

# **Developing Public Support for Transportation and Mobility: A Guidebook**

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## PREFACE

Mobility—our ability to travel and ship goods between one location and another—is a key element in an advanced socioeconomic system. It is the necessary condition—the “lifeblood”—that allows a society to be successful and that provides opportunities to advance in a global marketplace.

Planning, funding, operating, and maintaining our multimodal transportation system is, however, a complicated process involving multiple layers of government, private businesses, transportation professionals, and communities. But the people who form those communities often go unheard; they fail to take advantage of opportunities to provide input on transportation needs and thus have no voice in the setting of public policy.

This project attempted to change that. It invited the public to one-day workshops held throughout North Dakota. Those workshops had three key goals:

- To inform the public about the state’s transportation and mobility needs,
- To explain how public policy affects how those needs are accommodated, and
- To solicit input on mobility issues and concerns.

At each workshop, we stressed that we were not trying to tell the participants what to think; rather, we wanted to give them something to think about—to provide them with information that would be helpful in forming their own conclusions and recommendations. A public that is more informed and aware of how personal and freight mobility is affected by public policy will be more likely to discuss transportation planning and financing issues with elected officials, public officials, and community leaders. Those discussions will help shape public policies and determine the future of transportation and mobility in North Dakota.

The public responded with enthusiasm; we had a terrific turnout at each session, and the discussions were enlightening. The recommendations have been forwarded to the appropriate legislative committees.

We are grateful for the support of the American Association of State Highway and Transportation Officials and the American Public Transportation Association; they recognize that our experience can be a useful starting point for other agencies and organizations interested in conducting similar public outreach efforts, and they provided the funding for this report.

I would also like to thank the UGPTI Advisory Council for believing that the citizens of North Dakota merit such an extensive outreach project and for putting their resources into the project. The council members represent the agricultural and business interests in the state, and they know personal mobility and freight movements are important to the state’s economy and quality of life.

I would like to recognize the UGPTI staff who took this project from idea to completion in a very short 12 months. Jon Mielke served as the project manager. Assisting him were Gary Berreth, Kathy McCarthy, Alan Dybing, Jim Caron, and Kathryn Harrington-Hughes.

Gene Griffin  
Director, Upper Great Plains Transportation Institute  
North Dakota State University



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# 1. INTRODUCTION

## 1.1 Background

In spring 2007, members of the Advisory Council of the Upper Great Plains Transportation Institute (UGPTI) in North Dakota became concerned about the lack of public participation in decisions affecting transportation policy, planning, and funding. The Advisory Council, composed of representatives of industries and agencies with a stake in the state's transportation system (for a list of Advisory Council members, see Appendix A), knew that North Dakota's transportation system—its roads, public transit services, airports, freight and passenger rail—is crucial to the economic health of the state and the well-being of every citizen of North Dakota.

Yet transportation seemingly received short shrift in the legislative session conducted earlier that year. State coffers were healthy, but funding for transportation projects fell well short of needs. The North Dakota Department of Transportation (NDDOT) had to cut funds from its maintenance budget to come up with the necessary matching funds for federal construction dollars. And it wasn't just the state department of transportation (DOT) that was affected. Cities and counties across the state—which are responsible for the first and last miles of almost any passenger or freight movement—were facing huge bills for much-needed improvements to roads and transportation services in their communities.

The Advisory Council members felt there was a “perfect storm” brewing in the state—growing demand for transportation services for personal mobility and freight movement, increasing needs for transportation system maintenance, and declining revenues for transportation infrastructure (a result of more fuel-efficient vehicles on the road, which results in lower amounts of fuel taxes collected at the pump). An effective, sustainable, and cost-efficient transportation system must be based on the mobility needs of the individuals and entities it serves.

The time was ripe, the council felt, to spur community-level discussions about transportation issues, which would in turn generate more input to the legislature's decisions on transportation issues. The North Dakota Legislature meets every other year; a project conducted in 2008 would be well-timed for the 2009 legislative session.

The Advisory Council's concerns led them to task the Upper Great Plains Transportation Institute with a project to generate increased public involvement in transportation policy and funding decisions. The project meshed with UGPTI's mission, which includes informing, educating, and reaching out to the public on transportation issues. As recorded in the minutes of the May 2007 Advisory Council meeting: *“After considerable discussion it was moved that Institute staff be encouraged to marshal resources to work with affected local, state, and federal entities to facilitate the public input process to gain a better understanding of public policy regarding future funding for personal and freight mobility in North Dakota.”*

As Gene Griffin, director of the Upper Great Plains Transportation Institute, explained it, the goal of this project was to get the citizens of North Dakota to understand that “you can have any kind of transportation system you want—but you have to decide what it is you want.”

The result: a series of eight regional workshops that provided a forum for discussions on the mobility needs of North Dakota and the shape of the state’s transportation infrastructure. The workshops were followed by a statewide conference. The ideas and concerns expressed by the citizens of North Dakota at these sessions were then forwarded to the Interim Committee on Transportation and the Interim Committee on Taxation. The project steering committee also distilled the key findings into a short (two-page) briefing document for the governor.

This guidebook describes the steps involved in planning and conducting this project, in the hope that other states and organizations will find this information useful as they plan similar projects.

## 1.2 Transportation Issues in North Dakota

North Dakota’s transportation system is central to the quality of life and the prosperity of its citizens. It allows individuals to travel to work, school, and social, cultural, and recreational activities; it promotes economic development; and it links local businesses to the global marketplace. The transportation system is, however, severely stressed, facing challenges from significant growth in freight and passenger traffic, spiraling construction and fuel costs, an aging population, and increased international trade.

Construction, maintenance, and program operating costs have risen dramatically in recent years. Road builders have found themselves competing with other construction companies for scarce materials, workers, and equipment. Similarly, transit operating costs have risen sharply with the price of fuel.

In the sparsely populated western part of the state, the recent “oil rush” in the Bakken Shale formation is causing roads built for light traffic volumes and farm tractors to be chewed up by heavy construction and tanker trucks.

Federal and state funding support has not kept pace with inflation and growing system demands. The costs of preserving the existing system—of taking care of what is already in place—will consume the revenue generated at the state and local levels by user fees and traditional forms of taxation.

North Dakota faces immense and growing costs for needed transportation projects and programs. It is more important than ever that transportation organizations reach out to the public—both individuals and organizations—to apprise them of what services can be provided with the funding that is available and to give them opportunities for informed input to elected leaders and transportation officials.

THE UPPER GREAT PLAINS TRANSPORTATION INSTITUTE is an independent research and education center at North Dakota State University.

Its mission is to educate people, conduct research, and provide outreach in the areas of small urban and rural transportation and logistics to enhance the mobility of people, goods, and agricultural commodities. It conducts research related to the immediate and long-term transportation needs of the region and disseminates information through conferences, workshops, and seminars.



To remain competitive in the world economy and to sustain a high quality of life for its citizens, North Dakota must ensure that its multimodal transportation system remains safe, effective, and efficient for today's travel and freight movements, as well as for tomorrow's. This project will help ensure that elected leaders and transportation officials understand the mobility needs of the state's residents, businesses, and tourists.



## **2. THE PLANNING PROCESS**

### **2.1 Steering Committee**

The UGPTI Advisory Council invited the following representatives of key stakeholder organizations to sit on a steering committee formed specifically for this project:

- Mark Johnson, Executive Director, North Dakota Association of Counties
- Tom Balzer, Managing Director, North Dakota Motor Carrier Association
- Bob Bright, Executive Director, Fargo-Moorhead Metropolitan Council of Governments
- Neal Fisher, Administrator, North Dakota Wheat Commission
- Russ Hanson, Executive Vice President, Associated General Contractors of North Dakota
- Grant Levi, Chief Engineer, North Dakota Department of Transportation
- Connie Sprynczynatyk, Executive Director, North Dakota League of Cities
- Ken Tupa, North Dakota Senior Services Providers and Dakota Transit Association
- Ken Yantes, Executive Secretary, North Dakota Township Officers Association

The steering committee, chaired by Mark Johnson, was charged with providing guidance to, and oversight of, the outreach project conducted by UGPTI. Committee members provided a “reality check” as to the concerns of the various stakeholder groups. They helped identify speakers from the local area for each of the regional workshops. They supplied mailing lists for the workshop invitations. They sat through a mock workshop and critically reviewed the draft presentations, ensuring that the information delivered at the regional workshops was topical, timely, succinct, and relevant.

The steering committee met with project staff on a monthly basis starting in September 2007.

### **2.2 Interim Transportation Committee**

The North Dakota Legislature convenes in odd years, and then for fewer than three months. Between sessions, the Interim Transportation Committee is responsible for working on transportation issues and concerns. This project was timed to avoid conflict with the legislative session and to give project staff ample time to prepare and present a summary report to the Interim Transportation Committee for their consideration before the start of the legislative session.

### **2.3 Project Purpose**

The steering committee defined the purpose of the project as being twofold: to help the public, elected leaders, and transportation officials become better informed about transportation and mobility needs across the state, and to foster a better understanding among businesses and citizens about how public policy decisions affect personal mobility and freight transport. All passenger and freight transportation modes—private vehicle, public transportation, train, airplane, motor carrier, etc.—were to be covered in the discussions.

This project is expected to have both immediate and long-term impacts on transportation and freight and personal mobility in North Dakota. One anticipated immediate outcome is a better understanding of transportation-related project, program, and service costs and the very real funding challenges facing all levels of government. Armed with that knowledge, the public will be better prepared to weigh in on how to best address those challenges *before* the list of unmet needs and funding shortfalls reach crisis levels. In

the longer term, it is hoped that this newly gained knowledge will prompt increased levels of public involvement in matters of transportation policy.

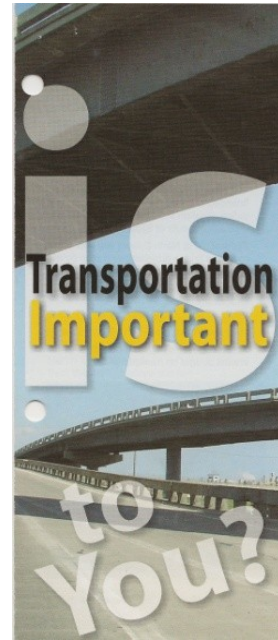
## 2.4 Defining the Audience

The project audience was defined as individuals and organizations affected by the quality and accessibility of the state's transportation system—in short, just about every citizen of the state.

The meetings were open to the public, but preregistration was requested.

An attractive brochure, designed to be a self-mailer, served as the invitation. The brochure was headlined “Is Transportation Important to You?” It included a list of the eight regional workshops, a preliminary agenda, a list of sponsors, and the following key “transportation facts” that were intended to generate interest in the workshops:

- Roadway construction and maintenance costs increased by 30 percent last year.
- Cost increases and budget shortfalls forced the North Dakota Department of Transportation to postpone \$130 million in planned improvements last year.
- The federal Highway Trust Fund, which is financed with gas tax revenue, will slip into a deficit situation in 2009. North Dakota could face funding cuts of \$100 million per year.
- Federal aid for road and bridge projects in North Dakota cities and counties could drop by more than \$26 million per year beginning in 2009.
- Seven hundred forty-five North Dakota bridges are considered structurally deficient.
- Twenty-five North Dakota counties are receiving less state transit aid than they did two years ago.
- The average family spends more than 18 percent of its annual budget on transportation.



**Figure 2.1** Conference brochure

The brochure described the workshops as being of interest to the following:

- People who drive
- People who provide transportation services
- People who use transit
- Business operators who depend on transportation
- Transportation planners
- Elected officials
- Community leaders
- Anyone who is concerned about satisfying future transportation needs

The brochure also included a registration form, which was to be completed and returned to UGPTI by February 29, 2008. (Registrations were, however, accepted after that date and no one was turned away at the conferences, as long as space permitted.) Registrants needed only to list their names and addresses and indicate which of the eight workshops and/or the statewide conference they planned to attend. To make it easy to register, the registration form could be mailed or faxed to UGPTI; participants could also register online (at [www.ugpti.org](http://www.ugpti.org)) or by telephone. There was no registration fee.

The project staff and Steering committee compiled an extensive list of stakeholder groups to whom invitations should be sent:

- Legislators
- County commissioners
- County engineers
- Township officers
- Motor carriers
- Highway contractors
- District engineers (North Dakota Department of Transportation)
- Transit operators
- Tribal chiefs
- School district administrators
- Highway Patrol
- County sheriffs
- Metropolitan planning organizations
- Farm groups
- Commodity groups
- Rural electric and telephone cooperatives and power companies
- UGPTI Advisory Council
- Regional planning councils
- Dakota Resource Group
- Chambers of commerce
- Major shippers and manufacturers
- Colleges and universities
- AAA North Dakota
- ND Department of Commerce
- Energy companies (oil, coal, etc.)
- Departments of tourism (state and local)
- Local economic development offices
- ND Department of Human Services
- Transportation consultants
- Steering committee members

Project staff contacted professional and trade organizations to request mailing labels; in some cases, however, there was no one source for a mailing list, leaving the staff to create a mailing list based on information available from online directories and other sources. In all, more than 5,000 invitations were issued. Some were sent by regular mail; others were sent by email. Some were sent directly from UGPTI; others were forwarded from various stakeholder organizations to their members. The invitations were mailed six weeks prior to the rollout of the workshops.

Press releases were prepared and sent to news outlets across the state to generate publicity prior to the workshops and to encourage reporters to attend the workshops. UGPTI staff made follow-up phone calls to selected members of the media. The workshop agenda and registration information were also posted on the UGPTI website.

The intent was to have between 50 and 100 individuals at each of the eight regional workshops and at the statewide conference. North Dakota has a total population of 635,000.

## 2.5 Workshop and Conference Format and Venues

The original discussions centered on conducting the workshops over a three-month period in 2008. It was eventually decided that eight one-day regional workshops would be held over a two-week period in locations across the state (see map):

- Monday, March 24—Dickinson (Days Inn Grand Dakota Lodge and Conference Center)
- Tuesday, March 25—Williston (Airport International Inn)
- Wednesday, March 26—Minot (Grand International)
- Thursday, March 27—Bismarck (Best Western Doublewood Inn)
- Friday, March 28—Fargo (Kelly Inn)
- Monday, March 31—Jamestown (Gladstone Inn and Suites)
- Tuesday, April 1—Devils Lake (Spirit Lake Casino and Resort)
- Wednesday, April 2—Grand Forks (Hilton Garden Inn)

The statewide conference that would wrap up the project would be a month later, on May 1 in Mandan (Best Western Seven Seas Hotel).

The locations of the eight regional workshops corresponded to the eight traditionally recognized regional centers and were selected based on population, proximity to rural areas and tribal lands, and ease of access; the dates were plotted to facilitate efficient travel for the project staff and steering committee members who would be involved in each session.

The regional workshops posed an intimidating travel schedule, with little room for error. It meant the project staff had to quickly pack up the workshop materials and drive several hours each evening to the next conference site. But the project staff and steering committee agreed that this concentrated schedule would be best: it minimized the total travel time, it was cost-efficient, and it allowed all the sessions to be conducted before the spring planting season started, which would have hampered registrations.

All the regional conferences started at 10 a.m. and ended by 2:30 p.m. (the statewide conference ran until 5 p.m.) Although there was discussion about holding some of the sessions in the evening to facilitate participation by those whose schedules might make it difficult for them to attend during the day, the steering committee decided that all workshops would be during the daytime to avoid putting participants in the position of having to travel on rural roads on dark winter evenings.

Lunch was provided at no cost to the participants. The lunch served two purposes: it was a small compensation to participants for devoting time to this important issue, and it provided time for structured small group discussions.



**Figure 2.2** Location of regional workshops and statewide conference (Map used with permission. [www.sitesatlas.com](http://www.sitesatlas.com))

Once the cities were selected, project staff turned to finding suitable meeting space in each town. The requirements for each site were as follows:

- Conference room capable of accommodating 100 participants seated at rounds of eight, with no or minimal room rental fee.
- Raised platform at front of room that could accommodate a lectern and six to eight panelists seated at draped tables.
- Audio-video technicians to furnish tabletop and handheld wireless microphones.
- Unobstructed line of sight to front of room (for PowerPoint presentations).
- Ability to provide a buffet lunch for up to 100 people, at a cost of less than \$10 each.

- Sleeping rooms at the state rate (for project staff and steering committee members, as the meeting schedules were designed to allow participants to drive in that morning and drive home in the afternoon).
- Room for a registration desk either just outside or just inside the meeting room.

UGPTI provided the PowerPoint projector, which saved considerable A/V expense.

## 2.6 Agendas

The workshops were designed to provide a factual overview of the condition of North Dakota's transportation system and a straightforward explanation of funding processes and sources. They also provided an opportunity for participants to hear from panelists representing the local business community, local social service organizations, and local elected officials in each area. The workshops were designed to afford plenty of time for questions and answers and for participants to voice their opinions about the state's current and future transportation system and options for funding transportation services and improvements. (See Chapter 3 for more details on the workshop agenda.)

## 2.7 Project Tasks

The project was planned to be completed over a 12-month period, with a starting date of August 2007 and an ending date of August 2008. The project was defined as consisting of the following key tasks:

- Task 1—Conceptualize project design and desired outcomes.
- Task 2—Assemble an advisory board of transportation planners, industry personnel, and governmental entities to review the project design and oversee subsequent activities.
- Task 3—Review proposed project design with the Interim Transportation Committee and the steering committee to ensure compatibility with existing planning efforts; modify as necessary.
- Task 4—Identify dates and locations of local and state level meetings and make related arrangements.
- Task 5—Develop materials for local meetings and compile list of invitees (legislators, local leaders, transportation users, and service providers, etc.).
- Task 6—Finalize plans and arrangements for local educational and input forums.
- Task 7—Host local educational and input forums (workshops).
- Task 8—Compile comments and input generated at the workshops.
- Task 9—Host state-level conference to review prior educational presentations, to disseminate input gathered at local meetings, and to encourage attendees to become active participants in public policy decision making processes related to transportation planning and funding.
- Task 10—Prepare a guidebook to summarize related processes and outcomes.

## 2.8 Resources

The project budget totaled \$108,000 for staff time, travel costs, and workshop/conference expenses (room rentals, lunches, handout materials). The breakdown was as follows:

- Payroll—\$69,000
- Banquet/room charges—\$12,640
- Travel—\$10,300
- Speakers/consultants—\$10,183
- Printing—\$2105



- Postage—\$1336
- Supplies—\$1687
- Motor pool—\$683

The workshops were sponsored by the following:

- Associated General Contractors of North Dakota
- American Public Transportation Association
- American Association of State Highway and Transportation Officials
- ND Association of Counties
- ND Department of Transportation
- ND League of Cities
- ND Motor Carriers Association
- ND Senior Service Providers/Dakota Transit Association
- Upper Great Plains Transportation Institute
- Small Urban & Rural Transit Center

Financial support for the project was provided by the following:

- American Association of State Highway and Transportation Officials
- American Public Transportation Association
- Mountain-Plains Consortium
- North Dakota Department of Transportation
- Upper Great Plains Transportation Institute

## **2.9 Measures of Effectiveness**

Several desirable project outcomes were identified, as follows:

- Stakeholders would be better informed about existing transportation projects and programs, project selection processes, and funding sources.
- Elected officials and transportation officials would gain a better understanding of the public's transportation needs and system shortfalls.
- Public and industry stakeholders in the North Dakota transportation system would be eager to participate in subsequent decision-making processes concerning transportation planning and funding.



### 3. DEVELOPING THE AGENDA

The steering committee and project staff jointly developed the workshop agenda. The biggest issue was paring down voluminous quantities of information to an amount that would be compelling to such a broad audience. After several iterations, the workshop agenda was finalized as follows:

9:30 a.m.

Registration

10:00 a.m.

Welcome (by a local member of the state legislature)

10:10 a.m.

Discussion of workshop goals (by Gene Griffin, UGPTI director)

10:20–11:45 a.m.

Presentations by project staff (copies of the PowerPoint presentations are included in the Appendices)

- Inventory of North Dakota's Transportation System
- Condition of Existing System, Inflationary Trends, and Transportation's Role in Economic Development
- Federal Funding Sources, Income Projections, and Distribution
- State and Local Funding and Planning Processes

11:45 a.m.

Buffet Lunch and Small Group Discussions

12:45 p.m.

Panel Discussion—Local Perspectives and Challenges

1:30 p.m.

Participant Input—System and Service Needs, Budgets, and Options (open microphone and questionnaire)

2:00 p.m.

Effectuating Change—Where Do We Go from Here?

2:15 p.m.

Adjourn

Project staffers researched their presentation topics and prepared draft presentations that were then delivered at a mock conference before the steering committee in February; the content of the presentations was then revised and adjusted as necessary to address the steering committee's comments.

Copies of the presentations are included in Appendix B.

The workshops were titled "Is Transportation Important to You?" That title, which was intended to spur interest among traditional and non-traditional stakeholder groups, appeared on all marketing efforts, and a large banner with those words appeared on the wall behind the speaker dais at each workshop.



## 4. REGIONAL WORKSHOPS

As participants checked in at the registration desk for each workshop, they were handed a name badge and a folder containing the following items:

- Workshop agenda
- Speaker bios
- Roadmap of North Dakota
- *Pocket Guide to Transportation 2008*, prepared by the Bureau of Transportation Statistics at the U.S. Department of Transportation's Research and Innovative Technology Administration
- *North Dakota Transportation Handbook*, prepared by the North Dakota Department of Transportation
- Participant questionnaire
- Handouts describing (in graphs and tables) federal, state, county, city, and township funding for roadways and transit



**Figure 4.1** Speaker presentation

For those individuals who were not able to attend any of the workshops or the statewide conference, copies of the presentations were posted on the UGPTI web site.

The room was set in rounds of eight, with a dais at the front. The dais held a lectern and between six and eight chairs at a head table for the speakers and panelists. Coffee was available throughout the session. Participants were encouraged to ask questions after each presentation.

At lunch time, participants served themselves from a buffet and then returned to

their tables for a structured discussion with their tablemates.

The instructions for the lunchtime discussions were as follows:

- Each table was to select a recorder.
- The recorder was to solicit input, in turn, from each person at the table regarding concerns pertaining to North Dakota's transportation system. These concerns might relate to infrastructure, personal mobility programs, funding, or other topics.
- The same process was used to solicit ideas for potential solutions or means of addressing those concerns.
- The recorder then submitted the list of concerns and solutions to the program moderator at the conclusion of the lunch.



Members of the top leadership of the North Dakota Department of Transportation—including Francis Ziegler, NDDOT director—were in attendance at all of the workshops. They had no formal role in the program, but their presence alone provided substance to the program and assured participants that their comments and concerns were appreciated and welcome by the NDDOT leadership.

**Figure 4.2** Conference panel

Participants were asked to complete a feedback form to either turn in before

leaving the session or mail to UGPTI. The survey asked participants to indicate (by zip code) what area of the state they were from. They were asked to select which of the following best described their reason for attending the workshop:

- Concerned citizen (15%)
- Elected official (26%)
- Transportation service provider (18%)
- Shipper/business (5%)
- Public employee (19%)
- Transportation contractor/consultant (5%)
- Other (11%)

They were also asked to rank the following areas of concern (listed here in order, with greatest concern first, based on responses from all workshops):

- Funding for future transportation infrastructure projects
- Quality of state roadways and bridges
- Quality of county roadways and bridges
- Quality of city roadways and bridges
- Transit service levels and related funding (city buses, rural public transportation, etc.)
- Quality of township roadways and bridges

The state legislature was well represented at each workshop, with elected officials turning out to both speak and listen to their constituents:

*Dickinson Workshop*

Representative Shirley Meyer  
 Senator Rich Wardner  
 Representative Nancy Johnson

*Williston Workshop*

Senator John Warner  
 Representative Gary Sukut  
 Senator Stan Lyson  
 Representative Patrick Hatlestad  
 Representative Dave Drovdal

*Minot Workshop*

Representative Dan Ruby  
Senator Dave O'Connell  
Representative Bob Hunsakor  
Senator Bob Horn

*Bismarck Workshop*

Representative Robin Weisz  
Senator Aaron Krauter  
Senator Dick Dever

*Fargo Workshop*

Representative Ed Gruchella  
Representative Lee Kaldor  
Senator Gary Lee  
Senator Jim Pomeroy  
Representative Kathy Hawken

*Jamestown Workshop*

Senator Terry Wanzek  
Representative Chet Pollert  
Representative Phil Mueller  
Representative Ralph Metcalf  
Representative Joe Kroeber  
Representative Mike Brandenburg

*Devils Lake Workshop*

Representative Merle Boucher  
Representative Chuck Damschen  
Representative Arlo Schmidt  
Representative Ben Vig  
Representative Don Vigesaa

*Grand Forks Workshop*

Senator Ray Holmberg  
Representative Eliot Glassheim





## 5. THE STATEWIDE CONFERENCE

The statewide conference was in Mandan on May 1, 2008—a month after the conclusion of the regional workshops. It was designed to serve as a forum for summarizing the information presented and input received at the regional workshops and to provide updated information on transportation system needs. The statewide conference drew about 80 participants. The room setup was the same as for the regional workshops, and the same methods of inviting the public, members of the business community, and members of the press were used.

Several legislators were in attendance, including Senator Tom Fiebiger, Representative Karen Karls, Senator Larry Robinson, Senator Rich Wardner, and Representative Robin Weisz.

The project staff prepared the updated needs estimates (see table, below) based on studies of the state transportation system, surveys of county road authorities, a review of urban planning studies, and a review of other studies that were prepared over the past decade. Copies of related presentations are included in Appendix C.

**Table 5.1** Estimated annual roadway and bridge funding needs in North Dakota

Jurisdiction	Highways (millions)	Bridges (millions)
State	\$216.6	\$26.3
County	\$140.0	\$19.8
Small Cities	\$29.7	*
Townships	\$36.3	*
Urban Centers	\$70.7	*
Subtotals	\$493.3	\$46.1
TOTAL	\$539.4	

\*not estimated

Transit need estimates are estimated at approximately \$13.7 million annually, based on information received from the state’s transit operators. That brings the total annual system needs (roads, bridges, and transit) to \$553.1 million.

Using those need estimates and inflation figures calculated from 2008 bid prices, the North Dakota Department of Transportation estimates an annual revenue shortfall of nearly \$257 million for roads, bridges, and transit.

Francis Ziegler, director of the North Dakota Department of Transportation, pointed out that funding constraints have forced the department to operate in “preservation mode,” focusing its efforts on maintaining the existing infrastructure, with little emphasis on improvement. More than one-third of the asphalt roadways in the state are considered to be in mediocre condition. Yet demands on the road system keep rising—largely a reflection of robust manufacturing, agriculture, and energy sectors.

Panel discussions featuring state legislators and top-level representatives of state agencies and organizations were a key component of the conference. The panelists provided frank perspectives on the transportation system, mobility needs, and funding realities.

Concluding the conference was a panel composed of several members of the project steering committee. During their discussion, it was suggested that a starting point for addressing existing revenue shortfalls

would be to consider dedicating all state motor vehicle excise tax revenues for transportation purposes. Doing so would increase overall program revenues by \$116 million per biennium. Since the motor vehicle excise tax is tied to the selling price of motor vehicles, it could be expected to increase over time, in concert with inflation; this is contrary to the situation with fuel tax revenues, which decline as vehicles become more fuel efficient.

The conference agenda was as follows:

10:00 a.m.

Welcome and Introductions (by the chair of the steering committee)

10:10 a.m.

Overview of Local Workshops and Presentation Highlights (by the Project Manager)

10:30 a.m.

Summary of Workshop Input (by Project Staff)

11:00 a.m.

Panel Discussion—Infrastructure and Person Mobility Needs

Representatives of

- North Dakota Department of Transportation
- Tribes
- Department of Human Services
- Counties
- AARP
- Cities
- North Dakota Disabilities Advocacy Consortium
- Townships
- Small Urban & Rural Transit Center

Noon

Lunch and Small Group Discussions

1:00 p.m.

Continuation of Morning's Panel Discussion

2:00 p.m.

Updated Infrastructure Needs Assessment (Project Staff)

2:30 p.m.

Workshop Findings and Participant Suggestions (Project Staff)

2:45 p.m.

Annual Needs, Available Funding, and Projected Shortfalls (North Dakota Department of Transportation)

3:00 p.m.

Managing Major Needs (Project Staff)

3:30 p.m.

Panel Discussion—Legislative Perspectives (Two State Senators and Two State Representatives)

4:15 p.m.

Participant Reactions and Input (Open Microphone)

4:30 p.m.

Panel Discussion—Effectuating Change: Where Do We Go from Here? (Steering Committee Members)

5:00 p.m.

Adjournment

Hosted Social



## 6. FINDINGS AND RECOMMENDATIONS

Based on the surveys completed by participants and on subsequent phone interviews with a subset of participants, the regional conferences and statewide workshops are deemed a success. More than 500 people participated in the discussions, and reports of the workshops and conference were disseminated in newspapers, newscasts, trade publications, and newsletters. Findings from the project were presented to the Governor's Office and to the Interim Transportation Committee.

### 6.1 Key Issues

The key points raised in the workshops and conference are as follows:

- The transportation infrastructure and personal mobility are critical to a strong economy and quality of life.
- Demands on the state and local transportation system have increased significantly as a result of a growing economy, increased agricultural production and processing, oil drilling, and rising personal mobility needs.
- Inflation has had a significant impact on the purchasing power of transportation-related appropriations. Overall highway construction costs in North Dakota grew by 60 percent from 2001 to 2008. Asphalt paving costs increased at an even faster rate during that time, with some counties reporting that costs doubled from 2006 to 2008.
- The federal Highway Trust Fund is projected to run out of funds later this year. The result could be a loss of \$70 million in federal funds to North Dakota and its cities and counties.
- The federal excise tax on gasoline and diesel fuels has not increased since 1993. Despite state fuel tax increases of one cent per gallon in 1999 and two cents per gallon in 2005, fuel tax revenues have been relatively flat as a result of increased vehicle fuel efficiency.
- Financial constraints have led the NDDOT to operate in a "preservation mode"—focusing on taking care of existing roads and bridges. This has resulted in the quality of the state's transportation system declining in some cases. As quality decreases, costs will increase: Scheduled maintenance that has to be deferred by can lead to an increase in project costs by 400 to 500 percent over a seven- or eight-year period.
- Funding the state Department of Transportation to a level that only provides sufficient funds to match federal funding for transportation projects is not enough; additional funding is necessary to meet the state's transportation needs.
- Many county bridges have a life expectancy of 50 years. But given existing budgetary constraints and scheduled replacement cycles, many of those bridges will have to hold up much longer, as they will not likely be replaced until they are well over 100 years old.
- About eight percent of the state's residents live in households without vehicles. These transportation-disadvantaged individuals (many of whom are senior citizens or persons with disabilities) can be "stranded at home" and potentially represent a hidden workforce; they are often willing and eager to work if they have access to public transportation services. Such access would involve significantly higher operational costs, as service would have to be expanded to cover a broader area and service hours would have to be extended.
- Many local transit operators find it difficult to provide the 50 percent match required by federal transit assistance programs, which means that money is left on the table.

- North Dakota's population is aging; by 2030, the size of the senior population will have increased by 60 percent, which is expected to spur a related increase in the demand for public transportation services. Such services can allow seniors to continue living in their homes, rather than having to relocate to communities that offer more accessible transportation services.
- Customer expectations related to North Dakota's roadway and transit systems are rising.

## 6.2 Participant Suggestions

The workshop and conference participants provided hundreds of suggestions for improving the transportation system and addressing the funding crisis. Below is but a short summary of some of the most frequently suggested ideas.

- Eliminate diversions from the state Highway Tax Distribution Fund (for example the Highway Patrol receives \$4.2 million from the Fund over each two-year legislative cycle, and the tax advantage given to fuel containing ethanol costs the Fund \$3.2 million per biennium).
- Make permanent the existing one-time-only dedication of motor vehicle excise tax payments to the Highway Fund (\$12.6 million per biennium) and dedicate a higher proportion of the motor vehicle excise tax revenues (currently \$126 million per biennium) to the Highway Tax Distribution Fund.
- Increase the amount of oil tax monies dedicated to counties, cities, and townships affected by the oil drilling.
- At a minimum, increase funding for the North Dakota Department of Transportation by an amount corresponding to the inflation rate for construction and maintenance projects (currently 15 percent).
- Distribute any increases in the state Highway Tax Distribution Fund to all related road authorities, including the state Department of Transportation, cities, counties, townships, and tribes.
- Finance budget increases with diversion and dedication measures and, if necessary, a fuel tax increase of up to five cents per gallon (a one-cent tax increase would generate a \$10.2 million budgetary increase per biennium).
- Provide increased funding for public transportation services to maintain existing service and routes, extend service to additional areas, and expand hours of operation.
- Require all state-supported transit services to be coordinated with other transit services within corresponding cities, counties, and regions.

## 6.3 Funding Proposal

Participants at the statewide conference recommended that the ideas set forth regarding the dedication of motor vehicle excise tax revenues to transportation purposes be formalized in a proposal, which follows:

### 6.3.1 Background

The regional transportation workshops have clearly demonstrated the desperate need for funding by all state and local road authorities, as well as among both rural and urban transit providers. Additionally, comments in a number of locations highlighted the increasing competition for funds that results from the growing needs.

This funding concept is proposed to create an immediate increase in funding for all sectors, but also provide for a long-term, cooperative approach to funding stability.

### **6.3.2 Proposal**

While the primary source of new funds, motor vehicle excise taxes, was mentioned by numerous individuals at the regional forums, this proposal would use it as a means to implement a permanent, long-term funding strategy. The elements of the proposal are:

*Revenue*—Redirect all motor fuel and special fuel taxes, all motor vehicle registration fees, and all motor vehicle excise taxes into the State Highway Distribution Fund, including the following:

- The township one-cent fuels tax
- The transit \$3 registration fee
- The NDDOT \$13 registration fee
- The 10 percent NDDOT excise tax (and \$1 million to transit)
- The excise tax going to local government through the State Aid Distribution Fund

*Allocation*—Rewrite the overriding formula for allocating the State Highway Distribution Fund to include all “distribution fund” and “non-distribution fund” beneficiaries of these revenue streams. In this way, the following entities and interests would receive a statutory share of the State Highway Distribution Fund:

- North Dakota Department of Transportation
- County highways
- City streets
- Township roads
- Transit programs
- Ethanol production support
- Highway Patrol—Truck Regulatory
- Motor boat safety
- Snowmobile program

It was noted that tribal tax revenues would also need to be addressed, but since the implications of state and federal law were unknown, this item was omitted from the discussion at the conference.

The proposal was subsequently endorsed by the project steering committee and the UGPTI Advisory Committee.

## **6.4 Input to Legislature and Governor**

The findings of this project were submitted to the North Dakota Legislature’s Interim Transportation Committee in June 2008. The Interim Committee serves a direct channel to the legislative process. The project manager also presented the committee with a copy of the funding proposal that was drafted in response to input received at the regional workshops and statewide conference. Copies of these presentations are included in Appendix D.

The steering committee distilled the outcome of the workshops and conferences into a two-page briefing that was presented to the Governor, so that the information and recommendations would be considered during the executive budget process.

## **6.5 Materials Available to the Public**

The presentations and key findings from this project have been posted on the UGPTI website ([www.ugpti.org](http://www.ugpti.org)) so they can be readily accessed by transportation organizations, legislators and their staffs, citizens, members of the media, and others.



## **7. CONCLUSION**

This project focuses on informing the citizens of North Dakota about the state of their transportation system, soliciting their input into how that system could be sustained and improved, and encouraging their involvement in decision-making processes related to transportation infrastructure and services.

Through a series of eight regional workshops and one statewide conference, almost 600 persons representing a broad swatch of stakeholders in North Dakota's transportation system had an opportunity to become more informed about transportation issues and to provide well-founded ideas and opinions about how transportation services could be improved.

The information prepared by the project staff at the Upper Great Plains Transportation Institute and the ideas and suggestions offered by the workshop and conference participants will serve as useful, timely information in discussions about the state's transportation system during the 2009 legislative session.



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- Tolliver, Denver, and Alan Dybing. *Impacts of Transportation Infrastructure on the Economy of North Dakota: A Report to the North Dakota Legislative Council*. Fargo, ND: Upper Great Plains Transportation Institute, April 2007.
- TransAction II: North Dakota's Statewide Strategic Transportation Plan. Bismarck, ND: North Dakota Department of Transportation, 2007.



## **APPENDIX A. UGPTI ADVISORY COUNCIL**

**Neal Fisher, *Chair***

North Dakota Wheat Commission

**Tom Balzer**

North Dakota Motor Carriers Association

**Jim Boyd**

North Dakota Department of Commerce

**Sandy Clark**

North Dakota Farm Bureau

**Tony Clark**

North Dakota Public Service Commission

**Jay Elkin**

North Dakota Grain Growers Association

**Russ Hanson**

Associated General Contractors of ND

**Mark Johnson**

North Dakota Association of Counties

**Roger Johnson**

North Dakota Department of Agriculture

**Bob Kjelland**

North Dakota Farmers Union

**Dave MacIver**

North Dakota Chamber of Commerce

**Gary Ness**

North Dakota Aeronautics Commission

**Connie Sprynczynatyk**

North Dakota League of Cities

**Steve Strege**

North Dakota Grain Dealers Association

**Sandi Tabor**

Lignite Energy Council

**Mark A. Wolfe**

Phoenix International, Inc.

**Francis Ziegler**

North Dakota Department of Transportation

**Daniel Zink**

Red River Valley & Western Railroad

## **APPENDIX B. WORKSHOP PRESENTATIONS**

### ***Program Goals***

Gene Griffin, UGPTI

### ***Inventory of North Dakota's Transportation System***

Jon Mielke, UGPTI

### ***Condition of Existing System, Inflationary Trends, and Transportation's Role in Economic Development***

Alan Dybing, UGPTI

### ***Federal Funding Sources, Income Projections, and Distribution***

Kathryn Harrington-Hughes, UGPTI

### ***State and Local Funding and Planning Processes***

Gary Berreth, UGPTI

## *Public Involvement in Transportation Policy and Funding Decision Making Processes*

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Goals and Outcomes  
Mobility in our Socioeconomic System

## *Democracy at Work*

---

- Your opinions/attitudes influence your representatives in the legislature and Governor
- This translates into public policy
- Your opinions will determine the future of transportation and mobility for North Dakotan's
- How about those that aren't here today
  - They count as well
  - Please provide them with your input

2

## *Important Point!!!*

---

- We're not trying to tell you what to think
- We're hoping to give you something to think about

3

## *Goals and Outcomes*

---

- Goals
  - Become more informed about the state's transportation and mobility needs
  - Learn how public policy affects how those needs are accommodated
  - Identify your concerns
- Outcomes
  - More informed and aware of how personal and freight mobility is affected by public policy on transportation planning and financing.
  - Heightened interest and awareness allowing you to discuss issues with decision makers; county commissioners, legislators, & friends
  - Identify potential solutions
- Not here to tell you what to endorse
- Shed more light than heat

4

## *Two Basic Questions*

---

- Importance and role of mobility
  - Key elements in an advanced socioeconomic system
  - The role of mobility in the economy
- How the role of mobility is changing
  - Mobility in a changing economy
  - Importance in the 21<sup>st</sup> Century

5

## *Importance of Mobility*

---

Some Basic Tenets of a Successful Society

- A system that provides food and fiber
- Adequate health care system
- Education system that creates intellectual capital
- Governance, defense and security of society
- System of Justice - dispute resolution, equity
- Creation of knowledge and technological advancement
- System of commerce that rewards the individual
- Communications - ideas, money, networking
- Mobility in its broadest context -walking/flying/driving

Mobility - Necessary condition/glue for socioeconomic success

6

## ***Role of Mobility in Economy***

- A necessary condition for advancement
  - Trade which leads to economic specialization
    - Allows exploitation of comparative advantage
  - Increases competition/levels the playing field
  - Opportunities for alliances/networking
  - Allows urbanization to take place
- Greater opportunities for businesses/consumers
- Globalization of the world economy

7

## ***Second Question***

- How the role of mobility is changing
  - Mobility in a changing economy
  - Importance in the 21<sup>st</sup> Century

8

## ***Mobility in a Changing Economy***

- Past stages of the economy
  - Subsistence/barter
  - Agricultural/commodity
  - Industrial/durable goods
  - Consumer goods
  - Service economy
- Mobility more vital as economy evolved
- Next stage of the economy - Knowledge based

9

## ***Implications of Economic Change***

- New economic orders do not replace existing systems – they add to them
  - Results in increase in total demand for transportation
  - Transportation becomes a more critical component in socioeconomic system over time
  - Evidenced by changes in demand the past 40-50 years

10

## ***Mobility Indices***

- Passenger Vehicles: 1960-74 million; 2003-231 M
- Air passenger miles: 1960-31 billion; 2004-558 B
- Truck tons: 1950-794 million; 2003-8,699 million
- Rail tons: 1950-1,421 million; 2004-2,183 million,
- UPS, FedEx, etc.: 1990 – \$22.5 million; 2005-55.5 M
- Container volumes: 1990-2.8 million; 2004-8.1 M
- Paratransit: 1990-68 million trips; 2004 – 114 M

11

## ***Mobility in the 21<sup>st</sup> Century***

### ***More Important***

- Globalization will most likely continue
  - Increased competitiveness
  - Expanded sourcing opportunities and markets
  - Changing business structure – multi-nationals
- Communications
  - Increased networking – put a face to a name
  - Increased socialization
- Consumer goods and service economy growth
- Evolving knowledge based economy

12



## ***Factors that Influence Mobility***

- Demographics – aging population
- Changing economy – ethanol, globalization
- Global warming – fuel efficiency
- Inflation – construction costs
- Federal policy – devolution of programs
- Population shifts – urbanization of ND
- Farm size – equipment size, load factors
- Gas prices - ????????

13

## ***Some Basic Questions***

- Local road system adequate – quantity, quality, service
- Revenues to support local road system
- State system – quantity, quality, service
- Should the Federal Govt get out of transportation or the alternative
- Are the elderly, remotely located, and low income adequately served

14

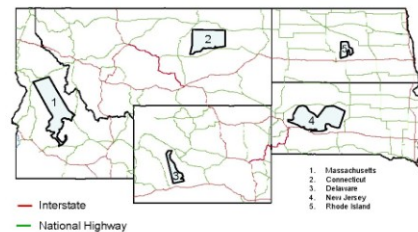
## ***Summary***

- Mobility/Transportation has become more vital
- This trend will continue
- Integrated system is critical for participation in socioeconomic system – last mile problem
- Strong national/state system backbone needed
- Funding trends at the Federal level
  - Devolution a possibility
  - If not devolution certainly a focus on national system

15

## ***Our Comparative Challenge***

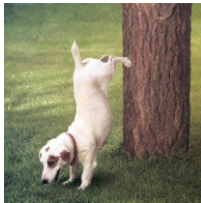
Interstate and National Highway Systems – in MT, ID, SD, ND and WY  
Federal-aid System is Critical for Connectivity



16

## ***When You're Smaller, You Have to be Smarter***

It isn't a matter of choice, it's a matter of survival



The Jack Russell Terrier will stand on his front legs to mark his territory higher so that dogs that follow deduce a larger dog and therefore, a larger threat.

17

# Generating Public Involvement in Transportation

Upper Great Plains Transportation Institute  
North Dakota State University

March 2008

## North Dakota's Transportation Inventory

### Infrastructure

- Roadways
- Railroads
- Airports

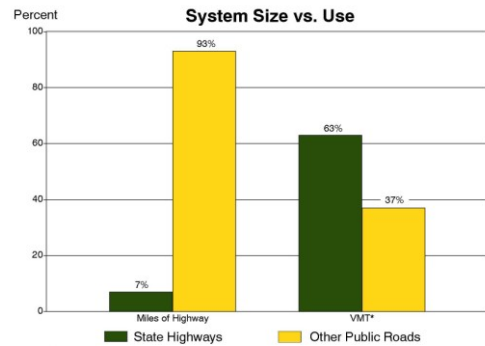
### Personal Mobility

- Automobiles
- Buses
- Taxis
- Rail

## North Dakota Roadways

Interstate	571 miles
Other National & State Highways	6,814 miles
County Roads	19,043 miles
Other Rural (Township) Roads	56,509 miles
City Streets	3,860 miles
Trails	19,827 miles
<b>TOTAL</b>	<b>106,624 miles</b>

North Dakota has more miles of road per capita than any other state.



Data taken from the North Dakota Transportation Handbook, NDDOT, December 2006.C

## North Dakota Bridges

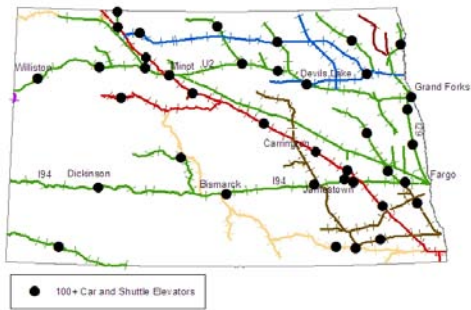
System	Number	Deficient*	% Deficient
State	1,712	32	2%
Urban	96	5	5%
County	3,218	717	22%
Total	5,026	754	15%

\* A structurally **deficient** bridge is **not necessarily unsafe**. The term means that the structure has girders, piers, or abutments which **warrant attention**.

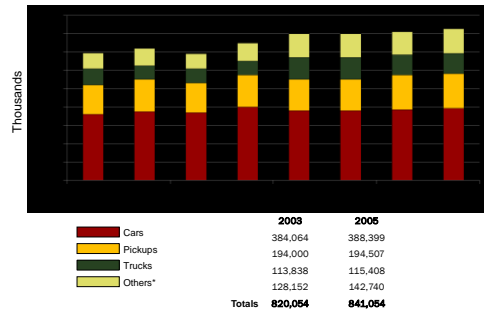
## North Dakota Transportation Facts

	1950	2007
Paved State Highways	2,100 miles	7,400 miles
Paved County Highways	2,800 miles	6,800 miles
Load Limit (on State Highways)	73,280 GVW	105,500 GVW
Crop Production	17 billion pounds	57 billion pounds

## North Dakota Shuttle Elevators



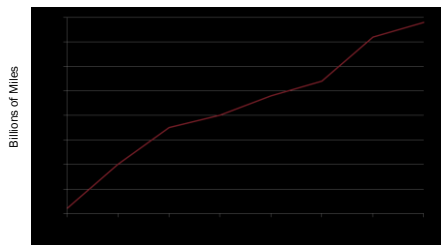
## Vehicle Registrations – 1980 to 2005



\*motorcycles, buses, motorhomes, snowmobiles, and trailers

Source: North Dakota Transportation Handbook, NDDOT, December 2006.

## North Dakota Vehicle Miles Traveled – 1970 to 2005



Vehicle miles of travel on North Dakota's system increased steadily from 1970 to 1999, then leveled off from 1999 to 2003, and increased again in 2004 and 2005.

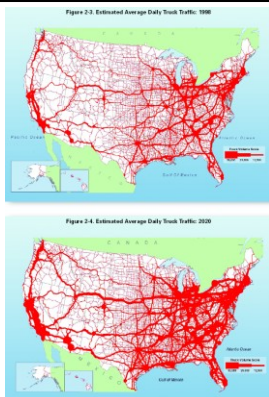
## U.S. Roadway Usage

**Total Freight Shipments** Projected to double by 2020

**Truck Shipments Connected to International Trade** 3.8 billion VMT in 2002  
7.0 billion VMT by 2015

**Urban Traffic** Up 45% since 1993

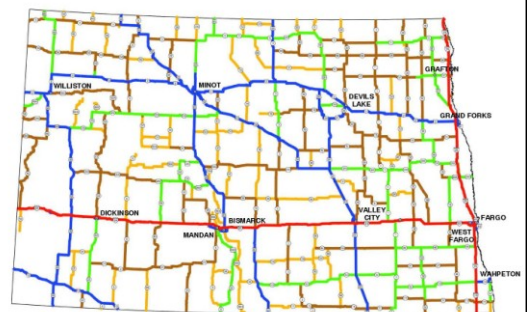
**Rural Traffic** Up 23% since 1993



### Continued Growth

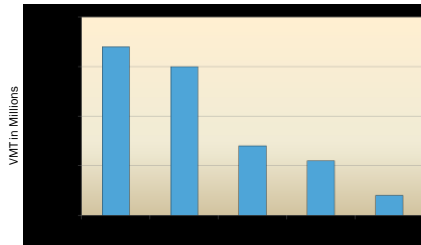
- + Population
- + GDP
- + Foreign Trade
- + Commodity Flow
- + Truck Traffic

## State Highway Performance Classification System



Data taken from the North Dakota Transportation Handbook, NDDOT, December 2006.

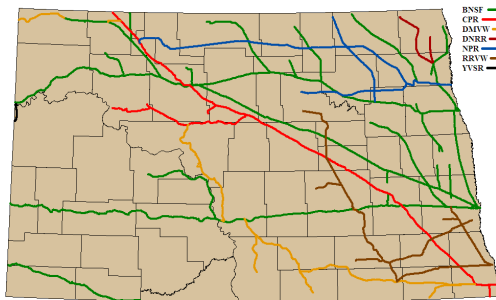
### State System – Vehicle Miles Traveled (VMT) in 2005



### Highway Classification System Data

	Top 3 Levels	Bottom 2 Levels
State Lane Miles	52%	48%
Cities	48%	52%
State Population	92%	8%
County Seats	43	9
Vehicle Miles Traveled	84%	16%

### North Dakota Railroads

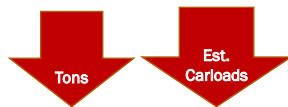


### ND Railroad Mileage -- 2005

Railroads	Main - line	Branch - line	Total
BNSF	1,107	675	1,779
CPR	353	92	445
DMVW	-	399	399
DNRR	-	71	71
NPR	-	434	434
RRVW	-	428	428
YSVR	-	9	9
Total	1,460	2,105	3,565

SOURCE: North Dakota Public Service Commission. Taken from *North Dakota Transportation Handbook*, NDDOT, December 2006.

### North Dakota Rail Shipments – 2005



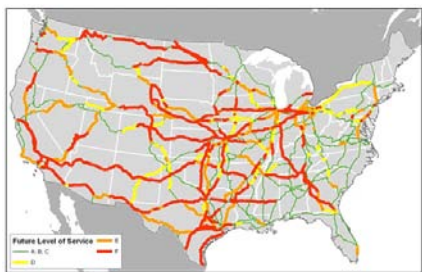
Freight Originated in ND	22.7 M	210,000
Freight Terminated in ND	9.1 M	85,000
<b>Total</b>	<b>31.8 M</b>	<b>295,000</b>

### Current Corridor Volumes by Primary Rail Freight Corridor 2005 Freight Trains and 2007 Passenger Trains per Day



Source: Cambridge Systematics, Inc.  
Note: Volumes are for the 85th percentile day.

### Projected 2035 Train Volumes Compared to Current Train Capacity



This map identifies the relationship between projected freight train volumes on an 85th-percentile day in 2035 with the theoretical capacity of individual sections, assuming that no additional capacity expansion occurs before that time. Levels of Service A, B, and C are all considered to be under capacity. Levels of Service D, E, and F are considered to be nearing capacity, at capacity, and over capacity, respectively.

Source: National Rail Freight Infrastructure Capacity and Investment Study prepared for the Association of American Railroads by Cambridge Systematics, Inc.

Taken from the Report of the National Surface Transportation Policy and Revenue Study Commission Transportation for Tomorrow, December 2007

### North Dakota Amtrak Service



### Amtrak Ridership – 2003 to 2006

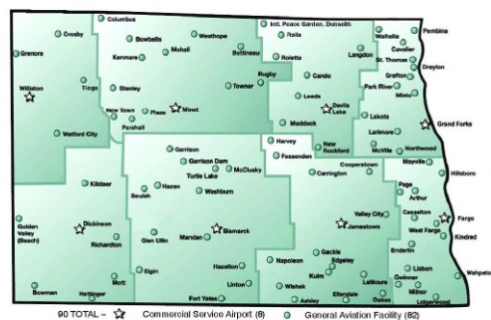
Amtrak serves North Dakota with two long-distance east/west daily trains called the Empire Builder. It follows a route from Chicago-Minneapolis/St. Paul through North Dakota to Seattle/Portland.

#### ND Boardings On/Off

City	FY2003	FY2004	FY2005	FY2006
Devils Lake	4,726	4,834	6,039	6,272
Fargo	13,869	15,456	18,812	22,771
Grand Forks	13,024	14,638	17,847	19,574
Minot	27,493	29,511	33,314	35,829
Rugby	4,940	5,533	6,272	5,975
Stanley	2,678	2,688	2,694	3,018
Williston	16,196	16,659	19,504	21,300
<b>Total</b>	<b>82,926</b>	<b>89,319</b>	<b>104,482</b>	<b>114,739</b>

Data taken from the North Dakota Transportation Handbook, NDDOT, December 2006.

### North Dakota Airports

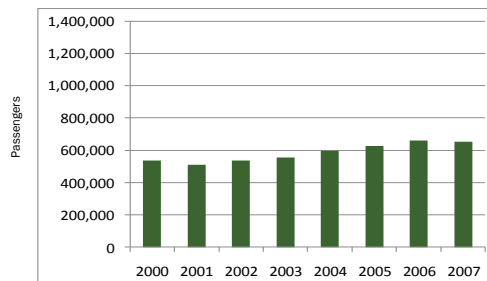


Data taken from the North Dakota Transportation Handbook, NDDOT, December 2006.

### North Dakota Aviation Facts

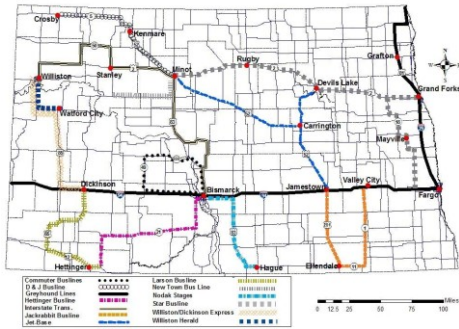
Commercial Airports	8
General Aviation Airports	90
Rural Private Grass Airfields	220
North Dakota Based Aircraft	1,600
Licensed Pilots	2,500
Commercial Airlines Serving North Dakota	6
Daily Commercial Flights at ND Airports	92
North Dakota Spraying Businesses	158
Tons of Air Freight Flown Annually to ND Airports	100,000

### North Dakota Airline Boardings

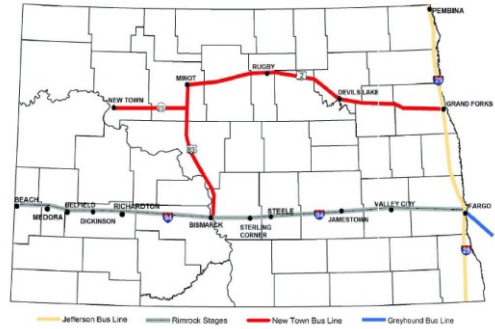


SOURCE: ND Aeronautics Commission  
Gary R. Ness, Executive Director  
(701) 328-9650  
www.nd.gov/ndaero

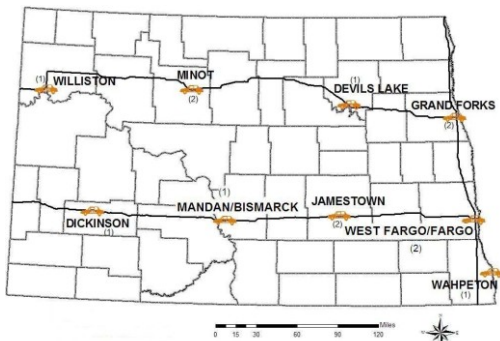
## North Dakota Intercity Bus Service - 1981



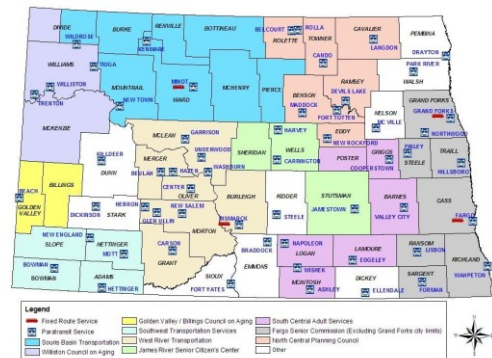
## North Dakota Intercity Bus Service – 2006



## North Dakota Cities with Taxi Service



## North Dakota Transit System Locations



## NORTH DAKOTA TRANSIT FACTS

	2003-04	2005-06
Fixed Route Bus Systems (Bismarck, Fargo, Grand Forks & Minot)	4	4
Urban & Rural Dial-A-Ride Services	40	39
Rides Provided	1.7 million	2.4 million
Cost/Ride	\$5.17	\$4.49
Fare/Ride	\$.92	\$.80
Subsidy/Ride	\$4.25	\$3.69

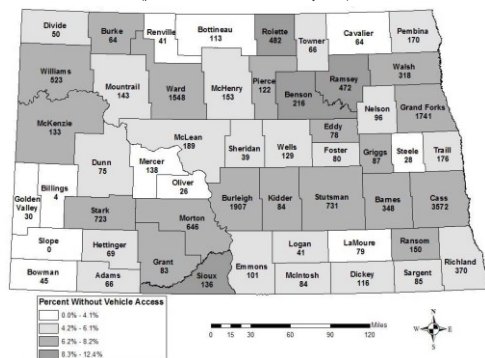
## North Dakota Households Without Vehicles

North Dakota Households Without Vehicles	17,030
Average Residents/Household	2.41
Estimated Individuals Without Direct Vehicle Access	41,000
Percent of State Residents Without Direct Vehicle Access	6.5%
Estimated Non-Driver Trips per Day	2.6
Estimated Need for Transportation by Individuals Without Vehicles	106,600/day



## North Dakota Households Without Vehicles by County

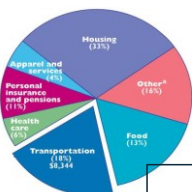
(persons without vehicle below county name)



## School Buses

- Approximately 200 school districts in North Dakota
- All but about a dozen small districts provide transportation services
- Over 100,000 state residents are school age (K-12); over 40% ride buses
- Approximately 2,300 school buses in North Dakota
- Buses traveled 23.6 million miles in 2003 at a cost of \$1.35 per mile

## Average Household Expenditures on Transportation - 2005



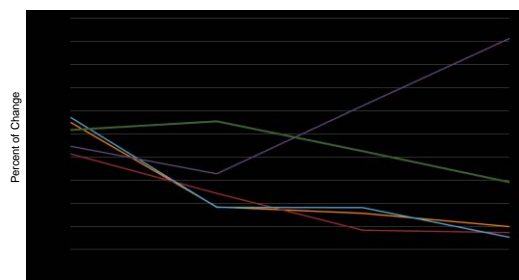
<b>Private vehicle expenditures</b>	<b>= \$7,896</b>
Vehicle purchases	= \$3,554
Gasoline and motor oil	= \$2,013
Other vehicle expenditures	= \$2,339
<b>Public transportation expenditures</b>	<b>= \$448</b>
Airline fares	= \$285
Mass transit fares	= \$52
Ship fares	= \$42
Taxi fares	= \$24
Intercity train fares	= \$19
Intercity bus fares	= \$12
Location transportation on out-of-town trips	= \$11
School bus	= \$3

\* Includes entertainment, personal care products and services, education, tobacco products and smoking, and miscellaneous.

Note: Numbers do not add to totals due to rounding.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, 2005; and personal communication, November 2006.


## North Dakota Population Trends




Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005

## Summary Considerations

- Roadway usage in ND has increased dramatically (vehicles & tonnage) & further increases are anticipated
- Rail congestion may be expected in the future
- Airline travel in ND is increasing
- ND transit provides 2.4 million rides annually
- ND's senior population will increase by 60% over the next 20-25 years
- Transportation is of major importance




Upper Great Plains  
Transportation Institute




# Generating Public Involvement in Transportation

## Current Conditions, Economic Impacts of Transportation, and Cost Trends




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Transportation Institute




# Overview

- Currently, what is the condition of North Dakota's roads?
- How does road condition impact user costs?
- How do user costs relate to the economy?
- How does inflation affect road condition?




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# Current System Condition

- International Roughness Index (IRI) - measurement of the "bumpiness" of the road.
- Low values (0-94) indicate a very smooth riding quality, while higher values, (above 220), indicate a rougher riding road.
- In 2005, the statewide average IRI was 114
  - Concrete pavements – IRI = 95
  - Flexible pavements – IRI = 128




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Transportation Institute




# State Highway Conditions

<ul style="list-style-type: none"> <li>Flexible Pavements <ul style="list-style-type: none"> <li>Very Good – 6%</li> <li>Good – 35%</li> <li>Fair – 22%</li> <li>Mediocre – 39%</li> <li>Poor – &lt; 1%</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Concrete Pavements <ul style="list-style-type: none"> <li>Very Good – 22%</li> <li>Good – 38 %</li> <li>Fair – 20%</li> <li>Mediocre – 18%</li> <li>Poor - &lt; 1%</li> </ul> </li> </ul>
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Pavement smoothness based upon IRI measurements  
(Source: NDDOT)



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Transportation Institute



# Current County Conditions

<ul style="list-style-type: none"> <li>County Major Collectors <ul style="list-style-type: none"> <li>24% Good</li> <li>43% Fair</li> <li>33% Poor</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Local Road Conditions <ul style="list-style-type: none"> <li>12% Good</li> <li>48% Fair</li> <li>32% Poor</li> <li>8% Not Rated</li> </ul> </li> </ul>
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Good = Some Signs of Wear  
Fair = Noticeable Signs of Wear Throughout  
Poor = Significant Wear Throughout  
(Source: Survey of County Engineers)



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Transportation Institute



# How does road condition impact user costs?





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## Highway User Costs

- Pavement Roughness
- Congestion
- User Costs
  - Travel Time Costs
    - Travel Speed
      - Pavement Quality
      - Congestion
  - Operating Costs
    - Travel Speed
    - Input Costs

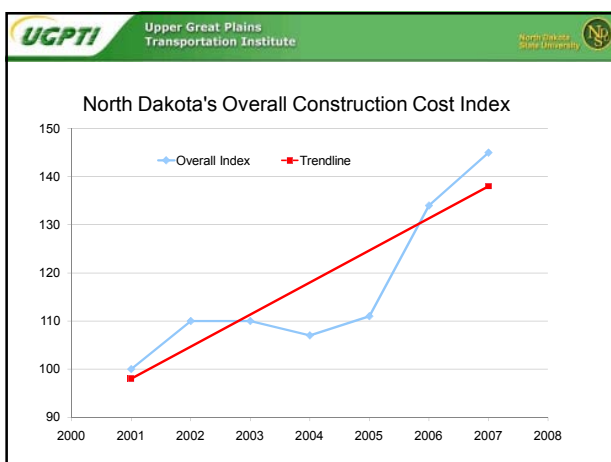
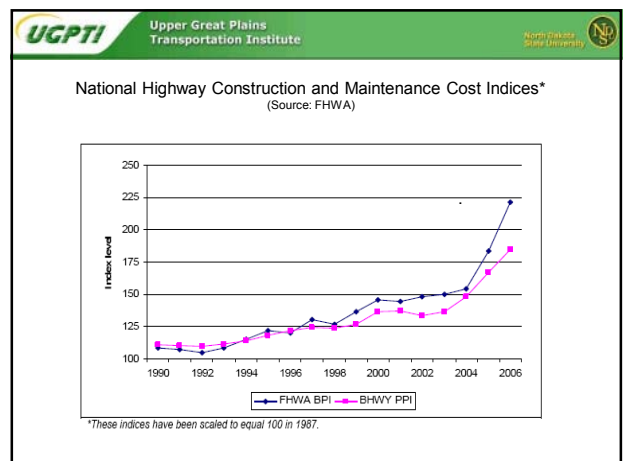
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## Transportation Cost Impact on the Economy

- Commuter Costs - Consumer Spending
- Intermediate Input Costs - Production Costs
- Delivery Costs - Prices Received
- Construction Spending

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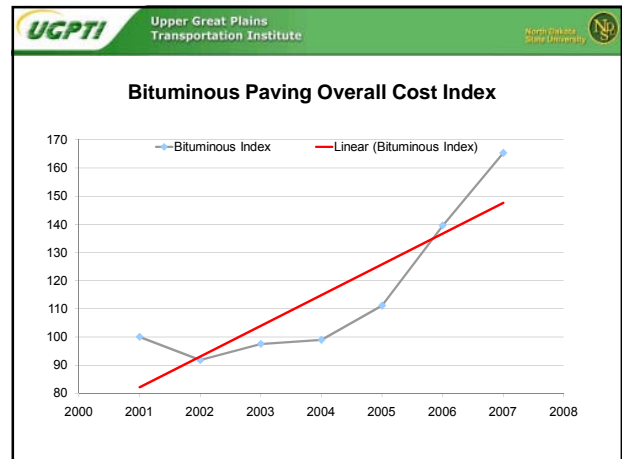
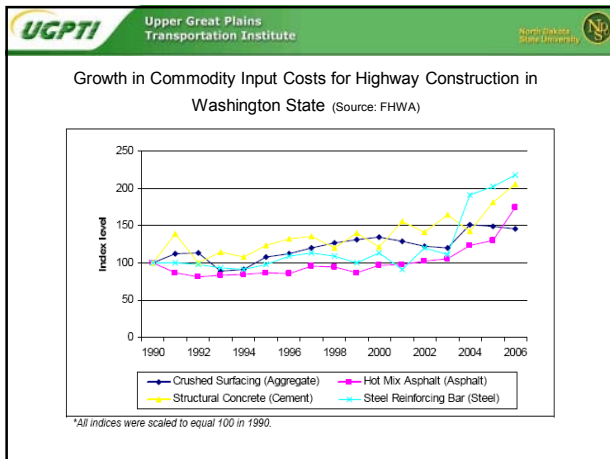
## What are the impacts of inflation on road conditions?

UGPTI Upper Great Plains Transportation Institute North Dakota State University

## FHWA Cost Study

- A dollar will have lost between 37 and 60 percent of its value between 2005 and 2009, if highway project inflation continues at its 2006 pace.
- 2009 SAFETEA-LU \$42 billion
  - 2005 value between \$16.8 and \$26.6 billion



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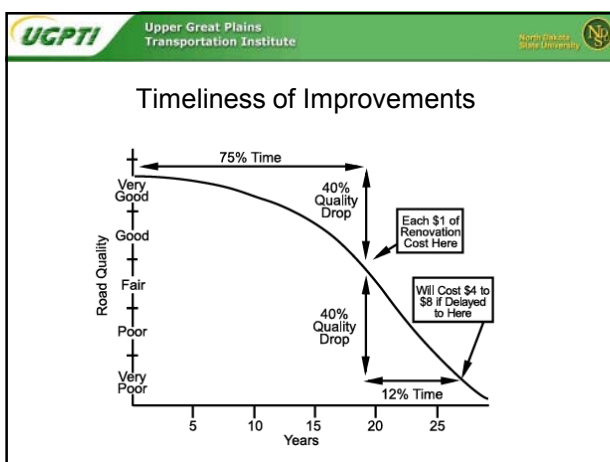
### FHWA Cost Study

- Cost increases differed greatly from state to state
  - Variations in cost a result of transportation costs
- Main factor in cost increases is fuel prices
- Commodity costs are expected to remain elevated, if not escalate in the near future.

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### Highway System Implications

- Nominal Disbursements and Revenues increased by 18 percent from 2001-2005
- Producer Price index has increased by 32 percent over the same time frame
- The same funding level “buys” fewer improvements it did five years ago



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### Highway System Implications

- Construction and maintenance cost increases in relation to pavement quality and user costs
  - Selective improvements
  - Improvement backlog

## Federal Funding for Roads, Bridges, Transit



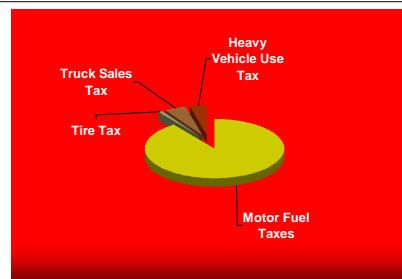
## National Highway System



## Funding Sources

- Federal funds
  - Federal Highway Administration
  - Federal Transit Administration
- State—Highway Tax Distribution Fund
- County and city—mill levies and other (?)

## Federal Highway Trust Fund Revenues



## Federal Highway Trust Fund Outflows

- Two accounts for designated programs
  - Highways
  - Mass Transit
- 90% of 2007 outlays to Federal-Aid Highway Program

## Federal Fuel Taxes



- Gasoline: 18.4¢ per gallon (constant since 1993)
  - 15.44¢ to Highway Trust Fund
  - 2.86¢ to Mass Transit Account
- Diesel: 24.4¢ per gallon (constant since 1993)
  - 21.44¢ to Highway Trust Fund
  - 2.86¢ to Mass Transit Account

## State Fuel Tax

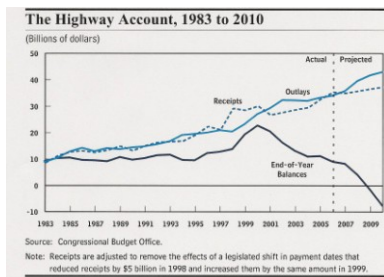
- 23¢/gal on gas and gasohol
  - Increased 2¢ in 1997 and again in 2005
- Revenue goes to State Highway Tax Distribution Fund



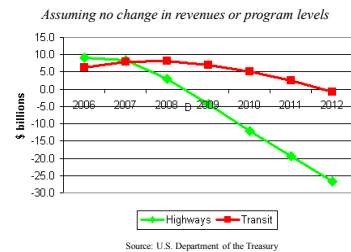
## Federal Highway Trust Fund Shortfall

- Trust Fund spending has been outpacing revenues
- \$1.1 billion shortfall predicted for 2009
- Could result in \$100 million cut to ND and tighter restrictions on use of funds

## Federal Highway Account



## Projected Balances— Highway and Transit Accounts



## Cash Balances—Highway Account



## Cash Balances—Mass Transit Account

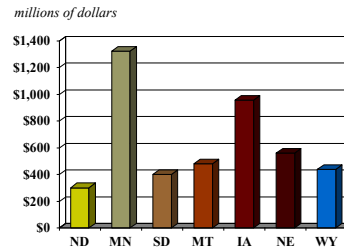


## Policy and Revenue Commission

### Recommendations:

- Increased spending on infrastructure
  - \$225 billion needed annually for the next 50 years
  - Current spending is less than 40% of this amount.
- More investments at federal, state, and local levels, as well as by private sector
- Annual increase in federal fuel tax from 5¢ to 8¢ cents per gallon over the next 5 years

## State Transportation Expenditures



2003 figures. Source: State Transportation Statistics 2006.

## SAFETEA-LU

- Authorizes expenditures from federal Highway Trust Fund for period 2005-2009
- Expires in 2009
- \$286.4 billion legislation
  - \$240 billion for highways
  - \$52.6 billion for transit

## Challenges

- Preserving and maintaining our aging system
- Rising traffic volumes (more vehicles, traveling more miles)
- Increasing demand for transit in rural and urban areas
- Skyrocketing materials costs
- Increasing amount of truck traffic (international trade)
- Declining purchasing power of the gas tax

Gary Berreth, ND LTAP

## STATE & LOCAL FUNDING AND PLANNING PROCESSES

## Project Selection Considerations

- Funding source (federal, state, or local)
- Jurisdiction
- Budget
- Client acceptance
- Wants vs. needs
- Preservation of essential infrastructure and safety projects should be priority

## Budgeting

- Federal Aid
  - Eligibility by identified category
  - Match requirements vary by category
  - Traditional maintenance not eligible
  - Must be included in 4-year State Transportation Improvement Plan (STIP)
  - Federal regulations (standards, R/W, environmental, etc.)
  - Maintenance required

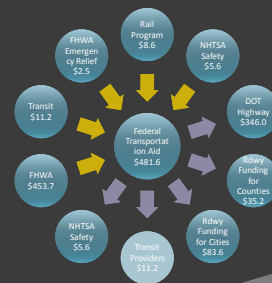
## State DOT

- Priorities
- Route hierarchies
- Emphasis on planning (state and district)
- Safety and funding categories influence
- STIP

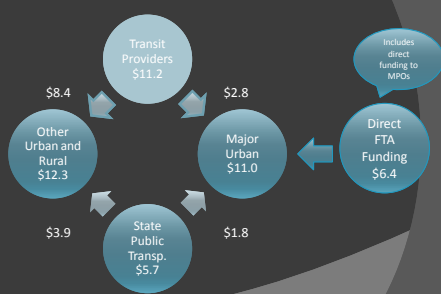
## Local Governments

- If federal monies used – same as state DOT
- More latitude of use for State Highway Distribution Fund monies
- Local revenue usage dictated by state and local laws and ordinances
- Local planning processes vary

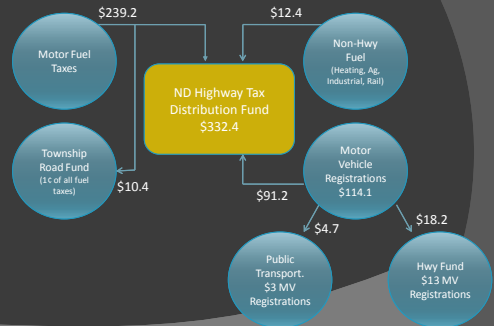
## Federal Transportation Funding



## Transit Providers Funding



## ND Distribution Fund - Inflows



## ND Distribution Fund - Outflows

### North Dakota Highway Tax Distribution Fund \$332.4

Township Road Fund	NDDOT Highway Fund	Counties	Cities	Other
\$10.4	\$203.9	\$74.4	\$45.3	\$8.8

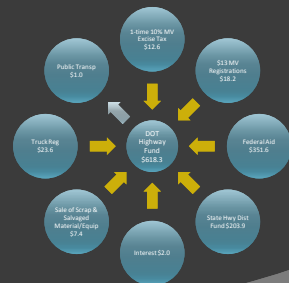
Allocated prior to distribution through Hwy. Dist. Fund

## State Dedicated & Other Entities

### State Highway Dist. Fund \$8.8

Highway Patrol	Ethanol	Tribal Tax	Motor Boat Safety	Snowmobile Fuel
\$4.2	\$3.2	\$1.0	\$0.2	\$0.2

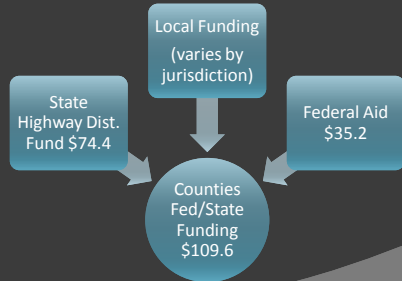
## DOT Highway Fund



## NDDOT Transportation Funding

Source	Amount
Federal Aid (All state highways eligible)	\$346.0
Federal Aid (Traffic Safety)	5.6
State Highway Tax Distribution Fund (63%)	203.9
One-time Motor Vehicle Excise Tax (10%-Net State Aid Distribution)	11.6
Dedicated Highway Funding (\$13 of Each Motor Vehicle Registration)	18.2
Truck Regulatory	23.6
Road Materials, Scrap Sales, Hay Bids	7.4
Interest	2.0
<b>Total</b>	<b>\$618.3</b>

## ND County Funding



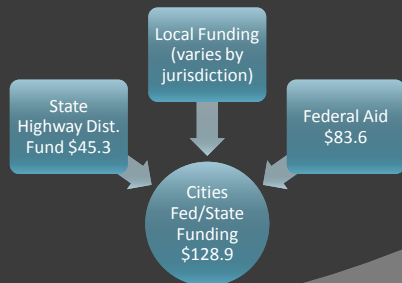
as of March 2008, in millions, projected amounts

## County Roadway Funding

Source	Amount
Federal Aid (Major Collectors)	\$35.20
State Highway Tax Distribution Fund	74.40
State Aid Distribution	49.17
Bonding, Special Assessments & Local Mill Levies	41.6
Some Counties Receive Oil, Gas, & Coal Impact Funds	?
<b>Total</b>	<b>\$200.37+?</b>

as of March 2008, in millions, projected amounts

## ND Cities Funding



as of March 2008, in millions, projected amounts

## City Roadway Funding

Source	Amount
Federal Aid (Urban Areas Over 5,000 Pop.)	\$83.60
State Highway Tax Distribution Fund (14%)	45.30
State Aid Distribution	42.39
Bonding	?
Special Assessments	?
Local Sales Tax Dedicated to Street Improvements	?
<b>Total</b>	<b>\$171.29+?</b>

as of March 2008, in millions, projected amounts

## Township Roadway Funding

Source	Amount
Federal Aid (Road & Bridge Fund)	?
One Cent of State Motor Fuel Tax	\$10.4
Farm to Market Program & Special Assessments	
Unorganized townships	7.5
Organized townships	31.4
<b>Total</b>	<b>\$49.3+?</b>

as of March 2008, in millions, projected amounts

## Transit Funding

Source	Amount
Federal Aid	\$11.2
State Dedicated Transit (\$3 per Motor Vehicle Registration)	4.7
One-Time Motor Vehicle Excise Tax	1.0
Direct Federal Transit Administration Funding to Major Urban Transit Providers (3 MPOs)	6.4
<b>Total</b>	<b>\$23.3</b>

as of March 2008, in millions, projected amounts



## **APPENDIX C. STATE CONFERENCE PRESENTATIONS**

### ***Summary of Workshop Presentations***

Jon Mielke, UGPTI

### ***Summary of Workshop Participants' Concerns & Solutions***

Jim Caron, UGPTI

### ***Roadway & Bridge Investment Needs in North Dakota***

Alan Dybing, UGPTI

### ***Preliminary Findings & Participant Recommendations***

Jon Mielke, UGPTI

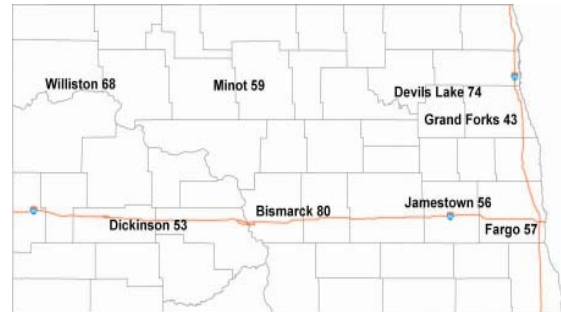
### ***Annual Needs, Available Funding, & Projected Shortfalls***

Grant Levi, NDDOT

# Generating Public Involvement in Transportation

Upper Great Plains Transportation Institute  
North Dakota State University  
May 2008

## Workshop Locations/Attendance



## Purpose of Workshops

- Educate participants
- Solicit input
- Encourage involvement

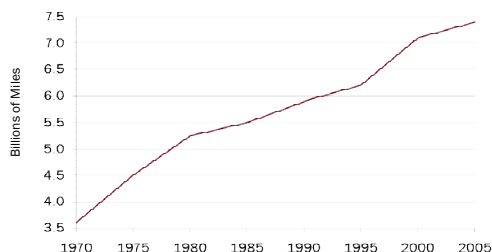
“We’re not trying to tell you what to think, we’re hoping to give you something to think about.”

## North Dakota Roadways

Interstate	571 miles
Other National & State Highways	6,814 miles
County Roads	19,043 miles
Other Rural (Township) Roads	56,509 miles
City Streets	3,860 miles
Trails	19,827 miles
<b>TOTAL</b>	<b>106,624 miles</b>

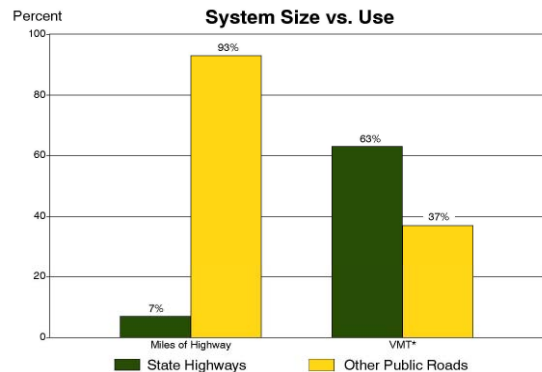
North Dakota has more miles of road per capita than any other state.

## North Dakota Vehicle Miles Traveled – 1970 to 2005



Despite the steady increase in travel, fuel consumption has been relatively stable since 1995, primarily as a result of increasing fuel efficiency.

## System Size vs. Use



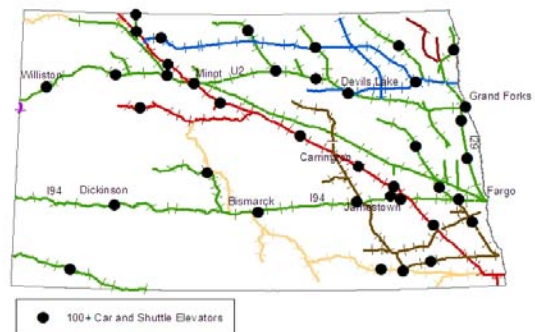
\*VMT - Vehicle Miles of Travel

Data taken from the North Dakota Transportation Handbook, NDDOT, December 2006.

## North Dakota Transportation Facts

	1950	2007
Paved State Highways	2,100 miles	7,400 miles
Paved County Highways	2,800 miles	6,800 miles
Load Limit (on State Highways)	73,280 GVW	105,500 GVW
Crop Production	17 billion pounds	57 billion pounds

## North Dakota Shuttle Elevators



## State Highway Conditions

### FLEXIBLE PAVEMENTS

- Very Good – 6%
- Good – 35%
- Fair – 22%
- Mediocre – 39%
- Poor – < 1%

### CONCRETE PAVEMENTS

- Very Good – 22%
- Good – 38%
- Fair – 20%
- Mediocre – 18%
- Poor – < 1%

Pavement smoothness based upon IRI measurements  
(Source: NDDOT)

## Current County Conditions

- County Major Collectors
  - 24% Good
  - 43% Fair
  - 33% Poor
- Road Conditions
  - 12% Good
  - 48% Fair
  - 32% Poor
  - 8% Not Rated

Good = Some Signs of Wear  
Fair = Noticeable Signs of Wear Throughout  
Poor = Significant Wear Throughout  
(Source: Survey of County Engineers)

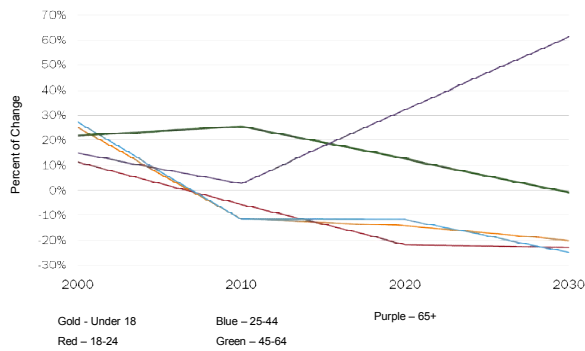
## North Dakota Households Without Vehicles

ND Households Without Vehicles	17,030
Average Residents/Household	2.41
Est. Individuals Without Direct Vehicle Access	41,000
Residents Without Direct Vehicle Access	6.5%
Est. Non-Driver Trips per Day	2.6
Est. Need for Transportation by Individuals Without Vehicles	106,600/day

## NORTH DAKOTA TRANSIT FACTS

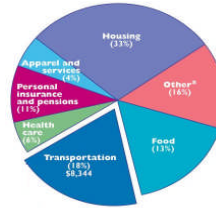
	2003-04	2005-06
Fixed Route Bus Systems (Bismarck, Fargo, Grand Forks & Minot)	4	4
Urban & Rural Dial-A-Ride Services	40	39
Rides Provided	1.7 million	2.4 million
Cost/Ride	\$5.17	\$4.49
Fare/Ride	\$.92	\$.80
Subsidy/Ride	\$4.25	\$3.69

## North Dakota Population Trends



Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005

## Average Household Expenditures on Transportation - 2005



Private vehicle expenditures	=	\$7,896
Vehicle purchases	=	\$3,554
Gasoline and motor oil	=	\$2,013
Other vehicle expenditures	=	\$2,339
Public transportation expenditures	=	\$448
Airline fares	=	\$285
Mass transit fares	=	\$52
Ship fares	=	\$42
Taxi fares	=	\$24
Intercity train fares	=	\$19
Intercity bus fares	=	\$12
Location transportation on out-of-town trips	=	\$11
School bus	=	\$3

\* Includes entertainment, personal care products and services, education, tobacco products and smoking, and miscellaneous.

Note: Numbers do not add to totals due to rounding.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, 2005; and personal communication, November 2006.

## Primary Funding Sources

- Federal
  - ❖ Federal Fuel Tax & Miscellaneous
- State
  - ❖ State Fuel Tax
  - ❖ Motor Vehicle Registration Fees
  - ❖ Motor Vehicle Excise Tax
- Local
  - ❖ Mill Levies, Bonds, Special Assessments & Misc.

## Federal Fuel Taxes



- Gasoline: 18.4¢ per gallon (constant since 1993)
  - 15.44¢ to Highway Trust Fund
  - 2.86¢ to Mass Transit Account
- Diesel: 24.4¢ per gallon (constant since 1993)
  - 21.44¢ to Highway Trust Fund
  - 2.86¢ to Mass Transit Account

## State Fuel Tax

- 23¢/gal on gas and gasohol
  - ❖ Increased 1¢ in 1997 and 2¢ in 2005
  - ❖ Each cent of gas tax generates \$5.1 million / year



## Federal Transportation Funding to North Dakota

Federal Highway Administration	\$453.7
Federal Transit Administration	\$ 17.6
FHWA Emergency Relief	\$ 2.5
Rail Program	\$ 8.6
Highway Safety	\$ 5.6
Total	\$488.0

March 2008, in millions per biennium

## ND's Federal & State Transportation Revenues Sources

Federal Aid	\$488.0
State Fuel Tax	\$251.6
Motor Vehicle Registration	\$114.1
Truck Regulatory & Miscellaneous	\$ 33.0
Temp. 10% of Vehicle Excise Tax	\$ 11.6
One-Time Vehicle Excise Tax for Transit	<u>\$ 1.0</u>
<b>Total</b>	<b>\$899.3</b>

March 2008, in millions per biennium

## Distribution of North Dakota's Federal & State Transportation Revenues

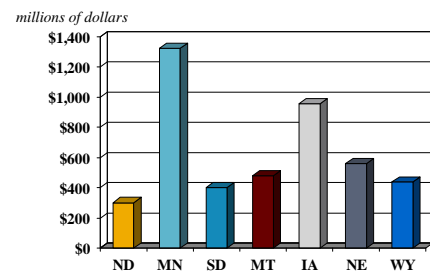
NDDOT	\$618.3
Counties	\$109.6
Cities	\$128.9
Townships	\$ 10.4
Transit	\$ 23.3
Miscellaneous (Highway Patrol, Ethanol, Tribal, etc.)	<u>\$ 8.8</u>
<b>Total</b>	<b>\$899.3</b>

March 2008, in millions per biennium

## Additional Local Funding Sources

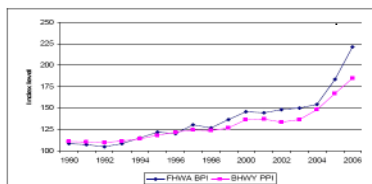
- Undesignated State Aid
- Bonding
- Special Assessments
- Mill Levies
- Oil, Gas, & Coal Impact Funds
- Sales Tax Revenues

## State Transportation Expenditures

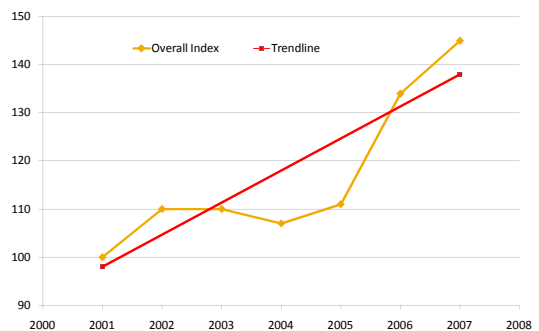


2003 figures. Source: State Transportation Statistics 2006.

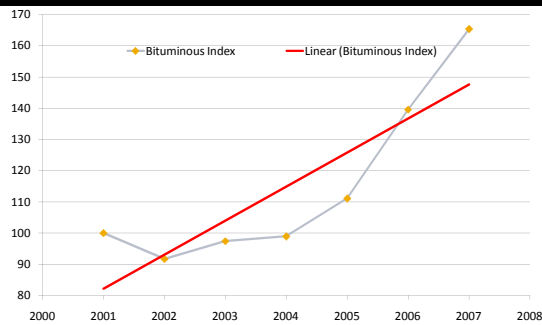
## National Highway Construction and Maintenance Cost Indices\* (Source: FHWA)



## North Dakota's Overall Construction Cost Index



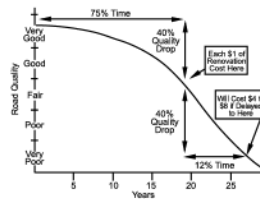
## Bituminous Paving Overall Cost Index



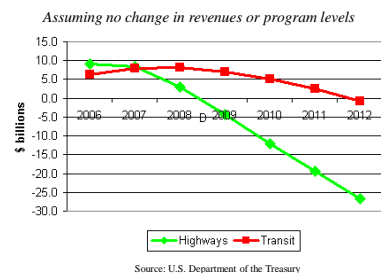
## Highway System Implications

- Revenues increased 18% from 2001-2005
- Producer Price Index increased 32% over the same time frame
- Reduced buying power is causing deferred maintenance

## Timeliness of Improvements



## Projected Balances— Highway and Transit Accounts



## Federal Highway Trust Fund Shortfall

- Trust Fund spending has been outpacing revenues
- \$1.1 billion shortfall predicted for 2009
- Could result in \$100 million cut to ND and tighter restrictions on use of funds

## Overriding Trends Facing ND

- Modest increase in federal funding
- Relatively stable state funding
- Increasing demands on infrastructure
- Increasing demands for transit services
- Sharply rising maintenance costs
- Sharply rising transit operating costs
- Possible cuts in federal funding

# Is Transportation Important to You?

Summary of Workshop Participant's Concerns and Solutions

Upper Great Plains Transportation Institute  
North Dakota State University

## Summary of Workshop Results

- Surveys
- Table Discussions
- Panel Presentations

## Survey Input

- Who Attended
- Major Concerns
- Workshops Compared

## Workshop Participants

Association	Percent of Total
Elected Official	26%
Public Official	19%
Transit	18%
Concerned Citizen	15%
Other	11%
Contractor	5%
Business	5%

## Major Concerns of Participants

Area of Concern	Rank
State Roadways & Bridges	2
County Roadways & Bridges	3
Township Roads & Bridges	6
City Roads and Bridges	4
<b>Funding for Future Infrastructure Projects</b>	<b>1</b>
Transit Service Levels	5

## Workshop Concerns Compared

Area of Concern	Dickinson	Grand Forks
State Roads & Bridges	4	3
County Roads & Bridges	2	4
Township Roads & Bridges	3	6
City Roads & Bridges	6	5
Funding Infrastructure Projects	1	2
Transit Service Levels	5	1

## Table Discussion Input

- ▶ Overall Concerns
- ▶ Highway Solutions
- ▶ Public Transit Solutions

## Table Discussion Concerns

Highway funding/maintenance issues
Public transit/people mobility issues
Highway maintenance/fuel cost increases
Commercial road use
Air and rail service
Safety
Economic development
Regulations
Recycling

## Highway Maintenance & Funding Solutions

Fuel Taxes
Vehicle-miles-traveled
Excise Taxes
Surplus Funds
Road Use Fee
Rail Service
Prioritize Road System
Use Appropriate Materials
Improve Communication

## Personal Mobility and Public Transit Issues

More Funding
Regional Hubs
Fixed Route Systems
Better Coordination
Increase Public Awareness
Tap Other Federal Sources
Use School Buses
Better Collaboration

## Panel Presentations

Association	Number
Highway Official	14
State Legislator	8
Transit	8
Commercial User	6
Mayor	5
Construction	4

## Summary of Workshop Input

Surveys  
» Table Discussions  
Panel Presentations

Presentation and full reports  
available at [www.ugpti.org](http://www.ugpti.org)



## Quotable Quotes

"Before a farmer can be rich, he must have a road" – Chinese proverb

"Surplus time is the best time to invest in infrastructure" – Workshop participant

"Feed the horse that pulls the wagon" – Workshop participant

# Roadway & Bridge Investment Needs in North Dakota

Upper Great Plains  
Transportation Institute  
North Dakota State University

## Study Overview

- Estimates funding needs to maintain existing roadway and bridge condition
- Does not include snow removal, signing, mowing or other maintenance activities indirectly relating to roadway surface condition

## State Highways

- Needs (HERS-ST/HPMS)
  - **Pavement resurfacing/reconstruction**
    - Reconstruction due to insufficient roadway width
  - **Resurfacing with shoulder improvements**
  - **Widening (capacity-related improvements)**
    - Wider lanes; Wider shoulders; Additional lanes
  - **Cost to maintain system with limited expansion; does not necessarily increase structural capacity**
- Bridges

## Pavement Preservation and Maintenance: Asphalt Surfaces

- Crack sealing @ \$369 per mile per year = \$2.78 million/year= \$55.7 million over 20 years
- Seal coats applied every 6 years @ \$25,000 per mile for two-lane roadway = \$682.5 million over 20 years
- Each mile patched costs \$85,000

Annual State Roadway and Bridge Investment Needs (\$000)

HPCS	\$2008/ Year	Low/Moderate Inflation Trend*	Current Inflation Trend*
Interstate	\$43,490	\$54,517	\$72,790
Interregional	\$49,636	\$63,149	\$84,458
State Corridor	\$41,212	\$52,639	\$70,430
District Corridor	\$55,613	\$71,030	\$95,038
District Collector	\$26,630	\$34,013	\$45,509
Total	\$216,583	\$275,349	\$368,227

\*Figures reflect improvement needs in 2008 dollars if inflation trend continues into the future

## State Highway Bridges

- \$526 million needed for bridge replacement, rehabilitation, preventive maintenance, and deck overlays during next 20 years.  
Annual needs: \$26.3 million
- 44 percent needed for replacement of existing bridges
- 46 percent needed for bridge rehabilitation

## Paved County Road Construction and Maintenance

- Based on survey; estimated expenditures for next 10 years
- 42 counties responded; survey findings expanded to state using miles of road
- Estimated 10-year construction cost = \$306.1 million
- Estimated 10-year maintenance cost = \$398 million
- Extrapolation = \$1.408 billion for 20 years

## Gravel Road Maintenance

- Computed from survey: cost per mile x miles of gravel road
- Counties spend \$1,212/mile/year (weighted average) to blade and gravel unpaved roads
- Total cost = \$69.68 million per year
- Over 20 years = \$1.394 billion

## County Bridges

- 2,753 bridges (exclusive of culverts)
  - 22% > than 60 years old
  - 85% more than 20 years old
- 10-year bridge needs forecast from survey
  - \$72.1 million of bridge construction
  - \$21.6 million of bridge maintenance
- Extrapolate to 20 years = \$187.4 million.

## County Bridge Needs (current)

- Analysis based on Bridge Inventory
- Deficiency: superstructure or substructure rating  $\leq 4$  (poor)
- Currently 451 deficient bridges
- Replacement cost = \$150 per sq ft = \$137.4 million
- Cost based on replacement length

## Future & Total County Bridge Needs

- Additional bridges will deteriorate to "poor" in next 20 years
- Typical rate: 1 point loss every 10 years
- 808 bridges projected to deteriorate to poor or worse in next 20 years
- Replacement cost = \$165.7 million
- Total replacement cost including currently deficient bridges = \$303.1 million
- Does not include culvert or maintenance cost
- Bridge improvements are not prioritized based upon traffic levels

## Total County Bridge Needs

- Maintenance cost from the survey (when extrapolated to 20 years) is \$43.2 million
- With maintenance costs, county bridge needs (replacement and maintenance= \$346.3 million)
- May not include all maintenance needs; doesn't include rehabilitation cost of decks on bridges otherwise structurally sound
- Does not necessarily include replacement of all obsolete bridges: outmoded because of load limits or deck/roadway geometry or conditions

## County Roadway & Bridge Needs

	\$ 2008/Year	Low/Moderate Inflation Trend*	Current Inflation Trend*
Paved Roads	\$30,610,000	\$39,096,410	\$52,311,120
Gravel Roads	\$69,680,000	\$86,000,120	\$100,058,570
Maintenance	\$39,800,000	\$50,834,000	\$68,016,420
Bridges	\$19,815,000	\$24,222,120	\$27,013,420
Total	\$159,905,000	\$200,152,650	\$247,399,530

\*Figures reflect improvement needs in 2008 dollars if inflation trend continues into the future

## Estimated Funding Needs of Townships and Small Cities

- Update of 2002 study
- Three scenarios: current, reasonable, and ideal.
- *Current* is defined as "improvements that you average per year"

	\$ 2008/Year	Low/Moderate Inflation Trend*	Current Inflation Trend*
Townships	\$36,250,000	\$44,740,250	\$52,054,000
Small Cities	\$29,725,000	\$36,687,000	\$42,684,280

\*Figures reflect improvement needs in 2008 dollars if inflation trend continues into the future

## Highway Funding Needs of 13 Urban Centers

- Estimated from long range plans and past survey responses from "Urban Street and County Road Funding Needs Assessment for 13 North Dakota Cities and 53 North Dakota Counties"
- Amount of detail varies from city to city
- Each plan includes lists of expected improvements for next 15 to 20 years
- Some plans include expected maintenance costs
- When maintenance costs could not be determined, the survey results from the 2000 study were used and indexed
- Estimated funding need in 2008 dollars for all 13 cities is \$70.7 million = \$1.414 billion for 20 years (moderate inflation trend = \$87.3 million, current inflation trend = \$101.5 million)

## Estimates of Roadway and Bridge Funding Needs per year ( Millions of Dollars)

Jurisdiction/Agency	Highways	Bridges
State	\$216.6	\$26.3
County	\$140.0	\$19.8
Small Cities	\$29.7	*
Townships	\$36.3	*
Urban Centers	\$70.7	*
Total	\$493.4	\$46.1
		\$539.5
*Not estimated		

# Preliminary Findings & Participant Suggestions

Upper Great Plains Transportation Institute  
North Dakota State University  
May 2008

## Preliminary Findings

- Infrastructure and mobility are critical for economic development & quality of life
- Customer expectations have increased significantly
  - ❖ Ag production & processing
  - ❖ Oil exploration
  - ❖ Personal mobility – cars & transit

- Federal fuel taxes have not increased since 1993
- State fuel taxes increased by 1¢ in 1997 and 2¢ in 2005
- Increasingly efficiency vehicles have caused fuel tax revenues to remain relatively flat

- Inflation has significantly reduced buying power of roadway maintenance budgets
- Federal Highway Trust Fund will be in a deficit position after 2009
- State and local road authorities could face a \$100 million loss in federal funding

- Budgetary constraints are causing roadway maintenance to be deferred
- Many counties have bridge replacement schedules that exceed 100 years – well beyond bridge life expectancies
- Deferred maintenance is extremely costly
- Some road authorities are downgrading some roadways

- Indian tribes are facing significant road problems related to inflation and federal budget cuts
- Providing state funding to simply match available federal funding is insufficient
- 17,000 ND households do not have a vehicle – 6.5% of state's population

### Predominant Participant Suggestions

- ND's senior population will increase by 60% by the year 2030.
- Transit services promote economic development
  - ❖ Senior & disabled citizens are a hidden workforce
  - ❖ Seniors should be able to age in place
- Many transit services struggle to provide required 50% local match

- Eliminate diversions from state Highway Tax Distribution Fund
- Make temporary 10% dedication of motor vehicle excise tax revenues permanent
- Increase dedication of motor vehicle excise tax revenues to transportation

- Increase dedication of oil tax monies to impacted counties, cities, & townships
- Require cost-causing activities to share in cost of required repairs and improvements
- At a minimum, increase roadway funding by an amount equal to inflation

- Finance budget increases via non-diversion & dedication measures
- If necessary, increase fuel tax to coverage unmet shortfalls
- Provide related funding increases to all levels of government within state
- Require base level of planning by local road authorities that receive state support

- Provide increased funding for transit
  - ❖ Cover match requirements
  - ❖ Cover cost of inflation
  - ❖ Maintain existing levels of service
  - ❖ Current budget needs estimated at \$13.7 million
  - ❖ Extend service to unserved areas
  - ❖ Extend hours of service
- Require all state-supported transit services to be coordinated with other services within corresponding cities, counties, & regions

# UPPER GREAT PLAINS TRANSPORTATION INSTITUTE

## Statewide Conference

Annual Needs, Available Funding: Projected Shortfalls

Grant N. Levi, PE  
NDDOT – Deputy Director for Engineering  
May 2008

1

## UGPTI Needs Analysis

Maintain Roadway Transportation System, Only

### Analysis Does Not:

- Improve System to Meet HPSC Guidelines
  - ❖ as adopted legislatively
- Account for Economic Growth or Energy Impacts
- Add Any New Infrastructure
- Account for Operational Costs

2

## Comparison of Roadway & Bridge System Revenue to Needs

	Annual Needs UGPTI Study	Present Average Funding	Inflation	2007 Buying Power	2008 Difference
State System	Roads and Bridges \$242,850,000	Federal & State \$148,000,000	15%	\$125,800,000	\$117,050,000



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## Comparison of Roadway & Bridge System Revenue to Needs

	Annual Needs UGPTI Study	Present Average Funding	Inflation	2007 Buying Power	2008 Difference
County	Roads and Bridges *\$159,900,000	Federal & State & Mill Levies **\$75,600,000	15%	\$64,260,000	\$95,640,000

\*Number was adjusted after the presentation on 5/1/08 as a result of an update to the UGPTI Needs Summary Table

\*\*Does not include oil/gas/coal impact fund



4

## Comparison of Roadway & Bridge System Revenue to Needs

	Annual Needs UGPTI Study	Present Average Funding	Inflation	2007 Buying Power	2008 Difference
Urban	Streets \$70,700,000	Federal & State \$52,250,000 *	15%	\$44,412,500	\$26,287,500

\* Does not include local revenue generated for transportation

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## Comparison of Roadway & Bridge System Revenue to Needs

	Annual Needs UGPTI Study	Present Average Funding	Inflation	2007 Buying Power	2008 Difference
Townships	Roads \$36,250,000	State & Mill Levies \$24,700,000	15%	\$20,995,000	\$15,255,000



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### Comparison of Roadway & Bridge System Revenue to Needs

	Annual Needs UGPTI Study	Present Average Funding	Inflation	2007 Buying Power	2008 Difference
Small Cities	Streets \$29,725,000	Special Assessments ?	15%	?	?



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### System Preservation

- Maintain Roadway Transportation System, Only
- Repeated Preventative Maintenance Overlays

Challenges:

- Narrow Roadway



- Hinders Movement of Large Equipment
- Short-Term Solution to Long-Term Problem

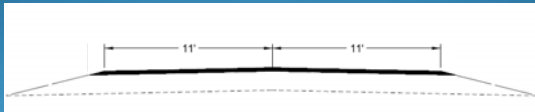
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### System Preservation

- Maintain Roadway Transportation System, Only
- Repeated Preventative Maintenance Overlays

Challenges:

- Narrow Roadway



- Hinders Movement of Large Equipment
- Short-Term Solution to Long-Term Problem

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### Comparison of Transit Providers Revenue to Needs

	Annual Needs UGPTI Study	Present Average Funding	Inflation	2007 Buying Power	2008 Difference
Transit	\$13,700,000	State and Local Match \$13,200,000	15%	\$11,220,000	\$2,480,000



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## **APPENDIX D. LEGISLATIVE PRESENTATIONS**

### ***Summary Presentation to Interim Transportation Committee - PowerPoint***

Jon Mielke, UGPTI

### ***Summary Narrative Report to Interim Transportation Committee***

Jon Mielke, UGPTI

# Generating Public Involvement in Transportation

Jon Mielke ([jon.mielke@ndsu.edu](mailto:jon.mielke@ndsu.edu) or 701-328-9865)  
Upper Great Plains Transportation Institute  
North Dakota State University

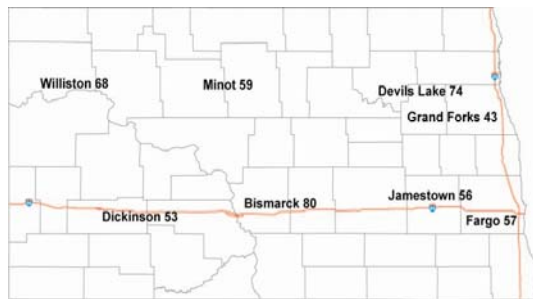
June 2008

## Purpose of Workshops

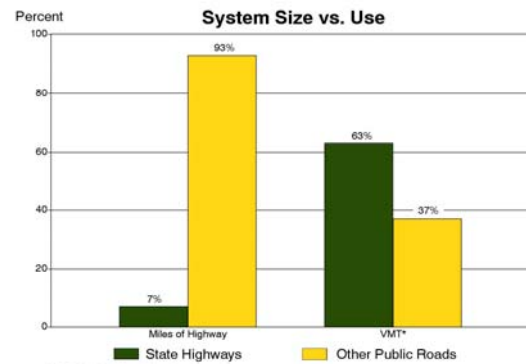
- ▣ Educate participants
- ▣ Solicit input
- ▣ Encourage involvement

"We're not trying to tell you what to think, we're hoping to give you something to think about."

## Workshop Locations/Attendance

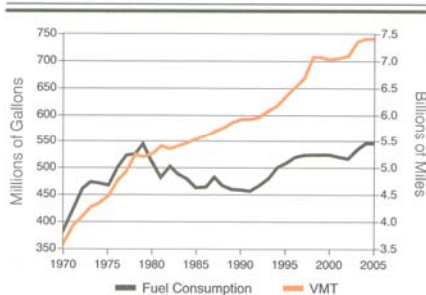


## System Size vs. Use



Data taken from the North Dakota Transportation Handbook, NDDOT, December 2006.

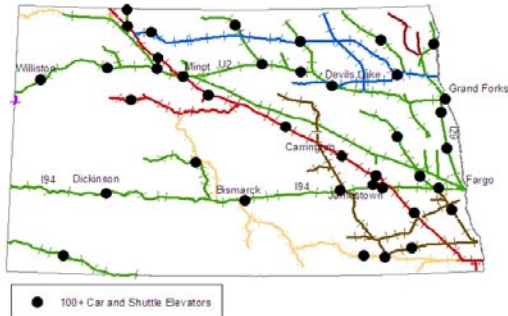
## Fuel Consumption vs. Vehicle Miles Traveled - 1970 to 2005



## North Dakota Transportation Facts

	1950	2007
Paved State Highways	2,100 miles	7,400 miles
Paved County Highways	2,800 miles	6,800 miles
Load Limit (on State Highways)	73,280 GVW	105,500 GVW
Crop Production	17 billion pounds	57 billion pounds

### North Dakota Shuttle Elevators



## State Highway Conditions

### FLEXIBLE PAVEMENTS

- Very Good – 6%
- Good – 35%
- Fair – 22%
- Mediocre – 39%
- Poor – < 1%

### CONCRETE PAVEMENTS

- ▣ Very Good – 22%
- ▣ Good – 38%
- ▣ Fair – 20%
- ▣ Mediocre – 18%
- ▣ Poor – < 1%

Pavement smoothness based upon IRI measurements  
(Source: NDDOT)

## Current County Conditions

- ▣ County Major Collectors
  - 24% Good
  - 43% Fair
  - 33% Poor
- ▣ Road Conditions
  - 12% Good
  - 48% Fair
  - 32% Poor
  - 8% Not Rated

Good = Some Signs of Wear  
Fair = Noticeable Signs of Wear Throughout  
Poor = Significant Wear Throughout  
(Source: Survey of County Engineers)

## North Dakota Households Without Vehicles

ND Households Without Vehicles	17,030
Average Residents/Household	2.41
Est. Individuals Without Direct Vehicle Access	41,000
Residents Without Direct Vehicle Access	6.5%
Est. Non-Driver Trips per Day	2.6
Est. Need for Transportation by Individuals Without Vehicles	106,600/day

## NORTH DAKOTA TRANSIT FACTS

	2003-04	2005-06
Fixed Route Bus Systems (Bismarck, Fargo, Grand Forks & Minot)	4	4
Urban & Rural Dial-A-Ride Services	40	39
Rides Provided	1.7 million	2.4 million
Cost/Ride	\$5.17	\$4.49
Fare/Ride	\$.92	\$.80
Subsidy/Ride	\$4.25	\$3.69

## Primary Funding Sources

- ▣ Federal
  - ❖ Federal Fuel Tax & Miscellaneous
- ▣ State
  - ❖ State Fuel Tax
  - ❖ Motor Vehicle Registration Fees
  - ❖ Motor Vehicle Excise Tax
- ▣ Local
  - ❖ Mill Levies, Bonds, Special Assessments & Misc.

## ND's Federal & State Transportation Revenues Sources

Federal Aid	\$488.0
State Fuel Tax	\$251.6
Motor Vehicle Registration	\$114.1
Truck Regulatory & Miscellaneous	\$ 33.0
Temp. 10% of Vehicle Excise Tax	\$ 11.6
One-Time Vehicle Excise Tax for Transit	<u>\$ 1.0</u>
Total	\$899.3

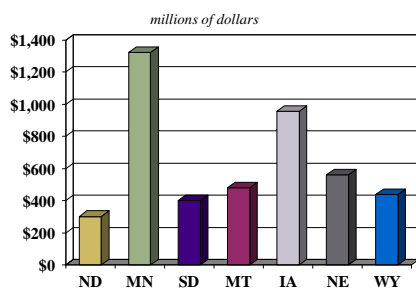
March 2008, in millions per biennium

## Distribution of North Dakota's Federal & State Transportation Revenues

NDDOT	\$618.3
Counties	\$109.6
Cities	\$128.9
Townships	\$ 10.4
Transit	\$ 23.3
Miscellaneous (Highway Patrol, Ethanol, Tribal, etc.)	<u>\$ 8.8</u>
Total	\$899.3

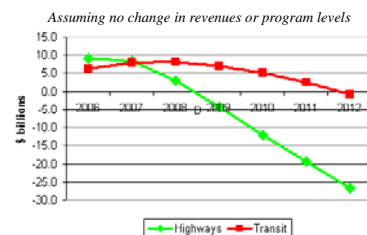
March 2008, in millions per biennium

## State Transportation Expenditures



2003 figures. Source: State Transportation Statistics 2006.

## Projected Balances—Highway and Transit Accounts

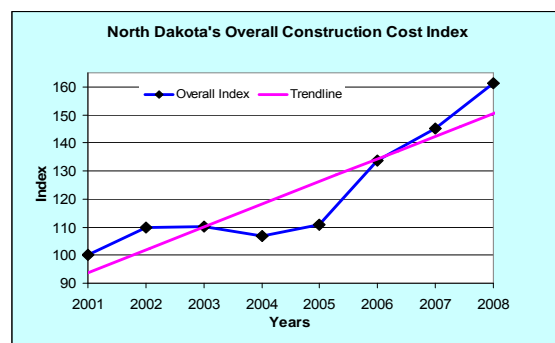


Source: U.S. Department of the Treasury

## Federal Highway Trust Fund Shortfall

- \$3.3 billion deficit predicted for fiscal year 2009
- Estimated impact on North Dakota - \$70 million in cuts and tighter restrictions on use of funds

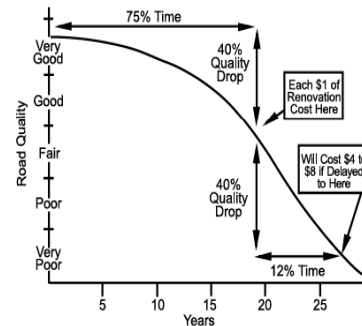
## NDDOT Construction Cost Index



## Highway System Implications

- ▣ Revenues increased 18% from 2001-2005
- ▣ Producer Price Index increased 32% over the same time frame
- ▣ Reduced buying power is causing deferred maintenance

## Timeliness of Improvements



## WORKSHOP FINDINGS

- ▣ Infrastructure and mobility are critical for economic development & quality of life
- ▣ Customer expectations have increased significantly:
  - ❖ Ag production & processing
  - ❖ Oil exploration
  - ❖ Personal mobility – cars & transit

- ▣ Inflation has dramatically impacted the cost of transit & maintaining infrastructure.
- ▣ ND may face federal funding cuts of \$25 to \$100 per year (current estimate is \$70M).
- ▣ Delaying scheduled 20-year maintenance 7-8 years may increase related costs by 400 to 500%.

- ▣ Many local transit systems find it difficult to provide the federally required 50% match.
- ▣ ND's senior population will increase by 60% by the year 2030.
- ▣ Transit services promote economic development:
  - ❖ Senior & disabled citizens are a hidden workforce.
  - ❖ Seniors should be able to age in place.

## PREDOMINANT PARTICIPANT SUGGESTIONS

- ▣ Eliminate diversions from state Highway Tax Distribution Fund.
- ▣ Make temporary 10% dedication of motor vehicle excise tax revenues permanent & increase dedication of motor vehicle excise tax revenues to transportation.
- ▣ Increase dedication of oil tax monies to impacted counties, cities, & townships.

- ▣ At a minimum, increase roadway funding by an amount equal to inflation.
- ▣ Finance budget increases via non-diversion & dedication measures and, if necessary, increase fuel tax to cover unmet shortfalls.
- ▣ Provide related funding increases to all levels of government within state.

- ▣ Provide increased funding for transit:
  - ❖ Cover match requirements.
  - ❖ Cover cost of inflation.
  - ❖ Maintain existing levels of service.
  - ❖ Extend service to unserved areas.
  - ❖ Extend hours of service.
- ▣ Require all state-supported transit services to be coordinated with other services within corresponding cities, counties, & regions.

**Table 1: Estimated Annual Roadway & Bridge Funding Needs (in millions)**

Jurisdiction	Highways	Bridges
State	\$216.6	\$26.3
County	\$140.0	\$19.8
Small Cities	\$29.7	*
Townships	\$36.3	*
Urban Centers	\$70.7	*
<b>Total</b>	<b>\$493.4</b>	<b>\$539.5</b>

\*Not estimated

### Dedicating MV Excise Tax to Transportation Infrastructure & Transit (Millions / Year)

	Current Needs	2007 Funding	2008 Buying Power	Required New Funding	Proposed New Funding
NDDOT	\$242.9	\$148.0	\$125.8	\$117.1	\$34.3
Counties	\$159.8	\$75.6	\$64.3	\$95.6	\$12.3
Urban	\$70.7	\$52.3	\$44.4	\$26.3	\$7.5
Small Cities	\$29.7	***	****	****	(Included in Urban)
Townships	\$36.3	\$24.7	\$21.0	\$15.3	\$2.1
Transit	\$13.7	\$13.2	\$11.2	\$2.5	\$1.6
<b>Totals</b>	<b>\$553.1</b>	<b>\$313.8</b>	<b>\$266.7</b>	<b>\$256.8</b>	<b>\$57.8</b>

- ▣ Even with this infusion of new monies, many of North Dakota's transportation needs would remain underfunded (funding only 22.5% of unmet needs).
- ▣ Additional measures would be required if appropriate investments are to be made to:
  - ❖ Maintain North Dakota's transportation infrastructure and
  - ❖ Satisfy the mobility needs of North Dakota residents and the state's growing economy.

### Roles of UGPTI

Facilitate Quality Transportation Via

- ❖ Research
- ❖ Outreach
- ❖ Education

“We're not trying to tell you what to think, we're hoping to give you something to think about.”

[www.ugpti.org](http://www.ugpti.org)

Presented to: Interim Committee on Transportation  
Presented by: Jon Mielke – UGPTI  
June 19, 2008

## Summary Report

# Generating Public Involvement in Transportation Policy and Funding Decision Making Processes

At the request of its statutory advisory board, Upper Great Plains Transportation Institute (UGPTI) staff members undertook an effort to generate increased public involvement in transportation policy and funding decision-making processes. This project was initiated in May 2007 and concluded in May 2008. This paper briefly summarizes this effort and outlines related findings and recommendations.

Matters pertaining to inflation and projected federal funding deficits are very time-sensitive and change almost daily, depending on oil prices and pending congressional action. Therefore, related findings and recommendations need continual monitoring and possible modification.

The Transportation Institute's role in this project has been to educate participants, to solicit input, and to encourage future public involvement in decision making processes related to transportation. The Institute functioned in a non-advocacy manner. "We're not trying to tell you what to think, we're hoping to give you something to think about."

## Program Design

Based on directions received from its advisory board, UGPTI staff members designed a program to:

- Educate North Dakotans concerning the state's transportation system, both infrastructure and personal mobility, and related trends.
- Solicit public input regarding system and service needs and funding.
- Encourage future involvement in related decision-making processes.

A nine-member steering committee was created to oversee the project. Members included North Dakota's major road authority organizations, contractors, shippers, motor carriers, and transit interests (Attachment 1).

Ultimately, it was determined that the best way to reach out to the public was to host a series of eight local transportation workshops around the state. These workshops were scheduled for each of North Dakota's eight regional centers. A program brochure was designed and a mailing list of

approximately 5,000 individuals and entities was compiled (Attachment 2). This mailing list included city, county, and township officials; shippers, carriers, contractors, transit service providers and users, state agencies, legislators, etc.

Each workshop ran from 10 am to approximately 2:15 pm. The agenda (Attachment 3) for these workshops included:

- Educational presentations concerning state roadways and personal mobility services, inflationary trends, and funding sources.
- Structured luncheon discussions to illicit participant concerns and suggestions.
- Panel discussions involving local road authorities, transit interests, legislators, etc.
- Open microphone session and questionnaire to illicit further input.

These workshops were held on eight consecutive business days from March 24 through April 2, 2008. Approximately 490 people attended these workshops. The program's presentations were posted on UGPTI's website ([www.ugpti.org](http://www.ugpti.org)).

UGPTI received literally hundreds of comments during the local workshop phase of this project. The workshops' predominant findings and participant suggestions are presented in Attachment 4. The following list summarizes some of the most significant findings and suggestions:

## **Workshop Findings**

- Transportation infrastructure and personal mobility are critical for economic development and quality of life.
- Demands on state and local transportation infrastructure have increased significantly – agriculture production and processing, energy, and personal mobility.
- Inflation has had a significant impact on the purchasing power of transportation-related appropriations. In North Dakota, overall highway construction costs increased by 60% from 2001 to 2008. Bituminous paving costs increased at an even faster rate during the same time frame; some counties report increases of 100 percent from 2006 to 2008.
- The federal Highway Trust Fund is projected to fall into a deficit position for the fiscal year that begins later this year. It is projected that North Dakota and its cities and counties may experience a related revenue loss of \$70 million.
- The federal per-gallon tax on gasoline and diesel fuel have not increased since 1993. Despite state fuel taxes increases of one cent in 1999 and two cents in 2005, related revenues have been relatively stagnant as a result of increased vehicle fuel efficiency.
- North Dakota's transportation infrastructure is currently in a preservation mode and is, in some cases, declining in quality. Delaying scheduled 20-year maintenance for an additional 7-8 years can increase related costs by 400 to 500 percent.



- Funding the Department of Transportation at a level that is sufficient only to match available federal funds does not provide adequate funding.
- The life expectancy of many county bridges is 50 years. Given existing budgetary constraints and replacement cycles, many bridges will not be replaced for well over 100 years, if ever.
- Approximately 6.5% of the state's residents (41,000 people) live in households without vehicles. These transportation-disadvantaged individuals (seniors, disabled, etc.) represent a hidden workforce that is willing to work if they have access to transit services. They require expanded coverage areas and longer service.
- Many local transit systems find it difficult to provide the 50 percent local operating match that is required by federal transit assistance programs.
- North Dakota has an aging population. By 2030, the size of the state's senior population will increase by 60%. Related increases in the need for transit services are anticipated. The availability of transit services allows seniors to age in place, rather than being forced to relocate to communities with required mobility services.
- Customer expectations related to North Dakota's roadway infrastructure and transit systems are increasing.

## Participant Suggestions

In addition to soliciting participant input regarding system and service needs and concerns, workshop attendees were also asked to provide suggestions for related improvements and funding options. As was the case with the discussion of problems and concerns, participants provided hundreds of suggestions. The following list presents a few of the suggestions that had a reoccurring presence or that generated the most discussion. A more comprehensive list of participant suggestions is presented in Attachment 5.

- Eliminate diversions from the state Highway Tax Distribution Fund (e.g. Highway Patrol at \$4.2 million per biennium and ethanol at \$3.2 million per biennium). Impacted programs should be funded from other sources.
- Make existing one-time dedication of motor vehicle excise tax payments to the Highway Fund permanent (\$12.6 million per biennium) and dedicate additional motor vehicle excise tax revenues to the Highway Tax Distribution Fund. Biennial motor vehicle excise tax receipts total \$126 million.
- Increase dedication of oil tax monies to impacted counties, cities, and townships.
- At a minimum, increase funding to North Dakota Department of Transportation by an amount equal to the rate of construction and maintenance inflation (currently 15%).

- Distribute any increases in the state Highway Tax Distribution Fund to all related road authorities, including the Department of Transportation, cities, counties, townships, and tribes.
- Finance budget increases with diversion and dedication measures and, if necessary, a fuel tax increase of up to 5 cents per gallon (each one cent increase generates \$10.2 million per biennium).
- Provide increased funding for transit to maintain existing service and routes, to extend service to additional areas, and to expand hours of operation for existing services.
- Require all state-supported transit services to be coordinated with other services within corresponding cities, counties, and regions.

## State Conference

A state conference was held on May 1, 2008, in Mandan. Approximately 80 people attended. As the agenda in Attachment 6 illustrates, this conference was designed to summarize local workshop presentations, findings, and participant suggestions and to provide updated information on infrastructure and transit needs. There were also panel discussions involving legislators and state organizations and agencies that represent roadway and personal mobility interests. Program and panelist presentations were posted on UGPTI's website ([www.ugpti.org](http://www.ugpti.org)).

Updated infrastructure need estimates were prepared by UGPTI based on technical studies of the state system, surveys of county road authorities, a review of urban planning studies, and a review of other studies that were prepared earlier in the decade. Related infrastructure needs, both funded and unfunded, are summarized in Table I. These estimates do not include operating costs.

Transit need estimates were based on input received from the state's transit operators. These needs, both funded and unfunded, were estimated at approximately \$13.7 million annually.

Based on these need estimates and inflationary findings based on 2008 bid prices, the North Dakota Department of Transportation presented estimates of current revenue shortfalls. While current system needs, including transit, require approximately \$553 million in annual spending, only about \$314 million is available to support these needs. Given an existing inflation rate of 15%, annual revenue shortfalls are projected at nearly \$257 million.

It was pointed out that these revenue needs should be approached from several directions. Ultimately solutions will, in all likelihood, include a combination of innovation, system rationalization, and funding enhancement. Potential funding sources could include federal monies, state fuel tax receipts, state motor vehicle registration fees, state motor vehicle excise tax receipts, energy impact funds, mill levies, bonding, and special assessments.

Table 1 – Estimated Annual Roadway and Bridge Funding Needs  
(in millions)

Jurisdiction	Highways	Bridges
State	\$216.6	\$26.3
County	\$140.0	\$19.8
Small Cities	\$29.7	*
Townships	\$36.3	*
Urban Centers	\$70.7	*
Total	\$493.4	\$539.5

\*Not estimated

The state conference concluded with a panel comprised of several steering committee members. During that panel discussion, it was suggested that a starting point for addressing existing revenue shortfalls is the dedication of all state motor vehicle excise tax revenues for transportation purposes.

Given the existing one-time dedication of 10% of these revenues to transportation, it was projected that dedicating all such revenues to transportation would increase overall program revenues by approximately \$116 million per biennium. It was pointed out that related revenues will increase over time as inflation increases the selling prices of motor vehicles. This occurrence is contrary to the declining value of fuel taxes which are at a fixed per gallon amount.

It was recommended that these motor vehicle excise tax monies and existing motor fuel and vehicle registration revenues be distributed to road authorities and transit on a prescribed percentage basis. A copy of this funding proposal is presented in Attachments 7 and 8. It was subsequently endorsed by this project's steering committee and the Advisory Council of the Upper Great Plains Transportation Institute. In both instances, executive branch agencies abstained from voting.

Table II presents a composite summary of the funding needs discussed earlier, along with the new funding amounts that would result from dedicating motor vehicle excise revenues to transportation. Even with this infusion of new excise tax monies, approximately 77.5% of North Dakota's unmet transportation needs would remain unfunded. Additional measures would be required if appropriate investments are to be made to maintain North Dakota's transportation infrastructure and to satisfy the mobility needs of North Dakota residents and the state's growing economy.

Table II – Estimated Annual Roadway & Transit Funding Needs  
(in millions)

	Current Roadway Needs*	2007 Funding	2008 Buying Power**	Required New Funding	Proposed New Funding
NDDOT	\$242.9	\$148.0	\$125.8	\$117.1	\$34.3
Counties	\$159.8	\$75.6	\$64.3	\$95.6	\$12.3
Urban	\$70.7	\$52.3	\$44.4	\$26.3	\$7.5****
Small Cities	\$29.7	***	***	***	Included in Urban
Townships	\$36.3	\$24.7	\$21.0	\$15.3	\$2.1
Transit	\$13.7	\$13.2	\$11.2	\$2.5	\$1.6
<b>Total</b>	<b>\$553.1</b>	<b>\$313.8</b>	<b>\$266.7</b>	<b>\$256.8</b>	<b>\$57.8</b>

*\*Roadway needs based on UGPTI Study*

*\*\*Based on 15% rate of inflation*

*\*\*\*Not estimated; total estimated needs are therefore understated.*

*\*\*\*\*Funding for all cities – Urban and Small*

*Shortfall solutions include further innovation, system rationalization, and enhanced funding.*

*Other potential funding sources include federal money, energy impact funds, mill levies, bonding, special assessments, sales & fuel tax, etc.*

## Summary

The Transportation Institute's role in this project has been to educate participants, to solicit their input, and to encourage their future involvement in decision-making processes related to transportation services. The Institute is not an advocacy organization but it does strive to provide information and to facilitate processes that lead to more enlightened decisions. Hopefully its efforts on this project have been both successful and consistent with these goals.

The Institute would also like to point out a major research need that was identified at several of the workshops that were held around the state in late March and early April. This research need relates to energy development and its impacts on transportation infrastructure. These impacts are being felt especially hard in oil exploration areas in western North Dakota but additional impacts related to coal, wind, ethanol, biodiesel, and transmission are being experienced statewide. The Legislature may want to consider devoting additional resources for future study in this area.

## **Attachment 1**

### **Steering Committee Members**

Mark Johnson, Chair  
Executive Director  
ND Association of Counties

Bob Bright  
Executive Director  
Fargo-Moorhead Metro COG

Russ Hanson  
Executive Vice President  
Associated Gen. Contractors of ND

Connie Sprynczynatyk  
Executive Director  
ND League of Cities

Ken Yantes  
Executive Secretary  
ND Township Officers Association

Tom Balzer  
Managing Director  
ND Motor Carrier Association

Neal Fisher  
Administrator  
ND Wheat Commission

Grant Levi  
Chief Engineer  
ND Dept of Transportation

Ken Tupa  
ND Senior Services Providers &  
Dakota Transit Association

## **Attachment 2**

# **Generating Public Involvement in Transportation Mailing List**

Legislators  
ND Township Officers Association  
County Commissioners  
Transit Operators  
Tribal Councils  
School District Administrators  
Highway Patrol  
County Sheriffs  
ND Grain Dealers Association/Elevators  
Airports  
MPOS  
Farm Groups  
Commodity Groups  
Rural Electric and Telephone Cooperatives, Otter Tail Power, MDU, & Xcel  
UGPTI Advisory Council  
Dakota Resource Group  
Regional Planning Councils  
ND Media – Newspapers, Radio, TV  
Non-Legislators on Advisory Commission on Intergovernmental Relations  
AARP Representatives  
Chambers of Commerce  
Major Shippers  
Colleges & Universities  
County Engineers and County Road Officials  
Railroads  
AAA North Dakota  
ND Dept of Commerce  
Energy Companies  
ND Dept of Tourism  
Local Economic Development Offices  
Steering Committee Members  
ND Department of Human Services  
Consultants  
NDDOT District Engineers – NDDOT  
Mayors/City Auditors – ND League of Cities  
Motor Carriers – ND Motor Carrier Association  
Highway Contractors – Associated General Contractors of ND

### Attachment 3

## Is Transportation Important to You? Workshop Agenda

- 10:00 a.m. Welcome
- 10:10 a.m. Program Goals  
Gene Griffin, Director, Upper Great Plains Transportation Institute, NDSU
- 10:20 a.m. **Inventory of North Dakota's Transportation System**  
Jon Mielke - Upper Great Plains Transportation Institute, NDSU
- 10:40 a.m. **Condition of Existing System, Inflationary Trends, and Transportation's Role in Economic Development**  
Jon Mielke - Upper Great Plains Transportation Institute, NDSU
- 11:00 a.m. Federal Funding Sources, Income Projections, and Distribution  
Gene Griffin – Upper Great Plains Transportation Institute, NDSU
- 11:25 a.m. State and Local Funding and Planning Processes  
Gary Berreth – Upper Great Plains Transportation Institute, NDSU
- 11:45 a.m. Buffet Lunch and Small Group Discussion
- 12:45 p.m. Panel Discussion – Local Perspectives and Challenges
- 1:30 p.m. Participant Input – System and Service Needs, Budgets and Options (Open Microphone and Questionnaire)
- 2:00 p.m. Effectuating Change – Where do we Go from Here?
- 2:15 p.m. Adjourn

### Workshop Sponsors:

Associated General Contractors of North Dakota  
American Public Transportation Association (APTA)  
American Association of State Highway Transportation Officials (AASHTO)  
ND Association of Counties  
ND Department of Transportation  
ND League of Cities  
ND Motor Carriers Association  
ND Senior Service Providers/DTA  
Upper Great Plains Transportation Institute (UGPTI), NDSU  
Mountain-Plains Consortium  
ND LTAP Program  
Small Urban & Rural Transit Center

## Attachment 4

### Local Workshops - Findings

UGPTI received literally hundreds of comments during the local workshop phase of this project. The following list presents the most predominant findings that were gleaned from these comments and workshop presentations:

- Transportation infrastructure and personal mobility are critical for economic development and quality of life.
- Demands on state and local transportation infrastructure have increased significantly:
  - Increases related to oil exploration, agricultural processing, and the expansion of agricultural production into non-traditional areas.
  - Oil exploration – each new well requires 750-800 truckloads of input during the drilling process.
  - Agricultural processing has increased significantly with the construction of facilities to produce food products, ethanol, etc.
  - Agricultural production has increased from 17 billion pounds in 1950 to 57 billion pounds in 2007. These products are being transported longer distances in larger trucks.
  - Demand for personal mobility has increased dramatically, both by private automobile and transit. North Dakota transit services provided 2.4 million rides in fiscal year 2005-06.
- Inflation has had a significant impact on the purchasing power of transportation-related appropriations. In North Dakota, overall highway construction costs increased by 60% from 2001 to 2008. Bituminous paving costs increased at an even faster rate during the same time frame; some counties report increases of 100 percent from 2006 to 2008.
- The federal Highway Trust Fund is projected to fall into a deficit position when the current federal highway bill expires in 2009. The federal Transit Trust Fund is scheduled to fall into a deficit position in 2012.
- North Dakota is facing the potential loss of \$25 to \$100 million in federal highway funding as a result of projected 2009 shortfalls in the federal highway trust fund.
- The federal per-gallon tax on gasoline and diesel fuel have not increased since 1993.



- State fuel taxes increased by one cent per gallon in 1999 and by two cents per gallon in 2005. Related revenues have been relatively stagnant as a result of increased vehicle fuel efficiency. It is expected that this trend will continue.
- North Dakota's transportation infrastructure is currently in a preservation mode and is, in some cases, declining in quality.
- Deferred maintenance is extremely costly. Delaying 20-year maintenance for an additional 7-8 years can increase related costs by 400 to 500 percent.
- Funding the Department of Transportation at a level that is sufficient only to match available federal funds does not provide adequate funding.
- Some counties have developed extensive long term plans concerning county roadways and, in some instances, have converted paved roads back to aggregate.
- The life expectancy of many county bridges is 50 years. Given existing budgetary constraints and replacement cycles, many bridges will not be replaced for well over 100 years, if ever.
- North Dakota's Indian tribes are facing significant problems with roadway maintenance on their respective reservations. Current inflationary trends and the diversion of funding to other Department of Interior projects are causing reservation roads to deteriorate at an accelerating rate.
- There are approximately 17,000 households in North Dakota that do not have an automobile. These 41,000 residents represent about 6.5 percent of the state's population.
- Many local transit systems find it difficult to provide the 50 percent local operating match that is required by federal transit assistance programs.
- North Dakota has an aging population. By 2030, the size of the state's senior population will increase by 60%. Related increases in the need for transit services are anticipated. The availability of transit services allows seniors to age in place, rather than being forced to relocate to communities with required mobility services.
- North Dakota's transportation disadvantaged population (seniors, disabled, etc.) represent a hidden workforce that is willing to work if they have access to transit services. They require expanded coverage areas and longer service hours.
- Customer expectations related to North Dakota's roadway infrastructure and transit systems are increasing.

## Attachment 5

### Local Workshops Predominant Participant Suggestions

In addition to soliciting participant input regarding system and service needs and concerns, workshop attendees were also asked to provide suggestions for related improvements and funding options. As was the case with the discussion of problems and concerns, participants provided hundreds of suggestions. The following list presents those suggestions that had a reoccurring presence or that generated the most discussion:

- Eliminate diversions from the state Highway Tax Distribution Fund (e.g. Highway Patrol at \$4.2 million per biennium and ethanol at \$3.2 million per biennium). Impacted programs should be funded from other sources.
- Make existing one-time dedication of motor vehicle excise tax payments to the Highway Fund permanent (\$12.6 million per biennium).
- Dedicate additional motor vehicle excise tax revenues to the Highway Tax Distribution Fund. Biennial motor vehicle excise tax receipts total \$126 million.
- Increase dedication of oil tax monies to impacted counties, cities, and townships.
- Require base level of planning by road authorities that receive state transportation funding.
- Require companies that engage in road-impacting activities (construction of new facilities, oil well drilling, etc.) to participate in the cost of making subsequent repairs and improvements to local and state roads (similar requirements are currently imposed on road contractors).
- At a minimum, increase funding to North Dakota Department of Transportation by an amount equal to the rate of construction and maintenance inflation.
- Distribute any increases in the state Highway Tax Distribution Fund to all related road authorities, including the Department of Transportation, cities, counties, townships, and tribes.
- Finance budget increases with diversion and dedication measures and a fuel tax increase of up to 5 cents per gallon (each one cent increase generates \$10.2 million per biennium).
- Provide increased funding for transit to maintain existing service and routes, to extend service to additional areas, and to expand hours of operation for existing services.
- Require all state supported transit operators to coordinate their services with those of other service providers within corresponding cities, counties, and regions. All related services must be available to the public.

## Attachment 6

### State Conference Thursday, May 1, 2008 Seven Seas – Mandan

10:00 am	Welcome & Introductions (Johnson)
10:10 am	Overview of Local Workshops & Presentation Highlights (Mielke)
10:30 am	Summary of Workshop Input (Caron)
11:00 am	Panel: Infrastructure and Personal Mobility Needs NDDOT Francis Ziegler Tribes Pete Red Tomahawk DHS Linda Wright Counties Rod Ness AARP Linda Wurtz Cities Jim Brownlee NDDAC Jim Moench Townships Kerry Schorsch SURTC/Paratransit Carol Wright
Noon	Lunch & Small Group Discussions
1:00 pm	Resume Panel Presentations
2:00 pm	Updated Infrastructure Needs Assessment (Dybing)
2:30 pm	Workshop Findings & Participant Suggestions (Mielke)
2:45 pm	Annual Needs, Available Funding, & Projected Shortfalls (Levi)
3:00 pm	Managing Major Needs (Griffin)
3:15 pm	Coffee
3:30 pm	Panel: Legislative Perspectives Rep. Robin Weisz Senator Larry Robinson Rep. George Keiser Senator Rich Wardner
4:15 pm	Participant Reactions & Input – Open Microphone Session (Caron)
4:30 pm	Panel: Effectuating Change – Where Do We Go From Here? (Griffin)
5:00 pm	Adjourn & Hosted Social

## Attachment 7

# Highway/Transit Funding Proposal

**BACKGROUND:** The regional transportation forums have clearly demonstrated the desperate need for funding by all state and local road authorities as well as among both rural and urban transit providers. Additionally, comments in a number of locations highlighted the increasing competition for funds that results from the growing needs.

This funding concept is proposed to create an immediate increase in funding for all sectors, but also provide for a long-term, cooperative approach to funding stability.

**PROPOSAL:** While the primary source of new funds, motor vehicle excise tax, was mentioned by numerous individuals at the regional forums, this proposal would use it as a means to implement a permanent, long-term funding strategy. The elements of the proposal are:

**Revenue** Redirect all motor fuel and special fuel taxes, all motor vehicle registration fees, and all motor vehicle excise taxes into the **State Highway Distribution Fund**, including:

- The township 1¢ fuels tax,
- The transit \$3 registration fee,
- The DOT \$13 registration fee,
- The 10% DOT excise tax (and \$1 million to transit), and
- The excise tax going to local government through the State Aid Distribution Fund.

**Allocation** Rewrite the over-riding formula for allocating the State Highway Distribution to include all “distribution fund” and “non-distribution fund” beneficiaries of these revenue streams. In this way, the following entities and interests would receive a statutory share of the State Highway Distribution Fund:

- ND Department of Transportation
- County Highways
- City Streets
- Township Roads
- Transit Programs
- Ethanol Production Support
- Highway Patrol – Truck Regulatory
- Motor Boat Safety
- Snowmobile Program \*

Obviously the percentages of each could create some debate, but if each entity looked for a proportionate increase over current (total) allocations, the result would be a unified proposal that would strengthen all future efforts to enhance transportation funding in this State.

\* Note: Tribal Tax revenues would obviously need to be addressed, but since the implications of State and federal law were unknown, this was omitted from the discussion at this point.

## Attachment 8

### Current Biennial Distribution of STATE Motor Vehicle "Related" Taxes

(In Millions)

	Thru Dist. Fund		Outside Distribution Fund			Total	% of Current Non Gen Fund Amounts
	Fuels	MV Reg.	Fuels	MV Reg.	MV Excise		
<b>State Gen. Fund</b>					\$ 116.0	\$ 116.0	
State DOT	\$ 146.4	\$ 57.5		\$ 18.2	\$ 11.6	\$ 233.7 **	59.94%
County Road	\$ 53.4	\$ 21.0			\$ 5.7 *	\$ 80.1 ***	20.54%
City Street	\$ 32.6	\$ 12.7			\$ 5.4 *	\$ 50.7 ***	13.00%
Township Road	\$ -		\$ 10.4		\$ 0.5 *	\$ 10.9 ***	2.80%
Transit				\$ 4.7	\$ 1.0	\$ 5.7 ***	1.46%
Ethanol	\$ 3.2					\$ 3.2	0.82%
HP Truck Reg	\$ 4.2					\$ 4.2	1.08%
Boat Safety	\$ 0.2					\$ 0.2	0.05%
Tribal	\$ 1.0					\$ 1.0	0.26%
Snowmobile	\$ 0.2					\$ 0.2	0.05%
<b>Total</b>	\$ 241.2	\$ 91.2	\$ 10.4	\$ 22.9	\$ 24.2	\$ 389.9	100.00%

\* Not Currently Dedicated to Transportation.

\*\* Does Not Include \$33.0 Million Generated by Truck Regulatory, Hay Bids, Scrap Sales, Interest, etc.

\*\*\* Does Not Include Impact Funds or Local Funding (e.g. Bonding, Special Assessments, Mill Levies, etc.).

### Proposed Reallocation

(All Through Distribution Fund)

Proposed Formula	New Funding (Millions)	Total State Funding (Millions)	Percent Increase
59.75%	\$ 68.58	\$ 302.28	29.3%
20.70%	\$ 24.62	\$ 104.72	30.7%
13.00%	\$ 15.07	\$ 65.77	29.7%
3.00%	\$ 4.28	\$ 15.18	39.3%
1.75%	\$ 3.15	\$ 8.85	55.3%
0.64%	\$ 0.04	\$ 3.24	1.3%
0.83%	\$ -	\$ 4.20	0.0%
0.04%	\$ -	\$ 0.20	0.0%
0.25%	\$ 0.26	\$ 1.26	26.0%
0.04%	\$ -	\$ 0.20	0.0%
100.00%	\$ 116.00	\$ 505.90	

### Current Federal Funding

State DOT	\$ 351.6	72.05%
County Road	\$ 35.2	7.21%
City Street	\$ 83.6	17.13%
Townships	\$ -	0.00%
Transit	\$ 17.6	3.61%
<b>Total</b>	\$ 488.0	100.00%

### Current Federal Plus Dedicated State Funding

State DOT	\$ 618.3	69.43%
County Road	\$ 109.6	12.31%
City Street	\$ 128.9	14.48%
Townships	\$ 10.4	1.17%
Transit	\$ 23.3	2.62%
<b>Total</b>	\$ 890.5	100.00%