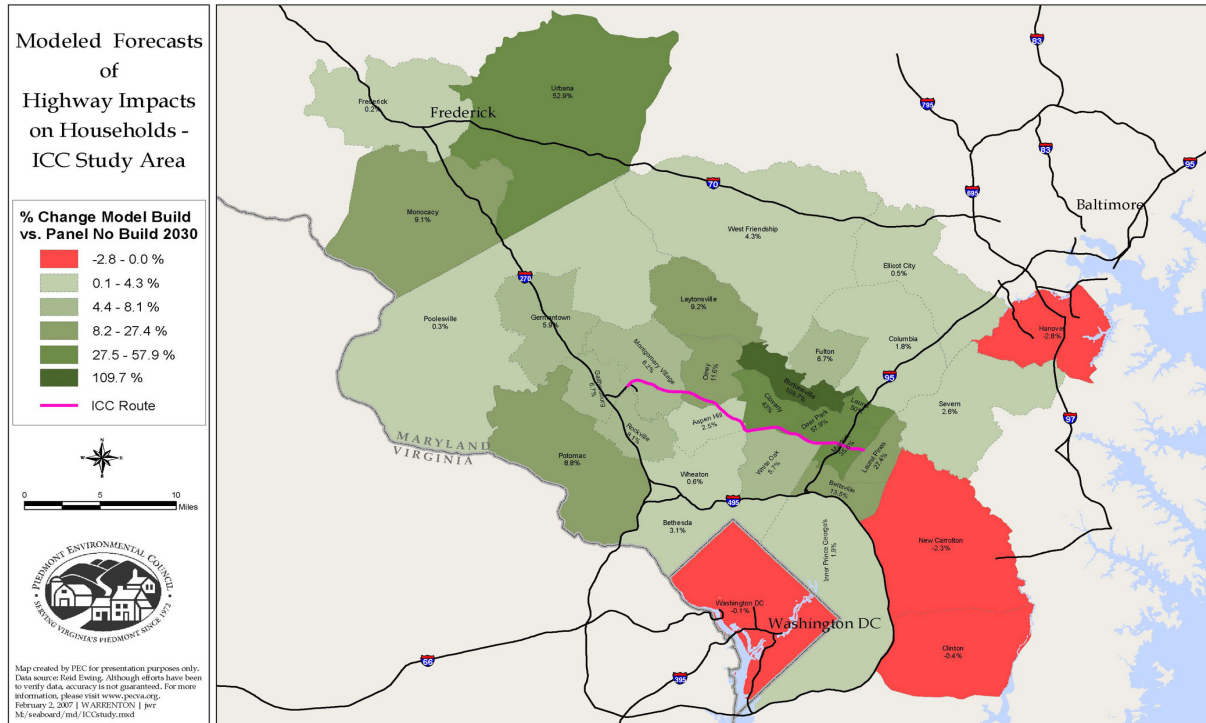
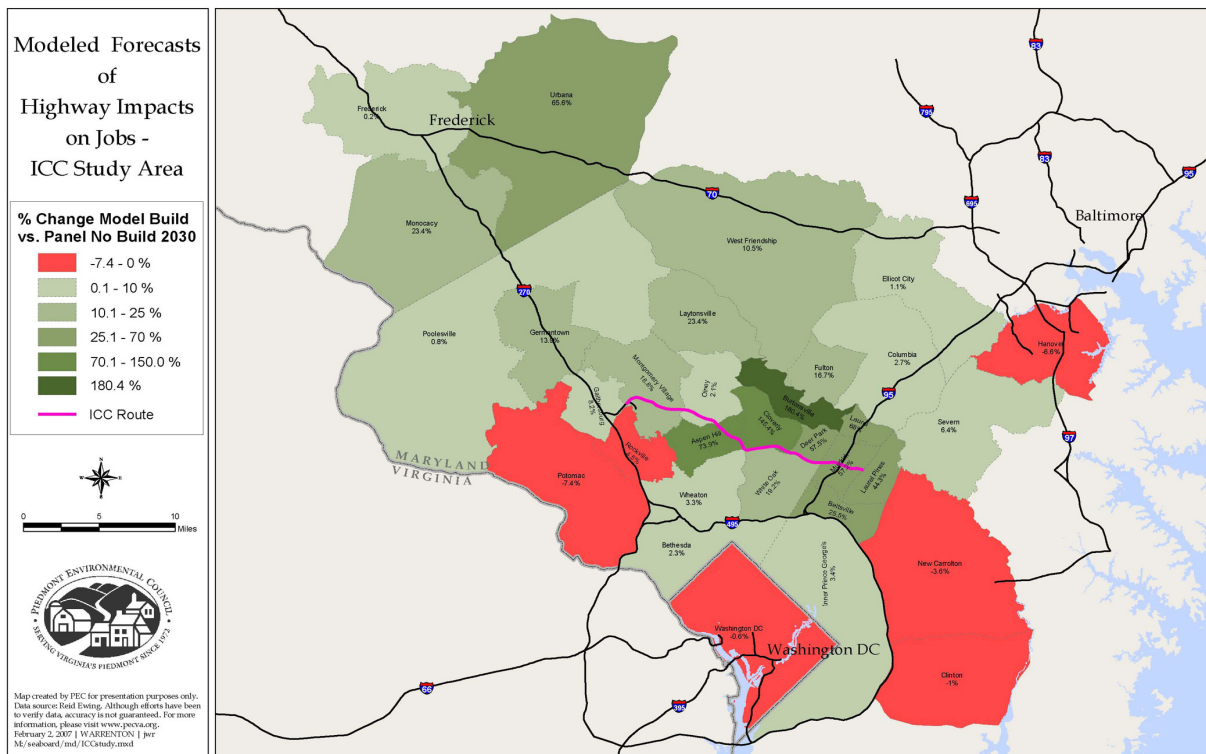


Figure 3. Modeled Forecasts of Highway Impacts on Jobs



- Highway Impact Research: Induced Travel, Induced Development.** The best evidence available on the magnitude of induced travel comes from a meta-analysis by Professor Robert Cervero of the University of California, Berkeley. He concludes that "...the preponderance of research suggests that induced-demand effects are significant, with an appreciable share of added capacity being absorbed by increases in traffic." The average elasticities reported by Cervero imply that a 10 percent increase in capacity will result in a 6 percent or 7 percent increase in traffic in the "long term" (five-plus years out).

The research on induced development is not so easily summarized, as the phenomenon itself is so complex. But from the literature review in the technical appendices to this report, the following conclusions relevant to the ICC can be reported with a degree of confidence.

Implications for the ICC:

- Major highway investments have small net effects on economic growth and development within metropolitan regions, instead mostly moving development around the region to take advantage of improved accessibility. Induced development is very close to a zero-sum game. The ICC will produce winners and losers.
- Highway investment patterns tend to favor suburbs over central cities, thereby contributing to decentralization and low-density development. This will be true of the ICC.
- Major highway investments actually may hurt regional productivity if they induce inefficient development patterns (read "low density" development patterns). This may be true of the ICC.
- Corridors receiving major highway investments experience land appreciation and therefore are likely to be developed at higher densities than developable lands outside the corridor.

- Highways may be necessary, but they are not sufficient to induce development. To the extent that current planning and zoning caps are sustained, particularly in Montgomery County (an uncertain prospect), impacts within the corridor will be moderated.
- Counties receiving major highway investments attract population and employment growth to a greater degree than they otherwise might. Montgomery will be a clear “winner,” as will (to a lesser extent) some of the adjacent counties.
- Nearby counties may experience more or less growth than otherwise, depending on the strength of spillover effects. The big losers in this case are likely to be at a distance, including Washington, D.C., and Baltimore City.
- Nonresidential development is more strongly attracted to major highways than is residential development, particularly in the immediate vicinity. There will be tremendous pressure to allow commercial and office development along the ICC.
- The induced development impacts are wider and deeper for interstate-quality highways than for lesser highways and streets. The ICC is of interstate quality, which means its impacts will be wide and deep.
- It takes many years after construction for development to adjust to a new equilibrium for land use and transportation. The development impacts of the ICC will be felt for a decade or more.
- The induced development impacts of major highways extend out at least one mile and probably farther. Although the most intense impacts of the ICC will be within a one-mile buffer, a project of this scale will produce development impacts regionwide.

Recommendations

Within the context of the findings of this report, the following specific recommendations are provided to support a reexamination of the ICC by the Governor, Administration leaders, and the General Assembly:

1. Evaluate opportunities for financing other state transportation priorities with revenue and debt capacity now assigned to the financing of the ICC, and assess how funds currently proposed for the ICC could be utilized more efficiently.
2. Review priorities for the state's use of its remaining debt capacity.
3. Complete an assessment of the state's General Fund requirements, including new revenue needs, and align them with the state's transportation funding needs.
4. Examine the funding priorities of the Maryland Transportation Authority, including the share of toll revenues being diverted from existing facilities and corridors to pay for the ICC, and evaluate the potential costs of other priorities in the Baltimore region, the I-95 corridor, and the Eastern Shore as well as the toll revenues that may be needed to support these projects.
5. Accurately assess the land-use and economic development impacts on Baltimore, Prince George's, and other jurisdictions in the state.
6. Conduct a supplemental Environmental Impact Study of the ICC to consider transportation and land-use alternatives.
7. Evaluate alternative land-use and transportation scenarios and needs to support BRAC, and assess whether BRAC projects should merit higher priority.
8. Develop an updated cost estimate for the ICC.

Endnotes

¹ Maryland Department of Business and Economic Development, BRAC Study, February 2007, can be found at – <http://www.choosemaryland.org/businessinmd/militaryaffairs/BRACStudy.html>.

² Maryland Department of Legislative Services, Spending Affordability Briefing, December 2006, can be found at – http://mlis.state.md.us/other/spending_affordability/briefing_120506.pdf.

³ Maryland Transportation Authority, Annual Report, FY 2005.

⁴ Maryland Department of Transportation, State Budget, FY 2006.

⁵ Go to – <http://www.mdot.state.md.us/Planning/brac/index.html>.

⁶ Bureau of Labor Statistics' Household Expenditure Survey data for the Baltimore metropolitan area were compared to 27 other metropolitan areas in a 2004 study, *Driven to Spend: Pumping Dollars out of Our Households and Communities*, by the Center for Neighborhood Technology and the Surface Transportation Policy Project.

⁷ One of the authors of this report, Dr. Reid Ewing, was an ELUP member; he was one of the three who developed and relied on a simple land-use forecasting model.

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**1209 N. Calvert Street
Baltimore, Maryland 21202**

tel: **410.385.2910**

fax: **410.385.2913**

www.friendsofmd.org
