Proceedings

Symposium on Transportation Long-Range Funding Solutions

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Contents

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Welcome and Symposium Purpose


Tim Henkel

Tim Henkel, Director of Modal Planning and Program Management, Mn/DOT

During the 2008 legislative session, the Minnesota legislature directed Mn/DOT to evaluate the long-range needs of state highways, bridges, and transit and investigate potential strategies to meet these needs. This symposium is one part of this effort, said Tim Henkel.

The legislation, authored by Representative Frank Hornstein, specifically directed the commissioner to conduct this study in consultation with other state agencies and key stakeholders, Henkel explained. The bill mandated evaluating a complex set of needs and outlined a process for Mn/DOT to follow.

The study builds on a number of planning activities that were already under way, Henkel said, including the Statewide Transportation Plan for Minnesota (see page #) and research completed at the University of Minnesota.

The symposium focused on three sections of the legislation:

1. Identification of options for maintenance and improvement of the state's transportation system, with specific reference to the effects of the potential increases to vehicle fuel economy, the availability of alternative modes of transportation, and extreme fuel price volatility on future transportation revenues.

2. The analysis of alternative pricing options used in other states and countries and their potential for use, public acceptance, alleviation of congestion, and revenue generation in this state.

3. Identification of road use pricing and other alternative pricing mechanisms, with particular consideration of key environmental impacts such as air quality, water quality, and greenhouse gas emissions, and estimates of implementation costs, user costs, and revenue.

Henkel set forth the symposium's goals:

- Understand the potential for and the potential consequences of the various options.
- Get partners and various stakeholders together.
- Begin the analysis of future transportation options.
- Learn what approaches are being considered in other states, and at the federal level and other countries.

The proceedings from this discussion will be part of the legislative report due November 1, 2009, he said.

Setting the Context

Frank Hornstein, Minnesota House of Representatives

Frank Hornstein, author of the bill that called for the study, credited Commissioner Sorel for "opening the doors of government into this process" and asking stakeholders for input. "I think we'll get a better study because of it…this is just the beginning of the discussion," he said.

Hornstein set the context for the discussion by noting some recent developments:

- An unprecedented rise in transit ridership in response to rising gas prices, congestion, and environment concern
- The I-35W bridge collapse, which brought attention to infrastructure nationally and internationally
- Opportunities with the authorization of the federal transportation bill
- The Obama administration's investment in the national infrastructure as part of the economic stimulus funding
- Growing interest in a multimodal transportation system that could include high-speed rail and the electricification of the transportation system

He also noted several challenges for the future, such as meeting the needs of the aging population and finding alternatives to the gas tax.

Thomas Sorel, Commissioner, Mn/DOT

"The Mn/DOT strategic vision document states that we want to be a global leader in transportation and have a world-class transportation system," said Tom Sorel. "To have a world-class transportation system, we need to have a sustainable source of [long-term] funding."

There is no one silver bullet for the answers anymore, he said. Funding options such as mileage-based user fees or leveraging private sector dollars are receiving attention.

"Another part of Mn/DOT's mission is to be collaborative," continued Sorel. "We recognized that to have a world-class transportation system, we need all of your help to make it work. We can't do it alone. No one agency or organization can do it alone."

Much has changed since this study was first discussed in 2006: improved fuel economy, higher gas prices, higher transit ridership, and reduced vehicle-miles. The transportation world has changed, he noted, and gives us a glimpse of the future.

"Despite all these challenges, we have one of the largest state road construction programs we've ever had," Sorel said. Mn/DOT received federal stimulus money for many road construction projects, and the agency is applying for other economic stimulus and transit grants. As a result, Mn/DOT has a large construction program at a time when it is trying to address future funding challenges.

Mn/DOT has concerns about the Obama administration's proposal to delay federal highway authorization legislation. "Any delay would be quite disastrous, not only in Minnesota but across the country," said Sorel.

"We're in a perfect storm situation, where there's a lot of uncertainty," Sorel observed. "In the end, I think we'll have a better approach for long-term funding both in Minnesota and nationally. But we need to go through this perfect storm to sort these things out."

There is a stronger emphasis on multimodal solutions. "Whether it be rail, transit, our port system, aviation, highways, biking, walking, you name it—all these modes of transportation need to be in our future, and they are part of this discussion," Sorel said. Freight has come to the forefront in the federal highway authorization bill, he added, and there is serious discussion about freight movement as well as people movement.

Innovations in technology, contracting mechanisms, and financing need to be part of the solution. "We've got to support our ideas with innovation," he said. Technologies in pavement materials will mean longer pavement life. Innovative contracting, as was used on the I-35W bridge project, can reduce project time. "All these things have a tremendous impact on our economy, congestion and mobility," he said.

Peter Bell, Chair, Metropolitan Council

"As a result of the past legislative session, transit operations in the metropolitan area are fairly stable," Bell began. "I think that is a major accomplishment." The transportation bill was passed, and the bonding bill provided $21 million for transit capital, he said.

Ridership is at record levels nationally. At Metro Transit, there were 82 million rides in 2008—a 27-year high. Yet both here in the metropolitan area and nation-wide, Bell said, we face service reductions and fare increases. Huge cost pressures are affecting the system. Transit is predicated on a business model in which growing volume doesn't make up deficits—the opposite happens. The more people you serve, the more it costs, he explained.

A major breakthrough was the passage of the motor vehicle sales tax (MVST) referendum that allocates 100 percent of proceeds to transportation on a 60/40 split (it will be fully phased in by 2012).

Frank Hornstein

Thomas Sorel

Peter Bell

However, Bell said, a major problem is that revenue has fallen short. As of March, $63 million less was collected than what was projected a short time ago. Had MVST performed as projected, Metro Transit would have been able to aggressively build out the transit system. There is an imbalance between funding transit capital versus funding transit operations—transit capital funding is much less solid than transit operations, he said.

Bell then gave four principles he believes should be considered for transit long-term funding solutions. First, funding sources should be tied more closely to transit. “I think the public wants to see a direct line between the funding source and that activity,” he posited. MVST is an “inverted incentive—buy a car/support transit—that doesn’t make a lot of sense to people.” Sales tax is a way that many regions have supported transit, but there is not a direct connection to it. Other ideas include capturing revenue from transit-induced development (value capture) and expanding demand pricing. “We must continue to work on building a world-class system,” he declared.

The second principle concerns subsidies. About a third of the cost of transit operations comes from the fare box and two-thirds comes from the taxpayer. “I would argue that it is better to subsidize consumers,” said Bell. “We are, in effect, subsidizing people on transit rides that don’t need the subsidy…We should think about that because this is a huge political challenge.” Restructuring transit for cost savings is also a huge challenge.

The third principle involves the cost and composition of the system. “There is an age-old argument about which is better—bus rapid transit (BRT) or light-rail transit (LRT),” said Bell. If something provides 70 to 80 percent of the benefit at 20 to 30 percent of the cost—and you’re already broke—you should choose it. “We need to embrace BRT because frankly, the aggressive build-out of our system in this region is going to be BRT, not LRT, because you do get that 70 to 80 percent of the benefit at 20 to 30 percent of the cost,” he said.

Bell’s final principle is to look at using resources created from a potential national cap and trade program. “There is broad agreement that transit is an important piece of the puzzle in addressing climate change,” he said. “We are looking into adding a community’s carbon footprint, and the impact of development on that, into our planning process. If we go ahead on a national level with cap and trade, we need to look at using some of the resources from cap and trade to help fund transit.”

Needs – Revenues – Challenges

State Roads – Peggy Reichert, Mn/DOT

Peggy Reichert explained how Mn/DOT has gone through a process over the last two years to develop a state highway investment plan, with significant public input. The analysis includes a summary of eight district plans, identifies capital investments to meet performance targets, identifies priorities for projected funding and volatile economic conditions, and provides a snapshot in time and sense of scale.

Mn/DOT identified investment needs by analyzing traveler safety, infrastructure preservation, and mobility in addition to considering the needs of regional and community investment priorities, said Reichert. That analysis produced $65 billion of investment needs between the years 2009-2028.

Mn/DOT analysts then looked at potential revenues during the same time period, which included a set of assumptions such as no new state revenues or increases; state Trunk Highway Fund share going to construction remains constant; federal government honors SAFETEA-LU funding levels; higher world oil prices; slower growth in GDP; slower state population growth; increased fuel efficiency; slight increase in new vehicle sales; and 0.6 percent annual growth. The result of this analysis found that Mn/DOT can expect $15 billion in revenue during 2009-2028—leaving a revenue gap of $50 billion during the next 20 years, she said.

In addition, Reichert said, revenue sources are not aligned with other goals. For example:

- Increased fuel efficiency = lower gas tax revenues
- Use of alternative fuels = no gas tax revenues
- Smaller, lighter cars may cost less = lower sales tax revenues
- Increased transit ridership reduces gas consumption and perhaps auto ownership = reduced gas tax and sales tax revenues
- Reduced VMT reduces gas consumption = reduced fuel tax revenues

Peggy Reichert

Metropolitan Area Transit

Arlene McCarthy

Arlene McCarthy, Metropolitan Council

Arlene McCarthy outlined several areas related to transit: Metro Transit revenues and expenses, revenue issues and outlook, policy plan funding, and funding challenges. The Metro Transit system includes: bus, rail, suburban transit providers, Metro Mobility, contracted transit, and transportation planning. In 2008, the Metro Transit system had 95 million rides, 200+ bus routes, almost 1600 buses, one light-rail line (Hiawatha) with 10 million rides and 24 light-rail transit vehicles, the Northstar commuter rail to open late fall 2009, and 25 percent of system privately contracted.

For operations, revenues for calendar year 2009 are estimated to be $377.1 million and expenses are estimated to be $384.3 million. The adopted budget includes using $7.2 million in reserves to balance the budget, she said.

The sources for funding Metro Transit operations include: MVST, state general fund, fares, federal funds (allowable only for preventive maintenance), other sources, including one-time County Transit Improvement Board (CTIB) sales tax, and advertising and interest income.

Capital spending for Metro Transit, excluding major transitways, is about $160 million annually and includes spending primarily for fleet replacement, expansion, park and rides, garages and other facilities, and technology improvements. Major transitway construction can more than double annual capital spending; for example, the Central Corridor will average $200 million per year. Sources for capital spending are federal funds, regional transit capital bonds, state bonds, and CTIB sales tax.

McCarthy described several issues related to continued funding of Metro Transit operations and capital. The largest source of operating funds, the motor vehicle sales tax (MVST), has seen recent sharp decreases and is volatile and difficult to forecast. Transit growth/service expansion is dependent on MVST recovery, and MVST recovery is dependent on car sales.

Recent appropriations from the state general fund have been flat year-to-year and are susceptible to cuts in times of state deficits. This source of revenue cannot be relied upon to grow and is the assumed source of 50 percent of net operating funds for new rail projects, McCarthy said.

Metro Transit has one of the highest fare-box recovery ratios in the nation. Fare increases have negative impacts on ridership and transit-dependent populations. It also raises a relatively small amount of revenue; for example, a $.25 increase raises $6 million, she said.

The federal formula funds have been stable with little growth. The federal highway reauthorization may or may not change traditional funding levels. Federal funds are primarily used for capital purposes, not operating expenses. New projects and other discretionary projects are awarded competitively and are limited, she said.

McCarthy explained that the CTIB sales tax is designated for transitway capital and operating expenses and is not available to fund base bus system maintenance or expansion. When expanding transitways, operating costs for Metro Transit increase.

According to the 2030 Transportation Policy Plan, goals for transit are to double ridership by 2030 (50 percent ridership growth by 2020), grow and improve the base bus system, and build and operate a system of regional transitways.

In closing, McCarthy said that significant funding challenges exist for Metro Transit. There is structural imbalance between existing and forecasted operating revenues and expenses and limited revenue for planned operating growth/service expansion. Capital revenue will allow for system growth, she said.

Greater Minnesota Transit and Passenger Rail

Mike Schadauer, Mn/DOT

Mike Schadauer described how Greater Minnesota transit encompasses 61 transit systems throughout the state operated by different local governments including 12 multi-county systems, 25 county-only, and 23 municipal and by-reservation systems. In 2009, Mn/DOT has contracts for $49.2 million to fund and operate these transit services. The funding comes from various sources including federal formula grants, state general fund, MVST, and local government contributions. Capital assistance for calendar year 2008-09 is $18.3 million, which comes from federal, state, and local sources, he said.

In 2009, Schadauer said, 68 counties have county-wide service, seven have municipal service only, and five counties have no public transit service. The transportation plan calls for meeting 80 percent of transportation needs, costs will increase to meet those needs and revenues are projected to be flat during the same time period.

Schadauer then discussed the freight and passenger rail plan. The purpose of the plan is to develop a vision for rail in Minnesota, establish investment needs and priorities, and define roles for the public and private sectors. Mn/DOT has received input from a policy advisory committee, technical advisory committees, and from the public across Minnesota. A draft report will be complete by the end of 2009, as the Federal Rail Administration requires rail plans for funding.

Schadauer related that Mn/DOT is participating in the Passenger Rail Transportation Forum, which provides advice to the commissioner of transportation about funding opportunities and establishes a funding strategy, primarily for a line between Chicago and the Twin Cities and between Duluth and the Twin Cities. Mn/DOT is competing for funds provided by the American Recovery and Reinvestment Act and Passenger Rail Investment and Improvement Act.

Mike Schadauer

National Perspective on Revenue Options for Transportation

Jeffrey Buxbaum

Jeffrey Buxbaum, Cambridge Systematics

Jeffrey Buxbaum made several observations and offered a national perspective on Minnesota's funding challenges. The state's $50 billion highway funding gap can't be solved by raising the gas tax by even a reasonable amount, he said. "We're struggling in the transportation industry to come up with sustainable sources of funding that track inflation and keep up with increasing costs. Those are significant problems."

On the transit side, it is easier to find capital to build systems but hard to fund ongoing operations, said Buxbaum. Additionally, bonds are not a sustainable revenue source. Minnesota funds a very low portion of its transportation budget with bonds, at less than 10 percent, relative to other states.

The funding gap to maintain the federal highway system at current congestion levels is $58 billion, said Buxbaum. To improve the system, the funding gap grows to $119 billion between 2007 and 2017. Congressman Oberstar's proposed authorization bill addresses some of these issues, but there is still a fairly significant funding gap at the national and state level.

In the midst of all of this, revenues are declining. Since 1975, U.S. vehicle miles per gallon (MPG) have held steady at about 21, and revenue from fuel taxes has been steady. With increases in MPG, the vehicle motor tax has become a less stable revenue source.

National studies are predicting that the Highway Trust Fund will be in deficit before the end of this federal authorization period, Buxbaum related. Those studies offer a number of solutions:

- Maintain the importance of the motor fuel tax for the fund.
- Supplement basic funds with other sources of funding such as customs duties, container fees, and tax credits.
- At the state and local level, continue using fuel and vehicle fees.
- Continue to use sales taxes, local option taxes, beneficiary charges, and transit fees.
- Consider increasing tolling and pricing, which currently represent about 5 percent of revenue around the country.
- Use innovative financing and public-private partnerships.

These are all part of the solution, but not the only ones. Over time, and assuming gas usage declines, there will have to be some transition away from gas taxes as a source of revenue, Buxbaum asserted.

Buxbaum next outlined long-term funding questions:

- What is the transition to a new revenue model for funding transportation?
- How do we manage congestion on the road system?
- Is the way we pay for it part of that solution?
- How do we meet the energy and climate goals?

Buxbaum sees climate change—more so than congestion—as a publicly accepted incentive to change the transportation system. People don't like congestion, but they deal with it. "As we look forward, I see climate change being the driver to this and transportation system issues following behind," he said. Transportation professionals need to coordinate with environmental policymakers.

U.S. policy undervalues roads, Buxbaum said. In a comparison of gasoline prices of 155 countries around the world, the United States has the 111th lowest price because of our lower fuel taxes. Europeans pay higher fuel taxes, and those funds are used to pay for costs of the system and other impacts from transportation such as environmental effects and social costs, he said.

There is some criticism of congestion pricing and tolling because of their regressivity, but Buxbaum countered that the current system is regressive—it's based on use, not income, and fixed costs like the motor vehicle tax are often regressive. The discussion needs to compare revenue options to the present situation, not the ideal, he said. The ideal way to pay for the system would have these features:

- A base fee that pays for the cost of maintaining and building the highway system we need. Potentially that fee replaces the gas tax over time.
- A congestion fee charged at certain times during the day. The value of the road in certain places at certain times of the day is higher than the value of the road during the rest of the day. It could include a transit subsidy to give people alternatives.
- An environmental fee, which might be carbon pricing, to mitigate the negative impacts of transportation.

It may be difficult, however, to get these ideas, through the legislative process.

Next, Buxbaum outlined funding ideas based on existing revenue streams:

- Direct user fees: Collected from transportation users; price directly associated with a trip. Examples: Time-of-day tolling, flat tolling, and transit/ferry fares.
- Indirect user fees: Collected from transportation users, but price not associated with an actual trip. Examples: MVT, registration fees, excise taxes, and value capture technologies.
- Specialized taxes: Collected from non-transportation activities, but revenues are dedicated to transportation. Examples: state and local taxes.
- General taxes: Collected from non-transportation activities, revenues are budgeted for transportation based on legislative discretion. Examples: Income, property, and sales tax, and other ad valorum taxes.

These funding options can be evaluated along four criteria: revenue yield and reliability; economic efficiency (promotion of economically wise behavior); regressivity (does strategy put an unfair burden on low-income households); administrative effectiveness (ease and cost of collection and enforcement); and public acceptance (possible or probable, and in what timeframe).

Who pays, who benefits, how much, who wins, and who loses—we need to address those questions, he said. "The current system may be unfair, but it's the system we have. Moving to something else, such as a mileage-based fee, means that some will see it as a win and others won't. That's where these things are going to succeed or fail," he said.

Buxbaum then reviewed the current prospects for these four options.

Direct user fees. The economy is driving down support for tolling, he said. People are driving less. Financing has become tighter, so it is harder to get bonds issued. These projects used to depend on bond insurance, which is hard to get now. As a result, projects are being delayed and rethought in places like North Carolina and Virginia, but a Maryland project is moving forward.

In the Indiana tollway example, there has been a public backlash to private sector deals because of an apparent loss of control and the surrender of decision making for toll rates. There was an attempt to do this type of project in Florida, but there were no bids from the private sector. Additionally, he said, existing toll operators are looking to increase tolls.

"The more innovative direct user fees are congestion pricing," Buxbaum said. In New York last year, there was a desire to implement congestion pricing to manage congestion and raise revenues. The project didn't make it through the public acceptance process because of the issue of who wins and who loses, he said. Washington State is the first place in the country to put a toll on an existing free road. Buxbaum also discussed other innovative direct user fee projects in Oregon and San Francisco.

Buxbaum reviewed studies of mileage-based user fees, such as one from the University of Iowa, and demonstration projects in Oregon and Minnesota. Many other states are also investigating mileage-based fee options. For transit, all agencies are under pressure to raise fares, he said.

Indirect user fees. The fairest way to collect indirect user fees is to raise the gas tax because there is a connection to use, he said. “It may be regressive, but so are all the other revenue measures that compete with it. We know how to do it,” he said. On a per household basis, it costs about $60 per year.

A problem with the gas tax, however, is that inflation erodes its value. “It may be best to tie the gas tax to an inflation index, but that is difficult to do,” he said. Another idea is to peg the tax to the value of gas, which works well when the price of gas is $4.50 per gallon but not so well when it is $2.00 per gallon. It’s hard to predict revenue when the tax is based on price. Additionally, raising the gas tax is hard to get through legislatures. Some places have been successful, but others have not.

Registration fees and special excise taxes are another example of indirect user fee revenue. The flat fees tend to be regressive and tend to give low yields, he said.

Sales taxes. Sales taxes have been popular California because the control of the money stays local, which makes them more popular. Money that is collected and used locally is more acceptable, said Buxbaum.

General taxes. General taxes are a fair funding mechanism, Buxbaum said, because users are not the only beneficiaries of the system. Businesses and others—particularly the more affluent— also benefit from the system through general benefits to the economy and society. Thus, an income-tax-based system is a fair way to fund the system.

Matrix of Potential Revenue Options for Minnesota


Ed Idzorek

Ed Idzorek, Mn/DOT

Mn/DOT investigated a wide range of revenue strategies to create a matrix of potential revenue options for Minnesota. The investigation also looked at some local and regional considerations as well as factors influencing transit revenue under the current tax structure, said Ed Idzorek. The matrix includes existing revenue sources, modifications to existing revenue sources, and other potential revenue sources.

The analysis included the impact of higher numbers of more fuel-efficient vehicles, electric vehicles, and less expensive vehicles, Idzorek said. The matrix also reflects a number of other factors: the effect of increased availability of alternative modes, the effect of extreme volatility in fuel prices, public acceptance of tax method, tax equity, geographic applicability, ability to alleviate congestion, ability to reduce greenhouse gas (GHG) emissions, implementation complexity, stability of revenue generation method, and revenue generation potential. Mn/DOT analysts also referenced several completed national studies by the Transportation Research Board and the National Cooperative Highway Research Program.

A broad and growing range of revenue options are available, Idzorek concluded, some better suited to achieving specific goals. It may take multiple options to cover all goals. The next steps are for policymakers to establish goals and for technical staff to develop approaches to meeting those goals.

Resource Panel

David Levinson, RP Braun/CTS Chair in Transportation Engineering, University of Minnesota, Department of Civil Engineering

"Mn/DOT has identified $50 billion of unfunded needs for additional resources of which 86 percent are for the purpose of mobility over the next 20 years," David Levinson began. "I am not clear as to how these needs were identified, but several points should be kept in mind."

First, he said, this is a slow-growing region, with about five million people now and growing at 1 percent per year. Second, per-capita vehicle-miles traveled (VMT) has been flat for almost a decade, and overall VMT growth has been flat for about half a decade.

There are several reasons for this, most recently the recession and high gas prices, but the most important is market saturation, Levinson asserted. "If speeds are not growing and people have finite time, they choose not to devote additional time to travel (and thus distance)," he said.

"We cannot know what the need for mobility is if we have an unpriced (or underpriced) transportation system," said Levinson. People overconsume if they are subsidized, and people do not currently pay for the congestion externality they impose on others. "Once there is something like marginal cost pricing, we can determine which links generate more revenue than they cost to operate and maintain, and that will signal where capacity should be added, where the benefits of added capacity outweigh the costs," he said.

Another way to think about what $50 billion means is that in Minnesota, that amounts to $10,000 of new construction for each resident (because this is above and beyond preservation funds). Over 20 years, $10,000 per capita is $500 per year, or about $0.50 per trip.

"But that $0.50 per trip is not to pay for existing infrastructure," Levinson said. "If we were to charge users, we would be looking at 10 to 100 times as much per trip, as the new capacity built for $50 billion will serve only 10 percent to 1 percent of trips, because most trips will continue to use pre-existing infrastructure," he explained.

"Attention is a scarce resource; spending time on non-starters like $50 billion in mobility needs detracts from real problems with existing infrastructure," he asserted. "In short, the $50 billion suggested compromises—wants not needs."

Levinson also said the institutional structure of transportation funding and administration should re-examined. He contended that Minnesota should consider a public utility model in which a transportation authority or utility, with independence from the legislative and executive branches of government, determines how much is required to maintain (and as necessary expand) the transportation system, with oversight from a public utility commission or something similar.

A transportation authority would resemble how natural gas, electricity, water and sewer in many places are currently delivered, he explained. Like those services, transportation is a utility that has costs that users should bear as directly as possible. The user fee notion would be embedded into the governance structure of such a transportation authority.

Value capture has not been accurately characterized in the presentations, said Levinson. If there are no road user fees, transportation creates value for landowners. "Several of the methods proposed by the University's value capture study (www.cts.umn.edu/Research/ValueCapture) hold promise for financing transportation systematically, not just at the project level," he said.

In the short term, gas taxes, indexed and adjusted appropriately, should be used to fund transportation, as they are administratively much more efficient than road user charges, he said. They

David Levinson


Tom Stinson

have several advantages—foremost they are cheaper to collect than most of the proposed VMT charges.

"Ultimately as the fleet becomes electrified, the gas tax becomes a better…incentive," he said. Levinson offered this example: If today 100 percent of the drivers use gas and pay for 100 percent of roads, and next year only 50 percent of drivers use gasoline, the remaining 50 percent would pay for all of the roads by doubling the gas tax. That provides a somewhat stronger incentive to switch to electricity. If the following year another 25 percent switch to electricity, then 75 percent use electric and 25 percent use fuel and pay the motor fuel tax, which is now four times as high.

"Eventually this becomes unsustainable as the last driver of a gasoline-powered car could not possibly afford 100 percent of the road system's costs, but in the meantime the incentive works in the right direction for the environment," he concluded. "And since government is always a lagging indicator, retaining the gas tax for as long as tenable should be considered the near-term solution, with continuing research into road pricing, additional demonstration, and deployment of select strategies like high-occupancy toll lanes."

Tom Stinson, Professor, University of Minnesota and Minnesota State Economist

Tax policy is a challenging problem for the public sector. "It's a way to pay for services that are not provided for by the market," said Tom Stinson. Public sector funding is a particular challenge for economists because there is not one simple single objective: rather, there's a trade-off of objectives. While economists' stock-and-trade is devising mechanisms that interfere as little as possible with the market results, that may not be the most important part of selecting revenue sources, he said.

Stinson gave reactions to the morning's presentations. First, it is apparent that we may not want to look for a single solution for the funding problems. Given the mix of objectives, a portfolio approach may be a better option as opposed to one single approach to solve these problems.

Second, concern about a particular tax system's regressivity is not a strong argument. "What we're really concerned about from a social point of view is not regressivity of a particular tax but of the entire tax system," Stinson said. "If you think about the goal of reducing congestion or of climate change, it doesn't matter if greenhouse gas emissions are being caused by a low-income person or a high-income person."

Third, there is the issue of geographic rural equity. This issue offers another reason to consider a portfolio of taxes approach. Congestion is not the same kind of a problem in some areas of the state as it is in others, he said.

Revenue adequacy was also discussed. "You can index to a less volatile base than the price of fuels," said Stinson. Local sales taxes and statewide sales taxes, while they might be an attractive source of base revenue, fail the efficiency test because there is little connection to environment and congestion. "There's no connection to whether you bought a wide-screen TV and how much you contributed to congestion," he said.

Congestion has been discussed as a problem for a long time, but it is not resonating with the public. The environment is resonating much more. "Maybe that's the issue you use to address congestion problems," he said.

"Tom Gillespie, Minnesota State Demographer, has talked about the aging of the population. There's going to be a huge change in the demographics. You need to think about how that is going to affect the tax system," Stinson concluded.

Lynne Bly, Fresh Energy

In 2006, the legislators who asked for this report realized that change was going to happen in our systems in many ways, said Bly. "I think they realized that the changes had the capacity to really alter how we define our transportation system and its needs, influence our capacity to maintain and fund our transportation investments, and impact our environment and quality of life. The point of the language really was to urge those who are decision makers to think through the consequences of change," she said

Bly noted that similar discussions are going on around the state, regionally, and nationally. The Minnesota Climate Change Advisory Group process wrapped up its recommendations in May 2008. The Midwest governors have had a similar process ongoing with similar recommendations for rail and the transportation sector. The federal energy bill includes transportation and indicates that states will have to adopt targets and reduction strategies for carbon emissions. "We recognize that these policy issues are going to affect revenues and are going to call for shifts in priorities," she said.

A newly forged sustainable communities partnership between the Departments of Transportation and Housing and Urban Development and the Environmental Protection Agency offers some guidance. Additionally, the Federal Transit Administration is giving larger weight to environmental quality, increased efficiency, livable communities including integration with transit, and less dependence on foreign oil in their its grant round, she said.


Lynne Bly

Conversation Circle Discussion

Moderators: Robert Johns and Gina Baas, CTS

Gina Baas described the conversation circle discussion format as a way for everyone to share and participate, challenge assumptions, and respond with comments. In the conversation circle format, speakers sat in an inner ring of chairs and participants sat in satellite-style seating, branching from the circle. As the discussion evolved, new members entered the circle and others exited. Participants were asked to answer three questions.

Questions #1: What potential direct and indirect effects would the revenue options discussed this morning have on Minnesota's environment?

Dave Van Hattum (Transit for Livable Communities) said policymakers need to have clear goals. "We've set some goals, but revenue goals must meet environmental goals." He called for goals for land use, emission fees, modeling, and carbon trading.

Jim Erkel (Minnesota Center for Environmental Advocacy) said if the use of roads is priced more intelligently, there will be less road use, fewer miles traveled, and less vehicle emissions. "If roads are going to pay for themselves," he said, "they need to cover those kinds of externalities, which probably means less driving, and that will have beneficial effects and will affect how people will live."

Lynne Bly (Fresh Energy) said some kind of pricing structure coupled with a more equitable solution is what we're striving for—trying to get people to drive less.

Johns asked, "Are there some revenue options that you thought might not be good for the environment?" Erkel responded that more of the same won't accomplish multimodal and energy conservation goals. "We should make it transparent how roads and transit are paid for," he said.


Robert Johns


Ryan O'Connor


Randy Halvorson


Melissa Hortman


Fred Corrigan

Senator Scott Dibble posed several questions: "What do we want for ourselves? We haven't settled questions about the kind of development and the kind of economic future we want. We need to build the system to support that. What is that $50 billion buying us? Can we get more for the dollar? Answer those questions first and then figure out what kind of transportation can support it," he said.

Johns asked Senator Dibble if he could discuss any funding mechanisms. Dibble responded that we should take a look at congestion pricing, license tab fees, and vehicle-miles traveled systems. "I'm glad we're also talking about public acceptance," he added, because the public will need to understand why they are paying for things that were once "free," he said.

Representative Andy Welti said fees based on vehicle-miles traveled and carbon use are not an equitable revenue source for those who live outside the metro area. "Think about the farmer, who has to get into the pick-up truck … and has more miles to travel. Think about people living off the land, who live 20 to 40 miles from town, and as a result have more miles to travel. When you look at it from the metro area, [VMT pricing] makes sense, but we need to take a regional approach that makes sense. In Greater Minnesota, we're trying to keep people in our areas," he said.

Randy Halvorson (Cambridge Systematics) said the public is willing to pay for things they value. The federal level is setting goals and performance measures. "I've been involved in a federal research project, and Minnesota ranks well. We need to ask what specific performance measures the transportation industry wants to achieve. Of the areas where performance measures are being set, the environmental one needs the most work," he said.

John Hausladen (Minnesota Trucking Association) said moving freight is different from moving people. There aren't as many transportation options for freight, but there is pressure for freight to get to its destination. "A punitive approach will not work," he said. The trucking industry is different—truckers pay taxes quarterly. "Most people don't know what they pay yearly at the pump. We should link funding revenue more directly," he said. "The most direct way is to have an end user payment."

Representative Melissa Hortman noted how gas prices affect land use. "When gas costs more, people drive less," she said. We need to accept that the gas tax is the best way to reduce driving and cut emissions.

Question #2: What factors, positive and negative, must be considered for successful implementation of these options in Minnesota?

Margaret Donahoe (Transportation Alliance) said we have a lot of need, and she defended Mn/DOTs $50 billion revenue gap figure. The local road system could add another $50 billion to that need figure, she said. "We need to know how much each revenue source can raise. If we're going to look at vehicle-miles traveled, are we getting ourselves into a 'cigarette tax' situation? The cigarette tax is a good thing to reducing smoking, but revenue goes down as people stop smoking cigarettes," she said.

Representative Frank Hornstein warned, "Just to say the word revenue will be interpreted as a tax and it will be interpreted as a new tax. This debate will not go away." He asserted that this has to be resolved politically. "I'm going to argue that we have to raise revenue. We have two competing philosophies—tax or not tax," he said.

Fred Corrigan (Aggregate and Ready Mix Association) said we can't have just one revenue source. He also argued that we need to look at land use implications, both positive and negative, to make sure we have the infrastructure to support development.

Hausladen said “the trucking industry is far more willing to pay a fee because the incentive is more clear, but don’t make it punitive. It’s a business decision. Whatever revenue option is chosen, it needs to be clear what the public is getting.”

Erkel said it’s easier to sell construction projects, but what’s needed is maintenance. Hortman responded, “I’m not insensitive to maintenance, but we need to be less dependent on property taxes. There are ideas that are nice, then there are those that will pass.”

Darrel Pettis (Le Sueur County) addressed several local government issues. “The county I live in does not have transit. The county I work in does not have transit. The state government revenue problems mean less state money for local governments. I get nervous when talking about property taxes. With a transportation utility fee, there might be possibilities there. But keep the property tax for the local system. Our system supports freight. All trips start on a local road. We are an important part of the transportation system. Property tax is our bread and butter.”

Question #3: What are the public policy implications of these options?

Ryan O’Connor (Minnesota Association of Counties) asked if access to transportation is a rights issue or an environmental justice issue?”

Polly Bowles (Metropolitan Council) said, “All the issues we face are so intertwined, all affect each other. Transit can drive land use, and land use can drive transit.” Some people have a choice of where to live, but others don’t. “With affordable housing, we have to provide transportation as a reasonable choice and we have to spread affordable housing around. We need to look at policy implications on other goals,” she said. This is not just about the transportation system—it’s about livability choices, she said.

David Levinson (University of Minnesota) said there’s no reason to be first at anything. “We can learn from others who have done it, and then do it better. I haven’t heard the word crisis yet today because it is not a crisis. The whole system will not fall apart. Thinking about it long term is wise. In 20 to 30 years, the technology will be totally different.”

Jayme Trusty (SW Regional Development Commission) said our freight moves west, and as we get more restrictive in Minnesota, businesses move to South Dakota. Companies compare where to locate. “There needs to be a mix of revenue options,” he said. “Doing nothing is the worst approach. The places we’re competing against are not doing nothing,” he said.

Bly noted that the Midwest governors are recommending a regional approach. If you drive, you have an obligation to the operation and upkeep of the system, she added.

Van Hattum said cities and public transit have always coexisted. “Let’s not wait. There are too many pressing issues. There are public policy implications of doing nothing. We’ve had a reprieve with stimulus money, but funding will become difficult again.”

Levinson responded that transportation is a personal choice. Technology, however, may make transit more appealing in the future.

Hornstein said the 65-and-over population will soon represent 40 percent of our community. “We will have to recalibrate our whole system to that reality.” It has to be a multimodal system with much heavier investments in transit and electrical.

Darrel Pettis

Polly Bowles

Jayme Trusty

Reactor Summary

Jeffrey Buxbaum, Cambridge Systematics

Buxbaum observed agreement in the room and a realization that solutions are needed soon. "I'm not sure that attitude will carry outside of this room, but there is a great understanding that something needs to be done." The policy objectives will be expensive, and which of these concepts has promise? "In Minnesota there will have to be compromise to move forward," he said.

"We may wish we had a system that matches more closely to what we want to better address environmental challenges," said Buxbaum. "Some people will win and some will lose. The challenge is what to do about that loss," he said.

"I heard a lot about demonstrating what we're going to get for the money," he continued. "We need to figure out a system where people will benefit."

"Something that didn't come up is that it's complicated," he continued. "We will need to develop tools to help figure it out." The matrix outlined by Ed Idzorek is great, but there are too many options. "You need to shorten the list of options. Some things can be eliminated right away," Buxbaum said.

Closing Panel Comments


Dave Van Hattum


Peter McLaughlin

Dave Van Hattum, Transit for Livable Communities

"We need to reflect on our collective values," Van Hattum said—and that is complicated. "At Transit for Livable Communities, we think it's about more choices, equity, and giving the locals a say. What will climate change be in 100 years, or demographics, or sense of place? We want walkable and bikable communities. What if we do have cap and trade and it really changes the cost of energy to the point of $9 gas? What does that mean to Minnesota?"

Peter McLaughlin, Counties Transit Improvement Board

"How are we going to pay for it?" asked McLaughlin. "The test here is, can the ideas for raising the money trump one idea—no new taxes?" There is no crisis today because the legislature overrode the governor's veto to increase the gas tax. But there is a structural problem looming in the near future. "I believe in proper pricing, on a national level," he said. "The gas tax is back as an interim strategy." Representative Welti's comments about rural Minnesota and vehicle-miles traveled could follow a different schedule for farmers.

Margaret Donahoe, Transportation Alliance

The alliance advocates for all modes of transportation. "They all have an impact on highways and transit. That's going to be a discussion at the federal level," Donahoe said. The Transportation Alliance will have more discussions in the future. "We do know through our successes, everyone has to be on the same page," she said. Dedicated funding is important; having MVST funding phased in is problematic. Public acceptance is really critical, she noted.

Jeremy Estenson, Minnesota Chamber of Commerce

"We recognize that the transportation system is the lifeblood," said Estenson. "We helped to move a few votes on the legislative override because we recognize that businesses will move elsewhere."

John Hausladen, Minnesota Trucking Association

Hausladen applauded those who helped pass the transportation amendment. Many in the audience represent users who pay the bill. There is an unspoken value of transportation to society. Is there anyway to quantify that, he asked? If there is high value, there should be tax implications. “We need to have transparency in tax mechanisms. Roads and waterways are not free,” he said.

Michael Noble, Fresh Energy

“There are compelling reasons to run on electricity—primarily, it costs less,” said Noble. It’s also an investment opportunity and a national security issue. Noble described an innovative project called the Smart Grid, headed by Xcel Energy in Boulder, Colorado. “I’m in favor of raising the gas tax, but we also need to plan for a transportation system that doesn’t run on gasoline,” he said. “What we’re really doing is designing the communities that we live in. As a population, we are aging. We’re not doing this in a vacuum. It’s controversial to talk about land use planning.”

Margaret Donahoe

Jeremy Estenson

John Hausladen

Michael Noble

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