UNIVERSITY OF MINNESOTA

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U.S. Department of Transportation and Federal Highway Administration (FHWA)

State and Local Policy Program, Hubert H. Humphrey Institute of Public Affairs, University of Minnesota (event host)

Congestion in the Twin Cities: Who's Paying the Price

November 28–29, 2000, Minneapolis, Minnesota

A Summary Report

Congestion is becoming a big problem in the Twin Cities; finding solutions to solve it is an even bigger problem. This workshop was held to explore the growing congestion problem in the Twin Cities, examine the role of market-based or value pricing solutions in a regional context, and set an action agenda for value pricing efforts in the metropolitan area.

Cosponsored by

- Minnesota Department of Transportation (Mn/DOT)
- Center for Transportation Studies (CTS), University of Minnesota
- Metropolitan Council of the Twin Cities

Keynote Speaker

- **Matthew Kitchen,** Senior Researcher, Puget Sound Regional Council

Event Moderator

- **Lee W. Munnich, Jr.,** Senior Fellow and Director, State and Local Policy Program, Humphrey Institute

Session Moderators

- **Kenneth Buckeye,** Program Manager, Office of Alternative Transportation Financing, Mn/DOT
- **Patrick DeCorla-Souza,** Team Leader, Highway Pricing and System Analysis, FHWA
- **Robert Johns,** Director, CTS
- **Allen Greenberg,** FHWA
- **Lyle Wray,** Executive Director, Citizens League

Panelists

- **Patrick DeCorla-Souza**, Team Leader, Highway Pricing and System Analysis, FHWA
- **Adeel Lari,** Office of Alternative Transportation Financing, Mn/DOT
- **Carl Ohrn,** Planning Analyst, Metropolitan Council
- **Sandra Pappas,** Senator, Minnesota Senate
- **Randall Halvorson,** Director, Program Delivery Group, Mn/DOT
- **Brian Pessaro,** San Diego Association of Governments
- **David Pope,** Operations Manager, California Private Transportation Company
- **Chris Swenson,** President, CRSPE, Inc.
- **John Albion,** Commissioner, Lee County, Fla.
- **Kiran Bhatt,** K.T. Analytics
- **Barry Ryan,** Applied Economics, University of Minnesota
- **David Forkenbrock,** Public Policy Center, University of Iowa
- **Lee Munnich,** Humphrey Institute
- **Robert McMillan,** Progressive Casualty
- **David Van Hattum,** Minneapolis Transportation Management Organization
- **Rebecca Dennison,** U.S. Environmental Protection Agency / Duke University
- **Phil Riveness,** Board Member, Metropolitan Council
- **Roy Terwilliger,** Senator, Minnesota Senate
- **David Schaaf,** Mayor, Oak Park Heights, Minn.

Value pricing—a primer

Experts believe that value pricing is a way to harness market power and reduce waste associated with congestion. Value pricing involves fees or tolls for road use, which vary with the level of congestion. Fees are typically assessed electronically to eliminate delays associated with manual toll collection facilities.

This concept of assessing relatively higher prices for travel during peak periods is the same concept used in many other economic sectors to respond to peak-use demands. Airlines offer off-peak discounts, and hotel rooms cost more during peak tourist seasons. Road-use charges that vary with congestion levels provide drivers incentives to shift some trips to off-peak times, less-congested routes, or alternative modes, or cause some lower-valued trips to be combined with other trips or even be eliminated. In addition, the dollars collected through other forms of pricing can be used to build additional freeway capacity. In essence, value pricing converts the loss of economic resources into something productive to realize a net economic gain.

"The demand is greater than supply, primarily because the price people pay to use the roads is much lower than what it actually costs to provide that supply."

—Patrick DeCorla-Souza

Patrick DeCorla-Souza, team leader, Highway Pricing and System Analysis, Federal Highway Administration (FHWA), described traffic congestion as a signal that is formed when demand exceeds supply. The demand is greater than supply, primarily because the price people pay to use the roads is much lower than what it actually costs to provide that supply, said DeCorla-Souza. On average, in combined small and large urban areas, it costs 15 to 25 cents per vehicle, per mile driven during the peak hours on that freeway, DeCorla-Souza explained. However, people pay about 40 cents per gallon in fuel taxes, which translates to only 2 cents per vehicle per mile to use that freeway. The challenge is to shift this imbalance using value pricing.

Adeel Lari

Adeel Lari, with the Office of Alternative Transportation Financing, Minnesota Department of Transportation (Mn/DOT), explained that his office wants to use value pricing as a tool to decrease congestion. He noted that the Minnesota legislature has long been a champion of road pricing; however, there has not been strong local support for road pricing initiatives. Lari feels that conferences such as this one keep the value pricing dialog going in efforts to develop solutions that benefit all travelers.

Setting the stage for pricing alternatives

In his keynote address, Matthew Kitchen, senior researcher with the Puget Sound Regional Council, described his view of value pricing. From an economist s perspective, it s the practice of setting road charges to reflect all of the costs imposed by the user, Kitchen said. For real people, it s a way to buy their way out of congestion. It s a way to keep traffic flowing at a reasonable speed; a way to reduce auto use and increase transit use; a method of financing road improvement; and a way to reduce the need for new roads.

"To make it [value pricing] happen in your area, you need clearly defined objectives. The pricing language must become familiar, you need to consider the appropriate use of revenues, and demonstrate clearly what the public gets when they pay for transportation."

—Matthew Kitchen

According to Kitchen, the best or gold standard value pricing plan is ubiquitous, efficient pricing. The silver standard is selective, efficient pricing, which Kitchen says is the practical and political reality. The bronze standard is semi-efficient pricing. And finally, the tin standard and least effective method includes indirect charges such as license fees and insurance premiums.

Today, roads are scarce resources, and a road s performance decreases with increased traffic. One more car can slow down everyone and impose huge delay costs. As road volumes approach capacity, drivers experience only their own delay, but the total delay they impose on others is much higher, Kitchen explained. As drivers, we need to understand the cost we impose on other users and modify our behaviors accordingly. Value pricing is a way to change driver behavior for the better.

The alternative to implementing value pricing strategies is to raise traditional taxes, Kitchen said. Without value pricing, we just build new capacity too soon and too often, even while existing roads are inefficiently used, Kitchen stated. We ll keep high-occupancy vehicle alternatives non-competitive and will continue to live with congestion.

He noted that while the political appetite for value pricing is weak, interest is growing. Value pricing could offset other fees, making it publicly acceptable, Kitchen said. He suggested that policymakers and the public be made aware of all the benefits of value pricing. To make it [value pricing] happen in your area, you need clearly defined

objectives. The pricing language must become familiar, you need to consider the appropriate use of revenues, and demonstrate clearly what the public gets when they pay for transportation.

Value pricing and the Minnesota experience

Moderator Kenneth Buckeye, program manager of the Office of Alternative Transportation Financing at Mn/DOT, introduced Randall Halvorson, director of Mn/DOT s Program Delivery Group, who discussed Minnesota s research commitment in the area of transportation. We are interested in value pricing from a research standpoint, Halvorson explained. Clearly there is mounting evidence throughout the United States, and the rest of the world, that congestion is a big concern.

Halvorson said it is estimated that $1 billion a year is lost in this region because of urban traffic congestion. And, said Halvorson, the cost of congestion will continue to rise as vehicle miles of travel (VMT) in the Twin Cities continues to increase. The big problem is that even as congestion becomes more and more of a problem, people don t relate the lost dollars to real money.

It is estimated that $1 billion is lost in this region because of urban traffic congestion.

—Randall Halvorson

Because of that disconnect, value pricing has been a tough sell in Minnesota. Value pricing efforts have been tried in the region, but to date, these projects have failed. Unfortunately, value pricing appears to be on the bottom of the list of alternatives, Halvorson explained. There is still interest in talking about value pricing and finding a way to begin a project. I do believe that value pricing is an under-used alternative. I keep seeing examples of successful applications of this concept around the country and around the world. We have to do a better job of showing the benefits of value pricing to the driving public, Halvorson said. And, we have to convey the true cost of travel to the public, knowing that they still might not care.

Carl Ohrn, planning analyst with the Metropolitan Council, discussed some of his office s key transportation initiatives. One of its goals is to double the capacity of the metropolitan-area bus system by 2020 to give transit users better accessibility. Ohrn also suggested the need to increase capacity using various metering techniques. If we don t continue metering, Ohrn stated, capacity will be dramatically reduced.

"It is going to be difficult to attract major companies to the cities...companies can't effectively recruit employees who know they'll have an hour commute to their offices."

—Carl Ohrn

The Metropolitan Council will also take a closer look at how to better use minor arterial systems, which are projected to carry more and more trips. But even after making total transit investments of about $3 billion, predictions are that the Twin Cities will still see a loss of mobility, which according to Ohrn, will become an economic issue. It is going to be difficult to attract major companies to the cities, Ohrn stated. These companies can t effectively recruit employees who know they ll have an hour commute to their offices.

Ohrn noted that in the metropolitan area today, there are 150 center lane miles of congestion on freeways. In 25 years, even if all desired investments were made (for which adequate funds are unavailable), there will be 330 center lane miles of congestion. The big question Ohrn asked is, can we afford to provide the alternative modes? The bigger question is, will people use these alternative modes, and are alternative development forms achievable?

Next, Senator Sandra Pappas, Minnesota State Senate, spoke briefly about the legislative history and the fact that the legislature has looked at alternative transportation funding. Pappas mentioned some of the legislative transportation financing proposals, which include motor fuel tax increases and extension of the sales tax to gasoline; motor vehicle taxes involving increased registration fees and energy or emissions charges; sales taxes dedicated to transit and/or sales taxes on vehicle repair labor; and constitutional changes that include a highway user tax and sales tax.

To date, none of these financing proposals has prevailed, so the legislature is looking at pricing alternatives that include toll financing, mileage-based taxes, and congestion pricing. The legislature is also investigating property-based revenue sources such as transportation benefit districts, transportation utility charges, parking taxes, and impact fees.

In the area of value pricing, Senator Pappas stated, I can t say that the legislature is blocking congestion pricing. We allowed Mn/DOT to

Senator Sandra Pappas (inset) said that the legislature supports looking at various value pricing approaches. Other panelists were Randall Halvorson and Carl Ohrn.

look into these things, but none of these efforts has been moved forward. This stall is mainly because the affected cities are resistant not necessarily the legislature.

According to Pappas, rural senators on the transportation committee say their constituents are unfamiliar with the term value pricing and are relatively uninterested. Other senators say their constituents want equality whatever is done needs to be fair across the region. Pappas herself feels that value pricing is a new way to look at paying for congestion and feels value pricing should continue to be studied to test its viability and acceptability.

What's working elsewhere: A national perspective on value pricing

Led by moderator Patrick DeCorla-Souza of the Federal Highway Administration, this panel discussed four value pricing projects that have been implemented throughout the United States. Panelists showed how value pricing can work and provide benefits to the driving public. These presentations also showed that travel behavior can be changed and revenue can be generated to solve supply issues through value pricing initiatives.

Toll-based pricing

Brian Pessaro, with the San Diego Association of Governments, talked about the I-15 value pricing project in the San Diego, Calif., area. The project goals were to increase express lane use, test to determine if value pricing could relieve main lane congestion, and fund new I-15 transit service.

Using dynamic pricing based on real-time traffic, fees on the express lane may change as frequently as every six minutes. For example, the minimum toll is $.50. The price may rise to $3 or $4 during peak hours and up to $8 during major traffic incidents. Traffic flows back and forth between the main lines and the toll road. When the main lines get too congested, traffic starts flowing onto the toll road until the toll gets too high. Then, traffic switches back to the main line until congestion on the toll road subsides and the toll is reduced.

The program has achieved high customer acceptance, and users feel the prices are fair. Since January 2000 the program has been fully self-supporting. Another positive aspect is the increase in the number of carpools from 7,000 per day to about 13,000. Also, the single-occupant vehicle violation rate fell from 15 percent to about 2 percent.

Kiran Bhatt, with K.T. Analytics, discussed the Katy Freeway project in Houston, Tex. The Katy Freeway or Interstate I-10 is a 13-mile reversible lane running to and from downtown Houston. It opened in 1984 as a typical HOV lane that allowed two-, or more, occupant vehicles to use the lane. It was so popular that in 1988, the rules were changed to require three or more occupants per car to use the lane.

In 1998, Metro Houston applied for a Federal Highway grant to implement a high-occupancy toll (HOT) lane. The idea was to sell the spare capacity on the HOV lane to two-person carpools, increase HOV lane use, encourage two-person carpools, and relieve main line congestion.

Toll prices on the express lane range from a $.50 minimum to $3–4 during peak hours and up to $8 during major traffic incidents.

—Brian Pessaro

Today, two-person carpools pay $2 per trip to travel downtown via the HOV lane. Tolls are collected electronically via windshield-mounted transponders; cash transactions are not allowed. Main line traffic has been reduced and HOV lane use is up. At the same time, speeds have been sustained because the number of vehicles allowed in the HOV lanes is limited. Surveys show that patrons are satisfied with the program and appreciate the flexibility and choice.

The pilot program has been extended indefinitely, and in the future, solo drivers will be allowed on the HOV, but at a higher rate than the two-occupant vehicles. There is also a preliminary study under way to expand this program to other Houston HOV lanes.

David Pope, operations manager with California Private Transportation Company (CPTC), discussed SR-91, an express lane project that runs through Los Angeles County, San Bernardino County, Orange County, and Riverside County in Southern California. The project is a good example not only of a value pricing program but also of how the private sector can get involved in this arena. This innovative program was the first privately financed toll road in the United States since World War II. It is the world s first fully

Projects in their states show that value pricing can work and provide benefits to the public, said panelists Brian Pessaro, Kiran Bhatt, David Pope, Chris Swenson, and John Albion.

Value pricing makes "Lee County an even nicer place to live and for the Minnesota Twins to spring train."

—John Albion

automated toll road and was the first application of value pricing in the United States.

Before the project began, main line traffic on the SR-91 was bumper-to-bumper at peak times. Although the main lines are still congested today, there are now two fee-based express lanes running in two directions, which are virtually free-flowing at peak times with an average speed of 71 miles per hour.

Express lane tolls are collected via a high-speed, no-stop-required, electronic transponder system. Large signs at the toll road entrance display the going toll rate for the particular time of day. Based on the toll amount, drivers can decide whether to stay on the more-congested main line or pay for the convenience of free-flowing traffic.

In addition, the express lanes have dedicated tow trucks that can reach stranded motorists within two minutes. Customer benefits include time saving, safety, reliability, freedom, and choice. Thus, the program achieved early financial gain and immediate market acceptance.

Chris Swenson, president of CRSPE, Inc., in Lee County, Fla., spoke about Lee County s variable pricing project involving the Cape Coral and Midpoint Bridges. Before variable pricing tolls were implemented, these bridges were traditional toll facilities; it cost $1 each way, 50 cents each way with a $40 annual sticker, and no per trip charge either way with a $330 annual sticker.

Today, the variable pricing program offers a 50 percent toll discount just before and just after the peak hours. These discounted tolls are collected electronically from pre-paid accounts. Cash is accepted at roadside tollbooths, but the full toll is charged. The result? Drivers who can travel just before or just after peak times have greatly changed their travel behavior to take advantage of the discounts.

John Albion, Lee County commissioner, discussed the project from the government perspective. He explained that typically, the more congestion there is, the more people s lives are affected. The public gets very upset when they feel they are already paying for increased capacity through excise taxes, for example but they re still stuck in traffic. In general, he noted, people don t care how much it costs to build a road. What they care about is that they are stuck in traffic when they want to get home, Albion continued. They care about how their lives are affected. That s why this type of pricing makes sense. It s worth something if people can get to their child s soccer game.

Albion talked about the 20—25 years it took to get the Midpoint Bridge built. At one point, the toll on the existing Cape Coral Bridge was raised to generate revenue to build the Midpoint Bridge and keep the new bridge s tolls low. Congestion pricing says that when demand is higher, the price goes up, Albion explained. But in our case, we had promised that we wouldn t raise the toll on the new bridge. So instead, we reward our users by reducing the toll during off-peak hours it s like the early bird special at a restaurant. Everyone benefits even if you can t take advantage of the lower tolls, you don t have to compete for road during peak times.

As of October 1, 2000, motorists had saved more than $792,000 in tolls and more than 15,000 hours in travel time, and significant environment benefits had been achieved. In short, Albion said, value pricing makes Lee County an even nicer place to live and for the Minnesota Twins to spring train.

Market-based incentives for insurance, parking, and vehicle leasing could reduce vehicle miles traveled, said panelists Robert McMillan, David Van Hattum, and Rebecca Dennison, respectively.

Other market-based approaches

Moderator Allen Greenberg of the Federal Highway Administration said that 80 percent of driving costs are fixed, leaving little incentive for people not to drive. Greenberg feels that car-sharing and dynamic ride-sharing using GPS concepts are two ideas that may get people who own cars to use them less.

Pay-as-you-drive insurance pricing

Robert McMillan, with Progressive Casualty, described Progressive s pay-as-you-drive pilot test, which was rolled out in Houston, Tex. Each month during the test, a computer which was installed on each participant s car to record the car s location every six minutes called a central computer and reported how much the car had been driven and the time of day and geographic location of the trip. The more someone drove, the more he or she paid, but time of day was also an important factor in the fee. Statistically, a

With a pay-as-you-drive insurance program, about 65 percent of insured drivers would save about $250 annually.

—Robert McMillan

mile of driving in the morning is less dangerous than in the afternoon, so the time of the trip affected the premium charged accordingly.

Test data showed that under traditional insurance systems, low-mile drivers actually subsidize high-mile drivers. With a pay-as-you-drive insurance program, about 65 percent of insured drivers would save about $250 annually. During the pilot, inner city participants saved the most money mainly because they generally had a shorter commute. Traditionally, this group had also paid high theft insurance rates, but the pilot system made it possible to track and recover stolen vehicles.

McMillan says that customers report having more feeling of control and believe the pay-as-you-drive charges are more equitable. Moving forward, the company hopes to add product enhancements including geo fencing, a great solution for parents of teenage drivers if the vehicle leaves the prescribed area, an alert will sound; and a critical event rating system in which drivers are penalized for close calls or rewarded for safe driving. Although there is a long way to go for this type of program to be ubiquitous, McMillan feels his company will eventually introduce this type of program nationwide.

Parking pricing

David Van Hattum, with the Minneapolis Transportation Management Organization, discussed parking issues. The biggest problem, according to Van Hattum, is that urban parking is often employer-paid. About 90 percent of one major downtown Minneapolis employer s employees drive alone. In another example, he cited a new suburban office development that calls for one parking spot per employee rather than limiting parking and encouraging use of nearby transit alternatives.

Van Hattum feels that parking pricing offers a cost-effective and flexible complement to infrastructure expansion, suggesting that parking policy is a critical component of a smart growth, transit, and congestion-management strategy. He offered several policy recommendations: prohibit public parking subsidies for single-occupant vehicles; expand the state transit tax credit to include cash-out; discourage private parking subsidies; create smart growth incentives to discourage overbuilding of parking in suburban locations; and fund further experimentation with traffic-demand management (TDM) alternatives.

Mileage-based automotive leasing and vehicle taxation

Rebecca Dennison with U.S. EPA / Duke University reiterated that once a person has chosen to acquire a vehicle, there is little financial incentive not to use it heavily. Automotive leasing and taxation could convert some fixed vehicle costs to pay-as-you-drive fees, thereby financially rewarding consumers for reducing their driving and related congestion and vehicle emissions. With leasing accounting for approximately 30 percent of new vehicle acquisitions in the United States, and with the *Automotive Lease Guide* and *Edmunds Used Car Buyers Guide* clearly linking vehicle depreciation to mileage, voluntary partnerships to implement pay-as-you-drive leasing pilots hold promise for reducing vehicle miles traveled (VMT), while meeting the needs of the vehicle manufacturers and dealers, transportation officials, and consumers.

Once a person has chosen to acquire a vehicle, there is little financial incentive not to use it heavily.

—Rebecca Dennison

The benefits of such pilots would be compounded if state sales and vehicle registration taxes on automotive leases were converted to mileage charges. Tax shifting could be simulated by paying the consumers sales, registration, and vehicle-related personal property taxes due at lease payment or purchase, and charging the consumer a per-mile recuperation fee for some period of time (perhaps three years). Dennison noted that all these concepts are worthy of piloting through the Federal Highway Administration Value Pricing Pilot Program.

To project likely VMT reductions, sample benefit calculations for Minnesota were performed on a typical mid-size car (Ford Taurus). For two-year and five-year leases, respectively, estimated VMT reductions are 9.05 percent and 6.2 percent when only mileage-based depreciation charges are applied. When state sales and registration taxes are converted and also added to per-mile fees on the two-year lease, a 12.05 percent VMT reduction is projected. For the purchase of a new and used (model year 1995) Ford Taurus, converting state sales and registration taxes to per-mile fees over a three-year period would lead to a 4.3 percent and 2.3 percent VMT reduction, respectively, for that three-year period. While real-world results might differ, potential benefits are clearly substantial.

Value pricing from the elected official's perspective

Moderator Lyle Wray, executive director, Citizens League, introduced Senator Roy Terwilliger, assistant minority leader, Minnesota State Senate, and new member of the Minnesota Senate transportation committee. Terwilliger acknowledged the need to look at value pricing, and while he saw the workshop as a good opportunity to do that, he felt that the meeting was missing representation from a very important member large employers. They need to be here when we discuss parking, jobs, and the growth projections, Terwilliger said. He commented that the Twin Cities community has turned into a dispersed community, which began when the streetcar system was dismantled. There has been tremendous growth in the Twin Cities, Terwilliger stated, but we ve done nothing to add infrastructure even as we continue to generate budget surpluses we ve neglected infrastructure.

"We went backwards when we lowered license tabs because we didn't put in place a permanent funding source."

—Senator Roy Terwilliger

Terwilliger wants to keep working to find a permanent source for transportation funding. We went backwards when we lowered license tabs because we didn t put in place a permanent funding source, he noted. In addition, he said, if alternatives such as pricing and carpooling are to be implemented, they need to be done in a way that gets people to where they want to go, when they want to go. For the most part right now, there s no alternative for people other than to get into their cars. In his action plan, Terwilliger suggests the need to address pricing in an innovative way, and he says he is open to hearing ideas that help generate a longer term, sustainable plan.

Phil Riveness, Metropolitan Council board member, agreed with Terwilliger that the business representatives were indeed a missing component of the workshop. We need to build in the participation of the people who have a critical stake and can be huge advocates for what we need, he stated.

We re at a unique period of time to include business leaders and large and small employers.

Despite tremendous growth in the Twin Cities, Minnesota has neglected infrastructure needs, said Senator Roy Terwilliger (inset) in a session with Phil Riveness and David Schaaf.

Riveness cited several congestion facts congestion on local freeways has worsened by 50 percent since 1990, and accordingly, Twin Cities residents rate congestion as their top concern. Between now and 2020, in the metro area, the population is expected to grow by 500,000, with 300,000 people added to the workforce. According to Riveness, highway construction alone will not be able to keep up with demand. Clearly, he noted, congestion management needs to take on a different tone. I get frustrated when I see new facilities approved without considering what it means for congestion and what is going to be done about it, Riveness stated.

"There is an incredible ignorance on the subject of transportation… because of the system we've set up...the public sees that we have budget surpluses and then hears how government wants to raise the gas tax. It doesn't make sense to the public, and it's hard to generate support."

—David Schaaf

He agrees that parking pricing alternatives, including a parking tax and various incentives to employers to encourage transit use, ought to be seriously considered. We do need to change consumer behavior, and we need to think of things that take consumer behaviors into account.

David Schaaf, mayor of Oak Park Heights, Minn., agreed the biggest problem is that the current freeway system generates a demand for which users are not charged extra to use. If we had some type of pricing program in place, I think people s behavior would change, he stated. There is an incredible ignorance on the subject of transportation and frankly, it s because of the system we ve set up to fund transportation. The public sees budget surpluses and then hears how government wants to raise the gas tax. It doesn t make sense to the public, and it s hard to generate support. Schaaf feels there are some major political hurdles to overcome if we re going to make some changes.

In his own experience, Schaaf has seen how local communities can participate intelligently in transportation problems. Since local officials will always be there, Schaaf said, local businesses know they have to work with the city council in the long run. In addition, city councils have the ability to fund some transportation projects and get paid back later. Local communities can be actively and positively involved in transportation solutions, Schaaf said. We do need to include a lot of people in the process, including the business community. They are very knowledgeable, and they can make the right decisions and be a positive part of the solution.

Value pricing research

Barry Ryan and David Forkenbrock

Like a Visa bill, drivers would get one billing statement based on their road use.

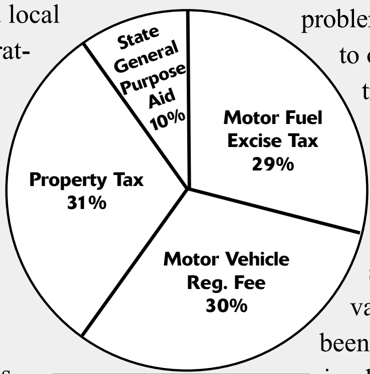
—*David Forkenbrock*

According to moderator Robert Johns, director of the Center for Transportation Studies, often the most far-reaching innovation comes out of the most basic research, and the innovations that come out of this research are long term.

Robert Johns

Taxes and road use

Barry Ryan, with the University of Minnesota s Transportation and Regional Growth Study, discussed his current research and how it relates to state and local roads in the metro area. In his research, Ryan looks at the way things are done now and tries to find alternatives. Ryan currently is working on a formula to calculate the taxpayer burden for roads by looking at various households and variables such as household income and home values. The goal is to determine pricing alternatives on state and local roads. Ryan s work is illustrated in the figure at right; for further information visit www.cts.umn.edu/trg.



Sources of revenue for state and local roads in the seven-county metro area, 1996 (excluding federal funding)

GPS-based pricing

David Forkenbrock, with the Public Policy Center at the University of Iowa, discussed some of the problems with current transportation pricing methods. Toll roads, for example, lose 15 to 20 percent of the fees collected to administrative costs, and the delays at tollbooths are onerous to travelers. In addition, as alternative fuels are introduced, revenue generated from existing fuel taxes will decline.

Forkenbrock suggests establishing road user charges that have low collection costs; a stable not cyclical revenue stream; a way to charge users who create greater costs; a low evasion rate; and incentives to use appropriate roads.

He gave a simple overview of how global positioning systems (GPS) could be used to levy user charges. A driver s road use could be monitored and a record of the miles driven created. Then, like a Visa bill, drivers would get one billing statement based on their road use. With such a system it would be possible to implement road-specific user charges commensurate with damage caused to the roads by their travel. And, unlike a fuel tax, such a system creates incentives to drive at different times or on different roads when congestion is a problem, and incentives to operate heavy trucks only on appropriate roads.

Forkenbrock said that while value pricing has been difficult to implement, a GPS approach could greatly simplify implementation. He acknowledged that while GPS technology is advancing, it still has some limitations and many issues yet to be resolved, such as privacy. Despite the immediate roadblocks, Forkenbrock predicts that in a few more years, the industry will be much closer to solving many of these issues.

Value pricing study

Lee Munnich, with the State and Local Policy Program s Value Pricing Study, provided some background on the Minnesota Value Pricing Study conducted by SLPP and the Humphrey Institute. The study s objectives are to define the problems and the potential market-based solutions in the Twin Cities; develop a regional strategic plan for market-based and other congestion management strategies for the Twin Cities; and conduct national, regional, and local outreach and education on value pricing. We re just completing the first year of the three-year study, Munnich explained. This workshop is part of our outreach efforts.

He also noted that the SLPP team was creating a value pricing task force. For more information on this and other value pricing projects, studies, and reports or to order SLPP s value pricing video, *Buying Time,* visit www.valuepricing.org.

Lee Munnich

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511 Washington Avenue S.E., Minneapolis, MN 55455-0375
Phone: 612-626-1077 • E-mail: cts@tc.umn.edu • Web: www.cts.umn.edu

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