



Mileage-Based User Fee Public Opinion Study

Summary Report Phase II (Qualitative)

Final Report 2008-55

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16. Abstract (Limit: 200 words) <p>In 2008, a series of follow-up focus groups was conducted with drivers in Minnesota in order to further understand their perceptions of a mileage-based user fees, especially in light of a several of major transportation events including an Interstate bridge collapse, soaring gas prices and a motor fuel tax increase. Overall, Minnesotans are much aware of the recent transportation-related events because they received substantial media attention and because skyrocketing gas prices had induced some changes to driving behavior.</p> <p>Unlike drivers in the Phase I focus groups, it appears the recent events have impacted drivers to the degree that they are now able to make the connection between current events and the long-term impacts on transportation funding. While some are able to understand and express this issue independently, others need to have the connection made for them. Regardless, participants understand the connection and agree that a decrease in the number of miles driven or reduced amounts of gas purchased will result in less revenue available from the gas tax. Some see the situation as ‘zero-sum’ in that they believe the impact of driving fewer miles or driving lighter, more efficient vehicles will create less damage to the roadways and, therefore, require less revenue for repair.</p> <p>While few had heard of a mileage-based user fee concept prior to the focus groups, they understand the concept and appear to perceive it as a logical alternative which maintains the “pay for use” aspect of the current gas tax. Participants’ understanding of the concept was underscored by the types of questions raised, which attempt to understand the details of how the program might be implemented.</p>			
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BACKGROUND, METHODOLOGY AND OBJECTIVES**Background**

Transportation authorities nationwide are facing the challenge of deteriorating infrastructure and increased construction costs; however, increased gas prices are leading to an increased use of hybrid or energy-efficient vehicles and reduced driving, resulting in decreased funds for transportation. Sentiment is growing among planners that the “gas tax,” which is a key source of transportation funding in the US, is generating inadequate levels of funding due to an increasing array of vehicle and fuel types, and will become even more unreliable in the future.

One of several alternative funding sources being considered by transportation planners is a mileage-based user fee, which would tax drivers based on the miles they drive, and possibly when and where they drive, rather than the amount of energy they use.

Most of the current initiatives and discussions are focused on technical and policy issues and disregard the critical dimension of public opinion regarding purpose and need. Without an understanding of public perceptions and acceptance, it is unlikely that these initiatives will win support. This project proposes to supplement and enhance the ongoing and proposed work of other efforts by understanding public attitudes, awareness and potential conditions for public acceptance.

The Minnesota Department of Transportation is conducting a multi-phase research study around this topic, including:

- Phase I – Qualitative Research – May/June 2007¹
 - Online bulletin board discussion held with experts in the field of mileage-based user fees from May 16, 2007 to June 11, 2007
 - Ten focus groups conducted with Minnesota drivers from June 19, 2007 through June 28, 2007
- Phase II – Qualitative Research – August 2008
 - Nine mini-focus groups conducted with Minnesota drivers from August 11, 2008 through August 21, 2008

The insight gained through these two qualitative research phases will be used to develop the final, quantitative phase to understand the perceptions and level of acceptance among the Minnesota public regarding the implementation of a mileage-based user fee.

The findings of the Phase I research were reported previously. The full, final report from this phase can be viewed and downloaded via www.lrrb.org/pdf/200750.pdf.

This current document reports the findings of the second phase of research.

¹ It should be noted that all market research is a ‘snapshot’ of the point in time during which data collection occurred. These groups were conducted in June 2007 and reflect opinions and observations prior to the collapse of the I-35W bridge.

Objectives

The primary objective of the Phase II qualitative research was to understand the perceptions and level of acceptance among the Minnesota public regarding the implementation of a mileage-based user fee. Specific questions to be addressed during this phase of research include:

- Assess how, if at all, events of the past year have affected the Minnesota public's understanding of transportation costs and future funding issues
- Test the understanding and acceptance levels of the public regarding explanations of:
 - How transportation funds are collected and how they are used
 - Potential long-term impacts of the forces affecting transportation funding
- Solicit ideas for solutions to possible funding deficits and compare and contrast features of a mileage-based user fee to some other types of alternative funding mechanism as selected by group participants
- Probe and clarify extensively the details of different mechanisms, specifically working to understand aspects of fairness, privacy, equity and veracity of reporting for each mechanism and identify any issues that may be seen as "show stoppers"
 - Find viable solutions for those issues that are "show stoppers"

Intended Use

This information will provide, if possible, verbiage for presentation of the mileage-based user fee to a broader audience by explaining how the need for a new or replacement fee might be best described and communicated to stakeholders and public alike.

Methodology

The information provided in this report was collected qualitatively through research discussion groups.

- Nine mini focus groups were conducted in three different locations within Minnesota
 - Five groups were conducted in the Twin Cities Metro area
 - One of the Twin Cities groups was conducted with individuals who participated in the 2007 groups
 - Remaining four groups were conducted with new participants
 - Four groups were conducted in outstate areas – two in Duluth and two in Mankato
- By design, the groups conducted were smaller than standard focus groups – averaging 6 or 7 per group – in order to allow the moderator to explore ideas, provide educational insights and dig beneath the surface of comments to gain deeper understanding of perceptions.
- The 60 participants were adult residents living in the specified areas who:
 - Were age 18 to 69
 - Owned or leased a vehicle and had a valid driver's license
 - Did not work:
 - for an advertising agency or public relations firm
 - for a marketing research organization or department
 - for any local or state transportation agencies
 - in State Legislation
 - as a Commercial Driver
 - for a TV or radio station or for a newspaper
- The focus groups were conducted from August 11th, 2008 to August 21st, 2008 and were moderated by Bob Fichtner of The Dieringer Research Group.
- Participants were offered \$75 for their participation in the focus groups, which was higher than the previous phase due to the full 2 hour commitment and expectation that their participation would be at a deeper level of exploration than for most focus groups.

A discussion guide was developed by The Dieringer Research Group, with input from Mn/DOT. [See the discussion guide in the Appendix for the exact questions asked.]

A key finding of the Phase 1 research was that transportation is something that the public rarely thinks of. Many saw roads as a ‘given,’ and they thought of roads only when something significantly inconveniences them. They were, on the whole, unaware of how roads are funded and how money is spent. Because of this, the discussion guide for the second phase was drafted with an initial period of “setting the scene,” in which the moderator would briefly educate participants on how transportation monies are collected and spent, so that the majority of the discussion could focus on eliciting potential solutions and understanding perceptions about mileage-based user fees, more specifically, as a road funding option.

Statistical Reliability and Limitations

Qualitative research is exploratory in nature. It is used to define the important issues and attitude parameters in relation to a particular subject. Because of the small number of people involved, the moderator can probe beyond the initial response into participant attitudes and perceptions. They are a very useful tool in finding out not only how people feel, but also why they feel that way.

However, due to the small number of participants, the results of focus groups are not statistically projectable across the population as a whole. Therefore, the reader is cautioned not to project the findings of these groups to all Minnesota residents; instead, these findings are intended as directional in nature.

Conclusions and Recommendations

Based on the results of the nine focus groups in this phase of research, as well as overall learnings from the focus groups in the initial phase of research, The Dieringer Research Group, Inc. would like to offer the following conclusions regarding the public acceptance of a mileage-based user fee and recommendations regarding the next phase of research:

Transportation – General Awareness/Concerns

In general, the topic of transportation is not an everyday topic for consumers unless something happens that causes personal inconvenience, bringing it to the forefront. Examples of such occurrences include congestion, major construction, a bridge collapse or other high profile news event, high gas prices, etc. Even relatively “minor” issues such as a pothole on their street can elevate the topic of roads in their minds. However, the urgency often fades with time (or the pothole is fixed) and people go back to the daily lives.

While recent issues such as the bridge collapse, gas tax increases and the soaring cost of gasoline have increased awareness levels, many consumers remain fairly unsure of how transportation is funded or how that money is spent. However, when it is explained to them, they understand that a sizable portion of funding comes from gas tax and there are forces affecting those funds.

Alternative Funding: First Illustrate the Need

Before broaching the topic of investigating or developing an alternative funding source, transportation officials must fully explain to consumers why an alternative is needed. Steps include:

- a. **Educate** – Mn/DOT must make the complex issue of transportation funding and financing easier for the public to understand.
- b. **Make it relevant** – Cite recent events, for instance, at the time of the second phase of focus groups:
 - i. Increased gas prices led to less or more economical driving choices which meant less gas needed/purchased
 - ii. Increased construction costs due to increased oil and steel prices have continued the past 10+ years
 - iii. Congestion costs reaching beyond big cities to increase costs of good and services across the country
- c. **Connect the dots** – Explain that less driving means less gas purchased which means less gas tax paid which means less funds for transportation

In Seeking Solutions, Familiarity Rules

Consumers appear to favor familiarity over perfection: that is, when brainstorming solutions to transportation’s issues of closing the funding gap, alleviating congestion and limiting energy use and pollution, participants raised familiar options, such as raising sales or income tax, increasing vehicle registration (known to participants as “tabs”), or implementing a tolling system. They recognize that these options may not be perfect, as they may not address each of the issues transportation officials are struggling with, but believe them to be acceptable as few options would be perfect.

Humans are naturally resistant to change. Transportation officials must take this into account when considering a shift from the current gas tax to a new funding system. Again, education plays a key role in ensuring public acceptance. It is essential that transportation officials begin the process by educating the public about how roads are currently funded and why a change in funding sources is needed. On their own, most consumers don’t realize the current system is broken and will only get worse and, therefore, believe change isn’t required. Officials must introduce the proposed solution, explain how the new solution will work and why it is superior to the existing system. Without this communication process, negative perceptions will arise and the public will likely be resistant.

Some people felt that more transparency was required to better understand where their dollars go. With additional information and/or better political leadership, alternative solutions may surface.

Mileage-Based User Fee – First Explain to Increase Familiarity

Few drivers are familiar with the concept of a “mileage-based user fee” as a potential solution to closing the probable gap in transportation funding. While the concept is new to most drivers, participants understand the basic idea, and perceive it as a logical approach which maintains the “pay for use” aspect of the current gas tax.

When introducing the concept to the public, transportation officials should highlight the “pay for use” aspect, in that individuals are charged based on the number of miles they drive, (it is not unlike the gas tax), to help drivers equate this new concept with others they are familiar with, such as their home natural gas or electric bill. Helping to make this connection may increase the public’s comfort level and willingness to accept it as an alternative solution.

Potential Barriers to Mileage-Based User Fee

Several barriers to a mileage-based user fee were identified which will be critical to address proactively, include:

- Overarching concern that more money out of pocket will occur from their driving habits
- Concerns about the potentially high cost to implement and maintain such a system
- Fears for privacy in the technology, both in terms of being watched by “Big Brother” and in terms of keeping data secure
- Desire to be able to confirm that the data is accurate
- A perception that the system is too complicated and that it adds unneeded layers of bureaucracy
- Hesitancy to penalize people for driving habits they can’t change, for example not being able to adjust their work hours if a “time of day” model is used

- Concerns of fairness (reasonableness) and equity (does it more negatively impact one segment of society over another), specifically:
 - Lower income individuals are less able to purchase higher efficiency vehicles (should a mileage-based user fee include a charge for vehicle efficiency)
 - Some workers may be unable to adjust their hours (should a “time of day” charge be included)
- The perception that reduced driving means less “wear and tear” on the roads, (which would require less repair and, therefore, less transportation funds).
- Funding roads based on where miles are driven could leave rural, “less-traveled roads” underfunded.
- The desire, want and need to keep transportation issues in the forefront of public’s awareness by reminding drivers of how they have been impacted by recent events, such as the bridge collapse and high gas prices, even after those events have been resolved (i.e. the bridge rebuilt and reopened, gas prices having decreased, etc.).

Provide Information and Solutions Proactively

Transportation officials should increase the transparency of MnDOT’s efforts among the public to provide the information the public is seeking. Specifically, they should consider:

- **Develop full communication campaign with a website to serve as main source of information.** Transportation departments in different states have found that informational websites can be very effective in proactively communicating information. Given the large amount of information that needs to be communicated with the public, and their need to process it at their own speed, a website may be the ideal vehicle for the majority of the population. It also allows for a **Frequently Asked Questions page** to be updated regularly as new concerns are raised.
- **Implement the new system in stages.** While participants in these groups appeared comfortable with the basic mileage-based user fee concept, they became quickly overwhelmed with the detailed Time of Use model, which includes measuring both when and where miles are traveled. Participants specifically suggested that public acceptance would be greater if the transition occurred in phases, in conjunction with the education pieces, allowing the public time to acclimate to each. These transition periods will be particularly important to the older generation, who is less accepting of technology.
- **Start basic.** As mentioned, the ultimate design of a mileage-based user fee solution depends on the goals of transportation planners; however, if they are interested in gradually introducing the concept, the initial phase should be a basic model where an on-board device simply captures the number of miles driven. Public’s preference for how the data is retrieved can be tested during the next phase of research.
- **Add features once public is acclimated.** Once drivers have become accustomed to the concept/device, additional features could be added. The recommended next step would be to add on the concept of which roads are being driven. Participants viewed this concept as less invasive than the “time of use” model. It appealed to the public’s desire for ‘fairness,’ as it allowed for funds to be allocated based on use, and raised fewer privacy concerns, such as being watched by “Big Brother.” **It will be necessary to**

understand the depth and breadth of these concerns in the next phase of research to aid in developing educational pieces to minimize or alleviate the public's concerns.

Recommended Next Steps – Quantitative Research

The findings from both phases of this research are fairly consistent and few questions remain that need to be explored in depth. The goal of these two phases of qualitative research has been to help uncover all the different ways the public thinks and feels related to transportation. It is the opinion of The Dieringer Research Group that the research to-date has prepared us to move to a quantitative phase, which will help to measure how many people feel and think certain ways.

Given the need to educate the public about the need for an alternative solution, The Dieringer Research Group recommends a phone/mail/phone methodology for the quantitative phase of research for this project. The perceived benefits of this methodology include the ability to:

- a. Recruit a representative population of Minnesota residents, as well as within targeted segments (such as high and low efficient-vehicles and long-distance commuters)
- b. Provide participants with written documentation to “set the stage” with reasons why a change in systems is needed and introduce the mileage-based user fee system
- c. Collect participant’s perceptions to the concept through follow-up telephone interview, with the ability to clarify answers as needed.

SUMMARY OF FINDINGS

The initial phase of research highlighted the need for education regarding transportation funding sources and potential funding issues. For this reason, the second phase of focus groups were designed with an initial education period and a more focused approach. Below are the key findings of the research:

Unlike those in the first phase of groups, these participants were aware of the recent transportation-related events, such as the collapse of the 35W Bridge and deterioration of other infrastructure, skyrocketing gas prices, reduced driving or a switch to more efficient vehicles. It appears the recent events had impacted drivers to the degree that they are now able to make the connection between current events and the long-term impacts on transportation funding.

While some are able to understand and express this issue independently, others need to have the connection made for them. Regardless, once the connection is made, participants understand and agree that a decrease in the number of miles driven or reduced amounts of gas purchased will result in less revenue available from the gas tax. Some see the situation as ‘zero-sum’ in that driving fewer miles or driving lighter, more efficient vehicles will create less damage to the roadways and, therefore, require less revenue for repair.

Few had heard of a mileage-based user fee concept prior to the focus groups; however, they understand the concept and appear to perceive it as a logical alternative which maintains the “pay for use” aspect of the current gas tax. Participants’ understanding of the concept was underscored by the types of questions raised, which attempt to understand the details of how the program might be implemented, rather than basic, conceptual questions. Key questions raised include:

- Would the program be state or nationally based?
- Who would send the bill?
- How would international driving be handled?
- Would it be based on more than simple mileage – for example, include the weight of vehicle to account for wear and tear?
- What will the cost per mile be?

Several participants also understood that the technology needed to implement such a concept currently exists; however, as seen in the previous wave of research, drivers believe it will be costly to implement and are often concerned about the amount of information the government would have or be able to collect on individual drivers. Comments of “Big Brother watching” were raised even before any details of the concept were discussed.

Comfort levels with the concept appear to be inversely proportional to the level of detail that is collected. For example, participants were much more wary of the variation of the concept that would “track” the roads drivers use in order to allocate funds. They tended to prefer a simpler method where only the number of miles driven collected and that other methods be used to distribute the funds where they are needed. A minority of the participants did agree that finer detail in the information gathered would be necessary to ensure dollars went to the roads they used in particular.

Several participants suggested that making a change from a gas tax to a new system would take time, as the public does not readily accept change. Public transportation officials and leaders should be prepared to:

- Educate the public on the issue and why a change is needed
- Plan to implement the changes in stages, not all at once
- Allow the public to become accustomed to the various stages before proceeding to the next.

Transportation officials should also be ready to answer expected objections such as:

- Belief that a user fee may leave “less-traveled roads” under-funded
- The perception that less driving overall will mean less maintenance needed

DETAILED FINDINGS

Phase I Confirmation Group

Due to the many transportation related events that have occurred and have been in the news since the initial phase of research, a follow-up group with eight previous participants was planned to understand the impact of those events on perceptions. It was believed that because the awareness levels of these individuals had been artificially heightened through the original discussion about transportation and road funding, a topic that the general public does not usually consider in such an in-depth way, they may have been more aware of recent events and that their perceptions may have changed. This “Phase I Confirmation group” was conducted with a randomly selected group of eight of the 35 Twin Cities residents who had participated in the discussion the year prior. The findings of this group are outlined separately from the other Phase II research findings, but are combined into the overall summary.

Exploring the Participants’ Knowledge Base

The discussion of this group began with the moderator asking participants what they remembered from the previous discussion. Most seemed to retain an understanding of the issue at hand: looking for how to fund highway maintenance and repair. They also recalled discussing the current condition of the roads and a concept of a user fee based on miles driven. Concerns of privacy issues, specifically a Big Brother concept and knowing where people were driving seemed to have stuck in the minds of the participants. One remembered comparing the user fee to the gas tax. Some also remembered discussing public transportation and the light rail system.

The participants were then asked what had happened with respect to transportation since they last met. Not surprisingly, the collapse of the bridge was mentioned first, followed by the increasing price of gas, raising the gas tax and changing consumers’ driving habits including:

- Cutting back on total miles driven (One participant identified that this means less revenue for the Department of Transportation)
- More planning or consolidating of trips and errands to reduce driving
- Buying smaller cars
- Moving closer to their jobs
- Changing work schedules to decrease the number of driving days to work (four ten hour days rather than five eight hour days)

After participants mentioned the gas tax had been increased, the moderator asked how much it had increased. Given that these participants had been sensitized to the topic through the previous group, it was expected that they would be more cognizant of the gas tax; however, many were unaware of the actual amount of the gas tax increase. A few were correct in saying it was raised 2 cents. One person mentioned that there would be incremental increases in the gas tax, rather than one large increase. But others appeared to be unconcerned about the increase, considering it to be minimal compared to the drastic increase in the price of gas.

I think it was dwarfed by petroleum prices. Two cents a gallon now, it’s like, ‘who cares?’

It was such a flash [in the pan] in the time frame of gas price increases.

Impact and Implications

After having reviewed the transportation related events of the past year, participants were asked how they have been directly affected and what they believed the broader implications were.

Impact Personally

On a personal level, many participants indicated that they are changing their driving habits by driving less, combining errands or skipping family trips. Others mentioned that while they're still driving the same number of miles, they're making economical decisions by looking for the best deal on gas or driving the most economical car, sometimes by sharing or trading vehicles with family and friends. One participant also said that she drove slower on one of her trips to try to save gas and found that road conditions affected her gas mileage.

...the road conditions in every other state were better than Minnesota's. And it affected the gas mileage to the tune of two miles per gallon...

Another participant who was getting ready to finish school indicated that current issues would play into her decision on where to work; not only gas prices but also congestion.

It's not just gas, also, it's time with traffic. Both of those things, I call that the hassle factor, and I will not spend my whole day driving and I won't spend the money to drive extra. [I'll] work closer to home.

The impact of fuel prices on the economy in general was also mentioned. One participant noted that she is more affected by the rising price of food and other goods than by the price of gas.

We don't have much problem with gas prices because we don't drive that much. But we notice that other things that the gas brings to us, the trucks and things, have gone up a lot. Some of the things you see in the grocery store, you just say, I can't believe that oranges are forty-two dollars a piece or whatever. That's been the thing I've noticed.

Broader Implications

When asked what the bigger picture or the broader implications of these changes were, participants had several ideas, with many relating to economic impacts.

One participant mentioned that with changed consumer habits leading to less money being collected through the gas tax, the revenue system would need adjustment. Along those same lines, another indicated that the gas tax will become outdated and even with an increase; there will always be a shortfall.

One sort of the shift that I'm seeing is that for roads in particular, currently roads are funded by, primarily, a gas tax. And with people driving less, more

fuel efficient vehicles, whether it's smart cars, hybrids, that'll continue. I would predict that the outcome of this is going to be continued crisis, inability for funding for the infrastructure.

Ultimately, how the roads are being funded and repaired needs to be adjusted to reflect the new paradigm of how we're driving. And if that means it gets a higher gas tax, based on increase of fuel efficiencies of all vehicles, if it's based on different tax, and maybe it's based on annual mile usage. Maybe every year, you report your mileage for the previous twelve months, and you pay fee, that's how you do it. I don't know, but I do think that having it directly tied to gas, it will continue to cause a shortfall.

Participants believed that higher gas prices will put more of a burden on those not able to buy more fuel-efficient cars.

Plus, we'll also likely be unfairly burdening lower-income populations because they're the ones who are going to be least likely to afford to upgrade to a new car with better gas mileage.

A few participants noted that the modes of transportation would change, particularly citing an increase of rail traffic to transport goods across country as opposed to trucks.

And now I'm noticing a lot more rail traffic when I'm driving, especially when we go up North. There's a lot more rail traffic with the double stacked cars, and moving things more than they did. Whereas before, you'd see it on the road.

How much is transferred to rail system, I don't know. I saw that same thing last weekend. A lot of double-deck trucks on trains.

Other mode changes mentioned included Smart cars, Segways, and bikes. A need to rework mass transit with the light rail system was also mentioned. Participants were interested in expanding the system so it would be easier to use and would make more destinations available.

Setting the Stage

The moderator provided information to the participants to “set the stage” and to be sure that all understood the problems at hand with decreased revenues from the gas tax. This information, including sources of revenues, how monies are spent, and how recent events are decreasing revenues, helped to paint the picture so participants could brainstorm potential solutions to the problem.²

Most participants seemed to understand the information and absorb it. One participant believed that if people are driving less, one might expect that there would be less wear and tear on the

² The slides shown by the moderator are included in the appendix of this report.

roads. However, discussion within the group concluded that much of the road repair in Minnesota was due to effects from the climate as opposed to the amount of road use.

Discussing Solutions

With this mindset, the group began discussing solutions for the growing gap in funding. One participant thought that funding towards R&D to build longer lasting roads would be a way to reduce costs.

So if asphalt's 26% more expensive, is there something better that they can use that maybe will cost 10% more today, but over the life of the road, it will cost less.

At this point, the moderator added a few more details that would help guide the discussion of further solutions. He added that transportation planners have three things in mind when considering a solution, specifically:

- Closing the funding gap
- Helping to alleviate congestion
- Dealing with energy use and pollution.

Based on this additional insight, participants suggested a variety of solutions, including toll roads, a type of income tax, and a road fee not related to any type of user. One participant did mention a mileage-based user fee type scenario with drivers paying for the number of miles driven within a year or having an allowance of sorts. Another idea was to incent or even force employers to have flexible schedules to alleviate congestion by encouraging off-peak driving.

One participant suggested reviewing best practices of other states to collaborate on what is working and what is not. They thought that perhaps the courtesy lanes they had seen in other states may work in Minnesota to help alleviate congestion. Later in the discussion, another expanded on this idea by including Europe in resources for best practices.

Another participant said that an operating tax, such as Minnesota's tabs, should be in place so that everyone would pay, as they believed all benefit from the roads, regardless of how much they drove. They also stressed that this money would have to be dedicated to the roads and could not be used to fund other items.

With a general tax identified as a solution, the moderator asked how the group felt about it and whether everyone benefited from the roads equally. The response was that although it isn't necessarily equal, taxes often work this way.

But there's a lot of things you pay for, I'm not on welfare either, but I pay for it. You know what I mean, all of the things that you pay your taxes for, you may not benefit from ever. But that's what you pay your taxes for.

Taxes are not equal, but it's for the common good.

Your taxes are not equal, but everybody does benefit from the roads, whether you drive on them or not. It may not be the same amount, but everybody does benefit

from that. Not everyone chooses to use the library, but you pay your taxes and it's there for you to use if you want to. If everything was equal, this would be a different kind of country.

Implementation Strategy for the Solutions

With all these ideas now on the table, the moderator asked the group to narrow the list to the top two or three solutions they believed offered the most promise or were the most feasible. The three that were selected were tabs, a general tax and the mileage-based user fee.

Registration Fee/Tabs

Participants disagreed as to whether the registration fee should be a national or state-run fee. Those who preferred a national standard believed that the fees should be consistent across states; however, others believed the fees should differ by locale because costs would differ.

Certain locations, it costs more to hire the labor to maintain the roads, such as New York or California versus Brainerd. You know, it has to cost more in some areas and less in others. So they have to take into consideration the locale.

Participants believed that other aspects should be factored into the cost, such as the age or weight of the vehicle or whether the vehicle was dedicated to commercial or private use.

I'm assuming we're also talking about private versus commercial vehicles. Because if we're not, I do think commercial vehicles create more wear and tear on a road than a private vehicle. So I think weight is a critical factor.

Some believed that an incentive could be added, for example a discount on tabs, to encourage people to drive more efficient vehicles.

I'm just wondering if there's some way to try and provide an incentive, whether it's electric in the future, or mileage, or whatever. A rebate, a discount off your tabs.

Income tax

One participant pointed out that this type of fee may be more prime for implementation as it is something that is already in place; another piece would just be added on.

I mean, we already have that system in place. It's just adding an additional piece to it.

Emotions were mixed on the structure of a transportation related income fee; some thought a flat fee was appropriate while others thought it should be based on income. One participant mixed the two ideas and mentioned a fixed percent that would be added onto the income tax.

To me, this is the idea of just putting in a general society infrastructure cost thing, that states are going to pay for their state roads, Federal is going to pay for the interstate roads. And therefore, everyone in the country is going to bear some portion of that cost. So to me,... that's some fixed percentage that's being added now onto the total income tax percentage.

They believed that this fuel related income tax should replace the other fuel taxes.

But if we had the income tax thing, then we want to take the fuel taxes off and all those other little taxes so we just have one tax, right?

Mileage-based User Fees

The group then headed into discussing how a mileage-based user fee should work; whether the fee would be based on actual or projected mileage. To keep ahead of the game on funding, one participant said it would be good to project miles used and reconcile them the next year, similar to how mileage is estimated for a leased vehicle.

I think you have to make an assumption of how many miles someone will drive in the future year. So I think you have to deal with the projection and the reconciliation of past actual.

Another disagreed and said that they would prefer pay actual miles driven rather than estimated.

A few participants played the devil's advocate and raised some potential issues, such as:

- How would monies be allocated from multiple state commuters?
 - One solution was to pay based on a national figure and it would go to the state where you live.
 - One mentioned it might go to a national fund.
- How would it be monitored?
 - How does one ensure accuracy?
 - How do you ensure fairness if the car is sold?

At this point the moderator raised the topic of a device that would be installed in the car to count the miles driven. The intent was to gauge issues about the device not monitoring where the vehicle was driven but the number of miles driven.

- One participant agreed that it would be fine to use to determine the number of miles, but not where you drove.
- Several others did not like the idea of a GPS and noted that they would not like it to record where they drove.

I really don't like it, it's a violation of freedom to have an automatic scanning system that will record a vehicle whenever it crosses any fixed point. Plus, just beyond that, it's just, that's a hell of an infrastructure cost. For what? For what value?

- The moderator suggested that the information collected by a mileage-based user fee would be similar to OnStar or a preferred grocery store card; however, participants’ feelings toward the device did not change. They believed that OnStar and grocery store cards were optional – individuals could make the decision to participate; therefore allowing their information to be monitored. They perceived that the mileage-based user fee would be mandatory, thus eliminating the personal choice.

Are We Addressing the Issues?

The moderator then took a step back and asked the participants whether these solutions addressed the main issues of funding, congestion, and energy use.

Initial reactions were that the three funding solutions discussed, tabs or registration fees, a general or income tax and a mileage-based user fee, would all address the funding gap. Participants also believed that a tab fee could address the issue of energy use and pollution if it were based on the weight and fuel efficiency of the vehicle.

Does it address...	Solution		
	Tabs	Income taxes	MBUF
The funding gap?	✓	✓	✓
Issues of congestion?			
Energy use and pollution?	✓		

The moderator followed up to understand if there were ways that some of the solutions could be changed to address another issue.

For the income tax portion, the question raised was could it address energy use if it were based on the fuel efficiency of a car. One felt that would be too complicated to manage with tax codes. Another felt it would be unfair and should be based only on miles and income.

For the mileage-based user fees portion, participants were asked whether they believed it could address congestion. Participants were concerned about the Big Brother issue of knowing when and where people would be driving. One said it might work if they were assured of how the data was being used.

That’s where your GPS deal could be tied in. You’d have to do a big, big sell job on how to secure the data and not make it accessible to the CIA or anybody like that. Or anybody else.

Participants agreed with the moderator that the mileage-based user fee could address energy use if it were indexed on fuel efficiency or weight of car.

Are these solutions fair?

The moderator then asked the participants which of these solutions was most fair. Reactions were mixed, and while participants held the perception that “nothing is completely fair,” they typically mentioned either tabs or income tax.

The transportation fee linked to the income tax was brought up, not necessarily for being fair, but for working like it should.

...roads are still something that everybody uses either directly or indirectly

It was perceived that this would be a fair method as those with higher incomes would be taxed more.

I see the income as a percentage base, as a fair tax because the more you make, the more you have. The better off you are, the more able you are to pay for these things.

Is it fair, or is it acceptable? Since I do make more than \$20,000, I would feel comfortable, because in the same sense I'm paying more of my share of the defense. I bring more gross dollars to the defense of this country than someone who is earning \$10,000. That's the price of being an American citizen.

Surprisingly, while they did not consider it “unfair,” none of the participants in this group mentioned the mileage-based user fee as a fair solution. Even when the moderator used the participants’ own words of “pay for what you use,” participants did not agree that the mileage-based user fee was a fairer method.

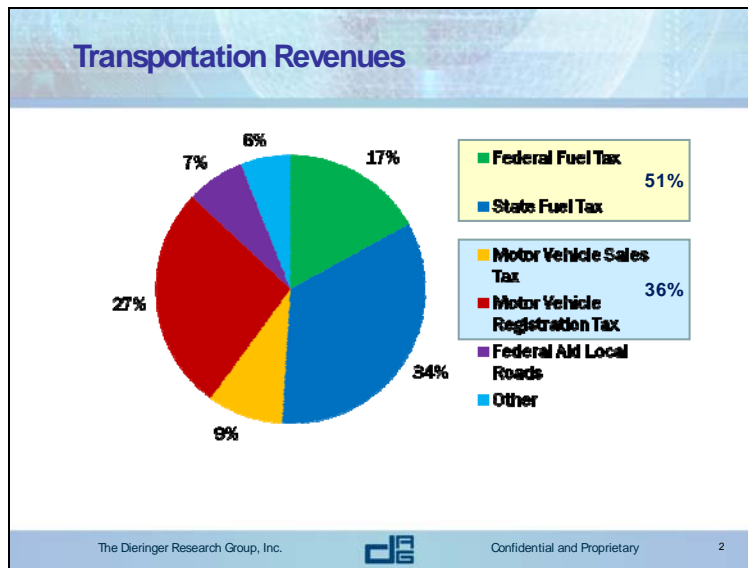
Applying Findings to Phase II Groups

By design, the confirmation group was scheduled first so that the discussion guide for the Phase II groups could be adjusted based on the research findings. One interesting finding was that none of the funding solutions suggested by participants helped address the issue of congestion. Because of this, it was decided to modify the approach slightly to specifically highlight the issue of congestion and to ask participants what solutions they would suggest to address that issue.

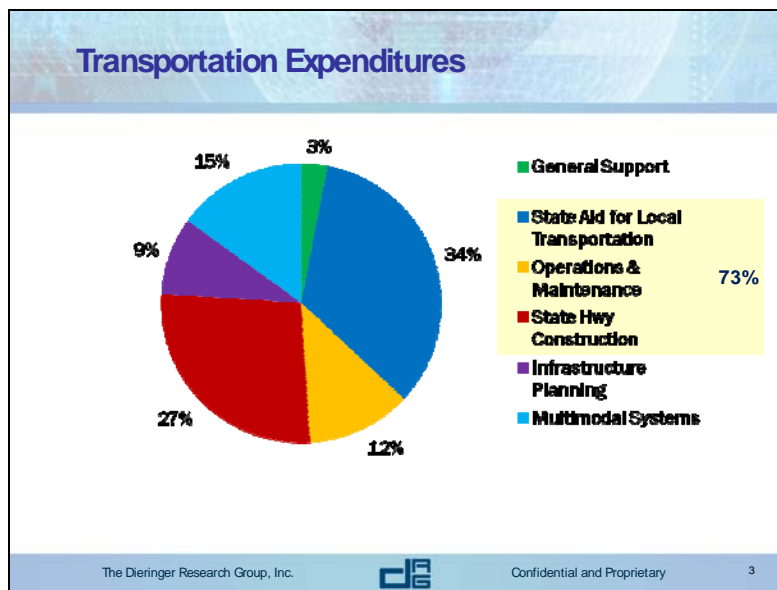
The findings from the eight Phase II focus groups are discussed on the pages that follow.

**Phase II Groups : Participants Not in Previous Groups
(Two each, Mankato, Twin Cities, Duluth)**

As the initial phase (Phase I in 2007) of research illustrated, the general public is relatively unaware of how transportation is funded – where the money comes from and how it is spent. In an effort to quickly educate participants, the moderator began each group by showing two pie-charts, which show that approximately half of transportation revenue (51%) comes from fuel tax, and another third (36%) is raised through sales tax, and registration.



The next slide, shown below, illustrated how transportation monies are spent, with 73% going to the roads, either in the form of operations and maintenance of the roads or construction.



Although the data from these charts were based on information from the Minnesota Department of Transportation, the moderator introduced this information as example data, that while it might vary by state, the overall areas and rough percentages were probably fairly proportional. This was done to avoid participants from focusing on this issue being solely related to Minnesota, and encourage them to think of it as a national issue.

The moderator followed up these slides by asking whether participants had any questions and ensuring that they understood prior to moving forward with the discussion. Overall, participants understood this information, and rarely had questions.

Transportation Events of Past Year

Next, the moderator asked participants to make a list of recent events related to transportation that had happened within the past year. Key mentions related to deteriorating infrastructure, increased cost of fuel, increased use of alternative fuels and reduced driving.

Deteriorating Infrastructure

Not surprisingly, an event that was mentioned in every group was the collapse of the 35W Bridge. However, participants often mentioned this in conjunction with an increased awareness of other bridges not passing inspection, or the need to conduct safety inspections on other bridges.

Like the bridge collapsing. That was pretty major. And a list of bridges that have not been able to pass decent inspections has dramatically increased over the last year.

I think the 35W Bridge collapse is a big wake up call that we can't think we built these things once and they're going to last forever.

You know, along those lines, it's the identification of numerous bridges in particular that are very deficient, and the closure of some. The public recognition that we've got some major safety issues with bridges and suddenly now we've got bridges all over the state that we've known for years are deficient that are actually being closed.

Discussions of bridge safety often expanded into a broader discussion of an increased awareness of general infrastructure decay and/or deferred maintenance.

With the bridge awareness, I think there's a general sense of infrastructure problems, failure.

And I think because of the bridge, there was a lot more talk about work that had been deferred year after year, and putting a little bit of asphalt down in a hole, rather than doing what needed to be done to really fix it. So that this year we ended up with potholes that were twice as big and deep as before, they were all over the place.

I think, from a broader perspective, just the general knowledge of a decay of our transportation system. The roads and bridges and everything. I think it's the awareness and the knowledge. I think we were all kind of blindsided.

This one thing, to me it comes out of the bridge collapse, but that's the discussion of funding for maintenance. Nationally as well as Minnesota.

Increased Cost of Fuel

The other item mentioned in every group was the dramatic increase in the cost of fuel. While most mentioned the price of gas had increased, they were less likely to mention the recent increase in the gas tax without the moderator prompting them for it. They were often unaware that the increase had actually taken place – even when asked about it. This may be due to the fact that the increase was perceived as relatively insignificant when compared to the increased cost of fuel. Below is an example of a conversation in one group.

[Moderator] And what about the gas tax, has anything happened there?

Nothing increased.

I thought there was an increase at the first [of the year], at January 18th.

Even though we vetoed it?

Did they pass it over the veto?

God, I can't recall.

[Moderator] So if I told you your gas tax went up April 1st, you'd be surprised by that?

It's just sittin' in with all the other price increases.

Increased Use of Alternative Fuels and/or Vehicles

Other recent events that participants in several groups mentioned were either an increased use of more economical cars or cars that run on alternative fuels. In those groups where it wasn't mentioned, the moderator prompted for any changes in the types of vehicles that people were driving.

There is a real move to more economical cars or bio fuels. Again, gas related and also I noticed just up here in Duluth, many more people buying mopeds.

I don't see Hummers. I just saw the first Hum-V that I've seen in months yesterday. SUVs aren't selling.

The value of hybrids has increased rather dramatically. [When asked what they meant by this, the participant clarified with] Well, in terms of the fact that people are trying to get a hold of them. They're hard to get.

There's been more awareness of alternative fuels.

Ethanol had become big and now it's going down. The hope that ethanol was going to save us in some kind of way and now we find that it probably isn't. It may be causing more problems than it ever could have resolved.

Decreased Driving

Participants indicated that they were driving fewer miles as a result of the high gas prices. This was mentioned both initially, as one of the events of the past year, as well as later in the discussion when participants were asked how these events had impacted them.

I think because of the gas expense people are not traveling as much.

*Maybe people are just staying more local, but they're not traveling as far.
[More] stay at home vacationers.*

A few participants were able to make the connection, unaidedly, between the reduced miles driven and the impact on the amount of revenue available.

We also see too, that there's probably a reduction in the consumption of gas because of pricing, which will affect the revenue that was returned back to the state and federal government.

I guess I'm thinking also traffic is less than what it used to be and that's going to bring revenue down. You know, people are using less gas. I was talking with a friend of mine that runs an oil company and he said that the oil companies are seeing a pinch because, even though their profits are up, their sales are down because people are using less fuel. In the long run, that doesn't help them out, and, as you said, it's taxed by the gallon. If people are using fewer gallons then taxes are down and that's less revenue.

Impact of Recent Events

Once the groups had identified the events of the past year, the moderator asked what impact these events had had on the participants. Many mentioned that they either combine trips or plan their trips more wisely.

I just plan my trips a little better and to my job a little bit better. I plan. I didn't used to, but I do now.

I use my time more wisely. I start to think – you start figuring it out, it costs me \$4.50 to drive into town and home again. So then you really start thinking about every trip you make. You start thinking in terms of what it's going to cost you to make that trip.

Before, when I had to run to Home Depot and get a 2 by 4 or something. I needed it, but I didn't really need it that bad or at that minute. I'll put it off now, and go when I go grocery shopping or next time I go that direction.

They reported that they have either switched to more economical vehicles or, if they have multiple vehicles, they tend to drive the more efficient one.

I take a different car. I take the more economical [one].

My husband rides his motorcycle to work more in the summertime than he drives a car.

I do have two vehicles. I have to have a truck because I need it to pull the boat and the dock out of the lake and different stuff like that. So I keep my truck even though it's a big gas guzzler, but I don't drive it except for that purpose. I drive the more economic vehicle whenever I can. And I have been looking at a Toyota Prius or ERS or something like that to get something with even better gas mileage.

A few participants indicated that they have changed their driving habits in an effort to increase their gas mileage, which is known as 'hypermiling.' Specific driving changes include avoiding quick accelerations or decelerations, driving at slower speeds, and coasting when possible. Additional changes include proper vehicle maintenance, inflating tires and reducing weight load.

Every time I fill up with gas, I check my mileage. I change my air filter more often and I just do everything I can to get [better mileage]. There was a show on about hypermiling on national [TV], about how people are hypermiling now. I actually drive differently, too, because I try to coast to the stop sign and take my foot off the accelerator sooner as I'm coming to a stop sign or a stop light. So I actually drive differently.

A lot of people are going 55 now. I drive by 35 every day, and it's amazing how many people have slowed down.

Cutting my speed down by five miles an hour makes a big difference.

There were also a few participants who, although they acknowledged the increased cost of fuel, had not made major changes in their habits due to recent events.

I haven't made any changes. My car already gets good mileage and they always have. ...The out of pocket expenses have been a little bit higher and I guess I've made a couple fewer trips to the Twin Cities [from Duluth], but, you know, by and large I really haven't made any changes.

I'm just very conscious of the driving that I'm choosing to do. Has it changed my driving dramatically? No. I've got to get to work.

Implications of Recent Events on Funding

In an effort to gauge participants' understanding of the situation, the moderator then asked what the implications of the recent events would be on the amount of transportation funding available. Most groups were able to make the connection between the reduced number of miles or reduced amount of fuel purchased and a reduction in the amount of tax. Many also understood that transportation officials would need to seek alternative funding sources. There was only one group in which the moderator needed to explain the correlation; however, once the issue was explained, the participants of that group appeared to understand it.

One of my concerns, when you see the amount of funding that comes from fuel tax, is as people rethink how much they can afford to drive, because it's so expensive, the miles are going down and there's going to be less revenue.

We're going to have to go someplace else for money to maintain the roads, for one thing. Or up the tax.

Because people are buying more gas [efficient vehicles], driving less, and then there's not going to be taxes to fix the roads.

A few participants, however, believed that if drivers are driving fewer miles, that there would be less "wear and tear" on the roads, and, therefore, that fewer funds would be required.

But if we're all driving less, you would think that there would be less wear and tear on the highways. You need to do fewer repairs and less often, so you're bringing in less, but you're also spending less.

Road Funding and Congestion Discussion

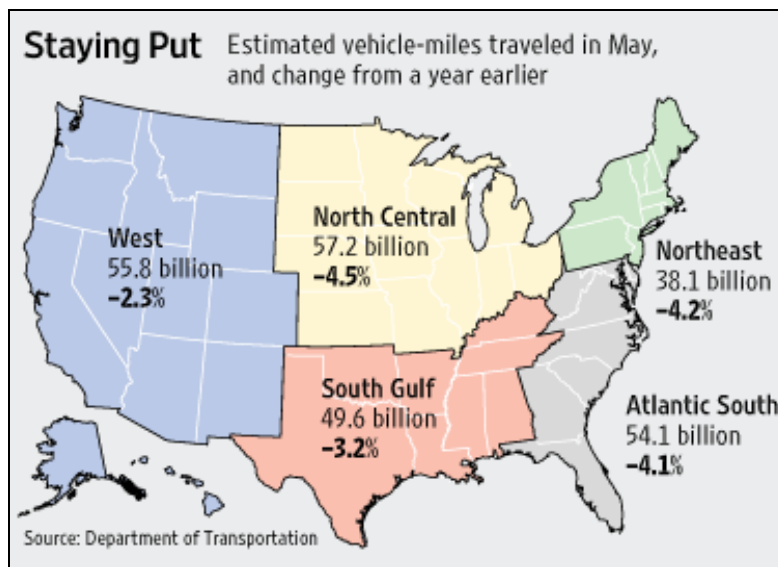
Road Funding

The moderator then showed participants a series of recent headlines that highlighted the impact that increased oil prices have had both in increased construction costs and reduced number of miles driven which has decreased the amount of revenue collected.

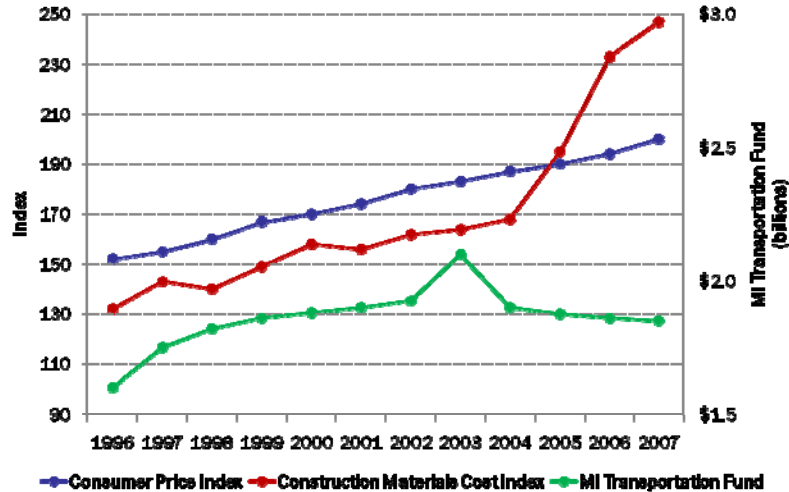
“Oil Prices Seep Into Asphalt Costs, Detour Work” – USA Today 8/5/08

“Road Block – Declining tax revenue could mean deep funding cuts for highway and mass transit” – Baltimore Sun 7/31/08

Included in those headlines was a map from the Department of Transportation illustrating the decrease in the number of miles driven that has occurred in the past year.



The moderator began a discussion about possible funding deficits and potential solutions by asking participants how big of an issue they believed these events were. He illustrated this point by showing a slide developed by Michigan Department of Transportation that showed changes in the available transportation funds, construction costs and the consumer price index.



In general, participants agreed that these were important issues and were bad not only for transportation but for the economy overall.

With the gas prices going up, people have less money, so they're not traveling as much and then there's less revenue for the state.

That just shows you that when gas goes up, it affects everything, from the food to clothing to the cars to everything that we do, and then the roads that we build.

That really stuck out when it said that the forecast for asphalt is petroleum based. A lot of our base products are petroleum based. Any of the housing markets are using petroleum based products, all your roadwork... upkeep as well as development that requires petroleum based products. That's a massive expense.

He then asked whether participants believe the gas tax is the most logical way to fund the roads going forward. Despite the previous discussion of reduced miles being driven and reduced funds available, the participants were divided. A few understood that given the reduced usage, the funds would need to be obtained through alternative sources.

No, not at this point. No one's going to be using it. The usage has gone down; they have to find another way to fund the roads.

If everybody goes to electric, then there won't be anybody using gas tax. Then where would they be? Those people that do spend the money on gas would be paying for the highways for everybody. So it has to be a different way of taxing them then to get the money for the highways.

However, others still perceived the current gas tax to be the best way to fund transportation as it is seen as directly proportional to the usage.

I think the concept is, in a sense, you're using it, so you're paying for it. It's like a sales tax concept. It's the end-user of the product that's paying for it.

Doesn't it seem that when you use gas, it's kind of directly proportional to how much you're using the roads?

Well, it's a user tax. If you buy gas, you drive, you pay.

Congestion

While it was assumed that participants from the Twin Cities area would be aware of congestion issues, those in the outstate groups, Mankato and Duluth, might not be as directly impacted. The moderator raised the issue of congestion with all participants to highlight the fact that increasing congestion causes a demand for more roads, which requires large amounts of funding. In an effort to minimize this demand, many transportation officials are interested in designing a system that not only creates a sustainable source of transportation revenue, but also aids in controlling congestion.

The moderator began by testing perceptions of congestion by asking each group how much of an issue they perceived congestion to be. As anticipated, congestion is seen as more of an issue in larger metro areas than out-state. However, those in Duluth commented that they do experience greater congestion in the summer due to increased vacation travelers.

In Duluth, we joke, 'Oh, it's rush hour in Duluth because we might have to slow down five miles an hour.'

I usually say that a traffic jam in Duluth is a four-way stop with all the drivers saying, 'Go ahead.' 'Go ahead.' - Super Minnesota nice.

One of the participants from the Twin Cities noted that congestion would not be able to be solved by increased building, that another solution would be required.

We can't build our way out of it, I don't think. We don't have the money, we don't have the space, we can't build our way out of the congestion. I think that some of it is, forgive me, but it needs to hit the fan before people figure out we've got to do something different. Whether it's \$4 gas or a bridge going down, we've got to do something different.

The moderator then provided statistics of how the public is impacted by the cost of congestion in terms of the costs to transport goods via truck and how those costs increase when the trucks are stuck in congestion. Specific illustrations included:

- Congestion on I-70 in Denver is costing \$839 million per year
- In Portland, an example company hauls 25,000 tons of scrap metal across the I-5 bridge. They make approximately 45 truckloads a day and it costs just over \$2.00 per minute to make the trip. When there’s a traffic jam, it takes 45 minutes to get across the bridge, costing them \$140 per hour.
- In Kentucky, commuters are experiencing a commute that is on average 30 minutes longer, and traffic has doubled since 1990.
- Chicago estimates congestion costs their economy \$7.3 billion a year.

Again, this information appeared to resonate with participants, and there were no questions about this information.

Road Funding Alternatives

Participants were next asked to brainstorm alternatives to the current gas tax that would either provide a funding source or help to manage the increasing congestion issue, or, if possible, both. The table below highlights the main ideas that participants suggested.

Congestion	Funding	Both
<ul style="list-style-type: none"> • Telecommuting • Flex-time/Shifting hours • Four 10 hour days • Bike lanes • Carpooling 	<ul style="list-style-type: none"> • Toll Roads • “Energy” tax – shift gas tax to new fuel source • Annual fee based on miles driven 	<ul style="list-style-type: none"> • Congestion tax • Time of use charge • High-Occupancy Vehicle (HOV) lanes

Congestion

Participants raised several ideas that could help to reduce congestion on the roads, with the majority of them requiring cooperation from the part of employers. They mentioned ideas such as flex time that would allow employees to start and end shifts at times other than during peak rush hour, or changing the work week to four ten-hour days or encouraging workers to ‘telecommute’ which could potentially eliminate some road traffic. While participants agreed that this wouldn’t be possible for all employees, they believed that it should be initiated by government working with businesses to encourage this.

I work out of Eden Prairie, and a lot of employees come from Minnetonka, Shakopee, Chaska, that whole area. When they were building the Blue Gin Fairy Bridge, the old bridge would flood from time to time. They asked the major employers in the area if they would alter their start times for their employees ... to kind of accommodate the traffic.

Along that line, we experimented at my work to changing your work week. Instead of working five days a week, work four days a week.

This is a real pipe dream, but I look at highways a lot like our schools. You know, you've got a beautiful building, but how many hours a day is it used? The rest of the time it just sits there. If there was some way to spread out the usage of the roads so it wouldn't be congestion at rush hour. If you had employers changing, which would probably be causing a lot of inconvenience for people, but if you change the work hours for people regardless of what they're doing. If you could spread it out even over twenty-four hours a day...

Well, you know, Best Buy, up in the cities is their main headquarters, and they've done that. They've gone to a completely flexible schedule and it's productivity based as opposed to hourly based.

Funding

Toll roads were the main alternative funding source mentioned by group participants, particularly the open-toll roads where drivers aren't required to stop. Some participants mentioned states such as Kansas that have turnpikes as opposed to toll booths as drivers aren't required to have transponders to pay the toll.

I like Marsha's idea about tolls, because I think that's been proven. It's something you can look at and say, 'Okay, it works.'

I think if you do toll roads they've got to be better than Illinois. They've got to do a better job. I mean the last time I was in Illinois [which was several years ago], you hit that border and you were stop and go, stop and go, stop and go.

We ride a toll way in Kansas. We get on in Wichita when we're heading to Arizona every winter, and you get a ticket at the beginning and you pay at the end and you don't stop at all. The road is wonderful and we take it for the full length and it's like ten dollars.

A few participants believed the gas tax was effective as it was a usage tax, "it make sense that the maintenance and the money would be paid by the people who are using the service." They recognized that if drivers were to shift away from using gas as the main source of fuel for their vehicles, the revenue collected via the gas tax would be reduced. However, they believed that the tax would simply shift to the new fuel.

It won't be called the gasoline tax; it will be called the energy tax. Whatever it takes to energize that vehicle... If you had electric cars, then they could have an electric tax. If you had hydrogen cars, it would be the hydrogen fuel tax. And that's why I think it'll switch to be called your energy tax rather than [gas tax.]

I would bet you if they get hybrid cars on the road, say hydrogen cars, they'll find a way to tax the hydrogen.

Well, just as soon as they figure out another alternative, they'll tax that. They've done that every time something comes along that they can find that they can tax. Don't worry, they'll tax it.

In an effort to address both the funding and congestion issues, a couple participants suggested implementing a "congestion tax." This would be similar to what has been introduced in London or New York, where drivers are charged a fee to drive in a congested area.

Wasn't it New York City that was thinking of charging every truck that came in to the city a certain amount every day based on the axles that came in? It was like \$8 an axle.

Very few participants suggested the option of creating a funding source that would be based on the number of miles driven. One was more conceptual, with a participant suggesting,

The government always comes out with the averages that an average family drives a year. Maybe they're going to have to come out with some sort of usage tax. You're allowed to drive, let's say it's 15,000 miles and then if you drive 100, 1,000 progressively up over that, you're going to find out you have some sort of usage tax. A graduated usage tax depending on how much you used the roads.

Another participant suggested a method that not only charged based on the number of miles driven, but also added a charge based on the type of car.

I think part of that is decoupling how much gas you purchase. Decoupling that from how many miles you drive. So purely a road tax based on the miles driven times some sort of weighting for the kind of car you have. If your car weighs 6 tons versus 2 tons, maybe you should pay more because you're wearing more roads out. So in other words, you know, an annual fee based on how many miles you drive. And get rid of the gas tax then.

Reactions to Mileage-Based Usage Fee Concept

In those groups where a mileage-based user fee concept was not suggested by participants, the moderator simply asked whether participants had heard of the concept and what they thought it was. Overall, while only a few had previously heard of the concept, it appeared the name communicated the objective of the fee and participants understood it as a usage fee similar to the gas tax.

You pay a tax based on how many miles you drive in a year.

The more you drive, the more you pay.

I think I've heard of it. That's where you pay according to how many miles you drive.

It seems to me that what you're saying is no different than how we get monthly bills for how much electricity we use at home or how much gas we use at home, or whatever.

In general, reactions to the concept were fairly neutral, with many simply asking questions to understand more about how the fee would be implemented. Such questions included:

- Would it be in addition to or replace the current gas tax?
- Would it be a Federal or state managed program?
- What if you were driving in other states, or in Canada?
- Would it be based on more than mileage – for example the weight of the vehicle to account for wear and tear?
- How much will it cost?

Some participants had concerns about the concept even without any details being discussed. A few were concerned that, since it would be a new system, that a new layer of bureaucracy would need to be developed to manage it. Two believed that by charging individuals for the number of miles they drove, it would deter mileage which, in turn, would decrease revenue.

Well, it's going to deter the amount of mileage again. You're going to find it'll be repressive to the amount of miles driven, which will reduce your revenue stream again.

Another disadvantage I see is the same thing we run into with the fuel tax. It's based on mileages. People cut back their mileage, funding gets cut.

There was also a concern that, if individuals were charged the same amount for the number of miles that were driven, that it would remove any incentive to drive fuel efficient vehicles. However, others countered that while those drivers would be paying the same amount for mileage, they would be getting a break on the amount of gas they needed to purchase to drive the same distance.

Big Brother/Privacy Concerns

Interestingly, even when simply discussing a concept of a “mileage-based user fee,” without any details of how the program could be used, participants in four groups raised concerns about privacy, specifically mentioning that this concept would be “Big Brother” watching them.

Sounds like Big Brother, though.

You’ve heard of government knowing how many miles you went or where you went or whatever. They’re going to be all over that one. I’m thinking of a privacy type thing.

I guess I’d have to get used to it, but right now it feels like Big Brother’s watching me. It feels restrictive in some way. I don’t know, maybe it’s just because it’s a new concept.

You said red flags, and one of the things I think of is Orwell’s 1984. How many people are going to have their hands up in the air screaming when Big Brother wants to do more, one more thing to invade our lives?

Additional Reactions to Mileage-Based Usage Fee – Type of Road Usage

A mileage-based user fee could be designed not only to fund transportation based on a fee for the number of miles driven, but also to aid in directing those funds based on the type of road used or to deter congestion by adding a time of use charge. In an effort to introduce the concept slowly as well as to thoroughly understand perceptions or concerns to each potential variation, the moderator introduced one aspect at a time. After generally introducing the concept and discussing it, he asked participants what they would think if the mileage-based user fee could differentiate by the type of roads that were used. The moderator carefully worded the description of this concept, stating,

So the thought is to develop a funding mechanism that is independent of the fuel going into the vehicles. Secondly, using information to figure out where to spend the money and to do that they would not only count the number of miles that you’re driving but the number of miles based on the type of road you’re on. So, for example, you drive a hundred miles. Seventy of it you’re on the interstate, twenty of it you’re on a state road and ten you’re on the local roads. So, this odometer, instead of just counting a hundred miles, it’s counting it and putting it into different buckets. That way, they can look at the number of miles driven on all the different types of roads and when they need to figure out where do we need to spend our money, they can look at that and use that information as part of the planning process.

A couple individuals recognized that this option would allow transportation officials to allocate funds to where it’s needed or where it’s mostly being used. They also recognized that additional technology, such as GPS, would be required. Similar to the general mileage-based user fee discussion, participants had many questions, including:

- How would it handle multi-state travel?
If I go on a trip, and I'm going to the west coast, and you're keeping track of every road I'm on, am I going to get a bill from every state? Or is this going to be a national system?
- How do you confirm that the information is correct?
- How can we be sure that the data is going to be secure?

Interestingly, even with a carefully worded description, participants in several groups still perceived this concept as “tracking” where they were driving, again bringing up concerns about Big Brother and privacy.

So what we're talking about, I mean these considerations, we are talking about track. Basically tracking where everyone drives and keeping that, that would be your pattern of driving and where you drive. I mean that would have to be kind of like the OnStar type technology of tracking exactly where everyone goes.

Sounds like Big Brother. Why would they need to know that I drove from here to Mankato and I came on 22 and I'm going home on 169? How would they know if you're driving on interstate or... [another participant mentioned GPS] Yeah, Big Brother, see, we're back to that again.

I guess – people have mentioned the word Big Brother. The entire phrase is 'Big Brother is watching.' And I guess that's how I feel. You say it's not tracking, but it is tracking. It still knows where you are and I guess I have a problem with that.

When asked what could be done to relieve or eliminate concerns regarding privacy, suggestions were to either report only the type of road (i.e. freeway or local) rather than exact road (i.e. 394) or to separate the type of road from miles driven. In general, participants preferred a simplified method, one that minimized the amount of detailed information gathered.

They have systems to track the usage of any road by setting up some kind of meters. That would eliminate having to worry about what road I'm driving and where I'm going. They could allocate the money by the total miles driven by everybody and then based on what roads the meter says people have been using. So separate the two.

Additional Reactions to a Mileage-Based Usage Fee – Time of Use

While previous variations on the concept addressed the funding issue, they did not directly help to address the congestion problems. The moderator then introduced another variation on the concept that would help to directly address congestion issues. The moderator likened the idea of charging more depending on when individuals are driving to the electric company. Consumers are aware of the electric company's peak demand charges in which customers are charged more when they use electricity during periods of peak demand, such as 2:00 in the afternoon in July versus 2:00 in the morning in December. In this instance, drivers would be charged a greater amount for driving during peak rush hours and less for off-peak periods.

Again, participants understood the concept overall, but reactions to this version of the concept were much more negative. The main concern was that those who are driving during rush hour are doing so because they have to. While participants acknowledge they should pay for “their share” of transportation costs, they are not comfortable being charged extra for reasons that are outside of their control.

I guess I don't mind being taxed or monitored or whatever for the mileage I drive, but I don't like to be penalized for being in situations that aren't my fault, that aren't in my control, like rush hour.

My first thought on that is negative. Just from the standpoint that the public really doesn't have a lot of say in terms of flex-time. It's not your decision; it's your employer's decision.

My schedule dictates me. I don't have any control over that. So to penalize me in a higher fee because my boss says that I am to be at work at 7:00 in the morning? I can't say, 'Well, gee, if I come in at 8:30, it will cost me less.' They don't care, and so I don't have any control over that. And that's the piece I don't like.

Again, the moderator asked what could be done to reduce or eliminate concerns regarding a time of use charge. Similar to the road usage option, participants tended to prefer a simpler method. They also indicated that this concept may be something that as consumers they need time to become comfortable with, and it might be something that could be phased in.

I would want them to do something that wasn't quite as invasive into my private life.

I look at the societal changes we've made in my lifetime. We can get our minds around these things. I mean, thirty years ago, we all would have sat here smoking a cigarette. We wouldn't have even thought that there would ever be a law that we couldn't smoke cigarettes in here. I mean society changes and everybody balks at first, but then you get on board with it. We have to maintain our roads, we all want to be able to drive, somehow it's got to be paid for.

I fought against the cell phones for years and years, and then I found out how wonderfully convenient it was and now, I don't care if they're tracking me. Cause the convenience is what has sold it to me.

Funding vs. Congestion

Both funding and congestion issues were discussed with group participants, and a mileage-based user fee could be designed to address either issue. However, when asked which of these is seen as the larger issue, participants tended to lean towards the funding aspect, believing that this area needed to be addressed first. One participant summed it up by stating, “If you don't have the money, you aren't going to fix congestion.”

Addressing Concerns

In an effort to be prepared for and understand how to address the public's potential concerns with a mileage-based user fee concept, the moderator specifically asked participants about key areas of concern, including:

- Privacy
- Fairness or equity
- Accuracy of data

Privacy

Privacy or the perception of government as “Big Brother” is the main concern of any mileage-based user fee beyond a simple odometer check. Even during general discussions of the concept, participants assumed details of their driving habits would be monitored, that government would be “watching” where they drove. This perception was particularly magnified when considering the type of road option, more so than time of use.

When asked what could be done to minimize concerns, participants suggested keeping the funding solution as simple as possible. They understand that transportation funds are able to be more accurately distributed by knowing which roads are being used the most; however, many prefer that funds be allocated through less “invasive” methods, such as current metering techniques.

Fairness

The concerns that a mileage-based user fee would unfairly impact certain sectors of the population was greater during the first phase of research; however, it was also raised in this phase, particularly with respect to the version that included a time of use charge. Specific concerns were:

- A flat mileage fee would charge the driver of a large SUV the same as the driver of a small hybrid vehicle.
 - Participants perceive that the larger vehicle would cause more damage to the roads than a smaller vehicle.

We talked earlier about the weight of the vehicle making it a higher tax which could be worked into this also. I think that would increase the fairness.

- A time of use charge would have greater impact on those workers who were unable to adjust their hours.

I think the congestion part of it would be grossly unfair. A lot of people have to go to and from work at the same time every day, so they have to drive during congested hours. People that are tied into a job and they're forced to drive during rush hours, I think it would unfairly cut against them.

- Some participants believed that the fairness issues could be alleviated by providing incentives to the employers to encourage some flexibility in hours.

If they could give the employer the incentive, where if they give their employees more flexibility. Even if you get 15% to 20% difference in usage, that would make a big impact probably in congestion.

Other participants, however, did not perceive any fairness issues, believing that all individuals who used the roadways should pay their share. Another believed that no system would be seen as perfectly fair by all.

If I drive, I should pay.

We can't say that everything we have is fair or equitable, we're just used to it to some degree. It's more about change than it is anything else, and change is usually the biggest issue. Nobody likes change, but change happens every day, so you've just got to deal with it.

Accuracy of Data

Another concern that was raised by a couple participants was how the data could be confirmed, or how drivers would know that they were being billed correctly.

The thing I don't like is, say you're filling up your car. You can see how many gallons you're putting in and you can see if the tax rate is being billed correctly on the thing. But if you're being sent a bill at the end of the month, it's like this unknown. It's like, how many miles did you really drive and are you going to keep track of that to make sure you can match the two up? I mean how do you put your head around how many miles you're actually driving a month and are they actually recording it right.

The moderator asked whether they would be interested in having an independent auditor responsible for verifying the data; however, participants saw this as simply a waste of money. They believed that drivers would face an uphill battle if they tried to challenge the accuracy of their bill. One participant cited the challenges and delays currently faced in dealing with the Department of Motor Vehicles.

I say, 'Hey, I got this bill and it isn't right.' ... Stand in line. You want to complain about a bill, yeah, you take a number and you can go down to the DMV and stand in line for three days to talk to some bureaucrat.

Some participants believed that the younger generation may be less likely to question the system than they are, as they believe the younger generation is more comfortable with technology in general.

The next generation won't even think about this, especially if you put a few little bells and whistles and toys on them. They'll just suck it up. They'll love it.

Language Needed to Communicate

In general, participants were aware of the recent events, specifically of increased gas prices which have led to drivers limiting the number of miles they drive. When it is explained that the majority of funding comes from the gas tax, which is directly tied to the number of miles driven, they clearly understand that this means the amount of funding has decreased. However, in most instances, it is necessary to walk them through this connection.

When communicating a mileage-based user fee to the public, it appears to be best to do so as simply as possible – as a usage fee – or, as one participant stated, “You pay a tax based on how many miles you drive.” Participants equate the concept to other usage fees they are familiar with, such as their electric or natural gas bills at home. They know that those companies measure the amount of gas or electric used and send a regularly scheduled bill based on that usage. Participants from the qualitative phases of research understand a mileage-based user fee the same way and, for the most part, appear to be accepting of it.

In designing the quantitative phase of this research, it may be necessary to gauge perceptions of the more advanced variations of the concept, including the type of road and time of use options. As shown in these focus groups, participants understand each option and how each would accomplish its particular goal. However, it may be best to introduce these concepts gradually, allowing respondents to become accustomed to each before adding another layer of complexity. It also allows the opportunity to understand perceptions of the various options individually.

Appendix – Discussion Guides

Returning Participants

08-08-2008

Phase 2
MILEAGE-BASED USER FEE STUDY
DISCUSSION GUIDE
Returning Participants

I. WELCOME/EXPLANATION OF GROUP PROCESS: 3 minutes

- Thank you for coming back
- Review purpose of group – tonight we are going to revisit a few topics related to transportation
- Review tape recording, video camera
- Remind on confidentiality / Tennesen warning
 - This information is going to be used by transportation planners to enhance their decision-making in the future
 - None of your answers will be linked to your name because they will have no record of who attended
 - If any question makes you feel uncomfortable, you are under no obligation to answer it
- Remind all opinions welcome
- Smaller group this time to allow us to delve into topics a little deeper

II. INTRODUCTIONS: 7 minutes

- First Name
- What you do for a living
- What type of car do you drive
- Do you have a regular/daily commute? How far is it?

III. YEAR IN REVIEW: 20 minutes

1. Although you weren't necessarily in the same discussion group last time, let's start with a quick recap - what did you take away from our last discussion?
 - a. Prompt if necessary:
 - i. Funding for roads
 - ii. Gas taxes
 - iii. How much you pay each year for roads
2. A lot has happened in the past year or so in the area of transportation – both in MN and nationwide. From your perspective, what are some of those things that have occurred?
 - a. **Make list** of recent issues (i.e. cost of gas, gas tax increase, people driving less, more hybrids, electric vehicles, construction cost increases, bridge collapse/infrastructure crumbling)
 - i. How, if at all, have these things impacted you? Are you doing anything different?
3. What are the implications of these issues?

IV. SETTING THE STAGE:**10 minutes**

1. I'd like to show you some information regarding the financing of roads. This varies from state to state, but in general, it looks something like this:
 - a. Pie charts – revenue vs. expenses **(show PPT slide)**
 - i. Explain
 - ii. Does this make sense? Are there any questions?
2. Now - here are some recent headlines as they relate to roads
 - a. **Collage of recent headlines (show PPT slide)**
3. So what do you think the implications are?
 - a. How big of an issue is this?
 - b. Do you think the gas tax will be the best way to fund roads going forward? Why? Why not?
4. Most transportation planners feel that, long term, the gas tax will probably not continue to be a viable mechanism for funding roads.
 - a. Bar chart showing increasing construction costs and stable/decreasing revenue – **(show PPT slide)**
 - b. There is a gap and it is only going to get bigger over time if nothing changes
 - c. No one knows for sure when the issue will come to a head, but transportation planners need to be thinking about this now, rather than later. And they'd like your help.

V. DISCUSS IDEAS FOR SOLUTIONS:**50 minutes**

1. One of the things we'd like your thoughts on is what the options or alternatives are for funding transportation needs.
 - a. When thinking about an option, there are a number of factors you might want to take into consideration, including: **(show PPT slide)**
 - i. Funding
 - ii. Congestion
 - iii. Energy use/pollution
 - b. Any given option might address only one of these, but some may help with two or even all three of these, so let's keep that in mind as we brainstorm.
2. Although we did some brainstorming the last time we talked about this, let's start with a blank sheet and create a list of options (Probe if needed for tolling, MBUF, increase gas tax)
 - a. How would that be implemented?
 - b. MBUF - You may recall that we talked about this last time to somewhat mixed reviews.
 - i. Knowing what you know now, what do you think of the idea?
 - i. Have you changed your opinion from before? Why?
 - ii. Any potential improvements needed?
3. So we've identified a few different options. In your opinion, which of these are most plausible? Why?

4. Compare two options (MBUF and other top pick)
 - a. What are the advantages of option ____? Disadvantages? Why?
 - i. Focus on issues of privacy, equity and fairness
 - b. Can you see any flaws in a funding system like this? What are they?
 - i. How would you address those issues?
 - ii. What would transportation planners need to do to assure you that any issues would be resolved?
 - c. Which of these issues - funding / congestion / energy use/pollution - does each of the options address?

VI. MESSAGING:

20 minutes

1. How would you explain this solution to others?
 - a. What aspects would you emphasize?
 - b. What questions do you think people would have?
 - c. How would you answer these questions?
 - i. Probe on:
 1. Privacy
 2. Fairness
 3. Equity
 - ii. How do we get past these, if at all?

VII. DISCUSSION WRAP-UP:

5 minutes

Check in with observers

1. Final wrap up questions from observers
2. Thank and close

New Participants

08-18-2008

Phase 2
MILEAGE-BASED USER FEE STUDY
DISCUSSION GUIDE
New Participants

VIII. WELCOME/EXPLANATION OF GROUP PROCESS:

3 minutes

- Thank you for attending
- Explain purpose of group – tonight we are going to discuss a few topics related to transportation
- Explain tape recording
- Advise on confidentiality / Tennesen warning
 - This information is going to be used by transportation planners to enhance their decision making in the future
 - None of your answers will be linked to your name because they will have no record of who attended
 - If any question makes you feel uncomfortable, you are under no obligation to answer it
- Stress all opinions welcome

IX. INTRODUCTIONS:

7 minutes

- First Name
- What type of car do you drive
- Do you have a regular/daily commute? How far is it?
- What is your biggest pet peeve regarding transportation today?

X. SETTING THE STAGE:

30 minutes

4. I'd like to start out by showing you some information regarding the financing of roads. This varies from state to state, but in general, it looks something like this:
 - a. Pie charts – revenue vs. expenses (**show PPT slide**)
 - i. Explain
 - ii. Does this make sense? Are there any questions?
5. A lot has happened in the past year or so in the area of transportation – both in MN and nationwide. From your perspective, what are some of those things that have occurred?
 - a. **Make list** of recent issues (i.e. cost of gas, gas tax increase, people driving less, more hybrids, electric vehicles, construction cost increases, bridge collapse/infrastructure crumbling)
 - i. How, if at all, have these things impacted you? Are you doing anything different?
6. Now - here are some recent headlines as they relate to roads
 - a. **Collage of recent headlines (show PPT slide)**
7. So what do you think the implications are?
 - d. How big of an issue is this?
 - e. Do you think the gas tax will be the best way to fund roads going forward? Why?

Why not?

8. Most transportation planners feel that, long term, the gas tax will probably not continue to be a viable mechanism for funding roads.
 - a. Bar chart showing increasing construction costs and stable/decreasing revenue – **(show PPT slide)**
 - b. There is a gap and it is only going to get bigger over time if nothing changes.
9. Transportation planners are actually working on a second issue - Congestion
 - a. How big of an issue is this for you personally?
 - b. In general, how big of an issue do you feel congestion is?
 - c. Headlines re: congestion **(show PPT slide)**
10. No one knows for sure when these issue will come to a head, but transportation planners need to be thinking about this now, rather than later. And they'd like your help.

XI. DISCUSS IDEAS FOR SOLUTIONS:

70 minutes

5. One of the things we'd like your thoughts on is what the options or alternatives are available for funding transportation needs.
 - a. When thinking about an option, there are a number of factors you might want to take into consideration, including: **(show PPT slide)**
 - i. Funding
 - ii. Congestion
 - b. Any given option might address only one of these, but some may help with both, so let's keep that in mind as we brainstorm.
6. **Let's make list of possible options (Probe if needed for tolling, MBUF, increase gas tax)**
 - a. How would that be implemented?

(If MBUF not mentioned)

 - b. Have you heard of Mileage-Based User Fees?
 - ii. What do you think a Mileage-Based User Fee is?
 - iii. **(If needed, read description Ken provided.)** What is your reaction to that idea?
 - iv. Probe for positive and negative perceptions
 - v. Any red flags?
7. So we've identified a few different options. In your opinion, which of these are most plausible? Why?
8. Compare two options (MBUF and other top pick)
 - a. What are the advantages of option _____? Disadvantages? Why?
 - i. Focus on issues of privacy, equity and fairness
 - b. Can you see any flaws in a funding system like this? What are they? What would make you feel this system would be a horrible idea?
 - i. How would you address those issues? What would need to be done?
 - ii. What would transportation planners need to do to assure you that any issues would be resolved?

iii. IF NOT ADDRESSED IN OBJECTIONS:

1. What if the system were used as one of the factors in apportioning monies to the roads based on usage?
 2. Planners could use the information in one of two ways:
 - a. Less privacy: recording EXACTLY which roads they drove on
 - b. More privacy: which would mean \$\$\$ would be allocated to their REGION rather than to specific roads.
 3. If you knew that was how the information was going to be used, would that make a difference?
- c. Which of these issues - funding / congestion / energy use/pollution - does each of the options address?

XII. DISCUSSION WRAP-UP:

5 minutes

Check in with observers

3. Final wrap up questions from observers
4. Thank and close

Slides Displayed During Focus Groups

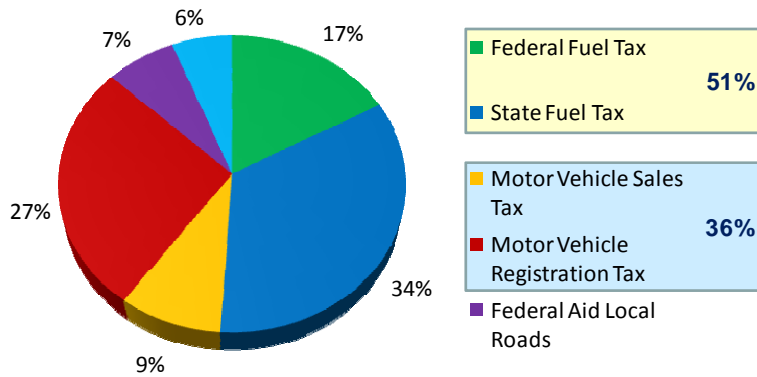
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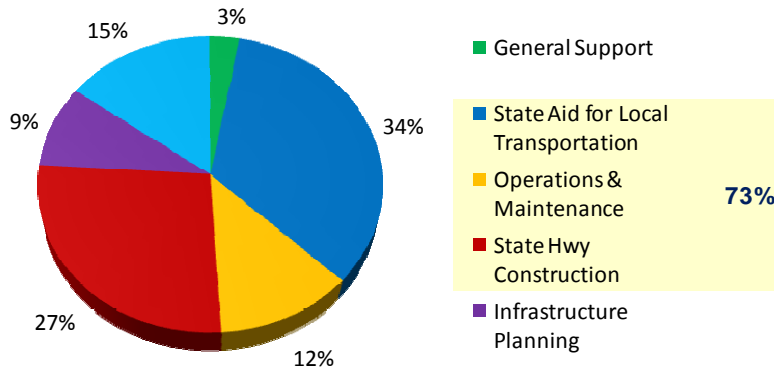
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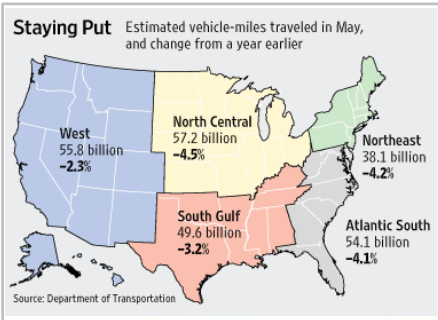
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By Michael Dresser | Sun reporter
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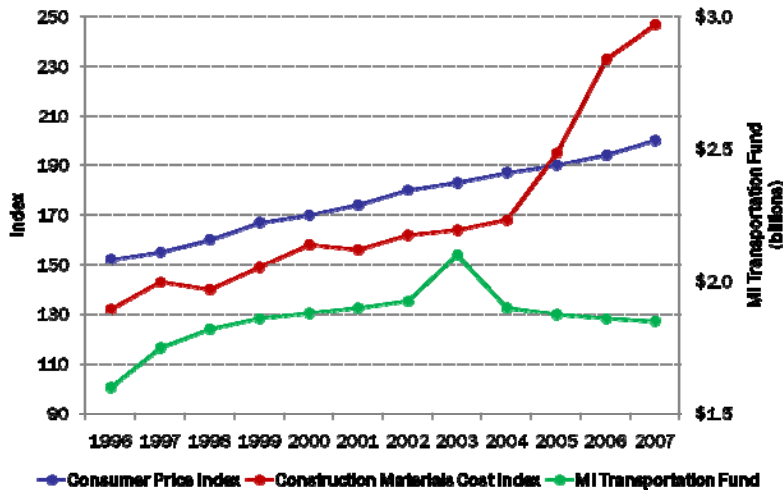
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What The Future Holds?



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By Steve Lipsker
Denver Post Staff Writer

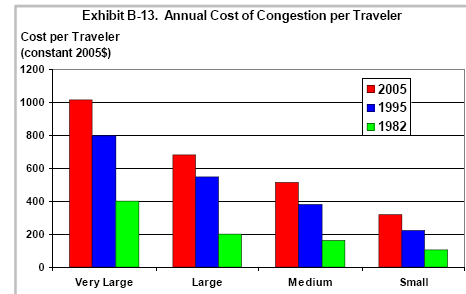
What is the Total Cost of Congestion?

The total cost of congestion for each population size group is shown in Exhibit B-12. It accounts for the amount of wasted time and fuel due to traffic congestion. The total cost congestion in the urban areas is \$78.2 billion in 2005 or an average of \$707 per traveler.

Exhibit B-12. Annual Cost of Congestion

Annual Cost (billions of 2005\$)

Year	Very Large	Large	Medium	Small	Total
1982	10	5	2	1	18
1985	12	8	3	2	25
1988	15	12	4	3	34
1991	18	15	5	4	42
1994	22	18	6	5	51
1997	25	20	7	6	58
2000	30	22	8	7	67
2003	35	25	10	8	78



The Cost of Congestion

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