INTRODUCTION

Introduction to the Forum on Transportation and Land Use in the Maryland Suburbs of Washington, DC

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Urban and suburban growth patterns have long been tied to major transit arteries. In the United States, older, inner suburbs initially followed streetcar routes and were organized around stations. As the automobile came to the fore after World War II, and the road network grew, it created extreme individual mobility, leading to the sprawling suburbs of the latter half of the twentieth century. This hypermobility brought a certain kind of freedom, but at a price, as exponentially more cars spurred congestion, leading to new roads and new developments, and yet additional traffic. Alongside the automobile and the highway came widely separated residential developments, shopping centers, and jobs (see, for instance, Duany et al. 2000). The environmental costs were high in habitat fragmentation, runoff from impervious surfaces due to roads and parking facilities, local pollution spurring health problems such as asthma, and increased carbon-dioxide emissions. Critics of sprawl also feel there has been a social cost in increasing isolation as people are cloistered in their vehicles and houses.

The Washington, DC outer suburbs developed during the 1950s and beyond, the greatest period of metropolitan dispersal in history. As such, these communities are characterized by extreme automobile dependence. The region consistently ranks as one of the most congested in the United States, and it continues to grow rapidly. Paradoxically, the state of Maryland has long been in the forefront of efforts to fight sprawl, but these initiatives have failed to mitigate the increasing congestion. During the 1990s, the state pioneered the term “smart growth” to incorporate planning concepts of dense urban infill and transit-oriented development in walkable, mixed-use neighborhoods. However, these efforts lacked strong enforcement and political continuity and have proved ineffective at slowing the pace of sprawl and its deleterious consequences (for further discussion of this historical progression see the book review of Sprawl and Politics in this issue).

Even before Maryland’s smart growth initiative, Montgomery County had been notable for its innovative efforts to fight sprawl, beginning with its 1964 “wedges and corridors policy,” which called for compact urban development with access to rapid transit and shaped the basic architecture of county land use (MNCPPC, 1964). In 1980, the county government created an agricultural reserve protecting 93,000 acres, almost a third of the county, for farming and recreational uses (MontgomeryPlanning.org, 2008). Despite such progressive efforts, larger waves of sprawl and disabling congestion continue both in Montgomery County and throughout much of the state. What is needed, it seems, is better policy. Part of the answer is more sophisticated and accurate tools to measure and predict the effects of policy decisions. The two articles comprising this forum describe cutting-edge instruments to measure transit and land-use objectives.

Mishra Sabyasachee and her colleagues discuss the powerful Maryland Statewide Transportation Model (MSTM), which extends previous models by accounting for traffic from nearby states. The MSTM is being used to analyze many scenarios as part of an ongoing study. In this article, Sabyasachee and her coauthors compare a business-as-usual scenario and a high gasoline-price scenario to show that higher fuel cost does in fact lower the number and length of automobile trips. The study gives quantitative validation to environmental arguments for a higher gasoline tax. Further, it concludes that the high gasoline-prices scenario “results in clustered urban development as opposed to sprawl.” This finding suggests that policy affecting one element of the mobility problem can have long-term, synergistic effects, resulting in the establishment of virtuous cycles.

In the second forum article, Dan Hardy and his collaborators discuss how policy area mobility review (PAMR) accounts for an array of factors to quantify the effects, for instance, of new roads or transit systems on mobility. Unlike previous meth-
ods, PAMR accounts for the numerous interactions of car trips at various locations. This contribution shows how policy instruments develop in tandem with, and are wedded to, policy, as Montgomery County allows greater congestion in areas with better public transit, encouraging growth in those areas. Developers that upset this balance are responsible for implementing specific mitigation measures, such as providing additional transit. A precise policy instrument, such as PAMR, is thus crucial for calibrating growth.

A reading of Hardy and colleagues shows that policy is not set in a vacuum, that models, however sophisticated, are only as useful as the broader context allows. Policy is set by community norms in conjunction with a political process. The instruments described here deliver a powerful sense of precision, but in the real world are applied in conjunction with processes that account for community values. How much worth does a community give to automobility? How much does it value public transit? How important is the quality of the local environment to the community? While these values are key to defining policy objectives, the lobbying by interest groups also affects the outcome. In Montgomery County (as in many places) activist groups contend that property developers have an outsized role in determining policy, maintaining development outside core urban areas and transit hubs, and encouraging growth antithetical to regional balance. Still, numerous public transit projects and compact communities around transit hubs are being developed in Maryland’s suburbs adjoining Washington, DC. The town of Bethesda and downtown Silver Spring, for instance, are successful, vibrant mixed-use communities based around transit, while the proposed Purple Line light rail, which would connect Metro stops in inner suburbs throughout Montgomery and Prince George’s Counties, seems likely to be built. Planning departments predict traffic and transit trips generated with every new project, remaining a crucial part of every decision.

Sophisticated quantitative instruments, then, are a necessary, but not sufficient, part of the policy/politics equation needed for transit and growth decisions that truly encourage compact development, minimizing car use and infrastructure expansion. If transportation arteries define land use, and land use influences transportation decisions, sophisticated policy needs to account for multiple, intertwined effects. The implications of effective policy on sustainability are real and measurable. A recent study commissioned by the U.S. Environmental Protection Agency demonstrates that transit-oriented development can cut energy use significantly, in some cases nearly in half (Hernandez et al. 2011). It is becoming apparent that better transit and land use can go a long way toward the 80% reduction in greenhouse gases many sustainability proponents assert is needed for a healthy planet.

References

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