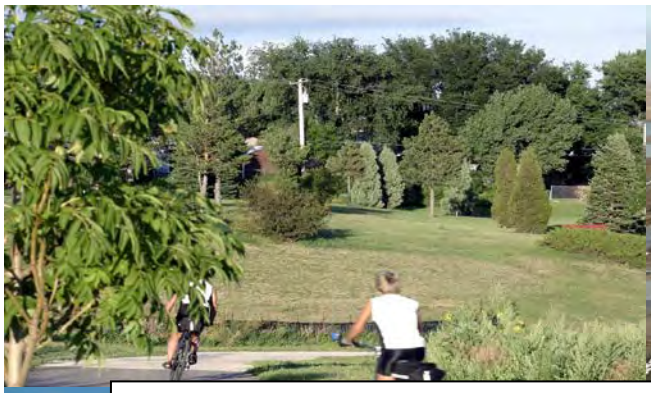


TransAction III

Topic Summaries




North Dakota's Statewide Strategic Transportation Plan

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This document's purpose is to generate a public dialogue on the future of transportation in North Dakota. The information in this document is from multiple sources and is for planning purposes only.

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Table of Contents

TransAction III
North Dakota's Statewide Strategic Transportation Plan

At the direction of Governor Jack Dalrymple, the North Dakota Department of Transportation (NDDOT) continues to lead the development of a statewide strategic transportation plan. Although we have made considerable progress toward achieving a transportation system that meets both the personal and freight mobility needs of our state's residents and visitors, there is still much to do.

Through the development of ***TransAction III,*** we pledge to work with the members of the transportation community, our stakeholders, and the public to achieve a transportation system that will be where it needs to be in comparison to where the world is going to be.

TransAction III - Purpose, Scope and Use

Purpose

1. Develop and promote a shared transportation vision
2. Develop a set of commonly agreed upon goals and values to guide future development of the state's transportation system
3. Develop broad-based support for a safe, secure, and efficient transportation system
4. Broaden the opportunities for people and businesses to be involved in the transportation planning process

Scope

The Scope of ***TransAction III*** is broad and extends to all levels of government, the public and private sectors, and surface modes of transportation, excluding pipelines. ***TransAction III*** will identify broad trends and strategic issues affecting the transportation system, and it will identify opportunities for public/private partnerships.

Use

TransAction III **will be used to:**

1. Promote an understanding of transportation's importance in our daily lives
2. Increase awareness of how North Dakota's transportation system is tied to transportation systems in other states and provinces, the nation, and world
3. Improve communication between transportation providers and consumers
4. Promote cooperation and collaboration between modes, jurisdictions, the public and private sectors, and consumers and providers of transportation
5. Provide focus for projects, initiatives, and programs to achieve North Dakota's shared transportation vision

TransAction III

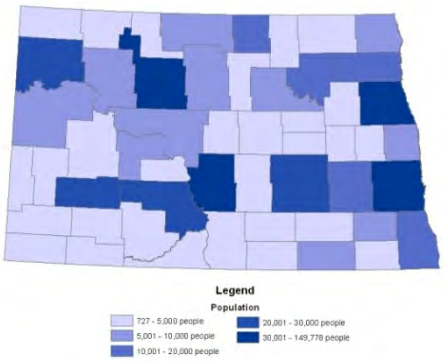
North Dakota's Strategic Transportation Plan

Demographics & Economy

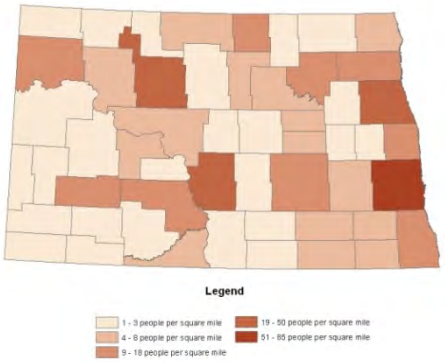
DEMOGRAPHICS

1. According to the 2010 US Census Bureau, ND's current population of 672,591, is within 8,254 persons of the state's all-time high of 680,845 which occurred in 1930. ND's population in 2010 was a 5 percent increase from the 642,200 persons counted in Census 2000.
2. Eleven counties grew in population in the decade between 2000 to 2010. These counties consisted of the counties with metropolitan areas, Native American Indian Reservations, and a handful of the oil producing counties in western ND.
3. From 2000 to 2010, Cass County which includes the city of Fargo had the largest percentage growth (22 percent) followed by Burleigh and Mountrail counties (17 percent and 16 percent, respectively). Towner and Sheridan counties located in the north and central parts of the state had the largest percentage decreases, each losing approximately 22 percent of their population.
4. The majority of North Dakotans (53 percent in 2010 up from 49 percent in 2000) reside in four counties: Cass, Burleigh, Grand Forks, and Ward.
5. Native Americans are the largest minority population accounting for about five percent of ND's population.
6. Lutheran Social Services reports ND has the lowest number of immigrants of all 50 states. Over the past 15 years, 5,303 immigrants resettled in the state. These individuals are primarily located in Fargo (3,540), West Fargo (705), Bismarck (462), and Grand Forks (554). Approximately half of these immigrants are under 18 years of age, and the data does not indicate whether they remained in the state.
7. United Work and Travel brings about 1,000 students per semester from around the world to ND to fill positions otherwise left unstaffed such as food service and agricultural jobs.

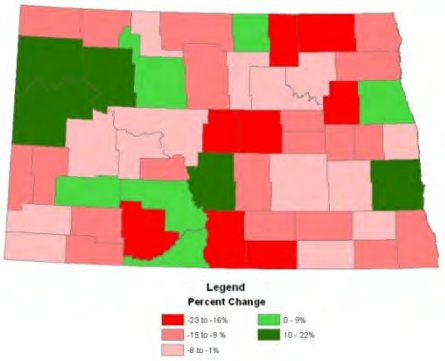
North Dakota Population -- 2010 Census



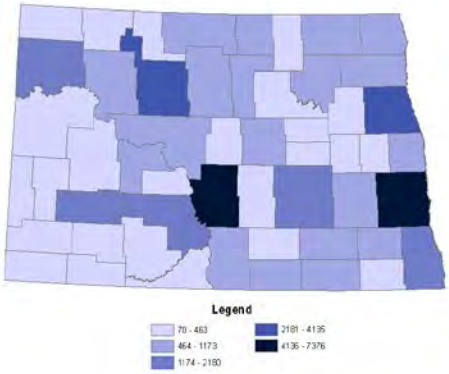
North Dakota Population per Square Mile



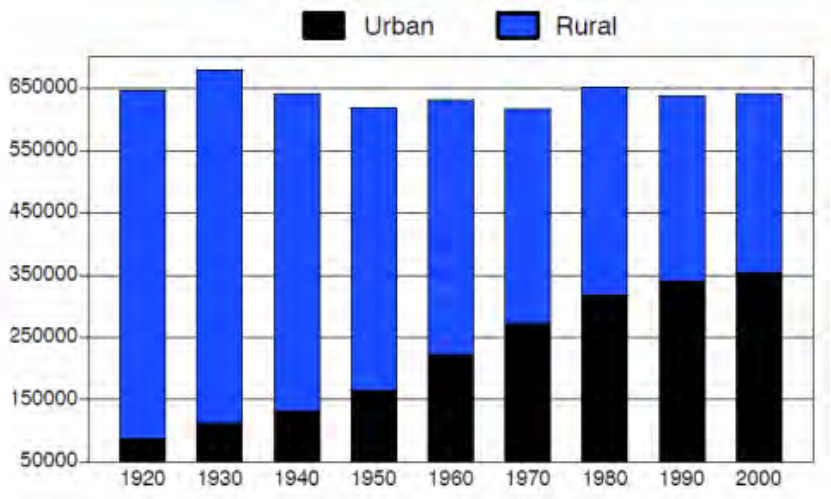
North Dakota Population -- Percent Change between 2010 and 2000 Census



2010 Population Ages 75 and Over



North Dakota Population 1920 - 2000



Implications

A. Since the Census data does not reflect the significant growth that has occurred in many areas across ND between 2010 and 2012, a broader range of data is necessary to accurately identify the newly emerging transportation infrastructure and service needs of the state.
B. Governmental units in ND's oil producing region cannot use historical trends to predict future demographic changes.
C. Due to the ever evolving nature and development pace of the oil industry, the public's level of expectations for transportation infrastructure and services is rising rapidly.
D. As more immigrants with limited English proficiency (LEP) move to ND, changes accommodating their language needs will likely occur (both infrastructure and services) to our transportation system.
E. Access to work, medical services, social functions, recreation, and housing will require many residents to commute long distances.
F. Continued population growth coupled with an influx of immigrants may result in the public's need for additional transit service.
G. As ND's population continues to grow, our economy evolves, and public expectations rise, it will become more costly to provide services such as public transit, snow removal, etc.

Notes:

NORTH DAKOTA'S ECONOMY

1. A state's economic viability is directly proportional to the ability of its transportation infrastructure to provide personal and freight mobility services.

2. ND's Gross State Product (GSP) reached 34.6 billion in 2010, a 9.7% increase over 2009. ND's economy is very strong, particularly in comparison to the rest of the country.

3. Over the past 20 years, ND's economy has grown and become more diversified.

4. Agriculture, energy development, mining, manufacturing, retail and wholesale trade, and construction rely on transportation more than other segments of ND's economy.

5. Agriculture has grown dramatically over time, but other industries have grown faster, and on a year over year basis at times contribute more to the state's gross domestic product. Agriculture's share of GSP slipped from 17% in the 1960s to about 6% currently.

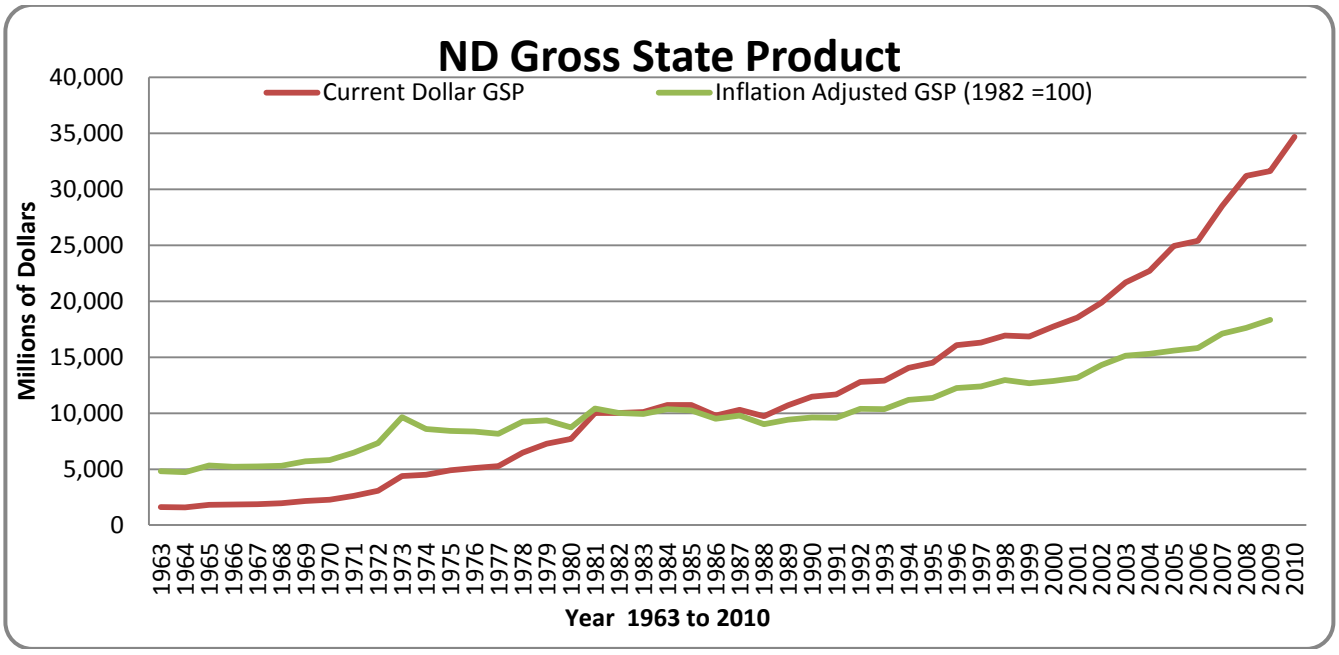
6. Worldwide demand for food and energy will increase demand again as economies recover.

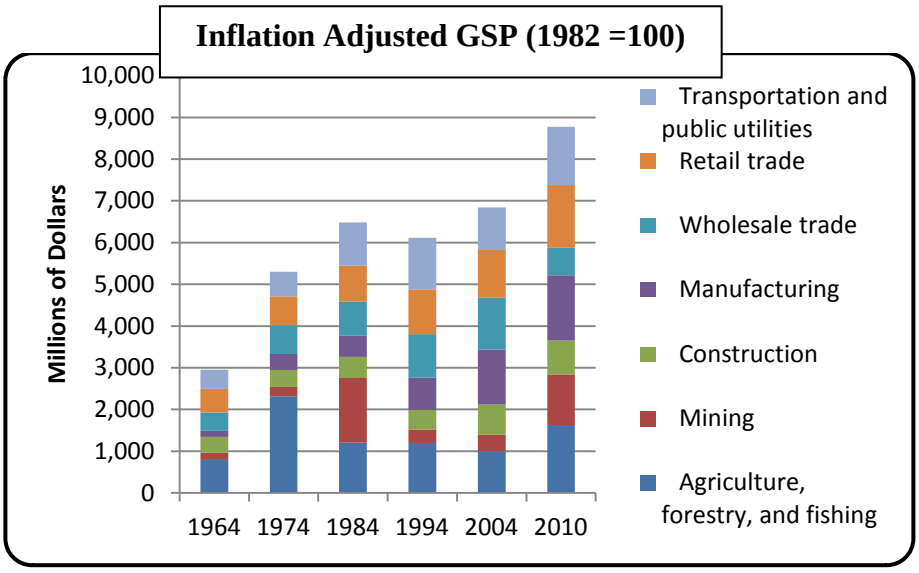
7. Manufacturing in ND has outperformed the national trend and has become a much larger part of the state's economy, growing from 3% in 1964, to almost 10% by 2010.

8. The state's economic growth is also due to its diversification.

9. Prices for commodities increased to record levels in 2008 before retreating again in 2009. A weaker US dollar against foreign currencies in 2010 again pushed prices of oil and other commodities to high levels.

10. ND's current budget surplus provides further evidence of a robust economy. Because of ND's abundant natural resources and higher prices for many of its natural resource-based products, such as coal, oil, and agricultural products, the state has enjoyed extraordinary economic growth.





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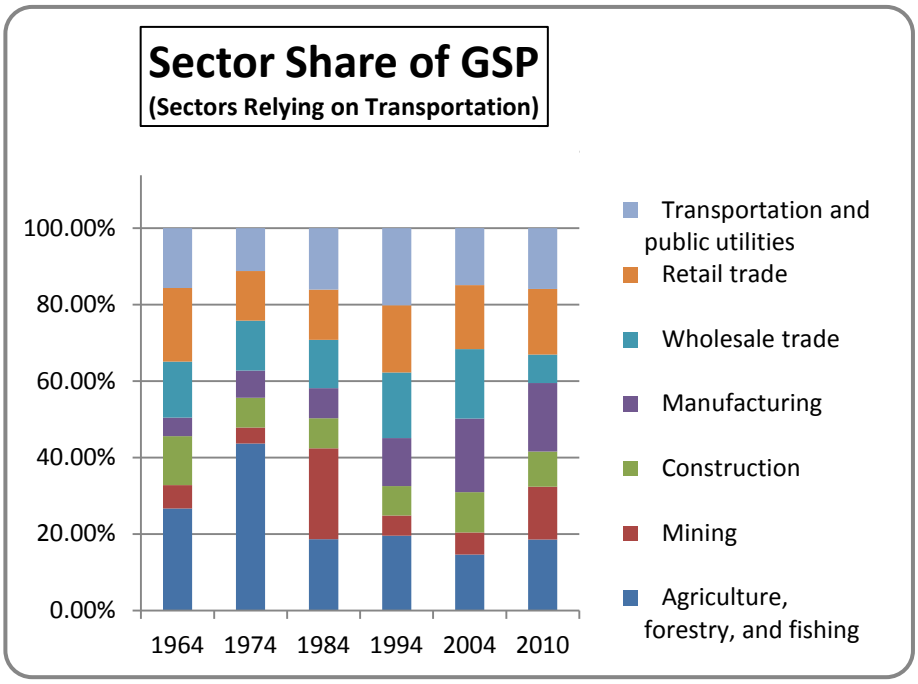


Implications

A. Continued growth of ND's robust economy is stressing the transportation system's ability to keep pace with the demands placed on it to move people and goods.
B. ND's natural resource and manufacturing based economy relies heavily on highway and rail infrastructure and service.
C. The highway and rail infrastructure in western ND was constructed to support an agricultural and livestock based economy and the unprecedented growth of the oil industry is taxing the area's state and local transportation systems beyond their capabilities.
D. Public/Private Partnerships may provide opportunities to build and maintain a transportation system that supports ND's economy.

AGRICULTURE

1. ND leads the nation in the production of seven different agricultural commodities. These include: Spring Wheat, Durum Wheat, Dry Edible Beans, Pinto Beans, Flaxseed, Canola, and Honey.
2. ND has half as many farms today as in 1950 and the average size has doubled to 1,241 acres. Farms and ranches in western ND tend to be larger than those in eastern ND.
3. In 1950, the total volume of agricultural production equaled 17.14 billion pounds. By 2010, agricultural production had increased to 89.37 billion pounds, an increase of 422%.
4. Several crops (i.e. durum wheat, potatoes, etc.) have exhibited major shifts in their area of production. For example:
   - ✓ In 1950, durum wheat was primarily grown in north central ND (32.4M Bu)
   - ✓ By 1975, durum was being grown in large volumes across all of ND (104.9M Bu)
   - ✓ By 2006, durum production had shifted to northwest ND, primarily in response to issues related to crop diseases and irrigation. (31.5M Bu)
   - ✓ Ironically, the number of durum acres in 2006 was about one-half of the 1950 acreage but due to a doubling of yields, the number of bushels harvested remained nearly the same. In 2010, durum production reached 66.7M bushels.
5. All Cattle numbers are slightly higher today than in 1950, while milk cows, sheep and hogs are all down significantly. Recently, livestock numbers have remained relatively stable.

Top Ten Crops 1950		Top Ten Crops 2010	
Spring Wheat	91.5M Bu	Spring Wheat	277.2M Bu
Durum Wheat	32.4M Bu	Corn for Grain	248.2M Bu
Barley	51.5M Bu	**Sugar Beets**	**5.7M Tons**[1]
Oats	6.4M Bu	Soybeans	138.4M Bu
Flaxseed	17.2M Bu	Corn for Silage	2.1M Tons
Corn for Grain	9.4M Bu	Durum Wheat	66.8M Bu
Corn for Silage	.9 Tons	Potatoes	22.0M CWT
Rye	2.3M Bu	**Canola**	**2.184B Lbs.**
Potatoes	12.8M CWT	Barley (all)	43.6M Bu
Soybeans	.4M Bu	**Sunflower (all)**	**1.255B Lbs.**

New Crops Grown In Significant Volumes Since 1950 Include:
Winter Wheat, Chickpeas, Canola, Pinto Beans, Dry Edible Beans, Black Peas, Small Red Beans, Navy Beans, Great Northern Beans, Dark Red Kidney Beans, Lentils, Pink Beans

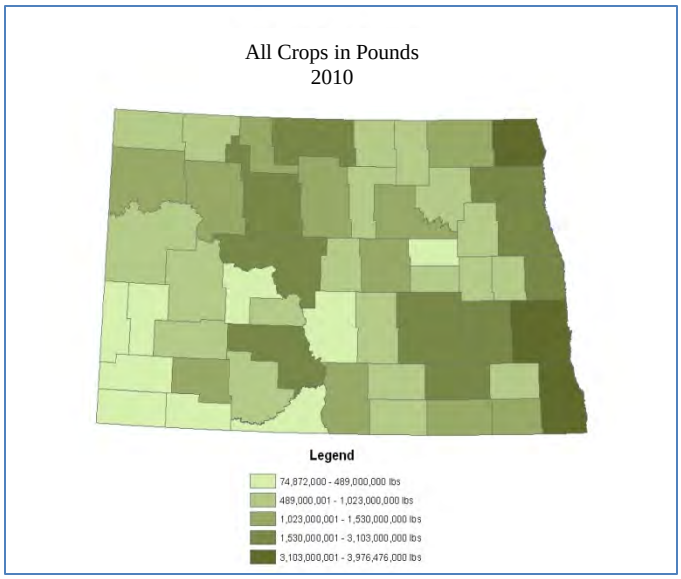
2010 Yield Per Acre Comparisons (lbs)	
Spring Wheat	2,640
Corn for Grain	7,392
Potatoes	27,500
Sugar Beets	54,000

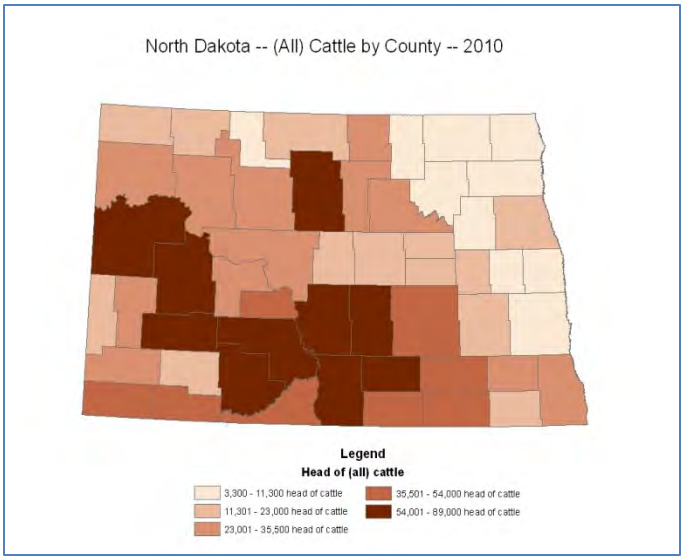
Conservation Reserve Program		
Acreage in 2001	3,320,776	
Acreage in 2011	2,386,565	
Change 2001-2011	934,211	28% less acres
Expiring Acres 2012-13	1,702,298	

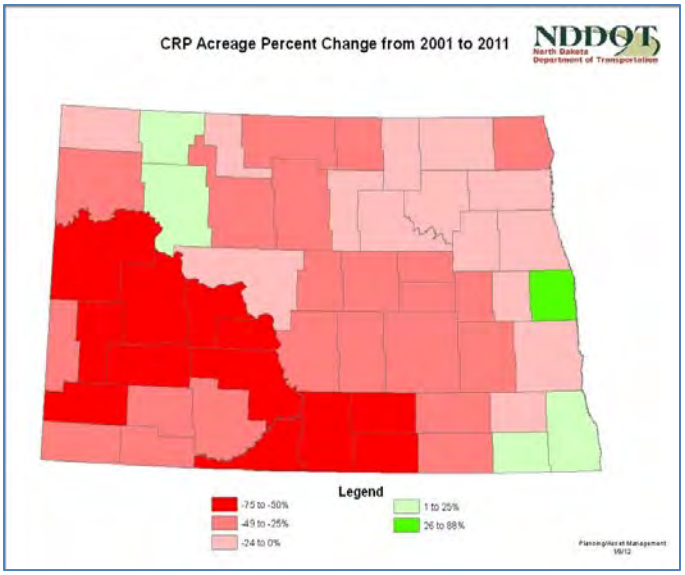
ND's increasingly diverse agriculture industry in total continues to contribute more than $20 billion in economic activity in an average year and nearly $30 billion in a very good year.

There are indications ND has significant potential to double crop. Most of a second crop could be used for livestock, however, there are cash crops that could also be grown as the second crop in a season.

[1] New top crops since 1950 in red







Implications

A. Agricultural production per acre will continue to increase due to improved crop genetics and fertilizers, shorter maturation times, and more farmers switching to new crops that produce higher yields (weight) per acre.
B. Shifts in the location of crop production will continue to occur in response to crop diseases, irrigation potentials and other factors. These shifts may necessitate the development of new and additional transportation services.
C. As acreage in the Conservation Reserve Program begins to lapse, additional land will be placed into agricultural production resulting in increased crop production that will need to be transported.
D. The volume of specialty crops such as peas and lentils will continue to grow resulting in the demand for containerized shipping opportunities.
E. Intensified agricultural production will require more fertilizer, herbicides, and other crop inputs that need to be moved during the period of spring load restrictions.
F. The number of cattle will continue to fluctuate in response to market prices, while the number of most other livestock will remain relatively stable or trend slightly downward.
G. Fewer farms and ranches has not reduced the need for access to rural agricultural areas.

Notes:

ENERGY

Oil and Natural Gas

1. The first successful oil well in ND was drilled near Tioga in 1951.
2. Oil and Natural Gas development has been a series of "booms and busts" (1950s, early 1980s, 2005-present).
3. Horizontal drilling and hydraulic fracturing has revolutionized the oil industry and opened the Bakken, Three Forks and other oil-bearing formations to development.
4. Hydraulic fracturing involves inserting water, chemicals, and sand or proppants into oil bearing formations under great amounts of pressure to fracture the formation and allow oil to flow to the well bore for recovery.
5. ND is the 3rd largest oil producing state; producing more than 500,000 barrels of oil daily.
6. ND is on pace to overtake Alaska by late 2012 and trail only Texas in production.
7. A total of 2,300 truckloads (inbound and outbound) are needed to drill a single well – this includes the rig, pipe, freshwater, sand and equipment needed to bring a well into production.
8. The oil from one out of every four wells will be trucked throughout its productive life resulting in more than 3,000 additional truckloads during a 20-year period.
9. Currently, ND has more than 6,200 producing wells; the ND Oil and Gas Division predicts an additional 33,000 wells will be drilled during the next 15 to 20 years.
10. Of the 100 loads necessary to move a drilling rig, 40 to 50 are either oversized or overweight.

Wind

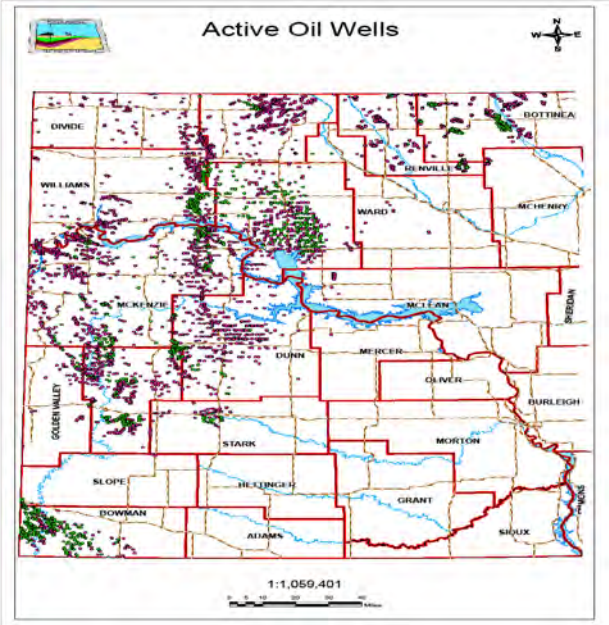
1. Wind energy is considered "green or renewable energy" and a "clean" energy source.
2. The first commercial wind towers were installed in ND in 1997, and the first wind farms in 2003.
3. Development has traditionally been dependent on federal tax incentives.
4. ND is ranked first in wind potential state, and ninth in megawatt (MW) capacity.
5. Currently, ND has 911 wind turbines with a total capacity of 1,424 MW.
6. An additional 6,827 MW of capacity has been announced and is yet to be constructed.
7. On average, it takes 14 loads to transport one wind tower, eight of the loads need to be permitted and escorted due to either their weight, size or length.
8. The majority of impacts on roadway systems occur during the construction phase.

Ethanol & Biodiesel

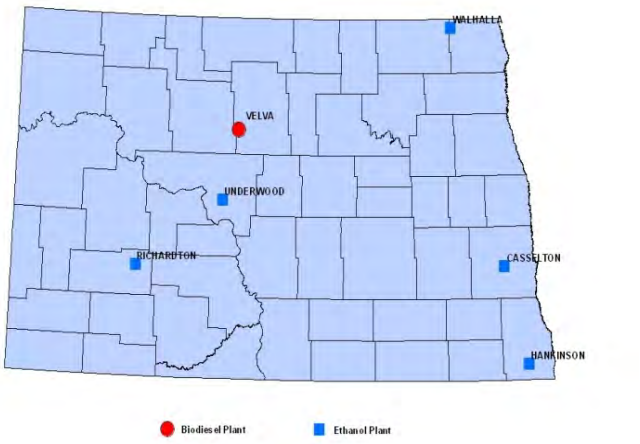
1. ND has four ethanol plants (Underwood, Hankinson, Richardton & Casselton) with a total annual capacity of 360 million gallons and a biodiesel plant at Velva with 85 million gallons.
2. If all of the inbound corn and outbound ethanol and dry distilled grains moved by truck, a 100M gallon ethanol plant would generate more than 100 trucks per day.

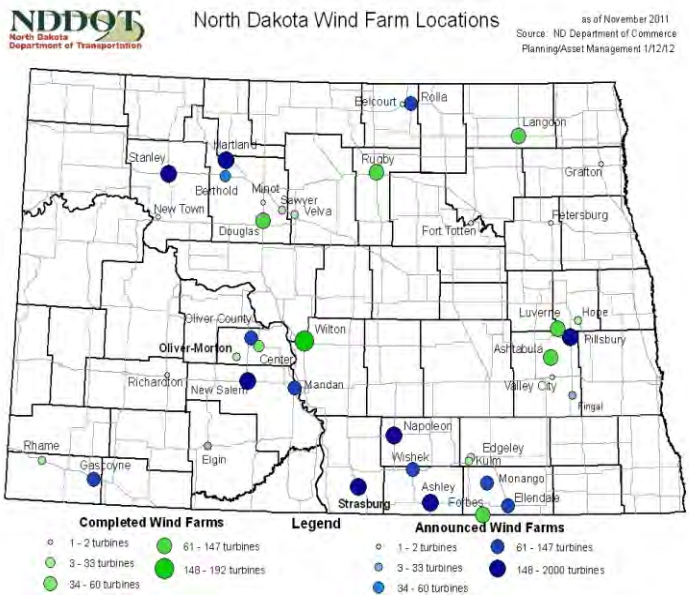
Coal

1. Most ND coal is utilized in mine-mouth production of electricity thereby having little impact on the state's transportation system.
2. Coal transload facilities such as the one at Ardoch, ND bring coal to a central location from which it is trucked to the five American Crystal sugar beet plants in the Red River Valley.
3. There has been talk of at least one more coal transload facility being built in south central ND.



Operating Biodiesel and Ethanol Plants





Implications

A. If 200 or more drilling rigs continue to work in ND it will take approximately 15 years to drill the projected 33,000 additional oil wells necessary to fully develop the Bakken and Three Forks formations.
B. The state and local roads in "Oil Country" will continue to experience high volumes of heavy truck traffic (beyond the drilling phase) for the next 25 to 30 years.
C. Truck traffic patterns in the state's oil producing counties will continue to evolve as new oil wells, rail transload and pipeline transfer sites are developed.
D. Ancillary sites such as man camps, frac sand unloading locations, salt water disposal sites and natural gas plants will continue to be developed as the ND's oil industry matures.
E. The development of additional renewable energy facilities (wind energy farms, ethanol and biodiesel plants) will be highly dependent on federal tax incentives.
F. New ethanol or biodiesel plants will rely heavily on trucks to deliver corn and soybeans from sources within about 100 miles.
G. ND will continue to see large amounts of coal, originating in Montana, transported through the state to points east.

Notes:

MANUFACTURING*

1. Manufacturers in ND account for nearly eight percent of the total gross state product while employing six percent of the workforce.
2. Total output from manufacturing has been rising for the past several years. In 2009, ND's manufacturing output reached $2.5 billion.
3. Individual income from manufacturing is over 37 percent higher than other non-farm employment.
4. Manufactured exports support 20 percent of ND's manufacturing jobs.
5. Since 2003, ND manufacturing exports rose three times as fast as the state's overall economy. ND's exports grew 169 percent while the national average was about a 70 percent increase.
6. In 2010, manufacturing accounted for 67 percent of ND's exports.
7. Eigthy-five percent of ND exporters are small businesses that average $670,000 in exports per firm and account for 32 percent of total state exports.
8. North Dakota exported $1.3 billion of manufactured goods to Free Trade Agreement (FTA) partner countries in 2010 – 77 percent of ND's total.
9. Employment figures show ND more than doubled the number of people working in manufacturing jobs from the 1990s to the decade beginning in 2000. Conservative estimates project truck traffic related to manufacturing grew at least 50 percent during the same time period.

Gross Domestic Product for ND (in current dollars)

Top Ten Manufacturing Sectors 1997

Machinery	$453M
Food/Beverage/Tobacco Products	$302M
Motor Vehicle Parts/Trailers	$170M
Fabricated Metal Products	$78M
Wood Products	$62M
Chemical Products	$35M
Plastics/Rubber Products	$31M
Printing & Related Activities	$29M
Nonmetallic Mineral Products	$28M
Petroleum/Coal Products	$27M

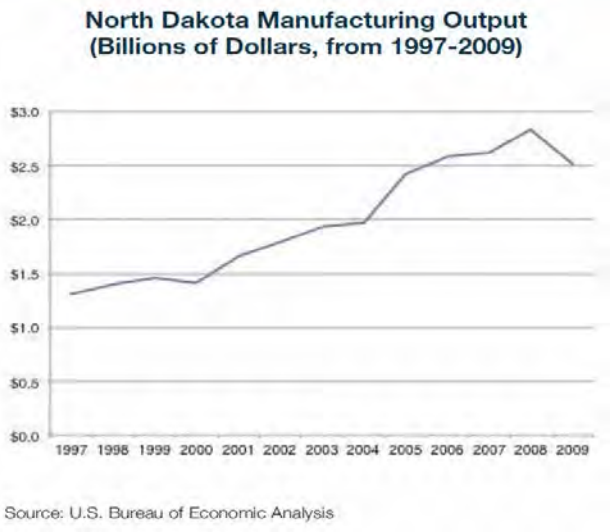
Top Ten Manufacturing Sectors 2009

Machinery	$768M
Food/Beverage/Tobacco Products	$652M
Petroleum/Coal Products	$170M
Fabricated Metal Products	$132M
Wood Products	$110M
Motor Vehicle Parts/Trailers	$121M
Nonmetallic Mineral Products	$101M
Computer/Electronic Products	$90M
Chemical Products	$81M
Plastics/Rubber Products	$75M

Manufacturing Output and Exports

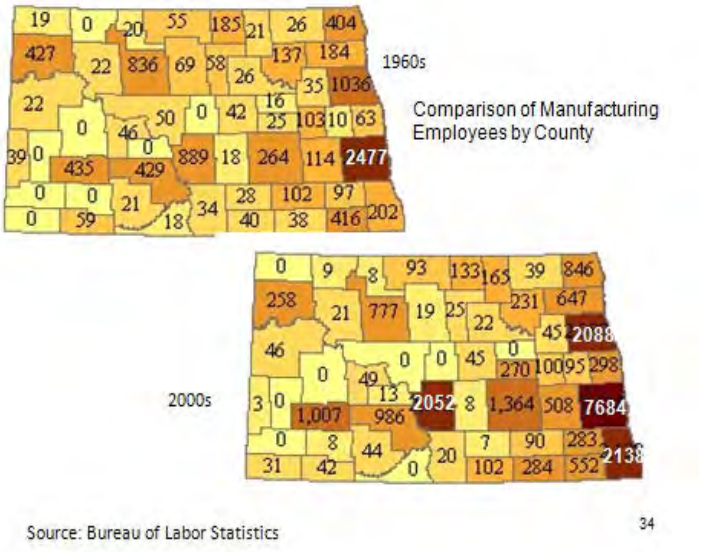
North Dakota Total Manufacturing Output ($billions, 2009)	$2.5
Manufacturing's Share of Total Gross State Product (2009)	7.9%
Manufacturing Establishments in North Dakota (2009)	737
Manufacturing's Share of North Dakota's Exports (2010)	67%
Total Employment Related to Manufactured Exports (2008)	16,900

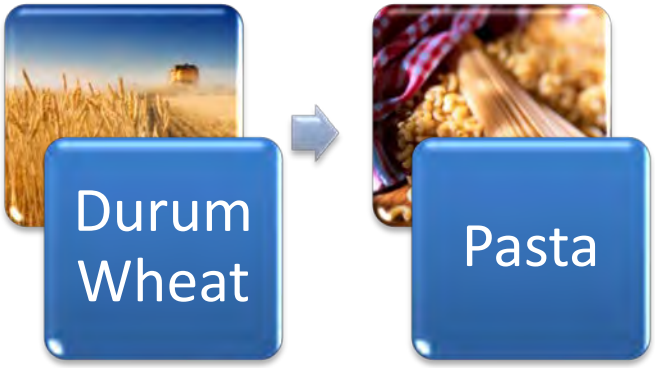
Source: U.S. Bureau of Economic Analysis

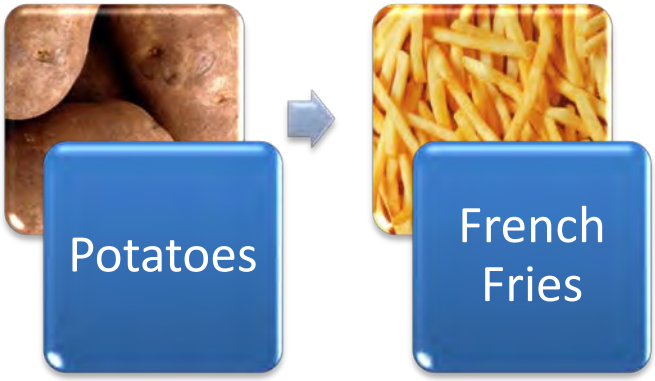


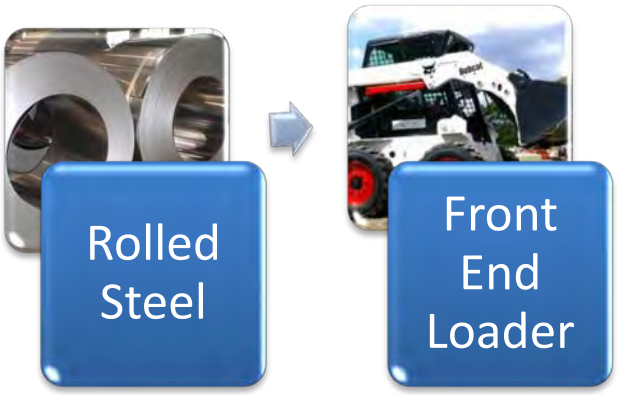
Source: U.S. Bureau of Economic Analysis

*Manufacturing is the processing of raw material into a finished product.









Implications

A. Continued growth of ND's manufacturing sector is very dependent on a transportation system that offers timely, reliable and efficient options.
B. Since many of ND's manufactured products are best transported by intermodal containers, the availability of, and access to, intermodal facilities and reasonably priced service is imperative.
C. Since higher valued outbound manufactured products are frequently time sensitive, they are often transported by truck.
D. Inbound transportation of raw materials that may be bulky or heavy, such as rolled steel, is critical to many ND's manufacturers.
E. The trend toward more value-added processing of agricultural products (e.g. durum wheat to pasta and potatoes to frozen potato products) has shifted some traffic from rail to truck.
F. Many movements of manufactured items result in truck loads that cube out (size out) rather than gross out (by weight).
G. Some of ND's manufacturers are highly dependent on ground transportation links to air service.

Notes:

TOURISM

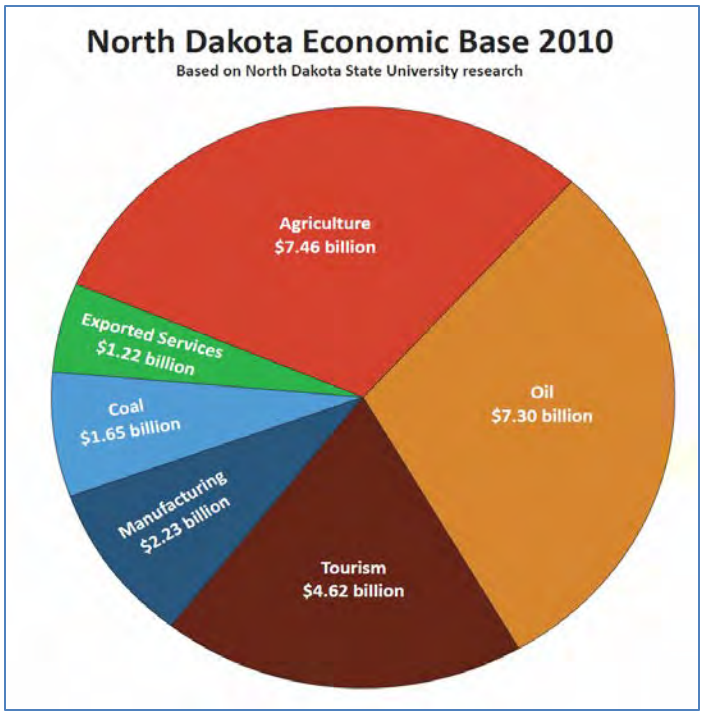
1. Travel and tourism is a $4.6 billion industry in ND, the third largest industry after agriculture and energy.
2. ND's tourism industry supports 866 accommodations (hotels, lodges and campgrounds), 640 attractions and 369 annual events.
3. ND is the 11th most visited US state by Canadians with overnight visitors spending more than $210 million.
4. Domestic visitors to ND take 15.2 million trips to the state spending more than $2.2 billion.
5. Since 2001, the hotel industry in ND has added 3,774 rooms, a 28% increase. An additional 24 properties are currently under construction or in development adding another 1,799 rooms.
6. Since 2006, there has been an 18.9% increase in the number of passenger autos crossing into ND thru Canada border ports-of-entry.
7. All areas of travel and tourism have seen growth in taxable sales and purchases in the period from 2005 to 2010 (ND Tax Department).
   a. Accommodations and food service increased by 13.7%
   b. Transportation increased by 172.8%
   c. Retail increased by 27.3%
   d. Arts, entertainment and recreation increased by 17.5%
8. Advertising in ND also has a direct impact in increasing visitor numbers and spending. The $1.94 million spent in advertising ND in 2010 returned $178.7 million in increased visitor spending.
9. Visitors enjoy ND year-round with 16% of visitors coming during the first quarter of the year, 31% enjoying the second quarter, 30% here the third quarter and 23% visiting during the fourth quarter.

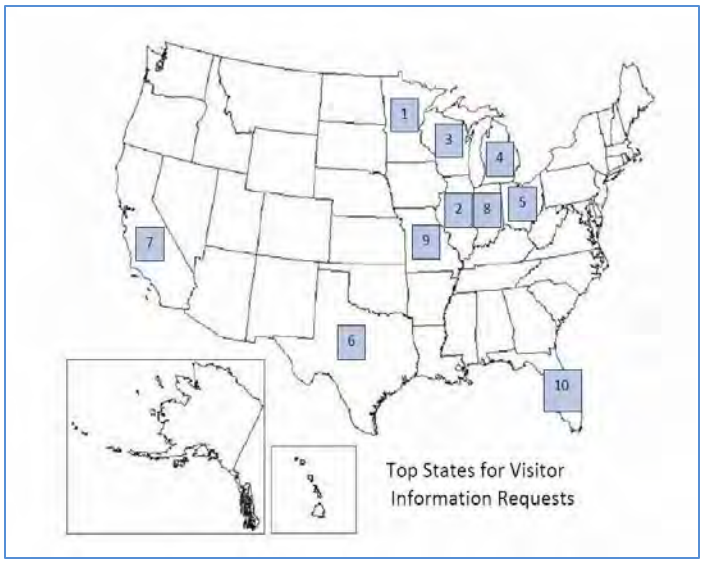
Top States for Visitor Information Requests

1. Minnesota
2. Illinois
3. Wisconsin
4. Michigan
5. Ohio
6. Texas
7. California
8. Indiana
9. Missouri
10. Florida

Top Visitor Sites

Theodore Roosevelt National Park
Fargodome
Ralph Engelstad Arena
Bismarck Civic Center
State Fair Center
Red River Valley Fair Grounds
International Peace Garden
Alerus Center
National Buffalo Museum
North Dakota Heritage Center





Implications

A. Increased traffic associated with oil activity in western ND has affected travel patterns and access to tourism destinations.
B. The oil industry's leasing of motel and hotel accommodations for its workers has resulted in fewer accommodations for tourists. If this trend continues, it could result in a downturn in tourism travel.
C. Canadians continue to visit ND year-round in record numbers. Facilitating expeditious processing of visitors through land ports of entry with Canada is essential to ensure repeat tourist visits.
D. As ND has received unprecedented national media coverage, the interest in traveling here has grown. Consistently available and affordable surface transportation services are important to maintain and grow resident and non-resident tourism.
E. Enjoying the outdoors is the #1 reason people travel to ND. The effect of CRP lands going back into agricultural production and increased oil and gas development on the state's fish, wildlife and natural resources may result in less tourism travel.
F. The traffic associated with the oil and gas industry has reached levels where traveling consumers are aware of problems and are seeking alternate route information or changing their travel plans.

Notes:

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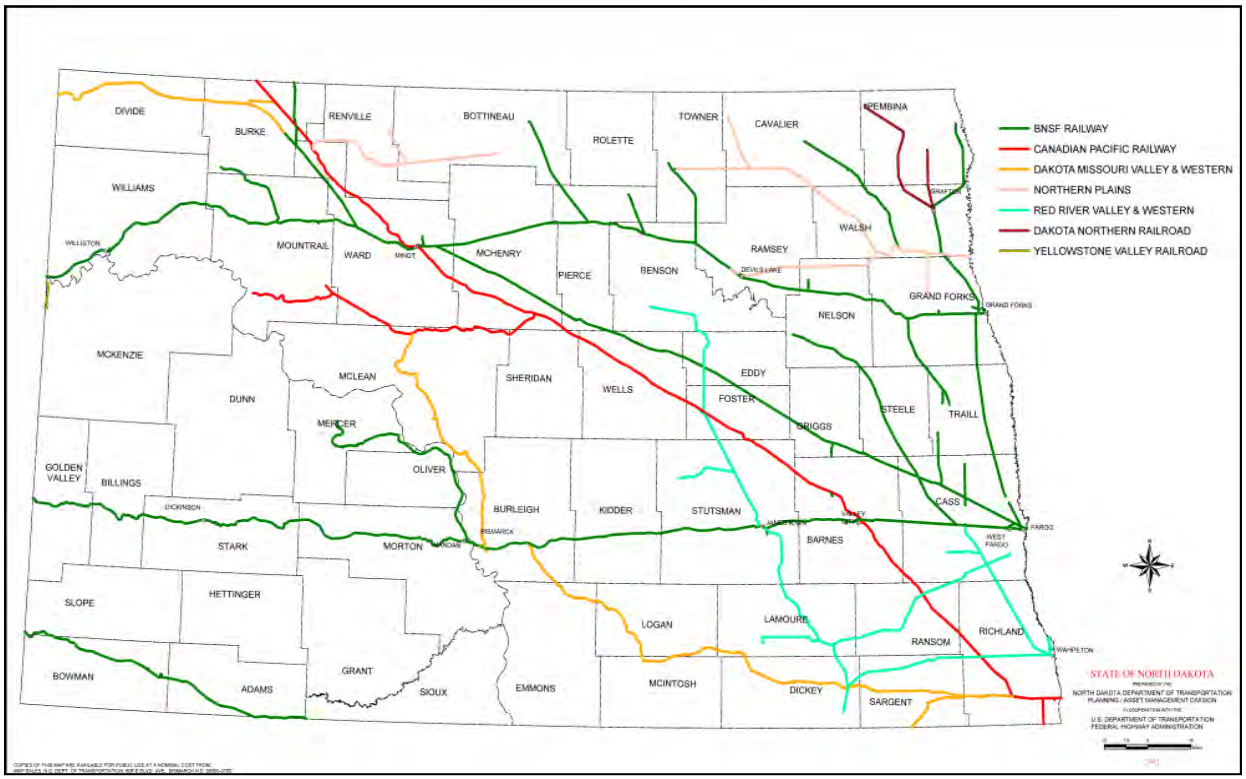
TransAction III

North Dakota's Strategic Transportation Plan

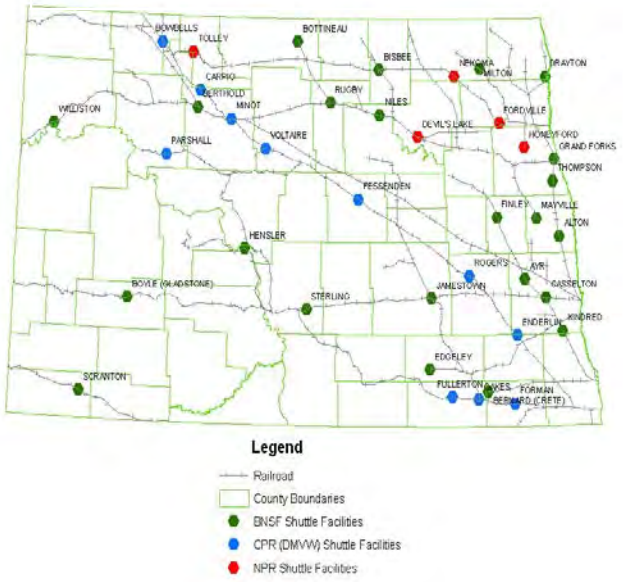
Infrastructure

RAILROADS

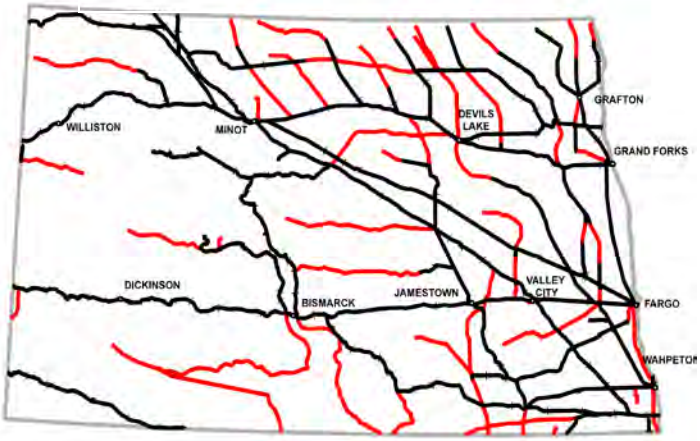
1. In 1950, ND was served by five Class I railroads, with a total of 5,243 miles. Today, two Class I railroads, BNSF Railway and CP Railway, and five shortlines (RRVW, DMVW, NPR, YSVR, DNNR) operating a total of 3,634 miles in the state.
2. There are a total of 3,438 public crossings, of which fewer than 700 are equipped with automated warning devices.
3. Amtrak ridership has been increasing; boarding's in 2010 reached 123,089, compared to 82,926 in 2003.
4. The demand for accessing intermodal container shipment options is growing in response to the emerging markets for identity preserved and organic agricultural commodities.
5. In 1950, ND had 1,025 grain elevators with a total licensed storage capacity of 60.8 million bushels. By 2010, the number of grain elevators dropped to 396 but licensed storage capacity had increased to 368.1 million bushels, a five-fold increase.
6. ND has 49 shuttle elevators capable of loading 75 to 110 rail cars within time limitations set by the operating railroad. Major shuttle crops include corn, soybeans, and spring wheat.
7. Rail shipments now account for about one-quarter of the more than 500,000 barrels of oil produced daily in ND.
8. The volume of rail traffic is projected to grow with some potential for capacity issues on the BNSF and CP mainlines by 2035.
9. Rail transportation is the main mode of transportation for exporting ethanol and biodiesel.
10. BNSF and CP mainlines carry large quantities of coal, intermodal containers, and other mixed rail traffic from the west coast, through the state, to Chicago and points east.
11. Quiet zones (QZ) have been established in Fargo, Medora, Mapleton, Jamestown, and Grand Forks; six other communities have started the process to establish a QZ.
12. ND's rail system has been negatively effected by harsh weather, flooding, and rising lake levels.
13. Each new oil well requires approximately 23 rail carloads of inbound materials (sand, pipe, etc.).



North Dakota Shuttle Facilities



Rail Abandoned Since 1950 in **Red**



Amtrak Empire Builder Route

Implications

A. ND's rail system is relatively mature and although there still may be branchline abandonments, it is unlikely the state will experience a significant reduction in the rail system.
B. Rail traffic within, into, out of, and through the state will continue to increase.
C. The number of grain elevators will likelyremain relatively stable while licensed storage capacity will increase slowly.
D. The demand for access to competitively priced intermodal container service will continue.
E. The number of at-grade rail crossings will continue to slowly drop as separations are built and crossings are closed or consolidated.
F. More communities will consider establishing quiet zones in response to increased rail traffic.
G. ND's growth in agricultural and energy production will result in more rail traffic.
H. Although additional shuttle facilities may be constructed, the current shuttle network is relatively mature and unlikely to experience major expansion.
I. Rail/vehicle conflicts are on the rise as train and automobile traffic are both increasing, this is particularly true in ND's oil producing counties.

Notes:

STATE & LOCAL ROADS

Infrastructure

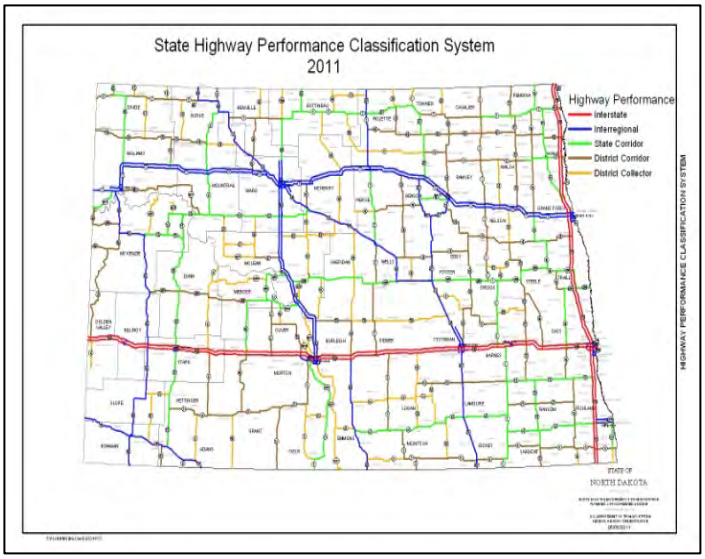
1. ND has more miles of roads per capita than any other state in the nation.
2. ND's road system consists of 106,670 miles (7,385 miles state highways, 18,835 miles county roads, 56,753 miles township roads, 3,771 miles city streets, and 19,826 miles trails).
3. There are 4,274 bridges on ND's state and local roads of which 840, or 19.6%, are deficient.
4. NDDOT classifies state highways using a five tier system called the Highway Performance Classification System (HPCS). The HPCS strives to balance the system's performance while maintaining infrastructure through an investment strategy differentiated by the level of highway.
5. Congestion is not a problem on most ND highways, however load carrying capacity is a major issue.
6. Historically, the number of vehicle miles traveled (VMT) has annually grown at a rate of between 3 and 4%. However, between 2010 and 2011, overall VMT on state highways grew by more than 9% and VMT growth on state highway's in the oil producing counties grew by more than 29%.
7. Statewide truck traffic between 2010 and 2011 grew more than 26%. Several state highways in western ND experienced higher growth rates. For example, truck traffic on US 85 grew 124%.
8. Providing service to the heavy loads associated with the oil industry is a challenge. Of the 100 loads necessary to move a drilling rig, between 40 and 50 movements are either overweight or oversized and require permitting.

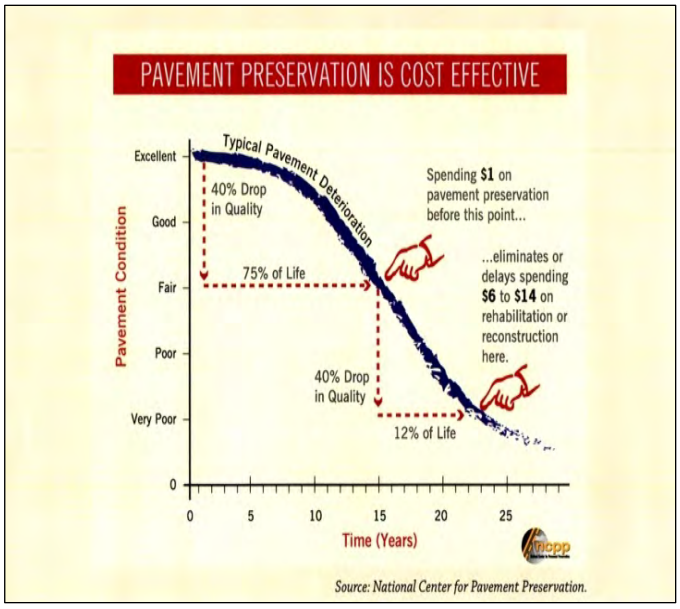
Funding

1. ND is very dependent on federal funding which has averaged about $240M per year and requires approximately a 20% state match.
2. The future of federal highway funding is uncertain as the Highway Trust Fund is projected to be insolvent by the end of FY 2012.
3. SAFETEA-LU expired in September 2009. Since then, federal highway funding has been dependent on a series of extensions which has made long-range planning more difficult.
4. Unlike the federal trust fund, ND's Highway Tax Distribution Fund has been growing, however it too has not kept up with the pace of inflation.
5. ND's Highway Tax Distribution Fund is allocated as follows: 61.3% to NDDOT, 22% to counties, 12.5% to cities, 2.7% to townships, and 1.5% to transit.
6. During 2011, above and beyond normal roadway funding, the ND Legislature provided an additional $228.6M for state highways and $142M for county and township roads in the oil impacted counties. An additional $60M was provided for county and township roads in the area not impacted by oil development.

Construction Costs

1. From 2005 to 2011, ND's overall construction cost index increased by more than 90%. For example, the cost of a thin lift overlay increased from $80,000 to $155,000 per mile.
2. All levels of government (state, county, city, township, and tribal) have been effected by the increased cost of roadway construction and maintenance.





Implications

A. Although ND's population is growing, the state has a very large road network with a relatively small population base to support it.
B. All levels of government are looking for additional sources of revenue to meet the increased demands being placed on their transportation systems.
C. Today's public expects a higher level of service and reliability from the transportation system.
D. Faced with limited resources, all levels of government need to develop priorities and define levels of service they will try to provide.
E. With the uncertain future of federal funding, state and local governments will need to assume a greater responsibility for financing their transportation systems.
F. Without significant increases, traditional revenue sources such as the motor fuel tax will continue to generate insufficient funding as people's driving habits change, vehicles become more fuel efficient, and more vehicles are powered by alternative fuels (electric, solar, etc.).
G. The financing of transportation infrastructure and services using Public/Private Partnerships will become more important.
H. Inflation and rising construction costs will continue to erode the purchasing power of state, local, and tribal governments.
I. Greater cooperation and collaboration between all levels of government will be needed to ensure that an integrated transportation system is in place to meet future demands.

Notes:

TRIBAL TRANSPORTATION

Infrastructure and Funding

1. There is a total of 368.6 miles of Indian Reservation Roads (IRR) on ND's four Indian reservations. In FY 2010, the IRR Program, jointly administered by FHWA and the Bureau of Indian Affairs (BIA), totaled $346 million for nationwide construction funding. ND reservations received just about $6 million of that funding.
2. There are currently ten scenic byways in ND, three of which serve tribal lands.

Transit

1. All four Indian reservations have public transit programs. In FY 2010, the state's tribes received $426,185 of federal funding and $91,185 in state funds for transit services. Tribal transit services are also eligible to receive additional funding from the BIA.
2. These four transit operations offered 37,403 rides, traveling 361,537 miles last year.

Safety

1. ND's Native American population continues to be overrepresented in our statewide fatality numbers. NDDOT is partnering with the tribes to address the Four Safety 'E's: Education, Engineering, EMS and Enforcement.
2. Progress is being made to address the lack of crash data reporting on the reservations. ND's four tribes have shown an interest in sharing crash data with NDDOT.
3. In 2010, NDDOT created the Multi-Agency DUI enforcement program with the four tribal reservations. The program includes city, county, state and federal law enforcement partners and focuses on reducing and eliminating impaired driving in ND.
4. Using National Highway Transportation Safety Administration (NHTSA) funding, NDDOT has offered its tribal partners the opportunity to receive up to $50,000 per year to fund a Tribal Community Traffic Safety Program coordinator. As of February 2012, three reservations have taken advantage of this program.

Cultural Resources

1. NDDOT has an historic Programmatic Agreement in place involving Tribal Historic Preservation Offices and Tribal Cultural Preservation personnel to deal with the effects transportation projects may have on cultural resources of value to the Tribes. This agreement is one of a kind throughout the United States.
2. Whenever possible, NDDOT works diligently to avoid affecting cultural resources of value to the Tribes.

NDDOT Director Francis Ziegler and Standing Rock Sioux Tribal Officials after signing historic traffic safety agreement.

Implications

A. Federal funding for the Indian Reservation Road (IRR) Program on ND's Indian reservations is inadequate.
B. Tribal transit programs are vitally important to the state's Native American population since many tribal members live in rural areas, and are either unemployed, low-income, or elderly.
C. Effective solutions to the disproportionate motor vehicle fatality rate among Native Americans will require partnerships and innovative programs that address cultural differences.
D. Respect for issues related to Native American cultural resources is paramount when addressing the transportation issues on ND's four Indian reservations.

Notes:

TRANSLOAD

1. ND's expanding economy, in particular its oil industry, is heavily dependent on the development of rail transload facilities for frac sand, pipe, crude oil, and coal.
2. In 2008, the only frac sand transload facility in ND was located in Williston, Today, there are also transload frac sand facilities in Ross, Minot, New Town, Beulah and Dickinson.
3. There are pipeline transload locations in Williston, Stanley, Minot, New Town, Dickinson and Bismarck.
4. There are oil truck to rail transfer facilities at Dore, Williston, Tioga, Stanley, Minot, New Town, Ross, Beulah, Dickinson and South Heart.
5. Some transload sites handle sand, pipe and oil.
6. At the transload facility located at Ardoch (northwest of Grand Forks) unit coal trains deliver bulk volumes of coal which is then transferred to trucks and transported to the five American Crystal sugar beet processing plants located at Drayton and Hillsboro, ND and to East Grand Forks, Crookston and Moorhead, MN.

EOG Oil Transload – Stanley, ND

Frack Sand Transload - Williston

Ardoch Coal Transload Facility

Implications

A. Transload facilities are becoming an increasingly more important part of our transportation system since they allow shippers to use multi-modal transportation options to achieve maximum economic efficiencies.
B. In some areas of ND siting a transload facility is difficult due to the availability of suitable topography for both rail and building sites.
C. The primary consideration affecting the location of a transload facility is good highway access to rail.

Notes:

LAND PORTS OF ENTRY (LPOE)

1. ND has more Land Ports of Entry (LPOEs) or border crossings (18) than any state.
2. Twelve of the state's LPOEs border Manitoba, the remaining six border Saskatchewan. (Manitoba is ND's 2nd largest trading partner)
3. The main function of a LPOE is to secure our country's border and prevent the unlawful entry of people and goods.
4. Three LPOEs (Pembina, Dunseith and Portal) operate 24/7/365 and offer veterinary and Animal Plant Health Inspection Services (APHIS). The remaining 15 LPOEs have limited hours of operation and no APHIS or veterinary services.
5. Although the Pembina, Dunseith and Portal LPOEs never close, the US and Canadian highways leading to the ports may close due to snowstorms, flooding and other occurrences.
6. Pembina is the 5th largest LPOE on the US/Canada border in terms of trade, and the largest west of the Great Lakes. The total value of trade (highway & rail) passing through the Pembina LPOE in 2010 was $17.7 billion.
7. On average nearly 900 automobiles and 550 trucks pass through the Pembina LPOE daily.
8. Portal was the 7th largest LPOE on the US/Canada border in terms of trade (both highway & rail) at $14.8 billion.

Pembina/Emerson Land Port of Entry

Implications

A. International trade is vitally important to the nation's economy and maintaining safe, secure and efficient personal vehicle and freight flows through our LPOEs is very important.
B. Cross border planning involving both security and transportation agencies at LPOEs is the key to maintaining safe, secure, and efficient through traffic.
C. Since Custom & Border Protection operations at ND's 24-hour ports (Pembina, Dunseith, and Portal) never close, it is very important to minimize traffic disruptions caused by snowstorms, flooding and other events.

Notes:

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TransAction III

North Dakota's Strategic Transportation Plan

Transportation Services/Issues

PERSONAL MOBILITY

Rural Transit Systems

1. ND currently has 31 rural transit systems.
2. NDDOT is working to implement transit coordination in the Valley City and Bismarck regions.
3. Rural Transit Providers operate 249 vehicles, 151 are lift equipped.
4. NDDOT is currently building six rural transit facilities with ARRA funds received from FTA.
5. In FY 2011 rural transit providers traveled 6.2 million miles, purchased $2.9 million of fuel, and provided more than 1.3 million rides.
6. 1.4% of rural workers age 16 years or older do not have access to a vehicle, compared to 5.2% of their urban counterparts
7. NDDOT received $1 million in State of Good Repair grant funds to replace vehicles for rural providers statewide.

Urban Transit Systems

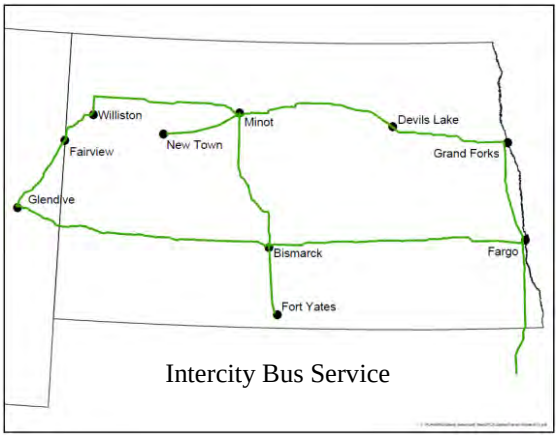
1. ND has three urban transit systems Bis-Man Transit (Bismarck/Mandan), Cities Area Transit (Grand Forks) and MatBus (Fargo/Moorhead).
2. Transit programs traveled more than 2,738,000 miles in FY 2010.
3. More than 2,378,000 rides were provided in FY 2010.

Inter-City Service

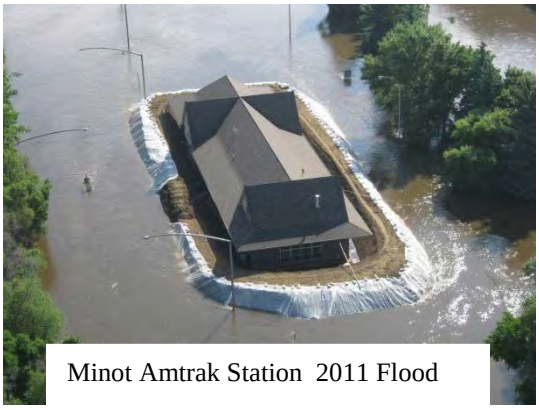
1. ND currently has four InterCity carriers: Rimrock Stage Lines, Jefferson Lines, Standing Rock Public Transportation and Newtown Bus Lines.
2. The Inter-City carriers stop making connections with local transit services at North West Public Transit in Williston, Bis-Man Transit in Bismarck, Minot Amtrak Station, Devils Lake Amtrak Station, Cities Area Transit in Grand Forks and MatBus in Fargo.

Amtrak

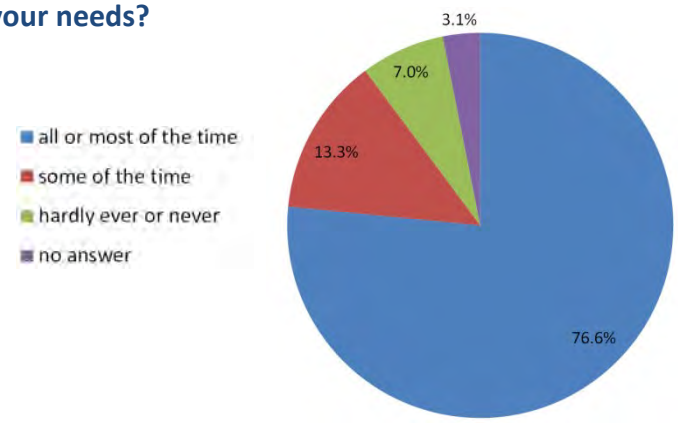
1. Amtrak currently stops at seven locations in ND: Devils Lake, Fargo, Grand Forks, Minot, Rugby, Stanley and Williston.
2. The Minot Amtrak Station was severely damaged and out of service for four months during the flood of 2011.
3. Minot had the most passengers of any Amtrak Station in ND, with an average of about 110 passengers boarding or detraining each day in FY 2010.



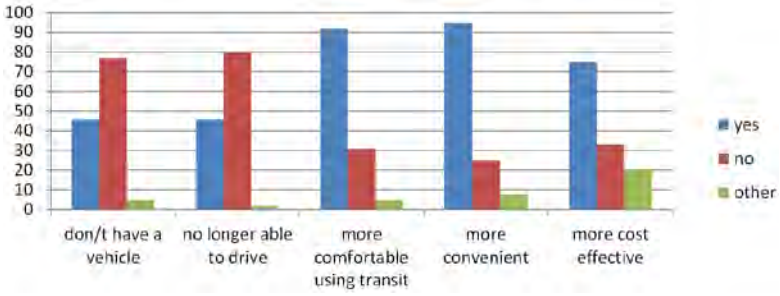
Intercity Bus Service


Minot Amtrak Station 2011 Flood

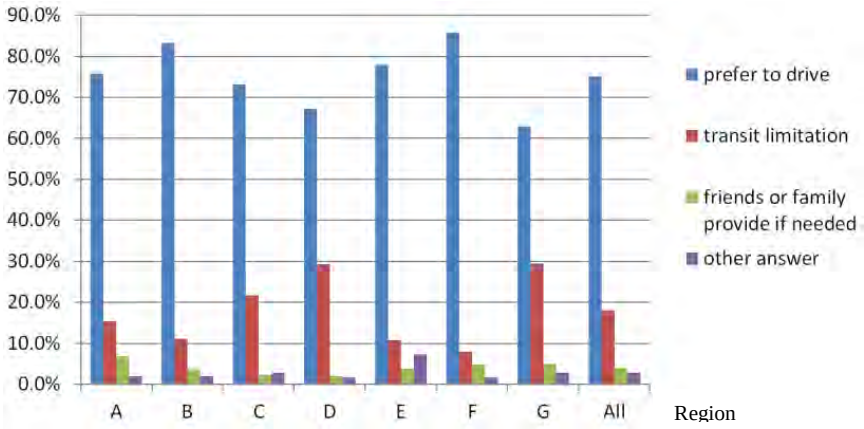
How often do rural transportation services meet your needs?



Do you use rural transportation services because…



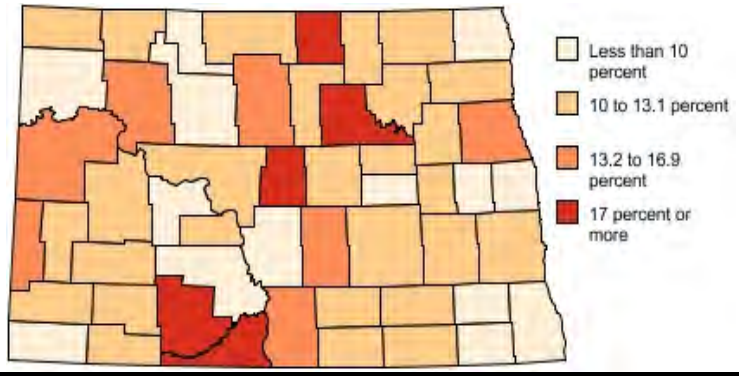
The primary reason you don't use rural transportation services is…



Estimated Percent of People Living in Poverty by County, 2008

*** includes the populations of the five cities with urban transit services**

Source: Census Bureau



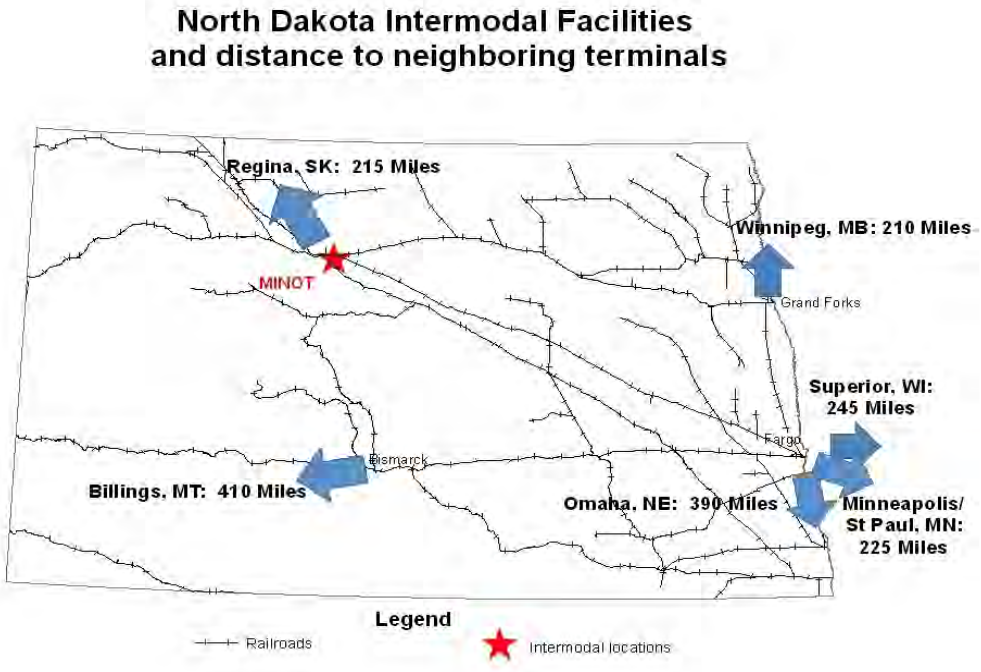
Implications

1. Since a 25 to 32% growth in the number of elderly North Dakotans is projected over the next ten years and 67% of rural transit rides are provided to elderly people, it is anticipated that 17 to 21% more rides will need to be provided over current levels.
2. Without transit service, many elderly people may continue driving later in life and dramatically increase health and safety risks to themselves and others.
3. Public transportation programs are up for reauthorization this year and if funding for transit is not continued, transit dependent citizens in both urban and rural areas will realize reduced services. These individuals include elderly, immigrants with limited English proficiency, people with disabilities, those living in poverty, etc.

Notes:

INTERMODAL

1. Intermodal freight involves the movement of freight in containers that use more than one mode of transportation such as truck to rail.
2. Intermodal transportation has the following advantages: the integrity of identity preserved commodities is maintained, cargo handling is reduced, freight security is improved, product damage is reduced, and transit timeframes are shortened.
3. Intermodal containers are an ideal transportation mode for many agricultural crops (peas, lentils, organic, identity preserved) and manufactured products (skid steers) produced in ND.
4. Agricultural commodities are shipped in food grade containers; manufactured items are not.
5. Intermodal freight service is dependent upon both the operating railroad and steamship lines.
6. The maximum economic distance to truck an intermodal container, depending on various factors, is about 500 miles. The operating railroads and nearest intermodal terminals to ND are:
   a) Canadian National Railroad – Winnipeg, MB – distance to Grand Forks 210 miles
   b) Canadian Pacific Railway – Winnipeg, MB – distance to Grand Forks 210 miles
   c) Canadian Pacific Railway – Minneapolis, MN – distance to Fargo 225 miles
   d) Canadian Pacific Railway – Regina, SK – distance to Minot 215 miles
   e) BNSF Railway – St. Paul, MN – distance to Fargo 225 miles
   f) BNSF Railway – Superior, WI – distance to Fargo 245 miles
   g) BNSF Railway – Omaha, NE – distance to Fargo 390 miles
   h) BNSF Railway – Billings, MT – distance to Bismarck 410 miles
7. The Port of ND in Minot is ND's only facility offering intermodal container service. One source of containers for this facility has been inbound shipments (China & Russia) of proppants used in the oil industry.



Implications

A. An intermodal facility is dependent on service commitments from an operating railroad and one or more steamship companies. A facility's success is highly dependent on a region's economy (primarily agriculture and manufacturing production).
B. Overhead structures on rail lines must allow adequate clearance to accommodate double-stacked containers – single stack intermodal container traffic is generally cost prohibitive.
C. Ideally, intermodal facilities have a balance between inbound and outbound containers – otherwise steamship lines are reluctant to make containers available and railroad repositioning fees may make service prohibitive.
D. Access to affordable and reliable intermodal container service is critical to ND's manufacturers and value-added agricultural producers competing in international and domestic markets.
E. Agricultural commodities tend to be seasonal in nature; an intermodal facility that generates sustainable, dedicated, year-round traffic is more likely to receive service commitments and favorable rates from a railroad and steamship lines.
F. Expanded intermodal container service would provide additional opportunities for business growth and diversification.
G. Although local truck traffic in the vicinity of an intermodal facility may increase, lower overall regional truck traffic will be realized as freight is transferred to rail.

Notes:

SCHOOL BUSING

1. In the 1967-68 school year there were 438 operating school districts in ND. The total student population was 167,746, of which, 44,116 rode school buses.
2. In the 2008-09 school year there were 184 operating school districts in ND. The total student population was 93,715, of which, 38,371 rode school buses.
3. Many students riding school buses today are making longer trips (both mileage and time) than they did just a few years ago due to the consolidation of school districts.
4. Some school districts have bus routes that extend into as many as six counties and across state boundaries.
5. Many school districts in the state's oil producing counties are experiencing rapid growth after years of declining number of students. The Stanley School District alone has students that have relocated from 35 different states and some foreign counties.

	1994	2011
Number of School Districts	231	183
Total Students	118,512	93,715
Total Busing Mileage	24,025,574	21,264,228
Cost Per Mile	$1.00	$2.23
Number of Students Transported	48,445	38,065
Transportation Cost/Student	$586	$1,243

Implications:

A. The routes used for school busing will continue to change as schools consolidate and district boundaries change.
B. The potential for conflict between farm machinery and oil industry traffic and school buses exists on narrow rural roads and bridges.
C. Opportunities for improved school bus safety exist through regular dialogue between school district administrators, road authorities, law enforcement agencies, railroads, and emergency medical service providers.

Notes:

NON-MOTORIZED TRANSPORTATION

1. Non-motorized transportation includes pedestrian, bicycling, and personal conveyance forms (wheel chairs and other assisted conveyance) used by non-ambulatory people.
2. Non-motorized transportation is used for basically the same reasons as motorized transportation; go to work, attend school and social events, run errands, access recreation, etc.
3. Most non-motorized transportation occurs in ND's urban areas and towns.
4. Although many people use non-motorized transportation year-round, ND's winters tend to concentrate non-motorized transportation during the spring, summer, and fall months.
5. Many forms of non-motorized transportation use infrastructure designed and constructed for motorized transportation. For example, bicyclists use city streets and rural roadways.
6. Pedestrians and non-ambulatory people using wheelchairs and other forms of personal conveyance generally use sidewalks. However, sidewalks are not universally available even in ND's cities.
7. Many people using non-motorized forms of transportation do so to connect to public transit.
8. Bike paths and sidewalks are the primary types of infrastructure designed primarily for non-motorized forms of transportation. Few roadways have pavement markings delineating pedestrian/bike paths.
9. There are no dedicated sources of funding for non-motorized transportation such as fuel taxes for motor vehicle infrastructure.
10. Since non-motorized forms of transportation often use facilities designed and built for motorized transportation, the potential conflict between vehicle and non-motorized uses raise safety concerns.
11. Other than some bicycling groups and advocates for people with disabililties, non-motorized forms of transportation are often under represented in transportation planning processes.

Implications:

A. Non-motorized transportation is a very important year-round form of transportation for many ambulatory and non-ambulatory people.
B. The lack of separate infrastructure for non-motorized forms of transportation results in people using infrastructure designed for motorized transportation.
C. It is important for transportation planners and engineers to conduct outreach in order to better accommodate non-motorized transportation forms as projects are planned, designed, and constructed.

Notes:

DISASTERS

Rising Water Levels

A. In recent years, ND has experienced record snowfalls and excessive rainfall resulting in rising lake levels, flooding, mud and landslides. Some climatologists believe the state is in the early stages of a wet cycle that may last up to 30 years.
B. In 2011, 90 sites on the state highway system and 208 sites on the county federal-aid system were inundated by high water levels. The estimated cost to raise the grade and fix the impacted roadways is $517 million. As of January 2012, ND has only received $316.8 million in federal Emergency Relief (ER) funds for these events.
C. NDDOT has identified 145 potential ER sites on the state system that could be impacted by high water in the spring of 2012.
D. Flooding resulted in $200,000 in damages to the Minot Amtrak station and caused it to close for four months in 2011.

Disaster Location	State Projects	County Projects	Federal ER Funds	State/Local Match	Total Costs
Devils Lake	$197.4 M	$32.7 M	$100 M	$130.1 M	$230.1 M
Statewide	$84.4 M	$65.2 M	$100 M	$49.7 M	$149.6 M
James River	$38.6 M	$34.4 M	$62.7 M	$10.3 M	$73.0 M
Sheyenne/James	$0	$12.2 M	$10.6 M	$1.6 M	$12.2 M
Mouse River	$29.6 M	$22.5 M	$43.5 M	$8.6 M	$52.1 M
Totals	**$350.0 M**	**$167.0 M**	**$316.8M**	**$200.3 M**	**$517.1 M**

Devils Lake Basin

A. Since 1993, Devils Lake has risen nearly 32 feet and the lake's surface area has quadrupled. During this time, over $650 million ($454M federal and $196M state/local) has been spent on roadway grade raises in the basin.
B. In 2011 alone, just over $230 million in grade raise projects were identified. This includes about $197 million for state highways and $33 million for county roads.
C. A Congressional conference committee recently inserted language into the US Department of Transportation Bill, SB 2112, which eliminates Devils Lake's designation as a closed basin. It also limits federal highway spending in the basin to $100 million annually.
D. It is estimated to cost about $97.4 million to raise a 17-mile span of BNSF mainline between Devils Lake and Churchs Ferry. BNSF Railway and Amtrak each committed $32.5M to this project. ND received a $10M Tiger Grant for this project. An additional $22.5M is needed.

Mud and Landslides

A. In 2011, there were nine landslide areas on the state highway system.
B. The estimated cost to repair the nine slides is $19M ($5M emergency repairs and $14M for permanent repairs).
C. One slide area 18 miles north of Killdeer on ND 22 was closed from May 20 to November 9.

Snow Removal Costs

A. NDDOT budgets about $14.5 million annually for snow and ice control.
   a. During the winter of 2008-2009, NDDOT spent about $22 million.
   b. During the winter of 2010-2011, NDDOT spent about $26 million.
B. Roadway authorities at all levels have been impacted by record snowfalls and major storms.

ND Highway 22 near Killdeer

BNSF Mainline near Devils Lake

Pembina Land Port of Entry

Rural Road Under Water

Implications

A. Some counties have had to bond or borrow money to come up with matching funds or to pay contractors while waiting for federal reimbursements.
B. Funds needed to match ER takes revenue away from the regular roadway maintenance and construction programs.
C. If the BNSF rail line west of Devils Lake is not raised, Amtrak services will have to be rerouted.
D. Some local roads have been permanently closed or rerouted.
E. ER work has strained the construction industry resulting in higher bid prices.
F. Major portions of the state and local road network have been shut down numerous times due to no travel advisories.
G. Emergency response capabilities are important for saving lives, reducing the severity of roadway and rail incidents, and re-establishing personal and freight mobility.
H. Disasters have made it difficult for maintenance personnel to meet the ever increasing public demands for snow and ice control.
I. ER funding is only available for federal-aid routes. Many local, county, and township roads that are under water are working with ND Disaster Emergency Services to obtain FEMA funds to fix these routes.

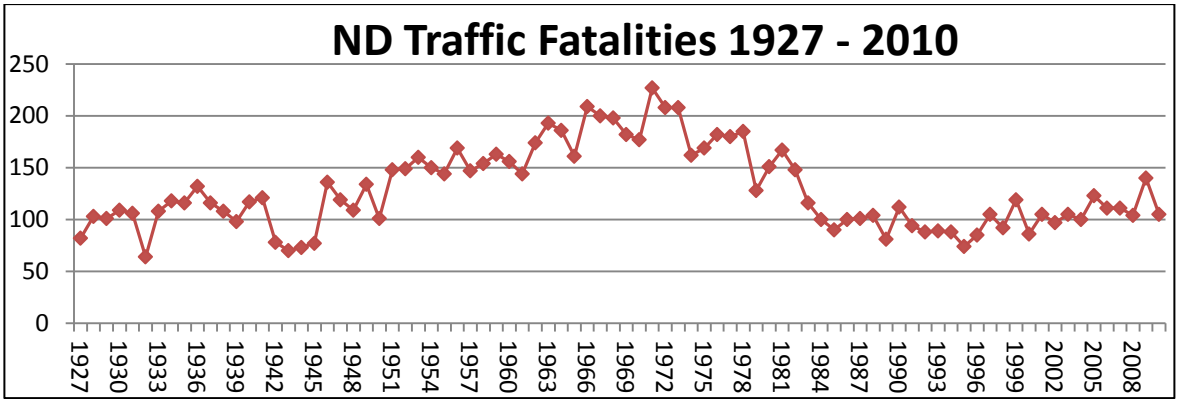
Notes:

TRANSPORTATION SAFETY

1. Motor vehicle fatalities in ND peaked in 1972 and then gradually decreased until 2000. Since then a slight upward trend has been noticed.
2. ND's motor vehicle fatality rate has historically been lower than the national rate. Since 2005, ND's motor vehicle fatality rate has exceeded the national rate every year.
3. The main factors that cause fatal crashes, however, have not changed over time. Fatal crashes continue to occur largely due to human factors.

Top 3 Contributing Factors – 2000	**Top 3 Contributing Factors – 2010**
1) Speed	1) Alcohol/Drugs/Medications
2) Alcohol/Drugs/Medications	2) Speed
3) Failure to Yield	3) Driving Left of Center

4. The non use of seat belts continues to be a significant factor in fatalities. Over the past ten years, about two-thirds of those killed in motor vehicle fatalities were unbelted at the time of the crash.
5. Fatality rates per 100 Million VMT varied with a low of 1.22 in 2000, to a high of 1.76 in 2009.
6. ND's Native American population continues to be disproportionately impacted by fatal crashes. Native Americans account for less than 5 percent of ND's population but account for about 15 to 20 percent of the state's total crash fatalities over the past five years.
7. In 1978, 106 rail/automobile crashes claimed 13 lives, this compares to 21 crashes and 2 fatalities in 2010. This is due in large part to a safety program partnership consisting of Operation Lifesaver, NDDOT, ND Safety Council, the railroads, rail labor, FHWA and FRA.
8. Rail/automobile crashes have also decreased due to the closure of crossings that were redundant or had significant safety concerns.



9. In 1966, Congress passed legislation which created the National Highway Traffic Safety Administration (NHTSA) as part of the US Department of Transportation. Since that time, NDDOT's Traffic Safety Office has implemented a number of NHTSA-funded outreach, education, and high-visibility enforcement programs.
10. NDDOT is actively involved with FHWA's Safe Routes to Schools (SRTS) program which makes funding available for programs and projects (e.g. building safer street crossings and establishing programs that encourage children and their parents to walk and bicycle safely to school). About 40 communities have participated in the SRTS program since the program started in ND in 2006.

D. Public/Private Partnerships offer a method for safety programs to bridge the gap between modes, and the gap between governmental units and the private sector.
E. Safety conflicts between motorized and non-motorized forms of transportation pose unique challenges.
F. Effective solutions to the disproportionate motor vehicle fatality rate among Native Americans will require partnerships and innovative programs that address cultural differences.

Notes:

Implications

A. Since nearly 80 percent of all vehicle crashes are caused by driver error and new drivers continue to be licensed, there is an ongoing need for driver education programs.
B. Engineering solutions and law enforcement programs coupled with effective and timely emergency response programs can further improve transportation safety.
C. Safety partnerships that include multiple components (education, engineering, enforcement and emergency services) have the greatest potential to improve transportation safety.

Courtesy Minot Daily News

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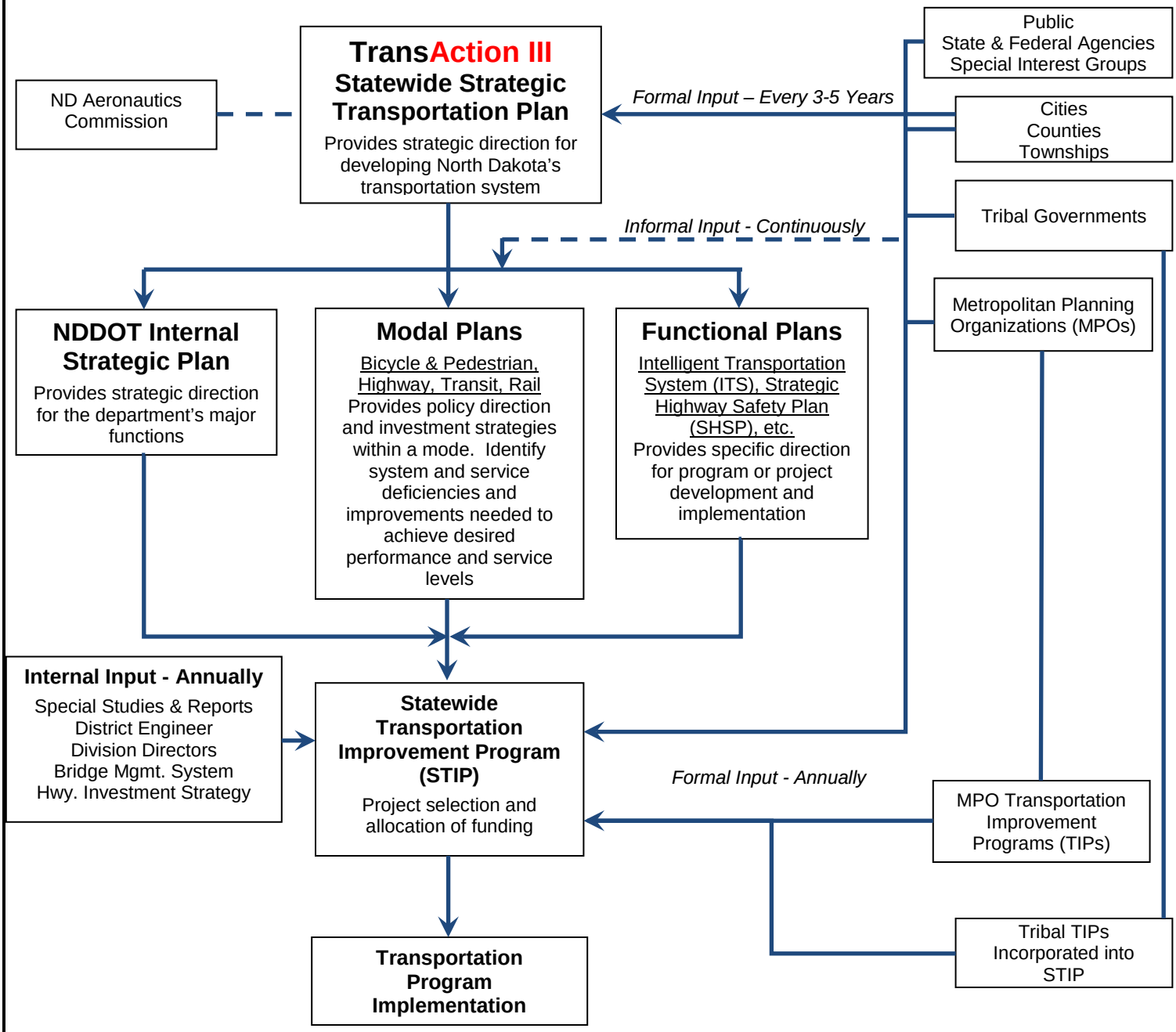
TransAction III
North Dakota's
Strategic Transportation Plan

Relationship of Planning & Programming Processes

Relationship of Planning and Programming Processes



Trans Action III

North Dakota's Strategic Transportation Plan

Mission, Vision & Goals

North Dakota's Transportation Mission

North Dakota will provide a safe and secure transportation system that considers personal choices, enhance business opportunities, and supports economic competitiveness; and promotes the wise use of all resources.

North Dakota's Transportation Vision

North Dakota's transportation system is an important part of regional, national, and global systems, developed strategically to help grow and diversify our economy and enhance the state's quality of life.

North Dakota's Transportation Goals

Safe and secure transportation for residents, visitors, and freight

A transportation system that allows optimum personal mobility

A transportation system that allows efficient and effective movement of freight

A transportation system that supports economic diversity, growth, and competitiveness with consideration of environmental and social impacts

Funding sufficient to protect and enhance North Dakota's transportation infrastructure and address future transportation needs

A transportation environment where communication, cooperation, and collaboration exists

Notes:

Strengths – *What is working well for Transportation in ND?*		Weaknesses – *What is not working for Transportation in ND?*	
Personal Mobility	Freight Mobility	Personal Mobility	Freight Mobility

Opportunities – *What opportunities exist to improve performance in delivering ND Transportation?*		Threats – *What threats exist to inhibit performance in delivering ND Transportation?*	
Personal Mobility	Freight Mobility	Personal Mobility	Freight Mobility

Is our transportation system **Maintainable and Sustainable**? a. Is it sufficiently funded? b. Is it meeting priorities? c. Is it under, or overbuilt? d. Does it add to our quality of life and prosperity?	
Personal Mobility	Freight Mobility

Is our transportation system **Safe and Secure**? a. Is it safe for all forms of transportation? b. Are conflicts between the modes minimized? c. Are freight movements secure?	
Personal Mobility	Freight Mobility

Is our transportation system **Reliable and Predictable**? a. Are travel times predictable? b. Are there transportation options (routes, modes, service, etc.) available? c. Is trip planning information readily available and easily accessed?	
Personal Mobility	Freight Mobility

Is our transportation system **Accessible**? a. Is it affordable to businesses and people of all income levels? b. Is transportation infrastructure readily available to people and businesses? c. Does it allow reasonable access to locations and necessary services? d. Is language a barrier to access?	
Personal Mobility	Freight Mobility

Is our transportation system **Connected and Continuous**? a. Is travel between regional centers within the state convenient? b. Can people and freight move conveniently between in, and out of state destinations? c. Does our system impede commerce?	
Personal Mobility	Freight Mobility

Is our transportation system **Integrated and Multimodal**? a. Can people and freight easily transfer between modes? b. Are service schedules between modes convenient?	
Personal Mobility	Freight Mobility

Implications:

Any Other Comments:

Please send additional SWOT notes, Implications, or Any Other Comments to:

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