

Facing Up to Transportation Challenges



What is the TPB?

Transportation planning at the regional level is coordinated in the Washington area by the National Capital Region Transportation Planning Board (TPB). The TPB is staffed by the Department of Transportation Planning of the Metropolitan Washington Council of Governments (COG).

Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia, and the District of Columbia, local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and non-voting members from the Metropolitan Washington Airports Authority and federal agencies.

The TPB was created in 1965 by local and state governments in the Washington region to respond to a requirement of 1962 highway legislation for establishment of official Metropolitan Planning Organizations (MPOs). The TPB became associated with the Metropolitan Washington Council of Governments in 1966, serving as COG's transportation policy committee. In consultation with its technical committee, the TPB is responsible for directing the continuing transportation planning process carried on cooperatively by the states and local communities in the region.

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TPB ANNUAL REPORT 2004

Time to Reexamine Old Ideas





By Christopher Zimmerman 2004 TPB Chair

F or yet another year, funding problems loomed large over the activities of the Transportation Planning Board. As 2004 TPB chair, I am proud of our continuing efforts to raise awareness about the region's transportation funding gap (see story on page 5). In February, the TPB released the *Time to Act* study showing that the region needs to more than double anticipated transportation revenue over the next six years. Later in the year, state and local jurisdictions agreed to fund the "Metro Matters" program, covering urgent six-year needs for the Washington Metropolitan Area

Transit Authority (WMATA). In the fall, the Council of Governments, the Board of Trade and the Federal City Council jointly established a blue-ribbon panel to investigate long-term funding solutions for WMATA.

Through these actions, we showed that we can act as a regional community. But much more work remains to be done. As regional leaders it is our duty to continue broadcasting the message that the region must make a serious commitment to infrastructure investment. If we don't, our transportation system will continue to deteriorate faster than we can apply stop-gap solutions.

Despite ever-present financial woes, the TPB oversaw several important achievements in 2004, including Disability Awareness activities (page 24), actions to strengthen emergency preparedness (page 27), the Regional Mobility and Accessibility Study (page 15), and the Street Smart Campaign (page 30).

Given the highly constrained funding situation we face, we must think creatively about strategies for improving transportation. We need to explore the potential of a variety of relatively small measures that, taken together, may contribute to the alleviation of our larger problems. This includes reexamining ideas that may have been rejected as well as new ones that have never been put on the table. We should consider any proposal that has the potential to make even a marginal transportation improvement.

For example, we should proceed quickly with plans for a regional organization to coordinate communications among agencies following major incidents affecting our roads and transit. We should also find short-term ways to relieve crowding on Metro, including possibly reconfiguring seating on rail cars. We should restore HOV capacity on the 14th Street Bridge to facilitate better transit service and to improve throughput of high-occupancy vehicles.

These are just a few examples of the kinds of ideas we should be exploring. I challenge everyone who cares about the region's future to add to the list. Your suggestions might be major projects or small ones, mainstream proposals or ideas "outside the box." Instead of just finding reasons not to do things, let's find reasons to do them.

I look forward to continuing this regional dialogue in the years ahead.



TPB ANNUAL REPORT 20

Not a Distant Threat: The Transportation Funding Squeeze



In 2004, regional leaders rallied to provide urgent funding for Metro, but long-term transportation funding solutions remain a continuing challenge.

or a number of years the TPB has been calling attention to the region's long-term transportation funding shortfall. In 2004, the board made it clear that the funding squeeze was not a distant threat. The TPB's "Time to Act" study found that persistent shortfalls are eroding the region's ability to meet basic transportation needs.

The Time to Act report, which was released in February 2004, said that the region needs to double anticipated transportation revenues in the next six years to fund key priorities. The analysis found that transportation revenues between 2005 and 2010 will be \$12.2 billion, while total needs will be \$25.4 billion.

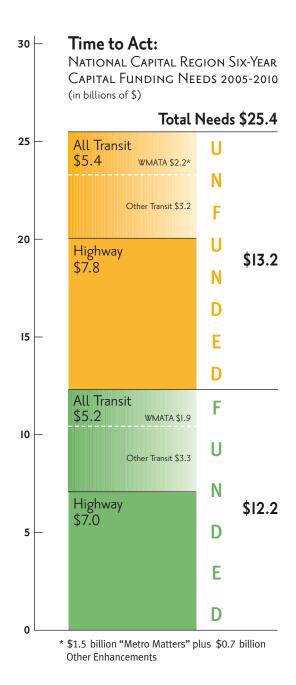
Maintenance takes lion's share of revenue

With its focus on unfunded short-term needs, the Time to Act study serves as an accompaniment to the region's Constrained Long-Range Transportation Plan (CLRP). As the TPB's main planning document, the CLRP is a product of federal planning laws and regulations, which stipulate that it may include only projects for which funding is reasonably anticipated to be available.

In a region with aging infrastructure, operations and maintenance expenses will place substantial demands on future revenues. The TPB has estimated that nearly 80 percent of transportation funding over the next 30 years will be used just to maintain the system that is already in place.

Beyond meeting the needs for maintenance and operations, the financial prognosis offers only limited resources. As metropolitan Washington's economy booms, our roads are choking on congestion. As the Metro system grows in popularity, trains and buses are getting more crowded.

The Washington Metropolitan Area Transit Authority (WMATA) must make a number of short-term improvements to accommodate new riders on Metro, but the money is scarce. Since 2000, the TPB's financial analysis has found there is not enough funding for basic capital expenses—including new cars and station improvements—to serve new riders on Metro. Because these capital improvements are not fully funded, the TPB's travel forecasts for the long-range plan have assumed that ridership in the core areas would have to be capped at 2005 levels. When riders get exasperated about crowding on trains, the TPB's forecasts assume that some of them will start driving. This "transit ridership constraint" is expected to result in more vehicle trips and increased emissions.



A 2004 funding agreement, called Metro Matters, provided urgent funding for new cars and buses and other improvements to accommodate anticipated ridership growth until the end of the decade. With this money in hand, WMATA has requested that the ridership constraint in the TPB's travel forecasts be pushed back to 2010. After 2010, however, the TPB must again assume that the system will not be able to sufficiently accommodate new riders.

Unfunded, near-term priorities

The TPB's official planning process is based on constraints, which are constant reminders of the need to increase transportation funding. The CLRP, by definition is a "funded" plan, and so every time it is updated, TPB members find themselves asking the question: What's been left out? The Time to Act study answered that question, with a focus on unfunded priorities over the next six years.

The Time to Act analysis only included capital projects the agencies determined they could and should implement in the next six years if sufficient resources become available. Regional transit and highway needs identified in the study included the following:

- Capital improvements to accommodate growing demand on the region's Metrorail and Metrobus system.
- New technology to monitor and optimize traffic flow and incident management.
- Widening of selected highway segments and construction of new interchanges and facilities.
- Improved sidewalk and bicycle facilities.
- Increased capacity of the MARC and Virginia Railway Express (VRE) commuter rail services.
- Improvements in the region's local bus systems.
- An enhanced commitment to bridge and highway replacement and maintenance.

"We are not talking about amenities here," said TPB Chairman Christopher Zimmerman when the Time to Act study was released. "We have a choice about what our very near future will look like."

TPB members emphasized that Congress must be informed of the consequences

of not increasing federal transportation funding for the Washington region. The board also recognized, however, that even the most optimistic level of federal funding will address only a portion of the shortfall. Actions are needed at all levels of government. State and local leaders across the region must make commitments to increase funding.

"The important thing to remember is that the projects outlined are not nice-to-haves," said TPB Vice Chair Michael Knapp, who is a Montgomery County Councilmember. "We are unified as a body because these projects are critical."

Metro Matters provides a short-term response

According to the Time to Act analysis, WMATA's needs were particularly critical. The study found that the transit system needed more than \$2.2 billion during the next six years just to fund vital expenses, including additional equipment and services to accommodate new riders.

Metro CEO and General Manager Richard White warned that increasing demands on Metro were jeopardizing the system's future. "The Metro system is on the verge of failing in its ability to provide a safe, efficient system," said WMATA CEO and General Manager Richard White when the Time to Act study was released in February 2004.

In mid-2004, WMATA announced that, in order to purchase rail cars at a discount, the region's jurisdictions had to secure additional funds by mid-October. If the contract was delayed, the cars would cost \$95 million extra. Regional leaders responded to this call for funding and in October, the WMATA board approved a funding agreement called "Metro Matters," which commits \$3.3 billion from state and local governments over the next six years.

Metro Matters, a scaled-back version of WMATA's 10-year Capital Improvement Program, includes funds for purchasing 185 new buses and 120 new rail cars, which are needed to run eight-car trains on one-third of the system. The agreement also funds basic infrastructure investments, including repairs to leaking tunnels, power and communications systems upgrades, and critical security enhancements, which will require additional federal funding to implement.











Although vital, Metro Matters is only a short-term response to WMATA's needs. WMATA's Richard White cautioned that the focus on short-term funding should not create the false impression that this infusion will take care of the system's long-term problems. "The ink will barely be dry on this agreement before we're back telling people we've got the same issues," said White when he spoke to the TPB in September.

Continuing long-term challenges

Unlike other major transit systems in the country, WMATA receives practically no dedicated funding. Metro is therefore heavily dependent on state and local general fund revenues, which must be re-allocated every year.

In an effort to address the system's long-term funding shortfall, the Council of Governments (COG) Board of Directors in September approved the creation of a blue-ribbon panel of experts to recommend alternative funding sources for WMATA. Thirteen experts in transportation and public policy comprised the blue ribbon panel, which started work in October. The Council of Governments, the Greater Washington Board of Trade and the Federal City Council sponsored the panel.

The blue-ribbon panel's final report, released in January 2005, found that the Metro Matters program "created a short period of stability, but more permanent arrangements should be put in place soon if Metro is to avoid a downward spiral in its condition and performance. Transit systems that have entered into such a spiral find it difficult and expensive to recover."

The panel said that WMATA's member jurisdictions should "select, authorize and implement a regional dedicated revenue source." The report suggested that a sales tax would be "the most viable" option to implement on a regional basis, but it provided other possible dedicated revenue options as well. The report noted that a 0.5 percent sales tax increase would be sufficient to meet the projected shortfall.

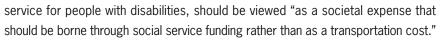
Farebox revenues currently account for 57 percent of Metro's operating expenses, and the report recommended this rate of recovery should be continued. The panel also emphasized that the federal government should play a major role in meeting the system's shortfall because Metro service is critical for "effective government operations."

The recommendations of the blue ribbon panel generated support among the TPB's members who for years have worked to highlight the region's transportation funding problems.

In January, the TPB passed a resolution endorsing the blue-ribbon panel's report. Although some board members expressed concerns about report language regarding sales tax increases, the majority of TPB members pushed the board to issue a strong statement of support.

"If we're not willing to endorse this and move it forward, then I don't know how we expect anybody else to do it," said Chairman Zimmerman.

The TPB's resolution did disagree with the panel on one key issue: funding for paratransit services for persons with disabilities. The panel wrote that MetroAccess, the transit system's



In response, the TPB resolution stated that the board "considers it entirely appropriate that transportation system revenue be used to serve people with disabilities who cannot use the fixed route system."



Time to act

The region rallied to protect the Metro system in 2004, and that achievement was hailed by the TPB. "We have taken a really critical step in averting a true transportation meltdown," said Chairman Zimmerman when the "Metro Matters" agreement was approved.

Mr. Zimmerman and others argued that the momentum from Metro Matters and from the TPB's Time to Act study should be used to generate long-term solutions. The recommendations of the Metro funding panel helped to raise awareness and further propel public discussion on possible long-term funding solutions.

At the same time, new funding opportunities for transportation are emerging. Increasingly, regional leaders are looking to tolls and other pricing mechanisms to fund new transportation capacity. In recent years, the TPB has catalyzed the regional discussion of "value pricing" - giving drivers and transit riders the option of paying an extra fee for the value of reduced congestion. The most commonly discussed value pricing mechanism is high-occupancy/toll (HOT) lanes, which permit travelers to either ride free in a carpool or pay a toll if they are driving alone. In 2005, the Virginia Department of Transportation announced plans to build the region's first HOT lanes on 15 miles of the Capital Beltway running west and north from the Springfield Interchange. The Beltway HOT lane project was proposed for inclusion in the TPB's 2005 amendments to the Constrained Long-Range Plan.

While there was plenty of uneasiness about funding in 2004, there was also some cautious optimism at the end of the year. Policy makers, the media and citizens have acknowledged that Metro's long-term funding shortfalls were not going to just go away without the implementation of a permanent funding solution. And leaders were starting to seriously consider tolls and HOT lanes as a way to infuse cash into transportation improvements.

New Road Project Dominates the 2004 Regional Transportation Plan



In a divided vote, the TPB gave the Intercounty Connector a green light.

Thousands of letters and e-mails. Hours of public comment. Heated debates. Maryland's Intercounty Connector was the center of attention as the TPB reviewed and approved the 2004 amendments to the region's Constrained Long-Range Transportation Plan (CLRP).

More than just a road, the ICC came to symbolize the choices the region faces in battling congestion and managing growth. The ICC debate also focused attention on the roles and responsibilities of regional leaders at the TPB.

In November of 2004, after months of analysis and discussion—and several divided votes—the TPB approved a package of amendments to the CLRP, which included the ICC and gave this major highway project a green light. It was the first limited-access highway added to the transportation plan in more than a generation.

Debated for 50 years

The ICC is planned as an 18-mile east-west road between I-270 near Gaithersburg and I-95/US 1 near Laurel. It will be located 6-8 miles north of the Capital Beltway and will follow an alignment roughly parallel to the Beltway.

As submitted to the TPB, the ICC will be an express toll facility with three lanes in each direction. Express bus service will run along the highway and connect to Metrorail. Maryland Governor Robert Ehrlich hopes to break ground on the project before the end of his first term in 2006, and the project is scheduled for completion in 2010.

The ICC was first proposed in the 1950s as part an ambitious network of highways crisscrossing the metropolitan area. Fifty years later, it is hard to imagine the region without the roads that were actually built in that era—the Capital Beltway and radial interstate highways like I-95 and I-270. It is equally hard to picture some of the proposals that were discarded—like an eight-lane Potomac Freeway through Georgetown—which many would now agree were bad ideas.

A half-century of hindsight has not created consensus on the ICC. Depending on whom you ask, the road was a good idea—or a bad one—50 years ago and it remains a good—or bad—idea today.

Supporters say the ICC is an overdue promise, a missing transportation link in a region choking on congestion. Over the past 50 years, they argue, development north of the Beltway was premised on plans to build the road, which was never taken out



THE INTERCOUNTY CONNECTOR IS PLANNED AS AN 18-MILE TOLL ROAD BETWEEN GAITHERSBURG AND LAUREL, MARYLAND. AT THE REQUEST OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, THE TPB ANALYZED TWO POTENTIAL ICC ALIGNMENTS (CORRIDOR 1 AND CORRIDOR 2 AS SHOWN ABOVE) FOR INCLUSION IN THE CONSTRAINED LONG-RANGE TRANSPORTATION PLAN. MDOT ULTIMATELY SELECTED CORRIDOR 1 FOR THE CLRP.

of the Montgomery County Master Plan. Without the ICC, cars are clogging east-west streets that were not designed to handle such traffic. Supporters also argue that the current economic boom along the I-270 corridor makes the road more necessary than ever.

Opponents respond that there are a lot of good reasons the ICC was never built. The road will cause irreparable environmental damage, they argue, especially to wetlands. It will not solve congestion problems, but instead will create new travel demands as housing gets pushed farther away from the metropolitan core. What's more, the road will soak up so much money that the region will not have the resources to build other projects, including east-west public transit links like the Purple Line.



Because of all the controversy, the ICC has been on and off the books for the past 50 years. In 1983 and 1997, the Maryland State Highway Administration issued Draft Environmental Impact Statements for the project and held public hearings, but final decisions were not reached. Former Governor Parris Glendening halted the ICC study in 1999, citing environmental concerns.

The project was given new life in 2002 with the election of Governor Robert Ehrlich. "Since day one of the Ehrlich administration, we have been focused on restarting the Intercounty Connector," the governor

wrote in a statement on the MDOT website. In resurrecting the ICC, the Maryland Department of Transportation put the project on a fast track. The highway was

included in a list of 13 projects receiving accelerated environmental reviews under an "environmental streamlining" executive order signed by President Bush.

Inclusion in the TPB process

In order to receive federal funding, the ICC, like all major projects must be included in the TPB's two central planning documents: the Constrained Long-Range Transportation Plan (CLRP), which has a planning horizon of 25-30 years, and the Transportation Improvement Program (TIP), which covers six years.

State and local agencies submitted ten "major new projects" to the TPB for inclusion in the CLRP

and TIP in 2004. From the beginning, one of these projects—the ICC—dominated discussions.

The CLRP and TIP approval process centers on two key federal requirements: **air quality** analysis and **financial constraint**.

For the *air quality* analysis, the ICC and the other new projects were included in a regional transportation network—including all current facilities and those planned in the CLRP—which was analyzed for future vehicle emissions. In the fall, the TPB staff found that forecasted emissions from the draft CLRP would conform to the goals of the regional air quality plan. This meant the TPB could approve an air quality "conformity determination" which federal law requires before the CLRP and TIP can be approved.



Before the air quality analysis began, opponents of the ICC asked for a separate analysis that would isolate the project's impacts on air quality. ICC advocates responded that other projects were never singled out this way. In a divided vote in March, the TPB decided not to perform an ICC-specific analysis.

The proposed *funding* plan for the ICC was equally contentious. The Maryland DOT submitted a funding plan for the ICC when it was proposed for inclusion in the CLRP and TIP. The road carries an anticipated pricetag of \$1.7 billion. In addition to revenues from tolls and other traditional sources, the project's funding plan includes Grant Anticipation Revenue Vehicle (GARVEE) bonds, which will be repaid through future federal aid transportation funding.

ICC opponents assailed the funding plan,

charging the project would use up so much money that other important projects would be put on hold indefinitely. TPB Vice Chairman Phil Mendelson said he feared that regional priorities, including funding for transit, would be jeopardized. "This is going to hurt us, and it's going to hurt the regional transportation system, something we are all responsible for."

The Maryland DOT responded that GARVEE bond debt financing will amount to approximately 10-15 percent of MDOT's annual federal apportionment, and will have a minimal impact on future funding opportunities.

"We believe it's a prudent way to pay for a very large project," said Marsha Kaiser of the Maryland DOT. "In the long run, it will save us money if we can bond finance it ahead, rather than having to build it over a 20-year time span,"

As the discussions progressed, the ICC debate at the TPB became much bigger than questions of air quality or funding adequacy. Beyond the narrowly defined tests of the TPB process, decision makers and the public used the ICC debate to draw attention to broad regional challenges. Critics said the ICC would have a negative economic impact on eastern parts of the region by siphoning jobs to the west. They further charged that the project would exacerbate inefficient land use patterns and would have unacceptable environmental impacts.

Key Planning Requirements of the TPB

The TPB planning process centers on two key federal requirements: air quality analysis and financial constraint.

On air quality, the TPB must show that forecasted emissions under the proposed CLRP/TIP will conform to emissions goals laid out in the region's air quality improvement plan. This finding is called a "conformity determination."

The federal financial constraint requirement is designed to make sure the CLRP is not a "wish list." Before a project may go into the plan, project sponsors must show that funding is "reasonably anticipated" to be available.

NOT the ICC: Other CLRP/TIP Changes in 2004

In addition to the ICC, nine other projects were included in the 2004 amendments to the CLRP and the FY2005-10 TIP.

- Add auxiliary lane to the reconstruction of MD 202. Change completion date from 2005 to 2015.
- Remove HOV lanes in reconstruction of MD 4.
- Change completion date from 2003 to 2010 for widening of Father Hurley/Ridge Rd from I-270 to MD27.
- Add eastbound auxiliary lane to widening of I-66 from US 29 to VA 234.
- Change project limits for widening US 50 in Virginia: Add a segment from Loudoun/Fairfax County line to VA 659 relocated. Completion date for project changed from 2020 to 2012.
- Change project limits for widening VA 123: Add a segment from Hooes Rd to Lee Chapel Rd. Completion date remains 2015.
- Change project limits for widening VA 234: Add a segment from Country Club Dr to Waterway Dr. Completion date remains 2006.
- Modify the Fairfax County Parkway to convert the existing 5th and 6th lanes to HOV from Sunrise Valley Dr to the Dulles Toll Rd. Completion date is 2015.
- Add an additional lane in each direction to the construction project for the Battlefield Parkway from Kincaid Blvd to VA 7. Completion date for project changed from 2006 to 2009.

ICC supporters said the project would benefit the entire region. "They should call the ICC the Golden Highway," said Maryland Senator and TPB member John Giannetti. "What raises the economic vitality of our region affects everyone."

ICC proponents also pointed out safety benefits. Citing a previous study, Maryland Delegate and TPB member Carol Petzold said there would be 553 fewer traffic accidents in local neighborhoods if the ICC were built. "To hold up construction of the ICC is a statement to my neighborhood that we don't care about their safety," she said.

In November the 2004 CLRP/TIP process finally ended. The normally two-hour TPB meeting lasted nearly four hours, including five divided votes and one hour of public com-

ment. A motion to remove the ICC from the package of amendments was defeated 17 to 9. The TPB approved the amended plan, including the ICC, with five "no" votes.

This does not mean the ICC is a "done deal," however. MDOT still must complete federally required environmental reviews. In addition, funding for the project is still the subject of vigorous debate.

Because of all the controversy, the 2004 CLRP process was protracted and difficult. At the end of the process, critics said the ICC was not sufficiently scrutinized, while supporters said it received too much scrutiny.

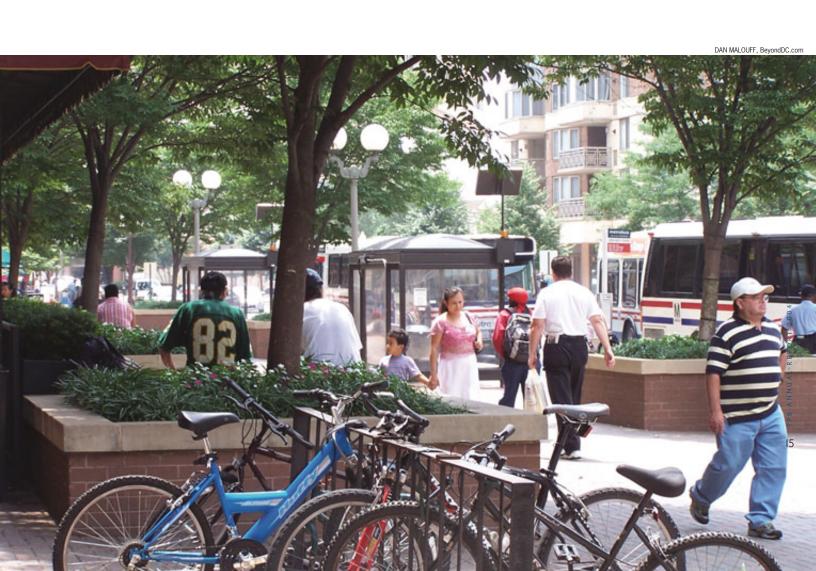
Despite criticisms from all sides, the TPB performed a vital role as a regional forum where controversial projects like the ICC can be discussed and analyzed. Officials from different jurisdictions and states heard public comments, and then raised their own questions and concerns. At times, TPB members found the process frustrating and tedious. But in the end, they had a chance to vote on a project that has broad regional implications.

"A messy process, yes. But that's democracy," said Takoma Park Mayor Kathy Porter.

Looking at "What If" Scenarios

What if more housing were built closer to future jobs? What if new jobs and housing were concentrated closer to public transit? A TPB study is looking at these and other questions.

A s the Washington region enjoys a continuing economic boom, transportation and land-use planners must grapple with new and evolving challenges. An examination of current trends suggests a daunting future characterized by many hours of driving in stop-and-go congestion as commuters travel longer distances between work and home. What if we could wave a magic wand and ease the transportation and land-use problems that are leading to these conditions? How would we shift the location of new jobs and households? What new transportation facilities would we build? What might alternative futures look like? The TPB is currently conducting a study to address these very questions.



Striving towards a vision

The roots of the TPB's Regional Mobility and Accessibility study can be traced to the "Vision", a policy framework adopted by the TPB in 1998 that calls for an efficient and accessible transportation system in the 21st century. The document's goals include increasing transit use and reducing per capita driving. The Vision also emphasizes "reasonable access at reasonable cost for everyone in the region" and promotes transportation linkages among a "healthy regional core and dynamic regional activity centers with a mix of jobs, housing and services." Ever since it was adopted, leaders have been asking what more the region can do to realize the Vision's goals.

The TPB's Constrained Long-Range Plan (CLRP), which contains road and transit projects expected to be completed by the year 2030, has generally fallen short in achieving the goals of the Vision. Forecasts based on the CLRP as updated and amended in recent years indicate that per capita driving will increase and transit use will stagnate or decline. Stop-and-go congestion on our highways will become pervasive. People will be driving longer distances because jobs and housing will be increasingly farther apart.

No one is satisfied with these forecasts of the future, and indeed the explicit purpose of the CLRP is to ensure that we do not enterain an unrealistically rosy picture of the future. Mandated by federal laws and regulations, the CLRP provides a sobering picture of what the future will look like if current trends continue. In parti-

The Highway System Won't Keep Pace

FORECAST TRENDS 2000-2030

Increase in Freeway and Arterial Lane Miles



Increase in Daily Vehicle Miles Traveled



cular, federal law says the CLRP must be limited to projects for which funding is "reasonably anticipated to be available." If funding is not available—and increasingly the money just is not there—new projects must be left out of the CLRP.

A few years ago, TPB leaders decided it was time to start looking outside the constraints of the CLRP and examine some bold changes—including major transportation projects and

shifts in land use—that might move the region closer to implementing the Vision. What would happen, they asked, if we looked at scenarios that changed some of the assumptions about future trends? Would people use public transit more if we built more rail lines? Would commuters drive less if they lived closer to their jobs?





The challenges of growth

To answer these and other questions, the TPB launched its Regional Mobility and Accessibility Study in 2001. A joint technical working group comprised of transportation and land use planning staff and interested citizens from the region's jurisdictions is overseeing the study.

The region's official long-range transportation plan—the CLRP—formed the starting point for the scenario study. Before more dramatic scenarios were analyzed, the working group agreed to add some basic enhancements to the CLRP—mainly to public transit. The enhancements include basic projects and programs that everyone agrees are needed and should be implemented as soon as funding becomes available. The CLRP, plus the enhancements, formed the study's baseline.

Responding to Citizen Input

The TPB's Citizens Advisory Committee was the first voice in 2000 to call for a regional "what if" scenario study. "I urge the TPB to give us the framework to discuss and debate different alternatives," said former CAC Chair Harry Sanders when he asked the board for an analysis of transportation and land-use scenarios.

Since the inception of the study, the CAC has been an integral player. In 2003, the committee proposed the "Region Undivided" scenario, which shifts long-term job and housing growth to the eastern side of the region. In 2004, the CAC launched a series of public forums on the challenges highlighted in the study.

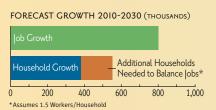
The study working group then developed a package of five different land-use scenarios based on key challenges related to the region's future growth. They asked, what are the problems we face every day as individuals, as communities, and as a region?

All the land-use scenarios shifted growth into "regional activity centers," which were designated in 2002 through a joint process at COG and the TPB. Activity centers, which are a key concept in the TPB Vision, are intended to have "a mix of jobs, housing and services in a walkable environment." The Vision also encourages strong transportation links of different modes among activity centers.

The working group chose to focus on the following key challenges:

People are living farther away from their jobs. The average commute in the Washington region is more than 30 minutes. This situation is expected to get worse as housing continues to boom in the region's outer jurisdictions but jobs remain concentrated in the region's core and inner suburbs.





More and more people who work in the region don't actually live here. The region is growing jobs much faster than housing can be built. As a result, the region increasingly will have to "import" workers from places like West Virginia and Pennsylvania.

People on the eastern side of the region are forced to commute long distances to jobs in the west. The eastern side of the region has not enjoyed the economic prosperity found in the west. For example, the job growth rate in western areas was 20 percent in the 1990s, compared to 1 percent in the east. This means that workers must increasingly travel long distances to job-rich western jurisdictions.

JOB GROWTH RATE 1990-2000 WEST – 20% Growth EAST - I% Growth



4. The land around public transit is underutilized. Only 20 percent of the household growth between 2010 and 2030 will be located within a half-mile of public transit. While the region boasts some good examples of transit-oriented development close to Metrorail, the land near many transit stations could be better used.

The land use scenarios addressed the following "what if" questions:

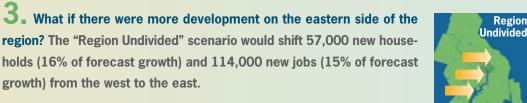
What if people lived closer to their jobs? What if more jobs were located closer to where people live? The study working group created two scenarios that put households and jobs in closer proximity. The "Household In" scenario would shift 84,000 new households (23%



More Households

What if more people who worked here lived here? The "More Households" scenario would increase household growth in the region to balance job growth. The scenario would add 216,000 new households, increasing forecast household growth between 2010 and 2030 by 60%.

of the forecast growth between 2010 and 2030) to inner jurisdictions, which are forecast to grow jobs faster than houses. The "Jobs Out" scenario would shift 82,000 new jobs (11% of forecast growth) to outer jurisdictions, which will be experiencing a surge in housing.



Region



growth) from the west to the east.

4 What if people lived and worked closer to transit? The "Transit Oriented Development" land-use scenario would locate 125,000 new households (35% of forecast growth) and 150,000 new jobs (19% of forecast growth) closer to transit station areas - within a half-mile radius.

What do the land use scenarios tell us?

The first phase of the study analyzed the land-use scenarios on the preceding pages without adding any new transportation facilities. Although preliminary, the data from this initial phase produced some interesting findings:

- Land use matters. Even in the absence of transportation improvements, changing land use can produce positive impacts. Under all the scenarios, the anticipated growth in morning congestion would be slowed. Most of the scenarios would also increase transit use.
- Short-term impacts are modest. Change takes a long time. The scenario study is looking at forecasted impacts in 2030—which is not very long from now. Most jobs and housing that will be in place in 2030 are already in place today. In fact, 72 percent of households assumed for 2030 were already in place in 2000. The study assumed that this existing development remained unchanged, and





SAME STREET, DIFFERENT FUTURES. LAND-USE SCENARIOS COULD HAVE A PROFOUND EFFECT ON SPECIFIC COMMUNITIES AND NEIGHBORHOODS.

therefore it only shifted new houses and jobs—those created between 2010 and 2030. For households, that meant that only 15 percent of households in 2030 were in play for the study. The scenarios inevitably would have a bigger impact 40 or 50 years from now, but that more distant future would be much more difficult to analyze.

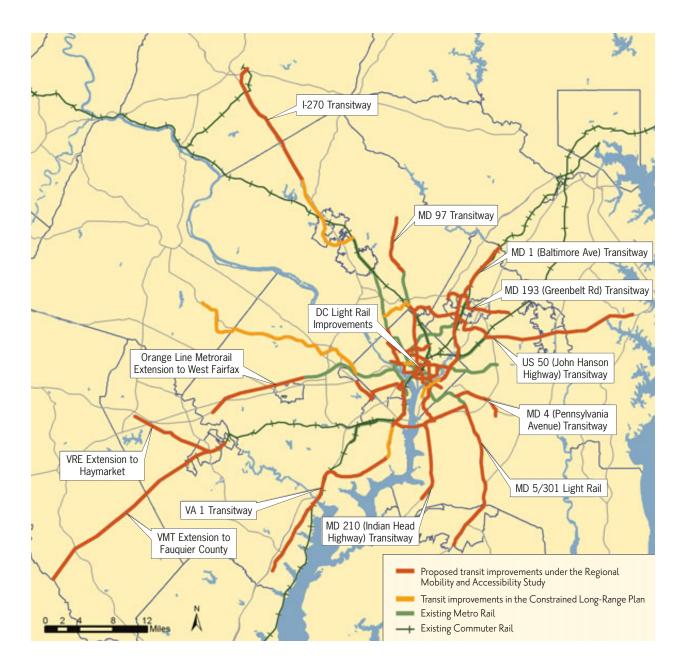
Scenario impacts may be large locally but small regionally. The scale of impact is not just a question of time. It's also a question of place. The regional scope of the analysis tends to dilute the impacts of the scenarios. Land-use changes that could have profound effects on specific communities and neighbor-

hoods may be minimal when we analyze the entire region, which stretches from the Pennsylvania border to the lower reaches of the Potomac River.

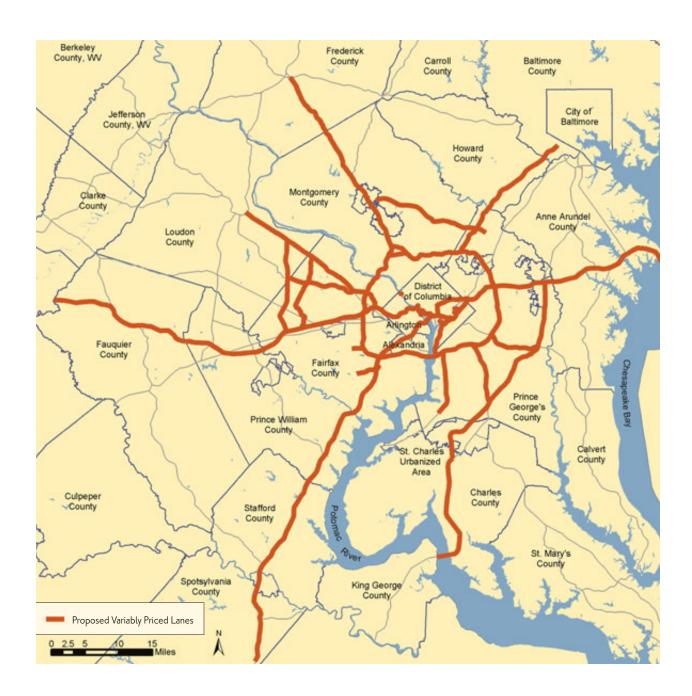
Layering on new transportation facilities

The study working group next asked what would happen if they added packages of transportation projects to the land-use scenarios. How about including rail and other transit projects like the Purple Line in Prince George's County or a Metrorail extension to Centreville in Fairfax County? Or what about testing a network of HOT lanes—high-occupancy/toll lanes—which combine features of carpool lanes and toll roads?

Two transportation scenarios (pages 21 and 22) have been developed to date.



A network of major new transit projects includes facilities that have been planned, but not funded, by the region's local and state governments. The package includes light rail, Metrorail, Bus Rapid Transit, and other bus improvements. This network of new rail will be combined with various land-use scenarios, including the transit-oriented development scenario, which shifts new job and household growth closer to transit station areas.



A network of HOV/HOT lanes was developed by the TPB's Value Pricing Task Force. This network will combine new carpool lanes (high-occupancy vehicle or HOV lanes) and high occupancy/toll (HOT) lanes, a more recent innovation, which has not been tried yet in the Washington region. HOT lanes are open to lone drivers who pay a toll. Carpools use HOT lanes for free or for a discounted rate.

The transportation systems for the study are being developed to complement the land-use scenarios and produce more sizable positive impacts. Synergistic combinations of land use and transportation scenarios will be a feature of the final stages of the study.

A draft analysis in 2005 found the most dramatic changes occurred when the network of major new transit projects (page 21) was combined with the land-use scenario that would increase the number households in the region by 216,000 (Scenario 2 on page 19). Under this combination, many more people who work in the region would actually live here—plus, they would have more opportunities to use transit. Compared to the baseline forecasts for 2030, this combined scenario would increase transit trips by 16 percent and walk/bike commuting by 18 percent. Vehicle miles of travel (VMT) would be 9 percent less under this combined scenario compared to the baseline, and miles of morning congestion would be 5 percent less.

A continuing regional discussion

The Regional Mobility and Accessibility Study will not produce a magic formula for solving congestion, but it will inform a growing public discussion on the direction and shape of future development.

Certainly regional growth is a hot topic. A *Washington Post* series in August of 2004 laid out issues that the TPB's scenario study is already examining: the housing boom in outer suburbs, the jobs/housing imbalance, and the growing interest in higher density development.

"There is no question that the farm and its grain silo, barns and pastures, will soon give way to suburbia," wrote Post reporter Peter Whoriskey on August 10. "The only question is what kind of development should rise in its place." This question is being asked around family dinner tables and around the tables of local government.

A common-sense approach to land use and transportation coordination is an idea familiar to regional leaders at the TPB and COG. The 1998 TPB Vision emphasized the concept of the regional activity centers as an important part of the region's transportation planning process. Activity centers have now become integral to the development of the scenarios for the Regional Mobility and Accessibility Study.

Implementing the Vision—including goals like reducing per capita driving, increasing transit use and promoting regional activity centers—formed the context and motivation for the Regional Mobility and Accessibility Study. At the end of the day, regional leaders hope the results of the study will help the region steer closer to the goals laid out in the TPB Vision.

Disability Awareness: Getting to Work



Disability Awareness Day focused attention on the need to create a transit and pedestrian system that provides access for all.

M embers of the Transportation Planning Board joined people with disabilities and members of the media on October 20 to raise awareness about the important role accessible transportation plays in getting people with disabilities to work.

To highlight the typical workday commute of people with disabilities, 11 travel teams—each including a person with a disability, a regional transportation leader from the TPB and a member of the media—trekked to a press conference held at the Metropolitan Washington Council of Governments (COG) headquarters near Union Station. The TPB's Access for All (AFA) advisory committee sponsored the event, Disability Awareness Day, which focused on pedestrian, bus, rail and paratransit access.

An eye-opening experience

At the press conference, travel team members shared details of their commute, highlighting accessibility features and challenges encountered along the way. For many of the TPB members, the trip was an eye-opener. "I have traveled back and forth to COG for many years and I would have said yesterday that coming out of the Metro station was an absolutely flat trip along the sidewalk," said Carol Petzold, a Maryland House Delegate who traveled with Connie Caldwell from Montgomery County's Commission of People with Disabilities.

"Today with Connie and her manually operated wheelchair I realized there is a significant slope to the sidewalk," Petzold continued. "Something that had never mattered to me was a significant safety feature for us today."

Additional challenges encountered by the travel teams included elevator outages, narrow sidewalks crowded with people and poorly placed objects such as fire hydrants and parking meters, poorly placed or missing curb ramps, and confusion and delays associated with paratransit services.

Travel team participants also had praise for the progress the region has made towards accessible transportation since the passage of the Americans with Disabilities Act 14 years ago, such as the installation of wheelchair lifts on over 90 percent of the region's buses. Michelle Pourciau, Deputy Director of the DC Department of Transportation, was pleasantly surprised by how smoothly her bus trip with District





LEFT: TAKOMA PARK MAYOR KATHY PORTER, CHAIR OF THE ACCESS FOR ALL ADVISORY COMMITTEE, SUGGESTED SPECIFIC IMPROVEMENTS AT THE PRESS CONFERENCE FOR DISABILITY AWARENESS DAY. RIGHT: BUMPY STRIPS AT METRORAIL STATIONS WARN PEOPLE WITH VISUAL IMPAIRMENTS THAT THE PLATFORM EDGE IS NEAR. PICTURED ABOVE IS BUD KEITH, ACCESS FOR ALL ADVISORY COMMITTEE MEMBER.

resident and wheelchair-user Robert Kairy went. "I know we have a long way to go before trips like we had this morning are the rule rather than the exception," she said.

"The region needs to work together to create a transit and pedestrian system that provides access for all," said Takoma Park Mayor Kathy Porter, who is chair of the AFA and commuted to the conference with Phillip Strong of the American Council for the Blind on a Ride-On bus and then Metrorail. She noted the helpful audible crossing signals in Silver Spring's newly-developed downtown, but also said the region needs to work on getting bumpy warning strips on all Metrorail platforms, making all buses lift-equipped and improving pedestrian access, especially at busy intersections.

Reliable transportation for reliable employees

Transportation is a major barrier for people with disabilities in gaining employment. According to a 2004 National Organization on Disability (NOD)/Harris national survey, persons with disabilities are twice as likely to have inadequate transportation as persons without disabilities. In the Washington region, the unemployment rate for individuals with disabilities is also twice that of the general population.

"Reliable and dependable employees need reliable and dependable transportation," John Hudson, an AFA member and Program Manager for Disability Services in Fairfax County, said at the press conference. Hudson, an electric wheelchair user, commuted to the conference with Fairfax Supervisor Linda Smyth on MetroAccess.



LEFT: BOBBY COWARD, PRESIDENT OF DC ADAPT, FINDS THAT CURB RAMPS CAN BE HARD TO NAVIGATE IF THEY ARE NOT ALIGNED. RIGHT: MANY, BUT NOT ALL OF THE REGION'S BUSES ARE WHEELCHAIR ACCESSIBLE, AND WHEELCHAIR LIFTS ARE NOT ALWAYS WORKING PROPERLY.

"The Washington region has a complex, multi-jurisdictional and multi-modal transportation system," said TPB Chair Christopher Zimmerman, who moderated the press conference and commuted with Arlington resident and AFA member Dr. Bud Keith.

"Much has been done to improve access to the region's transit system and pedestrian environment for people with disabilities, but there is still more to do," Zimmerman said.

Benefits for all

Dr. Keith added, "We are not doing this for us, but for you. As you age, you might need a wheelchair. Your vision could get worse." The retired federal employee with a visual impairment who has been working for better transportation access for people with disabilities for about 35 years told participants that improved pedestrian and transit access will benefit all of society.

Robert "Bobby" Coward, local activist for people with disabilities and president of DC Adapt, mentioned how Metro is addressing some of the needs of people with disabilities. But he also pointed out day-to-day accessibility issues such as elevator outages in the Metrorail system, elevator buttons that are inaccessible, and the gap between rail cars and the platform.

At the TPB's October meeting, which followed the press conference, members voted to support a resolution recognizing "the importance of accessible and dependable transit service, sidewalks, and safe pedestrian crossings for people with disabilities." The AFA is recommending that a comprehensive study of curb-to-curb paratransit service be conducted to determine the best and most cost-effective ways to serve the greatest number of people. AFA will continue to work for improved Metrorail and bus reliability and will coordinate accessibility efforts with regional and local transit providers.

In Brief



An overview of other TPB activities, including programs to improve emergency preparedness, enhance the tools needed for decision-making, increase pedestrian safety and expand transportation choices.

CapCom: Tracking the Ripple Effects of Major Incidents

M ajor incidents often trigger transportation effects that cross jurisdictional boundaries. A highway accident can cause traffic backups across county and state lines. A bomb threat can close roads and delay trains across the region.

No regional agency is currently responsible for tracking the ripple effects of major incidents, providing consistent transportation information, or facilitating ongoing regional transportation communication and coordination.

The Transportation Planning Board is working to change this situation. In November, the board approved a concept for establishing a 24-hour-a-day, 7-day-a-week program and center for regionwide transportation coordination and communications.

In February 2005 the TPB approved a work plan for this coordination program, currently called CapCom. Operation of the program is expected to cost just a few million dollars per year—approximately one dollar per resident. The TPB and its



regional partners are looking into a variety of funding sources, including federal homeland security funds, federal transportation funding and other ongoing funding.

Currently, when an incident occurs, the transportation agency in charge locally is largely responsible for coordinating communications with other agencies and jurisdictions. Because the local agency is busy dealing with immediate impacts it may not be able to provide ongoing information that other jurisdictions need.

Although individual agencies would continue to respond to incidents, the new



regional system at CapCom would make sure all transportation, police and other agencies across the region are kept in the information loop so they can make quick decisions to manage sudden transportation system surges, changes, or other "ripple effects"—such as to adjust traffic signal timing or reroute buses. Quick dissemination of information will also help agencies inform the public about the status of trans-

portation systems by providing better information through the media, or, for example, on message signs on highways and in Metro stations.

The new regional transportation coordination effort will help ensure the effectiveness of the infrastructure for sharing regional information established two years ago by COG, the Regional Incident Communications and Coordination System (RICCS), as well as help provide timely transportation system information to state and local emergency management agencies involved in major regional incidents.

John Contestabile of the Maryland Department of Transportation explained that a coordinating agency is needed to make sure that RICCS is fully used and that information gets out. "You may be the 'owner' of an incident, but it is often very difficult for you to provide regional notification at the same time that you are trying to respond to that incident," said Mr. Contestabile. "So what we're saying is you need a third party whose job is to do that—to send that information out."

The region's transportation agencies have partnered with the University of Maryland's Center for Advanced Transportation Technology to establish the CapCom program.

Improving Travel Forecasting Tools

The Transportation Research Board at the National Academies completed an extensive review of the TPB's travel forecasting procedures in 2004. Based upon recommendations from the review, TPB staff planned a number of short- and long-term enhancements in the methods used to forecast future travel.

"This has been a very productive and valuable undertaking from a lot of perspectives," said Ron Kirby, Director of COG's Department of Transportation Planning.

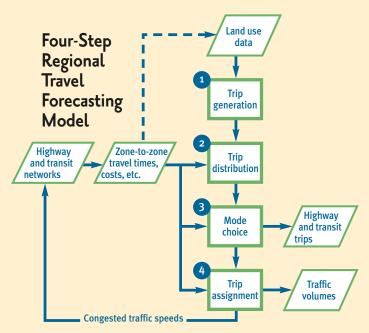
The review began in 2002 when the TPB asked the Transportation Research Board to conduct an "arms-length" assessment of its modeling procedures as part of the TPB's ongoing program to upgrade its travel forecasting methods. The assessment was conducted by a panel comprising three academics, two consultants and two practitioners from agencies similar to the TPB.

The Transportation Research Board, which oversaw the review, is a division of the National Academies' National Research Council, which serves as an independent adviser to the federal government and others on scientific and technical questions of national importance.

Based on the panel's review, the TPB's travel demand modeling process will be enhanced in a number of very specific ways. For example, forecasting for commer-

cial vehicle travel—such as trips by package delivery companies, home contractors and pizza deliverymen—will be treated in a more explicit manner. Bus speeds will be adjusted in the travel forecasting model to better reflect future roadway conditions, including anticipated congestion. And the model will be enhanced to address a number of other technical issues expressed through complex formulas—such as model validation, speed feedback, and the use of adjustment factors.

In September, TPB staff released an enhanced model, which was used to analyze the 2004 amendments to the Constrained Long-Range Plan and the fiscal year 2005-10 Transportation



VIRTUALLY ALL U.S. METROPOLITAN AREAS USE A "FOUR-STEP" MODEL TO FORECAST REGIONAL TRAVEL DEMAND.

Improvement Program. This new model incorporated short-term responses to the panel's comments. Other model improvements are ongoing. Staff will continue to review and refine the model as part of its ongoing model development program.

Modeling supplies the basic data for much of the TPB's work. It provides the forecasts required for the approval of the region's long-range plan, including air quality analysis. It produces data for ongoing studies, like the examination of transportation and land use scenarios in the Regional Mobility and Accessibility Study. It will also be vital to understanding new challenges and opportunities in transportation, like the impact of high-occupancy/toll (HOT) lanes on travel patterns.

Travel forecasting can never be a crystal ball that predicts future travel patterns with precision and certainty. Nonetheless, the demands placed on travel forecasting continue to grow, and these tools are increasingly relied on to help decision-makers understand and weigh the options they face.



Street Smart Campaign Is Having an Impact

E very seven minutes a pedestrian or cyclist gets killed or injured on our roads. This sobering nationwide statistic has been a central message of the Street Smart pedestrian safety campaign initiated by the Transportation Planning Board in 2002, and continued in 2004 and 2005. The campaign features radio advertising, posters at transit stations and on the backs of buses, and other outreach.

Initial evaluations suggest that Street Smart is starting to drive home the message that a moment of carelessness can result in irreversible tragedy.

One radio spot featured the voices of people sharing their real-life experiences. A veteran police officer described the difficulty of telling a mother that her child had been killed. A paraplegic woman said her life was turned upside down in a split second, even though she was walking in a crosswalk and obeying the traffic light. A man described having to drive every day through the intersection where his father was hit and killed.

The Street Smart campaign was aimed at males between the ages of 18 and 44 because they are the primary offenders in pedestrian safety incidents. The message and outreach of the campaign were designed to resonate in areas that have a high accident rate, including Hispanic neighborhoods and other immigrant communities. In addition to English, outreach material was produced in Spanish and other languages.

Surveys conducted before and after the 2002 campaign found that awareness about pedestrian safety issues had increased 11 percent. This awareness included knowledge of a police crackdown on drivers failing to yield to pedestrians.

"Think of the Impact You Could Make" One of four radio spots that ran in the Washington region.

DRIVER: I'm a good driver. I look for cars. I pay attention. [Sound of screeching wheels and the brief scream of a child.] I should have seen the little girl in the crosswalk.

ANNOUNCER: Every day 200 pedestrians are killed or injured. When a driver or a pedestrian doesn't look, the result can be tragic. What if you or someone you care for were involved? Look for pedestrians. Stop for them. Stay alert at crosswalks and intersections. Think of the impact you could make.

Research shows, however, that deep-rooted behaviors cannot be changed quickly. Campaigns against smoking and drunk driving repeated the same messages for 7-10 years before cultural shifts occurred that challenged previously acceptable behaviors.

The Street Smart campaign is funded with federal safety funding committed by the states of Maryland and Virginia, and the District of Columbia. Local matching funds are provided on a voluntary basis by local government members of the TPB.

Making Commuters Aware of Their Options

R ecent survey findings suggest that a regional mass marketing campaign run by the TPB's Commuter Connections program to get commuters



out of the habit of driving alone is reaching its target audience. The *State of the Commute* survey found that Washington area residents are increasingly aware of commuting options and are willing to consider alternative modes of getting to work.

Commuter Connections conducts the *State of the Commute* survey every three years. The survey found that more than half (55%) of respondents had seen, heard or read advertising about commuting options in the six months prior to the survey. Of those who recalled the ads, 18 percent said they were more likely to consider ridesharing or public transportation after seeing or hearing the advertising. Two-thirds of respondents said they had heard of Commuter Connections, which provides various services for commuters.

A particularly encouraging finding was that telecommuting has tremendous potential for growth. More than 12 percent of survey respondents said they telecommuted at least occasionally, but an additional 18 percent of commuters who do not telecommute today "could and would" telecommute if given the opportunity.



The survey showed that facilities and services are widely available for alternative commuting. Two-thirds (68%) of respondents said that public transportation was available in their home and work areas. More than half (53%) said their employers offered one or more alternative mode incentives or support services to employees at their worksites.

Driving alone, on the other hand, is not getting easier. According to the survey, the average one-way commuting distance jumped from 15.5 miles in 2001 to 16.5 miles in 2004. Of the 7,200 area workers surveyed, 29 percent said their commutes were more difficult than they were a year ago—mostly due to longer commuting distances or increased congestion. Just over half said their commutes were about the same.

Nonetheless, driving alone is a persistent and growing practice. Seventy-four percent of commute trips were made by solo drivers, an increase from 72 percent in 2001. Carpool/vanpool trips dropped from 7.6 percent to 6.1 percent between 2001 and 2004. Trips made by transit and bike/walk were essentially unchanged during that time period.

Free parking continues to be pervasive and appears to be an incentive for driving alone. The majority of respondents (66%) said their employers offered free onsite or off-site parking, about the same as in 2001. The survey found that 86 percent of commuters with free parking provided by their employers drive to work alone. For commuters without free parking, only 47 percent drove alone.

Commuter Connections is a regional commuter assistance program supported by the District of Columbia, Maryland and Virginia Departments of Transportation with state and federal transportation funds.

Several components of the Commuter Connections program were initiated to reduce vehicle emissions associated with solo driving. The TPB classifies these components as Transportation Emission Reductions Measures (TERMs), which are designed to help the region reach emissions reduction goals established in the region's air quality improvement plan.

The six Commuter Connections TERMs are the Telework Resource Center, Integrated Rideshare program, Guaranteed Ride Home, Employer Outreach, Employer Outreach for Bicycling and Regional Mass Marketing.

The State of the Commute survey is designed to estimate the effectiveness of these measures. The survey sample comprised 7,200 randomly selected workers in the metropolitan area.

Membership of the National Capital Region Transportation Planning Board



