The National Congestion Pricing Conference was held at the U.S. Department of Transportation Headquarters in Washington, D.C. on May 22 and 23, 2018. Over the course of two days, participants attended twelve sessions, including peer discussions, an off-site tour, and poster presentations. The conference featured the latest developments in congestion pricing divided into two tracks, Managed Lanes and City Pricing, that included both tolling and non-tolling innovations.

The participants represented state, local and regional jurisdictions from across the United States. Nearly half of the participants came from regional entities and State agencies, including metropolitan planning organizations (MPOs), State departments of transportation (DOT), and tolling and transit agencies. The FHWA coordinated and worked with the District Department of Transportation (DDOT), Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT) and the Transportation Research Board (TRB) Congestion Pricing Committee to make this conference a success. The meeting agenda can be found on the last page.

Innovations in Congestion Pricing

Mark Lillie, Federal Highway Administration (FHWA) Chief Counsel, set the stage for the conference in his opening remarks, highlighting the evolution of congestion pricing in the U.S. from simple pilot programs in the early 1990s to regional networks and innovations such as dynamic parking pricing and pay-as-you-drive insurance. He underscored that the promise of

such innovations is what attracted attendees to the conference. Mr. Lillie noted the main challenge to implementation was identifying a way to pay for projects and programs. FHWA, through the Surface Transportation System Funding Alternatives (STSFA) and the Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) programs, is supporting the implementation of pilot projects to the tune of \$20 million and \$60 million per year, respectively. Mr.

"Congestion pricing should remain a critical congestion management strategy in the toolbox for States, especially as travel demand continues to exceed capacity."

Mark Lillie, Chief Counsel, FHWA

Lillie concluded his remarks by underlining the role of State legislatures, and emphasizing that States will decide whether to proceed with congestion pricing.



Angela Jacobs and Allen Greenberg,

FHWA, provided an overview of tolling and non-tolling pricing projects that are underway since the last National Conference in 2013. Mr. Greenberg stressed the opportunity to implement a transportation system with variable fees as opposed to fixed costs, and discussed performance-priced parking, carsharing, dynamic ridesharing, and usage-based insurance projects supported by FHWA.

Ms. Jacobs discussed the growth of managed lane operations from single lane pricing to extended corridors that include transit and variably-priced facilities. She also noted



Angela Jacobs and Allen Greenberg of FHWA welcome participants to the National Congestion Pricing Conference. (Photo source: ICF)

some of the challenges faced by agencies, including excess demand and the struggle to communicate the positive benefits of congestion pricing. The overviews were a good introduction, priming attendees to hear more details in subsequent sessions.

Advancing Congestion Pricing in the National Capital Region

This session of high-level officials, moderated by *ICF*'s *Michael Grant*, summarized the thought process behind implementing current congestion pricing projects in Maryland, Virginia, and the District of Columbia. *Helen Cuervo* of the Virginia Department of Transportation (VDOT) described how the area's booming economy has resulted in severe congestion, and when studies showed that VDOT would require nine more lanes to meet demand, VDOT determined that "[They] were not going to pave the world to get people to work." Dynamic tolling was introduced as a result of an unsolicited bid for I-95 and I-495 and has grown into a regional network of more than 90 miles encompassing I-395 and I-66 as well. VDOT's focus is on throughput. A key takeaway was that in the I-66 Corridor a portion of excess revenue is given to the Northern Virginia Transportation Commission. Those excess revenues are being used to support strategies such as increasing high-occupancy vehicles (HOVs) via free use of the priced express lanes and supporting infrastructure and services such as park-and-ride lots and transit operations in the corridor.

Maryland's goal has been travel time reliability; as *Kevin Reigrut* of the Maryland *Transportation Authority* put it, "MDOT is in the business of selling time." MDOT has found that customers are willing to pay for the assurance that they will arrive at their destination when they need to, and is focusing outreach efforts on promoting this concept. Mr. Reigrut pointed out that users accept premium pricing in many different areas, such as hotel rooms, airplane tickets, even cable TV, and with the right messaging, users are beginning to accept the concept for road travel as well.

Jeff Marootian of the District Department of Transportation (DDOT) explained that with no place to expand, and as a primary destination for the region's commuters, DDOT focused on parking to mitigate its congestion woes. Implementing demand-based parking pricing served not only to reduce congestion in DC's Chinatown neighborhood, but has also helped DDOT meet its sustainability goals, reduce single-occupancy vehicles, and improve its bicycle and pedestrian infrastructure. Mr. Marootian indicated that their goal is to increase ridesharing to 70% in the District.

The panelists concluded that some of the keys to success in the region have been that all three agencies have focused on open and honest communication with the public, both in terms of successes and failures. They also found that public engagement plays a big role in garnering political support for pricing projects.

Public-Private Partnerships

The role of the private sector in implementing tolling projects was explored in this session, moderated by *FHWA's Greg Jones. Michael Morris*, Director of Transportation for the *North Central Texas Council of Governments (NCTCOG)*, explained how limited public funding can be leveraged using private partners to support infrastructure. In the Dallas/Fort Worth region, NCTCOG used \$1.3 billion in public funding to leverage \$6 billion in private investments for both the LBJ Express (I-685) and North Tarrant Express (I-820/SH 121/SH 114) projects. One of the key takeaways Mr. Morris pointed out was that being aware of potential equity impacts should guide how decisions are made. He considered Rewards Programs such as the one created by LA Metro to be the foundation of future success in implementing tolling.

Pierce Coffee, representing *Transurban*, provided the private concessionaire perspective. Ms. Coffee stated that private entities want to put customers first and seek to be good neighbors within a community. Transurban has a goal to align incentives to satisfy customers, agencies, and partners. Priced managed lanes tend to have unique financial and behavioral characteristics as opposed to traditional toll roads. Ms. Coffee underscored that priced lanes carry more financial risk, and suggested that back-office operators need to continually monitor performance and use technology to deliver a reliable system.

Robert Poole, from the Reason Foundation, offered his thoughts on the future of congestion pricing and the potential for advancing partnerships with private entities. Mr. Poole stated that public-private partnerships offer many advantages to agencies, because private concessionaires can transfer revenue risk for managed lanes that have much more volatility than a toll road. Concessionaries can also offer cost savings for construction by incentivizing alternative concepts that can reconfigure the overall highway design.

Communications and Public Acceptance

Public acceptance of congestion pricing continues to be one of the major challenges. Attendees agreed on the importance of effective, open, and honest communication concerning the costs and benefits of congestion pricing projects. *Mia Zmud*, *MZ Insights*, moderated the session

exploring lessons learned by agencies on how to effectively communicate with the public about congestion pricing. *Renee Hamilton*, *VDOT*, began by emphasizing the role of effective communication when advancing congestion pricing. Ms. Hamilton stressed the importance of understanding the context of the project location before embarking on a communications effort. For example, the I-66 corridor in Northern Virginia encompassed populations that were particularly sensitive to any changes or developments on the highway. VDOT staff approached the public with an exercise to first define high-level goals, not pertaining to a specific project. VDOT then presented an assessment of a set of alternatives, showing their methodology for how congestion pricing might lead toward achieving goals. Ms. Hamilton stressed the importance of investing in a multimodal solution.



Washington State DOT's Good to Go! Ad

Emily Glad followed with a presentation from the Washington State Department of Transportation (WSDOT) that focused on the I-405 Express Lanes. Before introducing pricing on the facility, WSDOT deployed an integrated communication program guided by initial market research. As an agency, WSDOT wanted to communicate the benefits of the project but ran into difficulties when their story did not match the experiences of some travelers. To remedy the problem, WSDOT created a blog and provided raw data that contained performance information. WSDOT Staff also developed an Application Programming Interface (API) for third-party developers to interpret and use data within their programs. Overall, the public liked having access to raw data. Progressing forward, WSDOT staff learned the importance of setting realistic expectations that reflect driver experience.

The final presentation was delivered by **Megan Castle** of the *Colorado Department of Transportation (CDOT)*. Ms. Castle's

presentation centered on the recently opened I-70 Mountain Express Lane, which connects the Rocky Mountains to Denver, CO. The mountainous terrain presents challenges for maintaining performance in a narrow space, which can have further restrictions due to winter weather. Common traveler complaints include the limited operating schedule (the lanes are seasonal) and encumbered shoulders to handle vehicle breakdowns and incidents—which can lead to congestion. CDOT staff developed protocols for public outreach to mitigate the operational challenges. CDOT hosted virtual town halls that attracted 3,000 to 5,000 attendees, as opposed to 15 to 30 people attending a public meeting in a physical space. Staff also stressed the "Express Lane" brand to emphasize the difference in how the I-70 Mountain Express Lane operates compared to other traditional toll roads in the region.

Performance Parking Pricing Innovations

Rachel Weinberger of Weinberger & Associates moderated a session that focused on how congestion pricing can be used to influence parking demand within cities. She noted the

common acceptance of a 5 to 15-minute walk for transit access being reasonable versus the expectation of parking needing to be located at the destination causing a big policy challenge, and the need to change that expectation.

Steph Nelson, San Francisco Municipal Transportation Agency (SFMTA), presented an overview of SFpark, a pilot project in San Francisco which prices parking based on availability and demand. During the original task, SFMTA studied performance parking using about one-quarter of the city's metered spaces, in which the price of parking increased or decreased based on the availability of parking on the block at a specific time of day. In 2018, SFpark has successfully been deployed citywide, with block-by-block hourly prices ranging from 50 cents to \$8. Average hourly rates charged per block declined from \$2.69 to \$2.58.

Soumya Dey of the District Department of Transportation (DDOT) gave a presentation on ParkDC, a pilot study in Washington, D.C.'s Penn Quarter/Chinatown region. DDOT built on the results from SFpark, and its pilot attempted to replicate the results at a lower price point by using an "asset-lite" approach for occupancy detection. ParkDC's demand-based pricing applies to 114 block faces, and by the fifth demand-adjusted price change, 72% of prices had reached their target occupancy level and remained unchanged. DDOT also partnered with Rapid Flow Technologies to measure cruising for parking. Rapid Flow's Isaac Isukapati described how they were able to recreate the path of a vehicle in the study area by using Bluetooth sensors. By observing the path any individual vehicle took, the percentage of vehicles cruising for parking within the study area was calculated. In a sample measured area, between one-quarter to one-third of traffic was cruising traffic. In this same sample area, cruising made up approximately half of all vehicle miles travelled.

Robert Hampshire of the University of Michigan Transportation Research Institute (UMTRI) presented his research on an improved pricing model for demand-based parking management, which does not price each block in isolation, but rather incorporates occupancy (availability) as well as the relative price of parking on adjacent blocks. Applying the improved model over the existing model for the 16th period price change for SFpark resulted in a 16% decline in the number of blocks that remain outside the target occupancy range.

Overall, the projects demonstrated that applying congestion pricing seems to reduce how much time drivers spend searching for parking, and that people seem to be willing to walk a little farther in exchange for paying less. However, getting information to the users is critically important – someone who has already parked their car and left the vehicle is not likely to walk back if they find a cheaper spot.

Challenges in Price Setting

Patrick Vu of Silicon Transportation Consultants moderated this session which focused on the practical challenges of pricing projects. Hari Sripathi from VDOT summarized the history of implementing dynamic pricing for the Northern Virginia area. VDOT began with an assessment of HOT lanes in 2004, looking to convert the existing HOV lanes on I-495 and I-95. Staff wanted to pursue a dynamic toll system that changed prices in real-time as a way to provide a diverse set of options for travelers. Establishing the initial pricing scheme was the hardest part of implementing congestion pricing. The value of time can vary across the traveler population, and



Patrick Vu introduces the panel members and topic for the Challenges in Price Setting session. (Photo source: ICF)

operators can have difficulty managing potential price spikes when a major crash causes a slowdown. Additionally, VDOT witnessed "stock market syndrome" that showed counterintuitive consumer behavior—some travelers were more likely to take an express lane trip if the toll increased.

Annie Gillespie followed with a presentation from the State Road and Tollway Authority (SRTA, of Georgia) concerning congestion pricing in metropolitan Atlanta. SRTA staff established a set of business rules to manage operations, with specific rules based on the individual facility: I-85 Express Lanes, I-75 South Express Lanes, and the I-75 Northwest Corridor. The I-85 Express Lanes have 190 daily toll plans, and the I-75 Express Lanes have ten daily toll plans. To properly manage pricing, SRTA has to support processes and systems for informing travelers of prices, training operators, and evaluating toll algorithms. Ms. Gillespie expects that SRTA might have to manage a toll system with over 2,000 unique origin-destination pairs, a large burden if all sections of the regional express lane network become operational.

Paul Steinberg, from *Carma*, made a presentation about managing carpool incentives for priced managed lanes. Carma is a private vendor currently developing a technology to verify vehicle occupants within a carpool, using smartphones and Bluetooth beacons. Mr. Steinberg stressed that carpool formation is hard due to habit-forming customer behaviors, and that dynamic pricing motivates more demand for carpools. Based on observations from Carma, commuters make their decisions before traveling in the corridor and seeing the toll rate signs. Mr. Steinberg recommended that agencies consider rewarding travelers, and he emphasized that toll rebates were more influential than cash payments.



Tour – Northern Virginia Express Lanes and Operations Center

The conference took advantage of the express lane network outside its doors to organize a tour of the I-395 and I-95 Express Lanes. Participants witnessed dynamic pricing at work as VDOT's *Dustin Alwood* provided commentary. Participants were also treated to a tour of the Transurban Operations Center, where *Leigh Petschel and Rob Kerns* explained the pricing algorithm.

Beyond the Driver: Advancing Multimodal Options with Pricing

Toll revenues are increasingly being channeled into improving transportation options for the surrounding



View of the Transurban Operations Center (Photo source: ICF)

areas, rather than being used just to maintain the road infrastructure. This panel, moderated by *Murali Ramanujam* of the Santa Clara Valley Transportation Authority, explored different approaches by agencies.

VDOT and LA Metro have both set up grant programs in which net toll revenues (after paying for enforcement, maintenance, and operations) are awarded on a competitive basis to multimodal projects along the toll corridor. **Susan Shaw**, VDOT described how the agency decided upon its ambitious multimodal program along I-66 after studies showed that expanding Metro alone would not solve congestion, and a multi-pronged solution was needed in order to accommodate future demand. So far, the program has funded several multimodal improvements, including new Park-and-Ride lots, commuter bus services, and improved access to Metro stations along with the corridor.

Silva Mardrussian, *LA Metro*, presented on the LA Metro ExpressLanes's Net Toll Reinvestment Program, which was the result of a State law that requires reinvestment of toll revenues into the affected communities. The funds are allocated on a competitive basis to projects within a three-mile radius of the corridor. Projects fall into three categories: active transportation, transit use, and roadway improvement. In two rounds, \$48.6 million of grants have been awarded to projects such as a bike hub with secure parking and repair facilities at Union Station, electric buses, and a special bus for Dodger Stadium in Los Angeles.

Other approaches to encouraging multimodal travel in priced corridors include providing commuter credits and transit rewards. *Annie Gillespie* discussed SRTA's Commuter Credits program, established to increase person throughput and reliability on Atlanta's I-85 Express Lanes. SRTA piloted 3 programs to provide toll credits to those who shifted their commutes out of peak hours, rode transit, or carpooled. The shift commute and ride transit programs were successful and are being transitioned into full-fledged programs starting in 2019. LA Metro has a similar Transit Rewards program, which provides a \$5 toll credit to commuters who take 16 one-

way bus trips in peak hours along I-10 and I-110; the agency also set up a program to automatically enter carpools into a lottery to win monthly toll credits.

Rachel Hiatt, San Francisco County Transportation Authority (SFCTA), described how bridge toll revenues are being proposed to fund a Mobility Management Plan for Treasure Island. The island, halfway between San Francisco and Oakland, is accessible only by the Bay Bridge. Formerly a naval station with 700 households, it is being redeveloped with a plan to house 25,000 residents along with a hotel and conference center. The Mobility Management Plan was created to meet the island's transportation challenges, including reducing new traffic on the bridge as well as providing affordable and accessible transportation for island residents and visitors. It will use bridge toll revenues to provide new transit and ferry service, a bicycle network, and a mobility hub, and will provide credits for low-income residents and frequent transit users.

Together, the panel demonstrated that a holistic, multimodal approach to congestion pricing can go a long way towards reducing congestion.

Moving from Projects to Regional Networks

As congestion pricing becomes more popular, we are starting to see regional express lane networks. Moderator *Nick Wood*, *Texas A&M Transportation Institute*, led the speakers in exploring the particular challenges faced by networks, which include maintaining partnerships between operating entities, managing traveler information systems, and balancing various operating rules and levels of demand.

Dan Lamers from NCTCOG presented the approach used when developing the regional network in the Dallas/Fort Worth region. The Regional Transportation Council (RTC) spent considerable time and effort developing and implementing a consistent set of policies for operating priced managed lanes in the region. Staff from NCTCOG formed an initial working group with representatives from the Texas Department of Transportation, North Texas Tollway Authority, Dallas Area Rapid Transit, and the private concessionaires. The goal of the working group was transitioning from the existing set of HOV and managed lanes to implementing a vision for daily management and monitoring of a coordinated priced lane network. The group meets quarterly and commonly discusses inconsistencies, technical issues, and public outreach efforts. A key takeaway is that there are no special exemptions provided.

Jim Macrae from the Metropolitan Transportation Commission (MTC) presented on the San Francisco Bay Area Regional Express Lane Network's challenges of coordination required between multiple authorities working towards a common goal. Coordination is currently happening through a series of informal conference calls and working groups representing the operating agencies, the Alameda County Transportation Commission (ACTC), the Santa Clara Valley Transportation Authority (VTA), and the Bay Area Infrastructure Financing Authority (BAIFA), an umbrella organization set up in 2006. The region has achieved consistency in signage and FasTrak usage, and is working on developing a consistent vehicle occupancy policy (e.g., HOV3+ on facilities near the Bay) and a common policy for adjudicating toll

violations. Future policy discussions will focus on the development of a net revenue policy and the passage of a regional concept of operation by all three operating agency boards.

Javier Rodriguez from the Florida Department of Transportation (FDOT) briefed the audience on the Southeast Florida Regional Express Lane Network, centered in Miami, FL. In 2012, FDOT began developing a Regional Concept of Transportation Operations (RCTO) that serves as a guidance and policy document for managing operations across all the regional express lanes. The RCTO team consisted of a diverse set of partners, including local transit agencies (e.g., Broward County Transit), toll authorities (e.g., Miami-Dade Expressway Authority), State agencies, and the Federal government. The team discussed key issues within three committees divided by topic: executive, technical, and public information. FDOT published the RCTO Handbook on behalf of the group in May 2014. The handbook identified key stakeholder roles and responsibilities and set regional standards for operations and communications.

Commuter Incentives

Marina Budimir, DDOT, moderated this session focusing on how to engage employers and local governments to use financial incentives and disincentives to encourage more efficient peak-period commuting choices among workers.

Allen Greenberg presented FHWA's research on parking cash-out incentive programs, whereby employers that subsidize parking offer commuters the cash equivalent of the parking subsidy. Focusing on nine cities, six city-level public policy scenarios—including monthly parking cash out and other commuter subsidies and pricing policies—were examined to understand what impacts various programs could have. FHWA found that context was important in determining which strategy was the most effective. For example, there was less of a shift to transit in cities where there was already a low level of transit ridership, likely indicating that transit is a less viable commute option in such cities.

John Attanucci from the Massachusetts Institute of Technology (MIT) presented on AccessMIT, an institution-wide program at MIT established to reduce the drive-alone mode share of staff and decrease the overall amount of parking. The program accomplished this by switching from annual parking permits to daily parking; providing all MIT employees with a free bus and subway pass; increasing the commuter rail subsidy from 50% to 60%; creating a new parking subsidy for parking at transit stations; and creating an online commuter dashboard to track travel behavior and document changes. The AccessMIT program resulted in a decline in the drive-alone mode share from 30% to 25% and a 24% increase in the number of MIT staff using transit on a regular basis. Additionally, MIT saw a roughly 10% decrease in average weekday peak occupancy of parking spaces campus wide.

Camille Guiriba of the SFMTA presented on an FHWA Value Pricing Pilot Program project to decrease peak demand use of Bay Area Rapid Transit (BART). The program took place over six months, and awarded points to all riders for their travel on BART. Many additional points were offered for trips taken during "bonus hours" which occurred just outside of peak demand. The program resulted in a reduction of demand during peak hours, although many participants were already traveling during the "bonus hours" and were thus rewarded for their normal behaviors. SFMTA noted that participants with pre-program commute times close to "bonus hours" were more likely than others to shift their travel to such hours. A postprogram survey found barriers to shifting travel times focused on personal schedule constraints and employer restrictions on how late an employee could arrive at work.



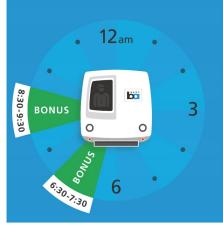


Figure 1. BART Perks Outreach Poster (Source: SFMTA)

Vassilis Papayannoulis of Metropia presented his research and findings on how "baby steps" can help shift

transit behavior and modal use. Metropia discovered that users are more likely to take new modal options, such as public transit, once they know the cost relative to their original preferred mode, such as driving alone. Metropia and BART are currently working together to encourage baby steps in mass transit – riders are given an offer for shifting their commute slightly, say by 10 minutes. Once the rider has acclimated to the change and incorporated it into their daily schedule, they are given a slightly better offer to shift their commute even further out from the original time.

Innovations in Pricing: Road User Charging

Continuing the conference's focus on different forms of congestion pricing, this session, moderated by **Trey Baker**, *WSP*, explored how technology is aiding the deployment and testing

of mileage-based user charges, also known as road user charging. Road user charging (RUC) is seen as an alternative to the gas tax, which has not been increased since 1993, and is no longer providing enough funding to maintain the nation's highway infrastructure. Additionally, as vehicles become more efficient and the share of electric vehicles grows, gas tax revenue is projected to decline in the future.

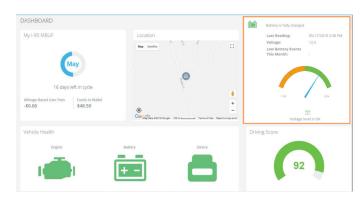
"The gas tax is equivalent to a cup of coffee per week. We can't keep a national system running on a cup of coffee."

Patricia Hendren, I-95 Corridor Coalition

As this is an evolving topic, philosophies and approaches differed between the panelists. Mr. Baker presented the work being done on the West Coast, aimed at providing a revenue-neutral tax rate (one that is equivalent to the gas tax); this has

been piloted in Oregon, Washington, and California, and is being explored throughout the region, with \$800,000 in research funded by the Western Road Usage Charging Consortium.

On the East Coast, the I-95 Corridor Coalition is running a pilot thanks to two SFTSA grants, with four main focus areas: out-of-state travel, tolling, trucking, and value-added amenities. The latter uses an app to provide users with information about their vehicle, such as battery voltage, engine health, driver scores, and so on, in an effort to make users more comfortable with the concept of road user charging. The Coalition's



Value-added services offered in the I-95 Corridor Coalition's RUC pilot (Source: I-95 Corridor Coalition)

Executive Director, *Patricia Hendren*, likened it to "turning vehicles into a transportation 'Fitbit'".

Minnesota is pursuing a novel approach, seeking not to replace the gas tax, but to augment it. **Kenneth Buckeye**, *Minnesota DOT*, explained that the State believes gas-powered vehicles will be around for a long time, and the gas tax is extremely efficient to collect, but it is not meeting the needs of today's system. They are looking at embedded technology in carsharing vehicles to establish the correct price and prove that the system works.

All panelists agreed that technology has made people more comfortable with the idea of sharing their location, with Mr. Buckeye pointing out that in a shared mobility world, users have already explicitly agreed to share location and trip data. Furthermore, the use of technology has made collecting a mileage-based fee easier than before; Oregon and California volunteers show higher user satisfaction when using the automated reporting options instead of the manual ones. Participants echoed one of the main takeaways of the conference, that users need to understand how much it really costs to use the transportation system, and RUC re-establishes the relationship between cost and how much you drive.

Key Takeaways

Rachel Hiatt, SFCTA, moderated the wrap-up panel discussion featuring Kristen Simpson, City of Seattle; Patricia Hendren, I-95 Corridor Coalition; Dan Lamers, NCTCOG; and Angela Jacobs, FHWA. Several themes emerged from the discussions and the conference as a whole:

Congestion pricing has evolved into the deployment of a multimodal transportation solution.

Pricing is no longer just about putting tolls on highways. The conference illustrated the diversity of congestion pricing applications, including managed lanes, toll roads, dynamic parking pricing, transit, and related applications like commuter benefits. There is also a growing trend to use congestion pricing to support improved multimodal travel options such as express bus services. It is no longer about just making driving faster; congestion pricing is now about improving the multimodal transportation system as a whole.



"Choice sells."

While some users of managed lanes will use those lanes regardless of cost, most travelers decide whether or not to pay in order to take advantage of the benefits of a faster, more reliable trip when they need to. Giving users a choice—of mode, price, route, technology—is welcomed by the public.

Effective communication is critical to success.

It is crucial that agencies involve the public and the media early and often in the planning for congestion pricing projects. Getting politicians on board with projects helps to make the public aware of the benefits of congestion pricing projects. Social media and online techniques are especially effective at engaging the public and spreading information about projects.

Participant Feedback

Participants overall were pleased with the outcomes of the conference. Below are some of their comments:

- "The perspective of different regions and how they are addressing challenges of managed lanes operations and implementation of managed lanes networks was valuable."
- "I was really happy to hear about the new directions for congestion pricing, like arterial networks and mileagebased user fees."

More research is needed to understand travel behavior with respect to pricing.

As one participant noted, "When we collect data [on travel behaviors], we understand what people are doing but we don't understand why." For example, why do people choose to pay for an express lane at 1 am when there is no traffic? Many agencies gave presentations on how pricing influenced travel behavior, such as parking in cities, but the reason why the behavior changed remains unclear. Agencies implementing pricing projects will want to supplement quantitative data with anecdotal evidence to understand how the projects are actually influencing the travel behavior of their constituents.

Final Conference Agenda

National Congestion Pricing Conference

US DOT Conference Center

Washington, DC

May 22-23, 2018

Agenda

Welcome and Opening Remarks
Innovations in Congestion Pricing
Advancing Congestion Pricing in the National Capital Region
Public-Private Partnerships

Performance Parking Pricing Innovations
Challenges in Price Setting – Planning, Policy, and Operations

Communications and Public Acceptance of Pricing

Off-Site Tour: Northern Virginia Express Lanes and Operations Center

Poster Session - TRB Congestion Pricing Committee

Beyond the Driver: Advancing Multimodal Options with Pricing

Moving from Projects to Regional Networks

Commuter Incentives

Innovations in Pricing: Using Technology to Advance Road User Charging

Congestion Pricing Moving Forward

Closing Remarks