North Dakota Transportation Handbook

December 2016

North Dakota
Department of Transportation

NDDOT
North Dakota
Department of Transportation

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December 2016

On the cover:

The NDDOT recently completed a rehabilitation project on the historical Sorlie Bridge at Grand Forks. The project included the addition of a new LED lighting system which has the capability to change colors on the bridge. The bridge received two national awards in 2016.

prepared by

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

BISMARCK, NORTH DAKOTA
dot.nd.gov

NDDOT
North Dakota Department of Transportation

COM12/16

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Welcome to the NDDOT Transportation Handbook

The 2016 Handbook provides important information about the North Dakota Department of Transportation (NDDOT). This publication includes details about highways, bridges, motor vehicle and driver's license services, snow and ice control, construction, funding and many other areas.

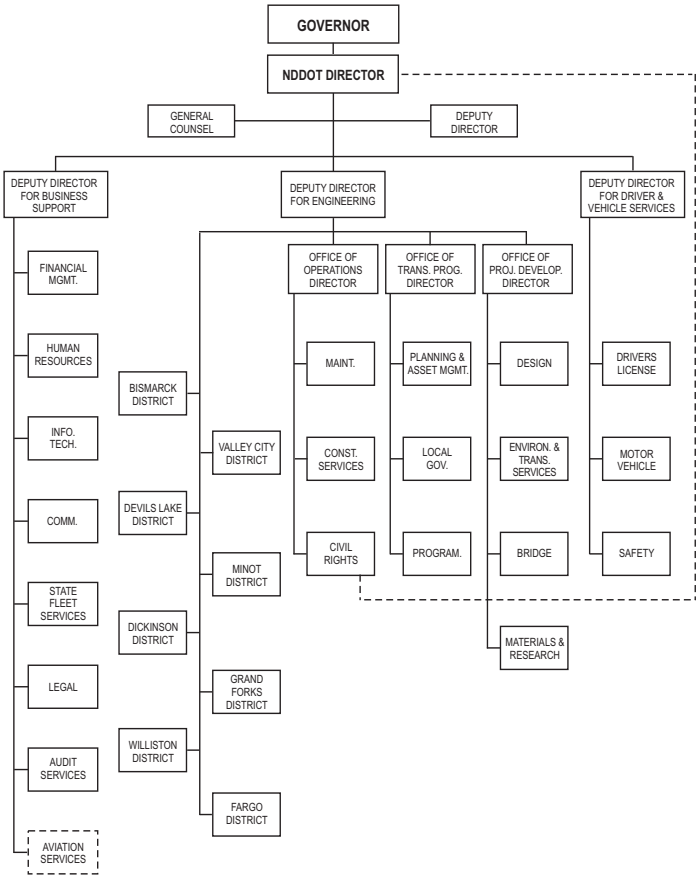
North Dakota's transportation system is an essential element in the state's economy as it moves commodities and products grown or manufactured here to other parts of the world, as well as transports people to various destinations for work, school or travel.

Recognizing the importance of investing in transportation the Governor, North Dakota legislature and state residents facilitated the NDDOT's work to improve roadways while enhancing safety for the traveling public.

2017 is a significant year for NDDOT as it marks 100 years since the establishment of the Highway Department in 1917. From the beginning, the NDDOT has relied on dedicated workers to build and maintain highways where only dirt trails existed before. In 1922 the state had 20 miles of gravel road and about 1,000 miles of dirt trails. Today the state has over 107,000 miles of roadways.

The department has provided a Century of Service to North Dakotans by working through challenges and achieving many accomplishments. It is not the end of an era for transportation development; it is only the beginning. We look forward to the future as we provide a quality transportation system that safely moves people and goods.

Organizational Chart



Organization

- The ND State Highway Department was created in March 1917 and became the ND Department of Transportation (NDDOT) on January 1, 1990.
- NDDOT is led by a director appointed by the governor. The department also has three deputy directors: business support, engineering and driver and vehicle services.
- The Central Office is in Bismarck, with eight district offices: Bismarck, Devils Lake, Dickinson, Fargo, Grand Forks, Minot, Valley City and Williston.
- NDDOT oversees the development of surface transportation (highways, bridges, rail, transit, pedestrian and bicycle paths, and safe routes to schools) in the state.

Contact Information

NDDOT Toll-Free 1-855-637-6237
Central Office Information Desk . . . . . .(701) 328-2500
Motor Vehicle Registration and Titling . . .(701) 328-1270
Drivers License . . . . . .(701) 328-2601
Director's Offices . . . . . .(701) 328-2581
Mailing address:
608 E. Boulevard Ave., Bismarck, ND 58505-0700
Website: dot.nd.gov
Email: dot@nd.gov
District Offices (see page 4)

History

1889 Creation of a North Dakota state office dedicated to roads.

1911 First ND motor vehicle license plates issued.

1913 First highway commission created.

1917 Creation of North Dakota State Highway Department.

1922 ND has 20 miles of gravel roads, 1,000+ miles of dirt trails.

1933 Highway commission abolished. F.A. Vogel becomes first independent highway commissioner.

1935 First driver's license issued.

1956 First ND Interstate contracts let (US 10 between Valley City and Jamestown).

1977 ND is first state in union to let contracts for final Interstate highway (I-29 between Drayton and Pembina).

1990 Highway Department becomes Department of Transportation.

2002 NDDOT is lead agency for creation of first statewide strategic transportation plan for all modes of transportation.

2008 NDDOT completed the four-laning of US Highway 2 between Williston and Minot.

2012 Completed first roundabout project on a state highway on ND 22 near Killdeer.

2013 Worked on the largest construction seasons in state history ($1.6 billion) during the 2013-15 biennium.

2014 Constructed truck bypasses and truck reliever routes around the following communities; Alexander, Dickinson, New Town, Watford City and Williston.

2015 A new flat license plate was issued in 2015, replacing the former embossed Buffalo Plate which had been in circulation for 23 years. The new "Sunrise Plate" features photographs of a buffalo, North Dakota sunrise and badlands.

Worked on more than $800 million in construction projects on state highways, city and county roads including the Sorlie Memorial Bridge in Grand Forks, New Town Truck Reliever Route, New Town Main Street and Williston Main Street projects.

2016 Completed large construction projects including the Killdeer Truck Bypass, Carrington Roundabout, Dickinson State Avenue Railroad Bridge and West Fargo Main Avenue projects.

Information Available Through a Variety of Tools

The NDDOT provides a variety of online and phone app tools to provide information and services to the traveling public.

NDDOT Travel Information

The NDDOT Travel Information is a web-based application while NDRoads provides travel information in a format for mobile devices. Both can be found on our website at dot.nd.gov.

Information is available on road conditions, load restrictions, work zones, road and weather cameras, width/height restrictions and weather radar. In the past 12 months, the online and mobile app have had more than 2.5 million views.

GovDelivery

GovDelivery is an email and text message subscription that allows subscribers to receive news releases, business development and public safety updates directly from the NDDOT's website. More than 30,000 notifications were issued in 2015-2016.

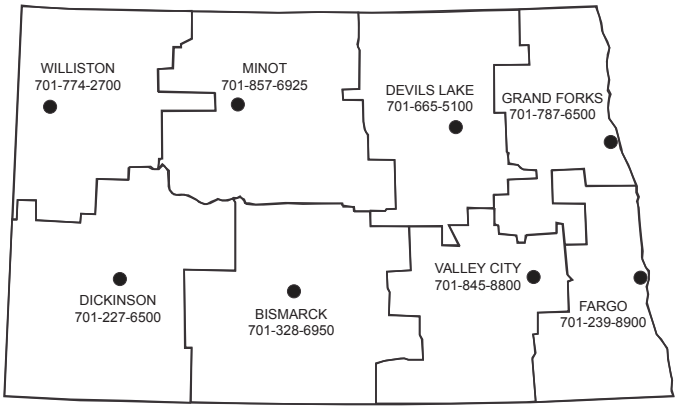
ND Renewals

In 2015, the NDDOT launched a free smartphone application (NDRENEWALS) for users to renew vehicle registration, update permanent address, temporary address and email address. To date there has been a total of 1,236 downloads.

511

511 is a national telephone service for travelers to get weather and road condition information, road construction reports and seasonal load restriction information. Motorists can call 511 from any type of phone. When calling from out of state dial, 1-866-696-3511. From July 2015 to June 2016 there were 90,924 calls placed.

ND State Highway Districts



ND Road Mileage - 2015

State Highway System*	7,407
County System	19,611
Other Rural Roads	56,008
City Streets	4,103
Trails	19,837
Total	**106,966**

*NDDOT maintains approximately 8,614 roadway miles of highway, which includes miles in each direction on four-lane highways.

- North Dakota has 3,707 miles of road on the National Highway System (NHS)—including 571 miles of Interstate roads—that are part of the state highway network.
- 2015 U.S. Census estimate of North Dakota population was 756,927 people. There are approximately 141 miles of road for every 1,000 people.

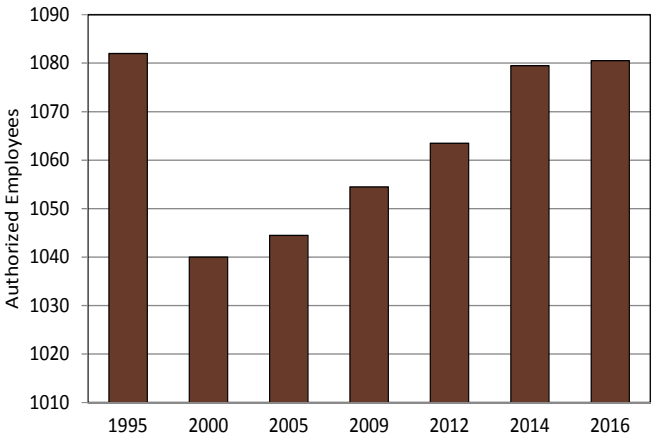
ND Bridge System Condition - 2015

System	Number of Bridges	Number of S.D. or F.O.*	Percent of S.D. or F.O.*
State	1,715	70	4.1%
Urban	111	16	14.4%
County	3,021	708	23.4%
Total	**4,847**	**794**	**16.4%**

*A bridge designated "structurally deficient (S.D.)" does not mean that the bridge is unsafe; it means that either the deck, the superstructure, or the substructure has a condition that warrants attention. This can be as simple as a concrete bridge deck needing work or requiring a bridge deck overlay.

A bridge designated "functionally obsolete (F.O.)" means that some part of the bridge does not meet a design standard such as vertical clearance, deck width, etc. It has nothing to do with the structural integrity of the bridge.

NDDOT Employee Facts 2000 to 2016

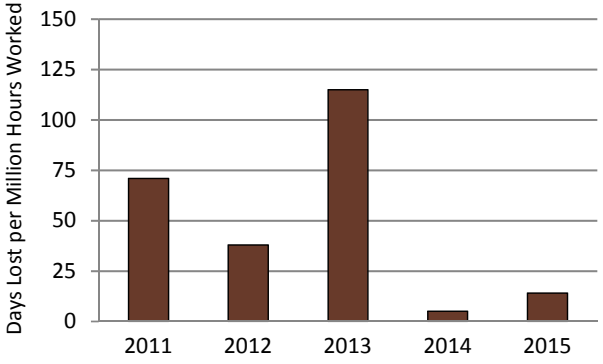


- NDDOT has 1,080.5 authorized budgeted positions as of July 1, 2016.
- At the peak of the construction season, NDDOT employed 48 temporary workers in 2014.

Worker Safety

For the 2015 calendar year NDDOT had 29 lost work days due to workplace injuries. In 2015, NDDOT employees worked a total of 2,052,228 hours. This meant that there were 14 lost days per million hours worked.

Accident Severity Rate
2011 - 2015



NDDOT Strategic Plans

The NDDOT Strategic Planning process has steadily evolved since its inception in 1997. Through these efforts, the department continues to be recognized as the state's transportation leader that operates as a progressive and innovative organization that carries out its vision and mission.

Vision

North Dakota's Transportation Leader Promoting:

Safe Ways – Superior Service – Economic Growth

Mission

Safely move people and goods.

As the department strives to meet the transportation needs of the energy, agriculture, and manufacturing industries it is faced with increasing challenges. To meet these challenges and advance our mission the NDDOT has incorporated five strategic emphasis focus areas and goals.

Strategic Focus Areas and Goals

- ***Safety*** – Provide a safe and secure transportation system and workplace.
- ***Team*** – Recruit, develop, and retain a high performing workforce that results in everyone working together to achieve our mission and vision.
- ***Service*** – Be proactive and adaptive to provide superior external and internal services, products, and programs.
- ***Innovation*** – Promote a culture of innovation to enhance external and internal services, products, and programs.
- ***Assets*** – Preserve and enhance assets managed by NDDOT.

Values

In practicing the department's values of *Professionalism, Respect, Integrity, Dedication, and Excellence* it will be successful in being North Dakota's transportation leader.

The NDDOT plans for projects and future transportation system needs through strategic planning. In carrying out the statewide transportation planning process, which includes the development of both short and long-range transportation plans, the NDDOT also utilizes a public involvement process that provides opportunities for public review and comments.

NDDOT Strategic Plans (cont.)

The NDDOT works on numerous strategic plans to achieve our mission including:

- TransAction III – The statewide strategic long-range transportation plan for all modes of transportation in North Dakota which covers a 20-year planning horizon. It provides broad strategic direction for collaborative transportation efforts across modes, the public and private sectors, and governmental jurisdictions.
- State Freight Plan – The freight plan is multimodal; with primary emphasis on highways and secondary emphasis on last mile connections to railroad, pipeline transload, and air cargo freight facilities. It is comprehensive and inclusive of immediate and long-term freight planning activities and investment strategies at the state level. A freight investment plan will be added to the State Freight Plan in 2017.
- Strategic Highway Safety Plan – The safety plan works on a long-term goal to reduce traffic fatalities on North Dakota's public roads. The plan aligns traffic safety efforts across the state and encourages agencies and organizations to work together in a coordinated effort.
- ND State Rail Plan – The NDDOT is updating the State Rail Plan, in partnership with the ND Public Service Commission, ND Department of Commerce, ND Department of Emergency Services, ND Pipeline Authority, and the Upper Great Plains Transportation Institute. The existing plan was developed in 2007. The plan update will take place in three phases. The first phase will assess existing rail conditions. The second phase will involve public outreach efforts engaging North Dakota's rail stakeholders. The third phase will provide recommendations identified through the planning process. It is anticipated the plan update will be completed by the end of 2016.
- Highway Performance Classification System – This system identifies service levels of the various highways under NDDOT's jurisdiction. The definitions and individual roadway classifications are reviewed for possible update through the strategic transportation planning process.

In working on strategic planning and state transportation improvement, the NDDOT incorporates performance measures. The department surveys customers and employees on a regular basis to measure services and products the agency provides throughout the state.

- The employee survey is completed to gauge the health of the organization. The survey was first administered in 2002; and the seventh survey of the department was conducted in early 2015.

More information about the department's strategic planning process is available on the NDDOT website at dot.nd.gov.

Your Investments in North Dakota's Transportation System

Investment in North Dakota's transportation system is essential to the state's economic vitality and residents' quality of life. The state's residents depend on a quality transportation system as they travel to work, take children to school, and move the goods that drive the state's economy. Therefore, the department is committed to strategically investing in programs that provide a transportation system that safely moves people and goods. We know that our work is never finished and there are always opportunities to improve our processes to ensure the best return possible on your investment in the state's transportation system.

In order to measure how we are doing in achieving our mission and vision, we monitor 11 major investment areas. The recent trends in the service indicators for these major areas illustrate that investments are needed to continue to provide a quality transportation system for North Dakotans now and in the future. With constrained funds, investment in one of these service areas automatically limits the service provided by the other areas.

The following paragraphs describe the investment areas and the service indicators used to monitor them at a high level. In the future, the NDDOT will present additional information to illustrate historical trends in service.

Safety: NDDOT considers safety in every stage of a project and in every investment decision. The department also supports driver education and law enforcement activities to save lives. One of NDDOT's main goals is to enhance safety on roadways and reduce motor vehicle fatalities, so the department is monitoring the total number of fatalities and serious injuries in a calendar year.

Pavement Management: The department is committed to a smooth ride on state highways so we evaluate and measure pavement smoothness. NDDOT tracks the average system International Roughness Index (IRI). IRI is a worldwide standard for measuring pavement smoothness. Smooth pavements create a more pleasant driving experience and a safer ride.

Bridge Management: Bridges are an important part of the transportation system.Therefore, the NDDOT rehabilitates and replaces bridges throughout the state in a cost effective manner. Bridges are regularly inspected

Your Investments (cont.)

and a bridge health index was adopted by the department to assist with its bridge management program.

Operating Road and Bridge Maintenance: In addition to the department's capital improvement program, typically funded with federal dollars, the day to day operations and maintenance of the state highway system is paid for with state funds. Routine maintenance includes pavement, bridge, safety appurtenance, and drainage maintenance. To monitor this, NDDOT tracks the percentage of the planned work completed each year.

Maintaining rural roads, ca. 1930 - Ray Robinson collection

Freight and Personal Mobility: Unrestricted freight movement and uncongested roadways contribute to the economic vitality of the state. The department monitors this by tracking the percentage of the state system that meets expectations for seasonal load limit, non-seasonal load carrying capacity, traffic saturation, bridge vertical and horizontal clearance, and roadway width.

Snow and Ice Control: The department ensures that the transportation system is functional year-round; responding to winter weather events allows this functionality in winter months. Therefore, the department tracks average travel speed recovery time after snow events.

Rail: Rail lines help to move commodities throughout the state. The mileage of short line rail with lightweight rail (rail less than 110 pounds per yard) in the state gives an indication of the amount of commodities that can be moved by rail to outside markets.

Driver's License: The department issues driver's licenses to ensure roadway users are proficient in the

Your Investments (cont.)

operation of a motor vehicle and demonstrate knowledge of the rules of the road. This service area is monitored through the average counter wait time experienced by customers.

Motor Vehicle: Nearly one million motor vehicle registrations and transactions are completed each year. Registrations are available through branch offices and online services. To monitor service in this area, NDDOT tracks the average time for vehicle titles to be processed.

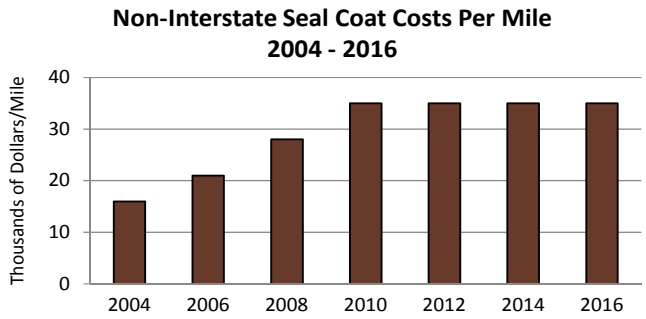
Transit: The department helps to provide statewide transit bus services to ensure that all members of the public have access to the transportation system and monitors total statewide ridership.

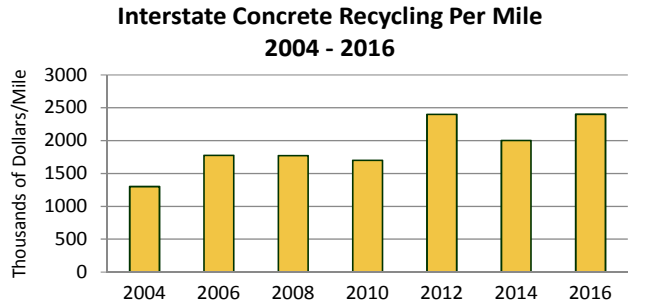
Bike and Pedestrian: Some of the state system roadways have adjacent bicycle trails and/or pedestrian facilities to provide more options for the public to travel to their destinations. NDDOT tracks the percentage of state roadway miles within cities with such non-motorized options present.

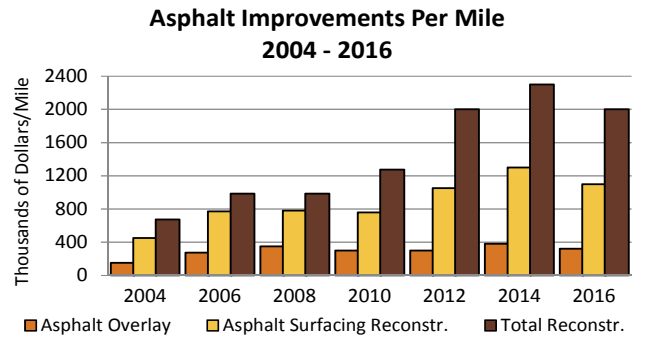
Valley City Pedestrian Suspension Bridge

Biking along the Missouri River on the River Road Bike Trail, Bismarck

Cost of Doing Business



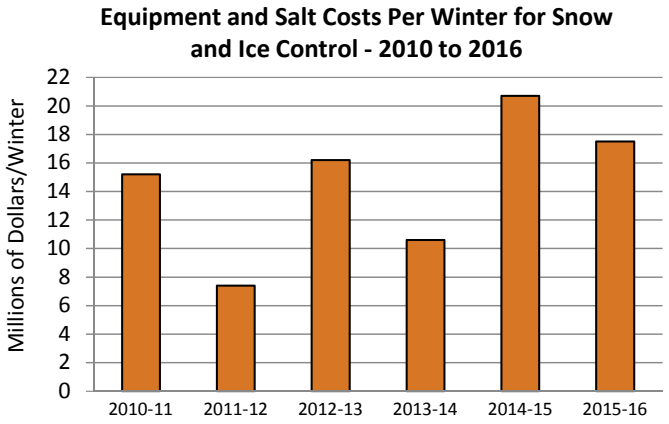




Average Construction Costs - 2016

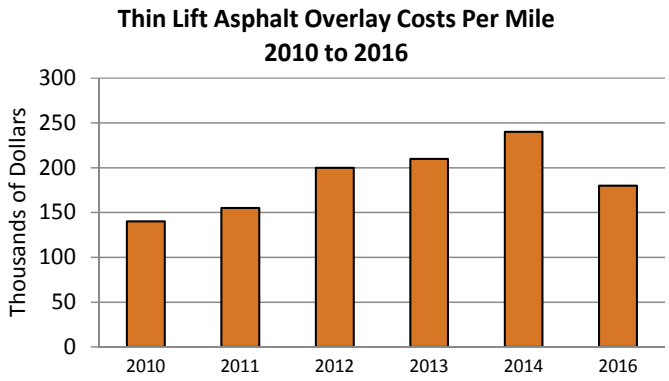
Improvement	Total Dollars/Mile
Non-Interstate seal coat (by contract)	$ 35,000
Interstate seal coat (by contract)	$ 55,000
Thin lift overlay	$ 180,000
3” asphalt overlay	$ 320,000
Asphalt surfacing reconstruction (includes subgrade repair and resurfacing)	$1,100,000
Total reconstruction (includes grading and asphalt surfacing)	$2,000,000
Interstate concrete paving (two lanes in one direction)	$2,400,000

Maintenance Expenditures

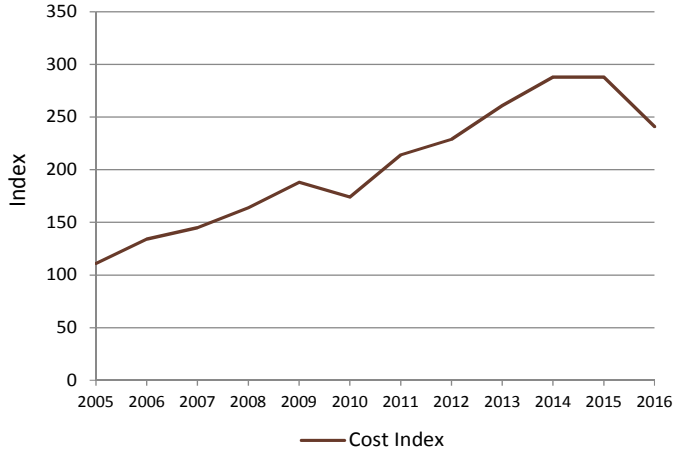


Bi-Directional Tow Plow, Bismarck District, 2015

Plowing snow on ND 45 north of Cooperstown, 1950

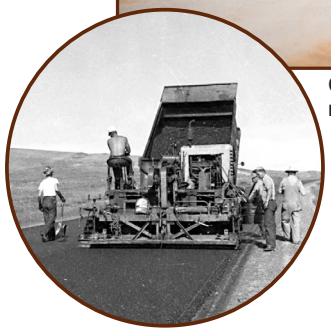


Construction Cost Index



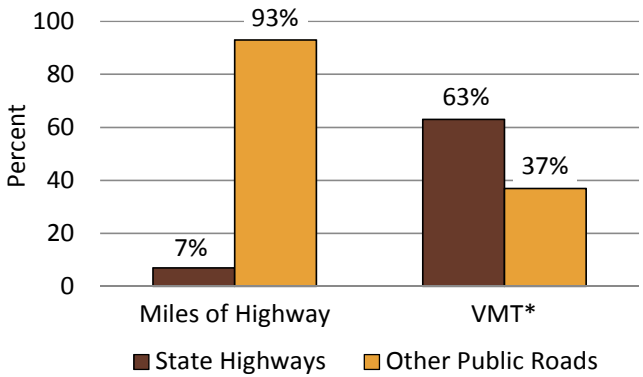
This construction index chart shows construction cost inflation changes over the past 10 years. Construction project costs have decreased in 2015-2016 as the price of materials used in highway construction dropped.

Construction on State Avenue railroad overpass in Dickinson, 2016



Asphalt Paver, ca. 1940

System Size vs. Use



*VMT - Vehicle Miles of Travel

- The North Dakota state highway system consists of 7 percent of the total public road mileage in the state, but carries 63 percent of the total VMT.
- Total VMT on North Dakota roads in 2015 was 10.8 billion.
- Truck traffic accounts for about 23 percent of the total traffic on the state system and 23 percent of the total traffic on North Dakota's Interstate system.

Winter of 1927, Hwy. 6 - Ray Robinson collection

- Some of the highest rural traffic volumes on state highways, including truck traffic, are on I-29 between Fargo and Grand Forks, I-94 between Fargo and Dickinson, Highway 2 between Minot and Williston, and Highway 85 between Watford City and Williston.
- The Interstate system makes up about 13 percent of the total roadway miles on the state highway system but carries 32 percent of the annual VMT and 32 percent of the annual truck VMT.

Transportation Alternatives (TA)

Transportation Alternatives (TA) provides funding for programs and projects defined as transportation alternatives and are designed to provide funds for community-based projects to enhance the travel experience. They include pedestrian and bicycle facilities; safe routes to school projects; safe routes for non-drivers; community improvement activities, and environmental mitigation projects. NDDOT spends about $1.5 million per year on TA projects. TA funds are awarded through a statewide competitive process and must have a connection to the surface transportation system.

Liberty Memorial Bridge flood of 1943, Hwy. 10 - Ray Robinson collection

Walking/biking path along frontage road next to Bismarck Expressway. This trail is connected to the walking/biking path system that runs along the Missouri River in Bismarck.

Changes in North Dakota and Traffic Growth Trends

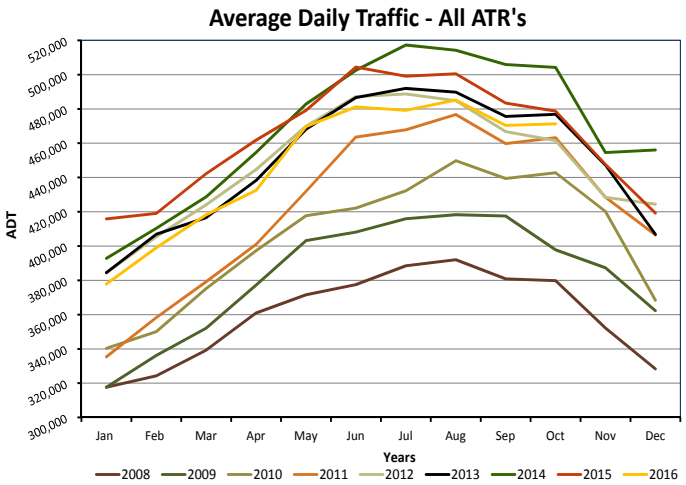
Transportation infrastructure is the backbone of our nation's economy. Americans depend on the transportation system, directly or indirectly, on a daily basis to commute to work, go to school, move commodities, and obtain basic everyday services.

Businesses, such as the agriculture and energy industry, rely on a safe reliable transportation network to get their supplies and deliver goods to market and ship their products throughout the world.

North Dakota Challenges

The state of North Dakota is experiencing challenges due to changes in agriculture, energy, manufacturing and other areas throughout the past few years.

- Traffic Growth – The number of miles driven on state highways have increased.
- From 2010 to 2014 North Dakota saw a 26 percent increase in traffic statewide, and a 71 percent increase in traffic in western North Dakota on all state highways. Traffic growth has tapered off in 2015 and 2016.



- From 2008 to 2014 truck traffic increased 87 percent on state highways. Truck traffic has tapered off in 2015 and 2016.
- Rail traffic originating in North Dakota grew by 124 percent from 2011 to 2014. A lot of this was due to the growth in crude oil shipped by rail which increased

Changes in North Dakota and Traffic Growth Trends (cont.)

from 15 percent in 2011 to 55 percent in 2015. With additional pipelines and a reduction in oil production the amount of crude oil shipped by rail has been declining.

- In 2015, the state had approximately 556,000 licensed drivers and issued about 1.1 million vehicle registration renewals.

Meeting growing needs for the state's transportation system, the NDDOT had a large construction program in 2015 and 2016 with about $1.3 billion bid on roadway projects.

NDDOT strives to maximize the productivity of the state's investments and provide a transportation system to safely move people and goods.

Traffic through roundabout at the intersection of ND Highways 200 and 22 south of Killdeer, 2015

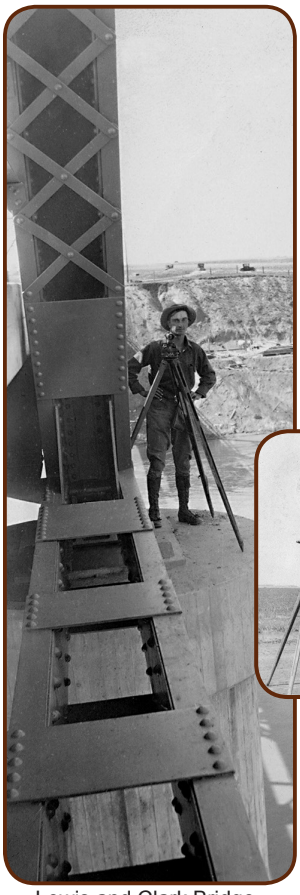
Resealing project at Cogswell, 1941

NDDOT strives to maximize the productivity of the state's investments and provide a transportation system to safely move people and goods.

Surveying in North Dakota

1921

Then...

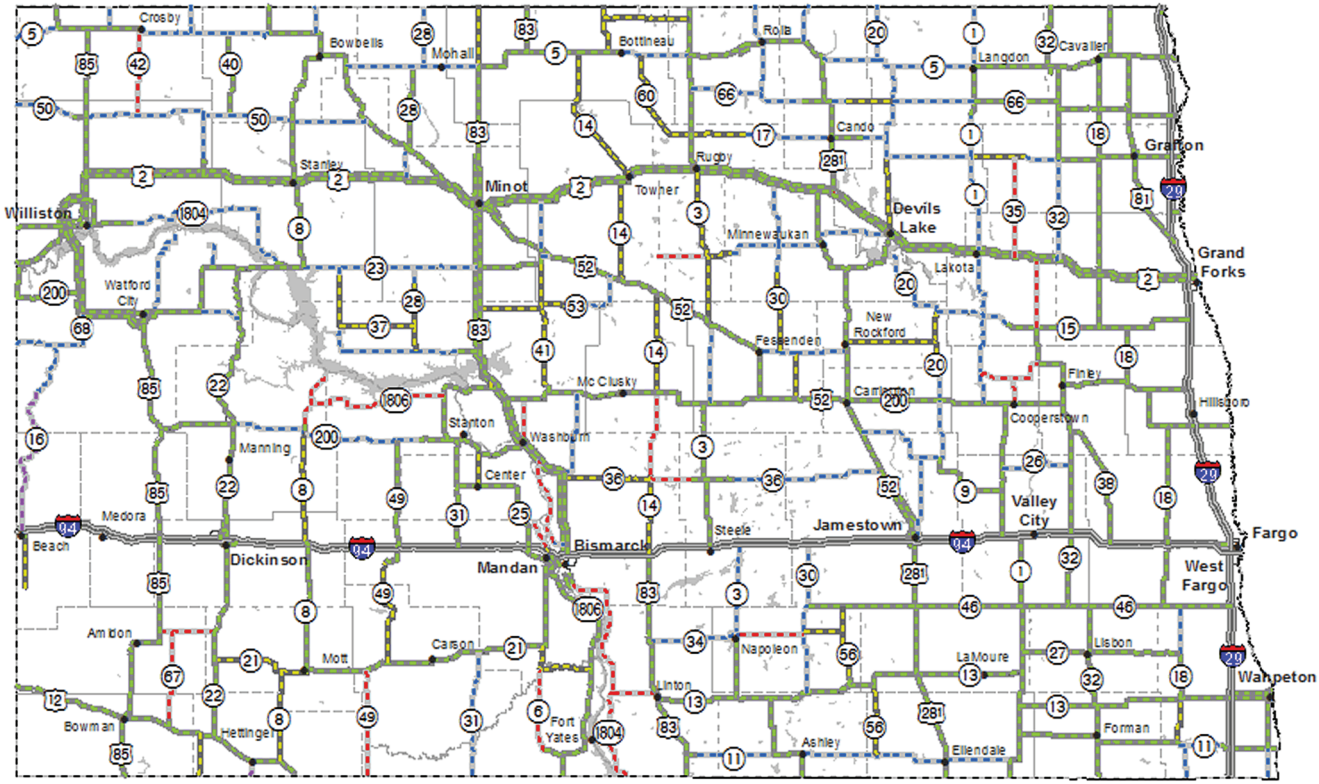


Lewis and Clark Bridge,
Williston, ca.1927

1922

Badlands, ca. 1900's

Spring Load Restriction Map



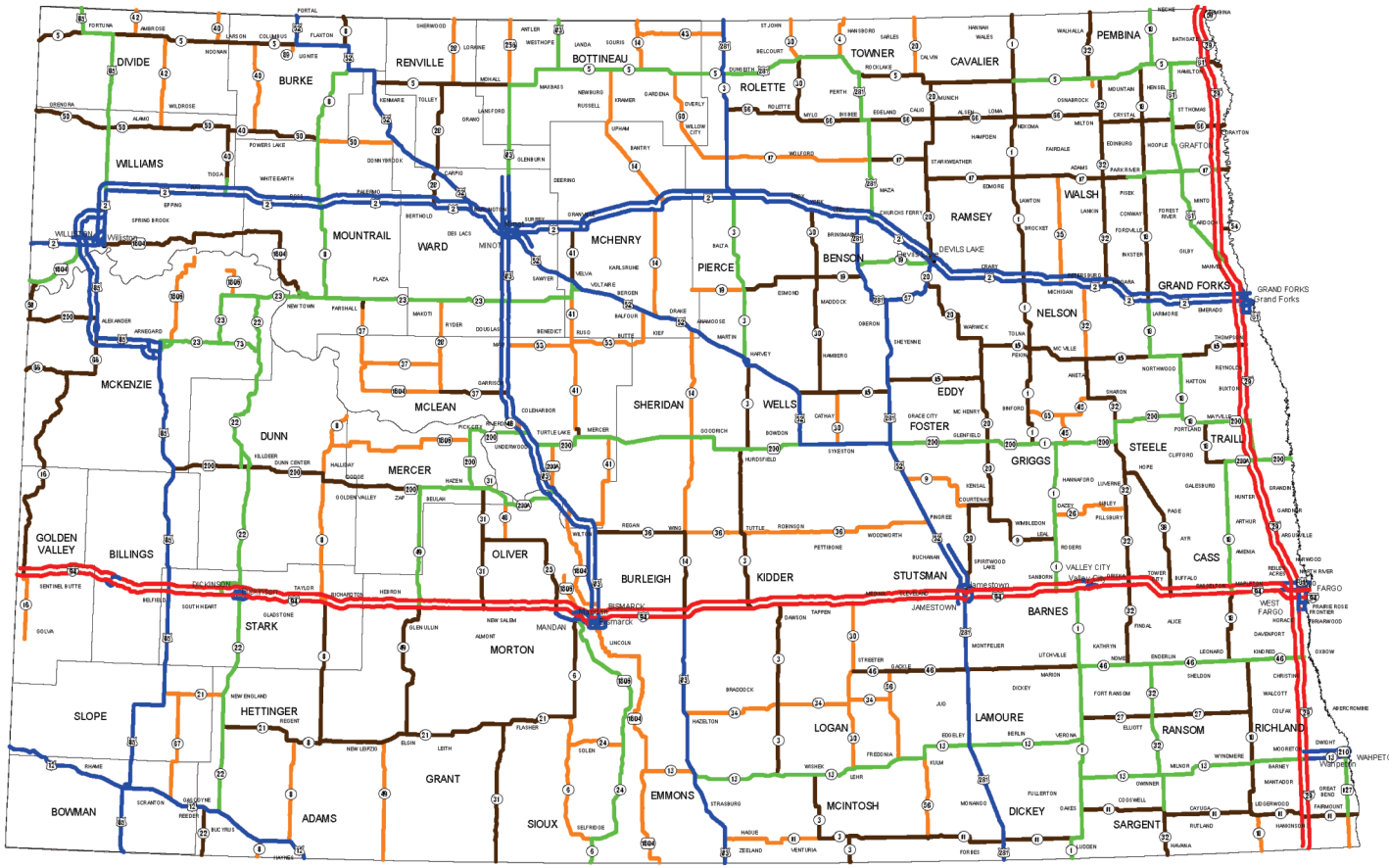
Interstate System	by Legal Weight	8 - Ton	7 - Ton	6 - Ton	5 - Ton
Single Axle	20,000 lbs	16,000 lbs	14,000 lbs	12,000 lbs	10,000 lbs
Tandem Axle	34,000 lbs	32,000 lbs	28,000 lbs	24,000 lbs	20,000 lbs
3 Axle Group or more per Axle	17,000 lbs	14,000 lbs	12,000 lbs	10,000 lbs	10,000 lbs
Max. Axle Group	48,000 lbs	42,000 lbs	36,000 lbs	30,000 lbs	30,000 lbs
Gross Weight	105,500 lbs	105,500 lbs	105,500 lbs	80,000 lbs	80,000 lbs

Call Highway Patrol for vehicle size/weight and permits.
Call 511 for enroute information

Phone #'s (701)

HP Permit Office	328-2621	Minot	857-6925
NDDOT Office	328-2545	Dickinson	227-6500
Bismarck	328-6950	Grand Forks	787-6500
Valley City	845-8800	Williston	774-2700
Devils Lake	665-5100	Fargo	239-8900

State Highway Performance Classification System



State Highway Performance Classification System (cont.)

RURAL INTERSTATE SYSTEM

Maintaining a high degree of reliability and mobility on these highways is critical to support and promote international, national, regional and statewide trade and economic activity. Movements are primarily long-distance, interstate and intrastate traffic.

RURAL INTERREGIONAL SYSTEM

Maintaining a high degree of reliability on these highways is critical since they support and promote international, national, regional and state trade and economic activity. Movements on these highways are primarily long-distance, interstate and intrastate traffic.

RURAL STATE CORRIDOR

Maintaining a moderately high degree of reliability and mobility on these highways is critical since they support the movement of a wide variety of goods within the state by providing connectivity between lower and higher level roadways. Movements on these highways are primarily medium-distance intrastate traffic.

RURAL DISTRICT CORRIDOR

Maintaining a moderate degree of reliability and mobility on these highways is desirable. Movements on these highways are primarily short to medium distance intrastate traffic. Rural District Corridors are typically comprised of one travel lane in each direction. Moderate volumes of traffic are relatively consistent year round with occasional increases of seasonal traffic volumes and truck movements. These roadways have relatively moderate travel speeds and strive for crash rates at or near the statewide average.

RURAL DISTRICT COLLECTOR

Maintaining reliability and mobility on these highways is desirable but a lower priority compared to the other types of routes listed, here. These highways are generally short routes that provide connectivity to the higher level road systems. Movements on these highways are relatively short distance intraregional movements

For more information on the NDDOT Highway Performance Classification System, please refer to dot.nd.gov.

Hwy. 85

and Now

Hwy. 22 bypass, Dickinson

Hwy. 85

Hwy. 85 Long X Bridge

ND Rail Freight and Passenger Service

- NDDOT administers a rail loan program with two revolving loan funds, Local Rail Freight Assistance (LRFA) and Freight Rail Improvement Program (FRIP). These funds are used for loans to support projects that improve the North Dakota rail system.
- The LRFA and FRIP loan funds have provided $65.2 million for 51 projects that have rehabilitated approximately 731 miles of branch line tracks, constructed 10 facility access spur or loop tracks and supported three major flood disaster recovery projects.
- There are 3,442 at-grade public highway rail crossings in the state, of which 18 percent are active warning devices. NDDOT normally funds six to eight crossing improvements annually, as resources permit.
- Since 1980, nearly 1,800 miles of rail line in North Dakota have been abandoned. This loss of rail service has put an additional strain on our state and local road network.[1]
- North Dakota ranks 16th among the states in rail tons (39.8 million) originated in the state.[2]
- North Dakota ranks 36th among the states in rail tons (12.4 million) terminated in the state.[3]

ND Rail System Mileage - 2016[4]

Railroads	Main-line	Branch-line	Trackage Rights	Total Miles Operated
BNSF	1,112	585	16	1,713
CPR	359	124	8	491
DMVW	-	394	38	432
DNRR	-	51	-	51
NPR	-	294	-	294
RRVW	-	412	87	499
Total	**1,471**	**1,860**	**149**	**3,480**

[1] NDDOT Public Service Commission (NDPSC) and NDDOT Rail Plan.
[2] Association of American Railroads (ARR), from the Surface Transportation Board's (STB) most recent 2011 *Waybill Sample* available.
[3] ibid
[4] Total miles and Trackage Rights miles are from the operating railroads in the state. The information was confirmed by the railroads for calendar year 2014.

Motor Vehicle Crashes and Fatalities at North Dakota Railroad Crossings - 2006 to 2015

SOURCE: Federal Railroad Administration safety data.

Railroad signals at Reynold, July 1940

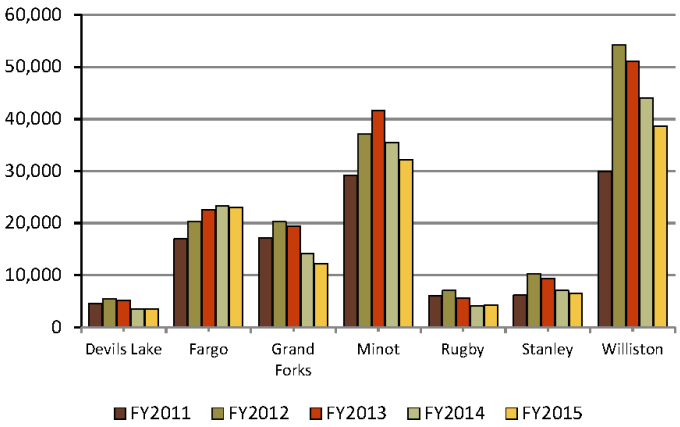
Rural railroad crossing east of Bismarck at 66th St. SE

Amtrak Ridership - 2011 to 2015

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

Amtrak Ridership for North Dakota

City	FY2011	FY2012	FY2013	FY2014	FY2015
Devils Lake	4,569	5,505	5,142	3,555	3,512
Fargo	16,968	20,304	22,497	23,314	22,939
Grand Forks	17,201	20,271	19,422	14,168	12,139
Minot	29,179	37,169	41,615	35,521	32,108
Rugby	6,106	7,057	5,637	4,053	4,254
Stanley	6,146	10,234	9,411	7,036	6,514
Williston	29,920	54,324	51,076	44,013	38,621
Total	**110,089**	**154,864**	**154,800**	**131,660**	**120,087**



SOURCE: Amtrak State Fact Sheets

Great Northern Railway Depot in Fargo, ca. 1937. Round-trip fare to Minneapolis was $5.70.

Registrations, Driver and Safety Information

- In 2015, North Dakota Motor Vehicle Division processed a total of 1,162,998 vehicle registrations.
- In December 2015, North Dakota had 549,002 licensed drivers; 285,397 were male and 263,605 were female.
- In 2015, North Dakota had a fatality rate of 1.30 deaths per 100 million vehicle miles traveled, compared to the national rate of 1.12.
- The total number of crashes decreased in 2015 to 15,077, compared to 16,134 crashes in 2014.
- There were 131 people killed on North Dakota roadways in 2015. This is a decrease of 3.0 percent from 2014, and an 11.4 percent decrease from 2013.

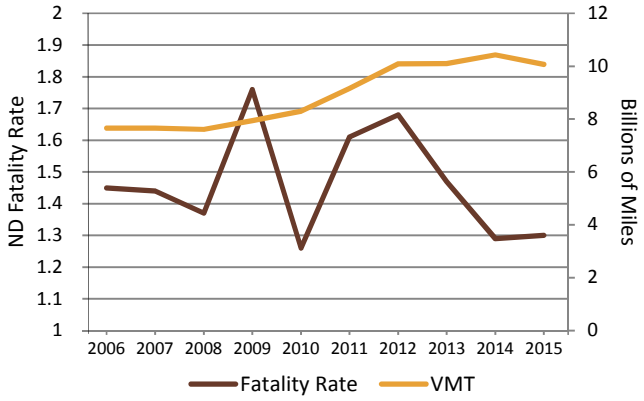
Rest Areas

The NDDOT maintains 21 rest areas and visitor centers conveniently located across the state. Visitor centers are modern and decorated in themes with historical information specific to the site where they are located. Many of the rest areas have wireless Internet services in addition to picnic shelters, phones, vending machines, and ADA-approved restroom facilities.

The Crystal Springs fountain was built by the ND State Historical Society, ca.1930 - Ray Robinson collection

The Crystal Springs fountain remains alongside the original stretch of Hwy. 10 just to the north of I-94 east of the Crystal Springs rest area near Medina.

Highway Safety - 2006 to 2015



DEATHS AND DEATH RATES - How Do We Compare?

	2015 Fatalities	2015 Fatality Rate*
North Dakota	131	1.30
National	35,200	1.12

*Deaths per 100 million VMT (Vehicle Miles of Travel)

In 2015, 131 people died on North Dakota roadways, a decrease of 3.0 percent from 2014.

- 43.2 percent of all North Dakota motor vehicle fatal crashes involved alcohol, compared to 43.8 percent in 2014.
- 60.9 percent of individuals killed in motor vehicle crashes were not wearing seat belts, compared to 69.0 percent in 2014.
- 32.4 percent of fatal motor vehicle crashes involved speed/driving too fast for conditions, a decrease from 35.5 percent in 2014.

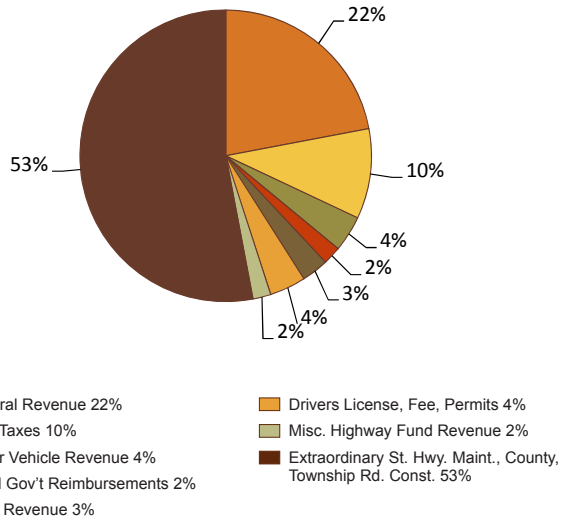
Crash on Liberty Memorial Bridge, Bismarck, ca. 1940

Revenue and Expenditures

- Historically, North Dakota has received about $2 of Federal Highway funds for every $1 North Dakota drivers paid into the Federal Highway Trust Fund.
- To fund highway improvement projects, North Dakota must match federal-aid highway funds at a ratio of about 4:1, or 80 percent federal and 20 percent state.
- The major sources of revenue going into the state highway tax distribution fund include: gasoline, gasohol and diesel fuel taxes, motor vehicle registration fees, and the special fuels excise tax. The 2015 legislative session provided a $5.5 million per biennium transfer from the highway tax distribution fund to the state highway fund for the purpose of providing administrative assistance to other transferees. After the first $5.5 million transfer, the remaining highway tax distribution fund is allocated in the following manner: 61.3 percent to the state, 22 percent to the counties, 12.5 percent to the cities, 2.7 percent to townships, and 1.5 percent to public transportation.
- Under TEA-21 (1998-2003), North Dakota's annual average obligational authority approached $160 million. Under SAFETEA-LU (2005-2012) NDDOT's annual average obligation authority was $235 million. Under Map-21 (2013-2015), North Dakota's annual average obligational authority was $230 million. Under the FAST Act, North Dakota's annual obligational authority for 2016 was $240 million.
- In 2016, the total tax on a gallon of gasoline in North Dakota was 41.4 cents. Of that, 23 cents is state tax and 18.4 cents is federal tax.
- The NDDOT maintenance program is funded by state funds.
- The Federal Highway Administration agrees with the Council of Economic Advisers in estimating that 13 jobs are directly associated with every $1 million the federal government spends in transportation projects.
- A study conducted by the Upper Great Plains Transportation Institute in Fargo revealed that investing in our transportation system returns $4.90 for every $1 spent. The study shows that an investment in transportation is an investment in North Dakota's economic future.

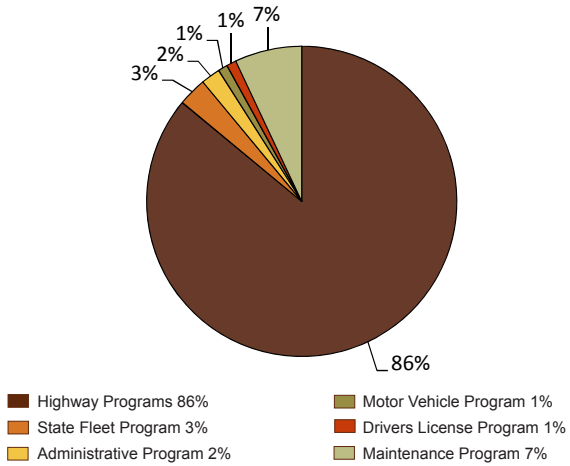
Budgeted Biennial Funding Sources Projected - 2015 to 2017

Total of All Sources: $2,722.7 Million



Budgeted Biennial Expenditures Appropriation - 2015 to 2017

Total Budget: $2,719.2 Million



NOTE: NDDOT funding sources were projected to be approximately $3.5 million greater than the legislative appropriation. NDDOT can spend these resources only to the extent of the legislative appropriation.

NDDOT Budget Revised in 2016

The state of North Dakota experienced a number of changes in energy, agriculture and other areas since the NDDOT budget was appropriated in 2015. These changes affected state revenue and state agencies were asked to reduce general fund budgets by 6.55% through two allotments in 2016. The NDDOT then reduced its general fund budget by approximately $43 million through the allotment process.

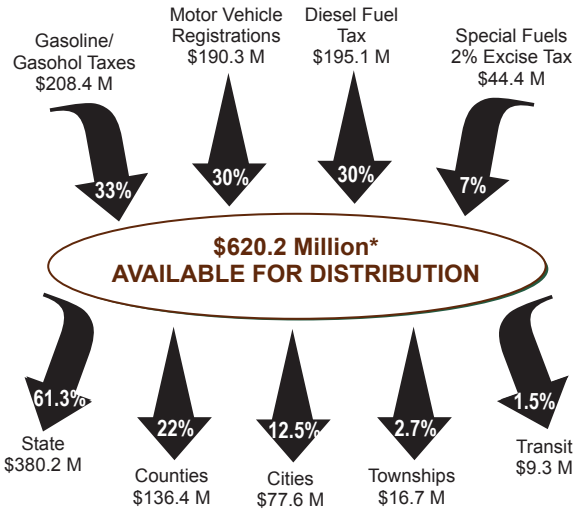
The NDDOT receives funding from three different sources:

- **State Funds** – an allocation of state funds are distributed to be spent on road projects, as well as allocations to county and transit programs. These funds consist of one-time General Funds and Strategic Investment and Improvement Funds (SIIF).
- **Federal Funds** – this federal funding is utilized for federal road projects, transit and safety initiatives.
- **State Transportation User Revenues** – include a portion of the state's fuel taxes and motor vehicle registrations as well as state truck regulatory fees. This is primarily used for department operations including motor vehicle, driver's license, maintenance work, salaries and state match for federal projects.

The economic changes in the state also affected funding NDDOT receives through State Transportation User Revenues. Due to this decrease in revenue the NDDOT revised revenue projections and took several steps to reduce its budget in that area by approximately $69.2 million.

NDDOT Budget for 2015-17 Biennium	Funding in Millions
Total NDDOT Projected Biennial Funding Sources	$2,722.7
Total General Fund Allotments = 6.55%	-43.0
Total State Transportation User Revenue Reduction	-69.2
Revised Total NDDOT Projected Biennial Funding Sources	$2,610.5

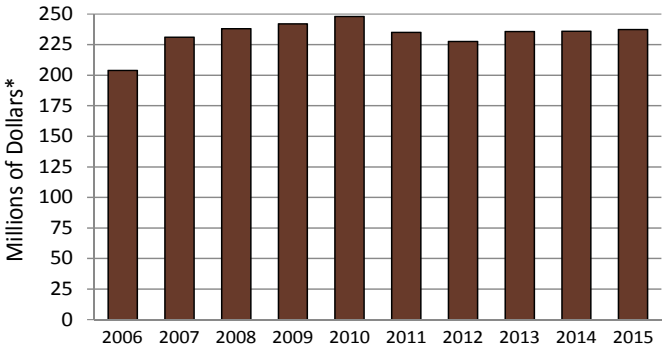
ND Highway Tax Distribution Fund Revenue and Distribution - 2013 to 2015



NOTE: One cent (equaling about $7.4 million annually) of the state motor fuel tax no longer goes directly to the townships and currently receives 2.7 percent allocated through the Highway Tax Distribution Fund.

*A total of $18.0 million was withheld prior to distribution for allocation of $6.8 million to the Highway Patrol Fund, $4.8 million to the Ethanol Subsidy Fund, approximately $400,000 to the Motorboat Safety/Snowmobile Fund, $500,000 to the Highway Rail Grade Crossing Fund, and $5.5 million to the Highway Fund for administrative assistance to other transferees.

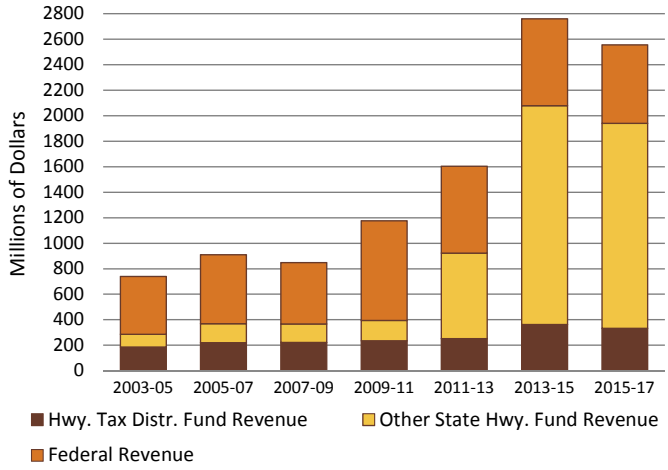
Congressional Appropriated Highway Funds for Core Programs



NOTE: In 2015, Congress passed the Fixing America's Surface Transportation (FAST) Act – highway authorization legislation.

*Demonstration Project Funds, American Recovery and Reinvestment Act Funds and end-of-year Redistributions of Spending Authority are not included.

Gross NDDOT Biennial Revenue Sources (excluding Fleet)



ND Motor Fuel Tax History

Year	Cents/Gal.
1919	1/4
1926	2
1929	3
1939	4
1951	5
1955	6
1970	7
1978	8
1983*	13
1987	17
1993	18
1996	20
1999	21
2005	23

*Beginning in 1983 the state legislature dedicated 1 cent of the state motor fuel tax to townships for road purposes. This was repealed July 2009. Townships now receive 2.7 percent of the Highway Tax Distribution Fund.

Motor Fuel Tax Rates - Cents Per Gallon - 2016

Tax Rates	Gasoline	Diesel	Gasohol
Montana	27.0	27.8	27.0
Nebraska	25.8	25.8	25.8
South Dakota	28.0	28.0	28.0
Minnesota*	28.5	28.5	28.5
North Dakota	**23.0**	**23.0**	**23.0**
National Average	20.7	20.4	20.7
Federal	**18.4**	**24.4**	**18.4**
Highest:			
Pennsylvania	50.3	64.0	50.3
Lowest:			
Alaska	8.0	8.0	8.0

* Approximately four months of the year, Minnesota adds a two-cent tax for environmental cleanup, making its tax a total of 30.5 cents per gallon.

2014 Motor Fuel Tax Revenue - Annual Yield of 1 Cent of Motor Fuel Tax*

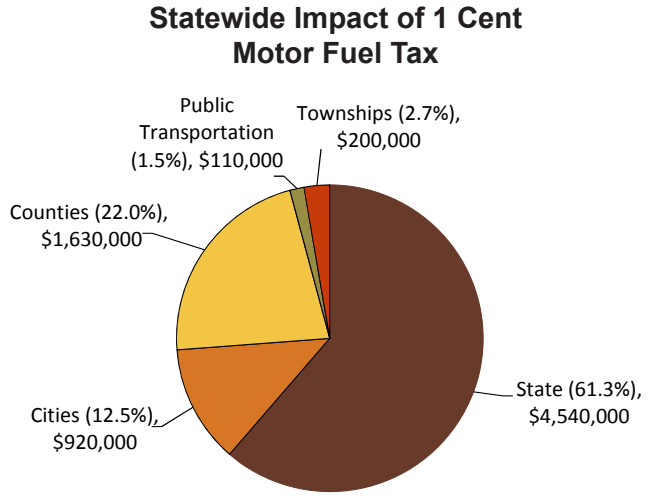
Regional Tax Yield	Millions
Minnesota	$ 31.6
Nebraska	13.2
Montana	7.8
South Dakota	6.8
North Dakota	**8.2**

National Tax Yield	
Highest: Texas	$185.5
Lowest: Dist. of Columbia	1.3
Average	34.5

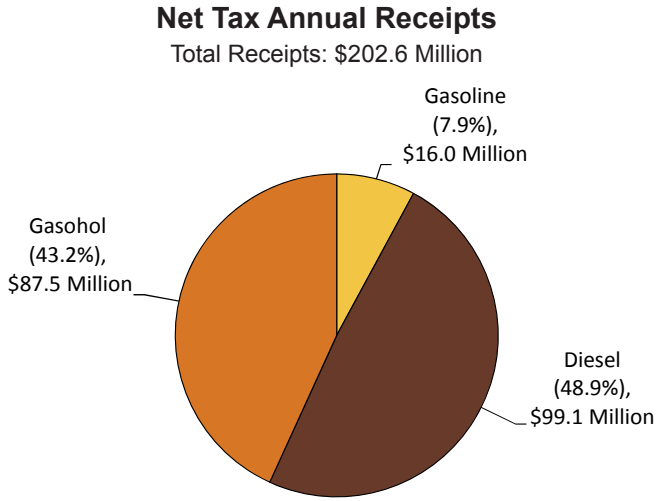
* Motor fuel includes gasoline, gasohol, and diesel fuel.

SOURCE: FHWA Highway Statistics

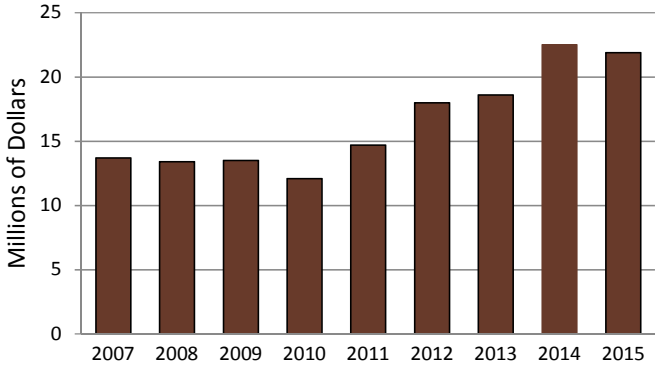
Motor Fuel Tax Annual Revenue - FY2015



Based on FY2015 revenue, 1 cent of the state motor fuel tax will generate about $7.4 million annually.

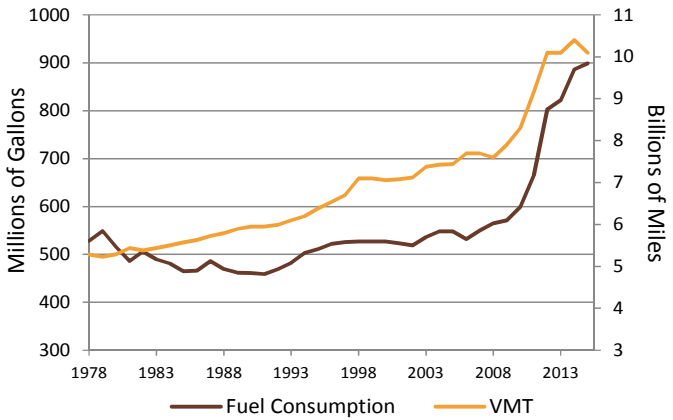


Special Fuels Excise Tax - FY2007 to FY2015



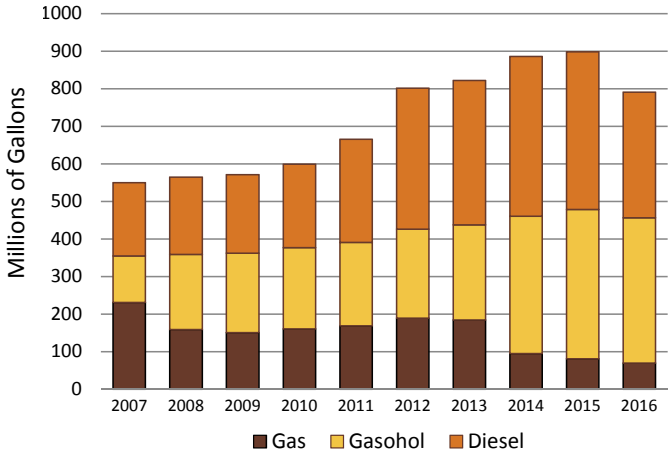
The 2015 legislative session allowed for a transfer from special fuel excise tax on diesel fuel sold to railroads. Effective July 1, 2015, the transfer of up to $275,000 per year goes to the rail safety fund.

Fuel Consumption vs. Vehicle Miles Traveled - 1978 to 2015



- Vehicle miles of travel (VMT) on North Dakota's system increased steadily from 1970 to 1999, then leveled off from 1999 to 2003, increased again in 2004 to 2005, increased slightly in 2009 and 2010 greatly increased in 2011 and 2012, leveled off in 2013, increased in 2014, and decreased in 2015.
- As a result of the increased fuel efficiency of vehicles, and the fluctuating price of motor fuel, revenue generated from motor fuel taxes has not kept pace with increased transportation system demands.

ND Fuel Consumption - FY2007 to FY2016

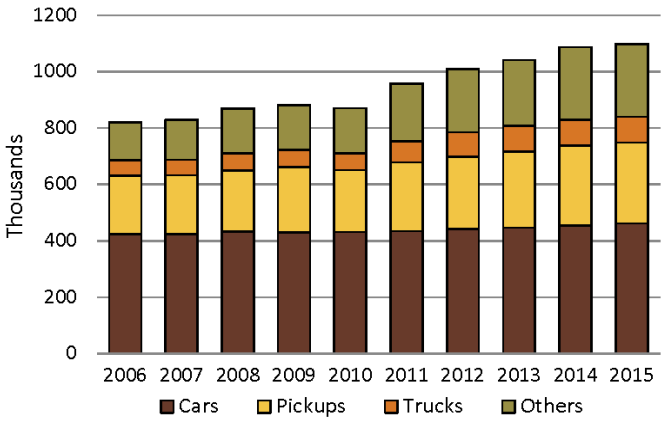


	2013	2014	2015	2016
Gas*	184.1	94.9	81.4	69.5
Gasohol	254.0	365.6	397.0	386.8
Diesel*	383.9	425.5	420.2	334.8

* Gross gallons taxed.

Miss North Dakota, Karen Kopseng, pumps gas at the dedication of I-94 from New Salem to ND 25 outside of Mandan in 1964.

Vehicle Registrations - 2006 to 2015

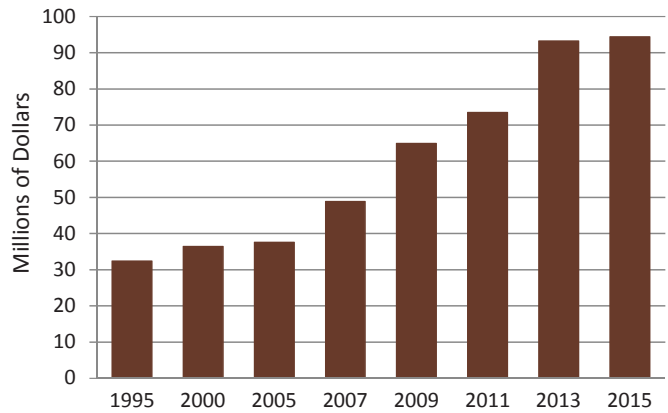


	2013	2015
Cars	447,222	461,751
Pickups	269,416	286,231
Trucks	90,800	91,698
Others*	233,880	258,494
Total	**1,041,318**	**1,098,174**

*Includes low speed, motorcycles, snowmobile, trailers, off-highway, unconventional.

NOTE: Historically, data did not always track pickups separately from trucks.

ND Vehicle Registration Fees Available for use in the Highway Tax Distribution Fund and State Highway Fund



Vehicle Registration Fee Comparison

State	Fee[1]	2015 Ford Taurus 3,739 lbs	2015 3/4 Ton Pickup 12,000 GVW	2015 KW Tractor 80,000 lbs	2008 Farm Truck 44,000 lbs	2014 Farm Truck 44,000 lbs
MN	Flat Fee	261	461	1,760	161	268
	Other Fee	-	-	-	-	-
	Total	$261	$461	$1,760	$161	$268
MT[2]	Flat Fee	217	217	375	100	284
	Other Fee	-	-	-	-	-
	Total	$217	$217	$375	$100	$284
ND	Flat Fee	93	142	1,059	149	219
	Other Fee	-	-	-	-	-
	Total	**$93**	**$142**	**$1,059**	**$149**	**$219**
SD	Flat Fee	72	120	1,019	357	511
	Other Fee	-	-	-	-	-
	Total	$72	$120[4]	$1,019	$357	$511
WY[3]	Flat Fee	-	-	-	-	-
	County Fee	360[5]	420[5]	[5]	[5]	[5]
	Total	$360[5]	$420[5]	[5]	[5]	[5]

[1] Fees can include vehicle valuation, property, or other taxes and fees.
[2] Additional fees may be assessed by the county in which the vehicle is registered.
[3] Registration fees are computed on vehicles registered in Laramie County.
[4] Fee shown is for a 4-ton truck.
[5] Registration fees are based on factory price, vehicle weight and annual mileage.

Compiled by: North Dakota Motor Vehicle Division, 2016.

Vehicle Registration Fee Increase History

1977 Passenger vehicle fees were increased $5; pickups and small truck increases ranged from $4 to $7; farm trucks were increased $10; large non-farm truck increases ranged from $14 to $20.

1981 Passenger vehicles and pickups were increased $5; small trucks were increased $10; farm and non-farm truck increases ranged from $10 to $25.

1983 Passenger vehicle increases ranged from $1 to $20; pickup increases ranged from $1 to $11; small truck increases ranged from $2 to $5; farm truck fees were not changed; large truck fee reductions ranged from $17 to $258.

1987 Most vehicle registrations were increased by $6.

1999 Most vehicle registrations, except farm trucks, were increased by $1 per vehicle. In addition, a $1 increase went into the Public Transportation Fund.

2001 Most vehicle registrations were increased by $7 per vehicle.

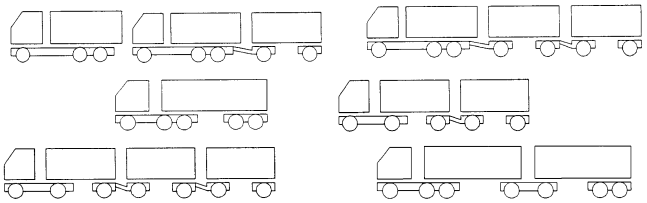
2003 Most vehicle registrations were increased by $3 per vehicle.

2005 Most vehicle registrations were increased by $10, plus a $1 increase for the Public Transportation Fund. Pickup fees were aligned with passenger registrations. The first half of the fee increase for pickups occurred in July 2005.

2007 Implemented second half of 2005 pickup fee increase.

ND Truck Size and Weight

Basic Truck Configuration



General Information

Legal Width: 8 ft. 6 in. Legal Height: 14 ft.

Legal Length: The length of a vehicle may vary depending on the configuration and on the jurisdiction of the highway. Maximum length may not exceed 110 feet.

Legal Axle Weights:

Single axle:	20,000 lbs.
3 axles or more:	48,000 lbs.
Tandem axle:	34,000 lbs.
Gross Vehicle Weight	105,500 lbs.
	(unless posted)

NOTE: The above weights apply to state highways other than Interstate highways.

Call Highway Patrol, Permit Section, at (701) 328-2621 for more information, nd.gov/ndhp.

State Fleet Services

NDDOT is responsible for all state-owned licensed motor vehicles which make up the state fleet. The number of vehicles in the state fleet varies throughout the year from a low of approximately 3,500 to a peak of approximately 3,800 which is based on need, summer programs, and purchasing/disposal patterns. These vehicles are used by all state agencies, including NDDOT, the university system, and agricultural research centers. State Fleet Services purchases and maintains the vehicles. When the vehicles are due for replacement or no longer needed, they are sold at public auction.

Pickle car (Hwy. Dept. vehicle)
1927 - Ray Robinson collection

The total active state fleet vehicle count as of July 1, 2016, was 3,726. This fleet is comprised of 3,124 light vehicles and 602 heavy trucks.

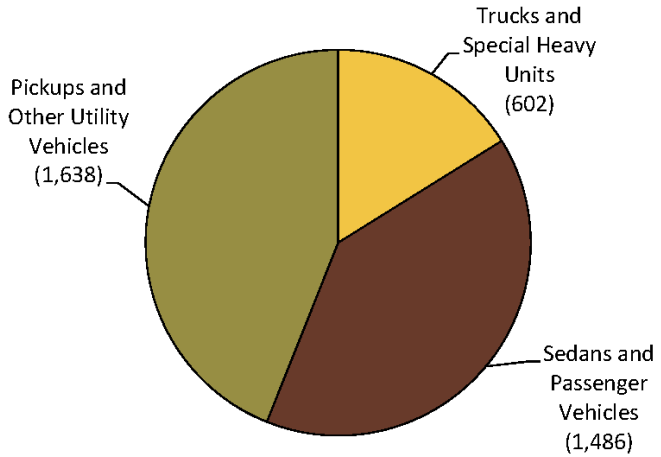
State Fleet Services (continued)

Approximately 465 vehicles are located in nine motor pool locations throughout the state for daily check out. The balance of the vehicles are assigned directly to agencies and institutions based on their employee specific needs. All vehicle usage is charged to the agency or institution on a per-mile basis for light vehicles or per-operating hour fee for trucks.

State Fleet is budgeted as an intergovernmental service fund. Rental rates are established based on fleet expenses so that all revenue from rental rates must balance with the fleet's total expenses.

- State Fleet purchases and disposes of approximately 450 light vehicles and 40 heavy trucks each year.
- State vehicles traveled 39.5 million miles in FY2016.
- State Fleet used 3 million gallons of fuel in FY2016, at a cost of $6.1 million.
- State Fleet has used E10 fuel at its fueling sites since 2003 and expanded bio-diesel to all of its sites in 2006.
- There are 13 state-owned refueling sites state-wide.
- State Fleet coordinates the defensive driving and vehicle safety courses for all state employees.

Active ND State Fleet Vehicles - July 2016



Transit Program - 2016

Federal Transit Program

Rural Public Transportation

North Dakota Department of Transportation provides formula grants for rural programs that is formula-based for the purpose of supporting public transportation in rural areas with a population of less than 50,000. The goal of the program is to enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services and recreation.

Transportation for the Elderly and Disabled

This program provides formula funding to states for the purpose of meeting transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. Funds are apportioned based on each state's share of population for these groups of people.

Urban Public Transportation

These funds are used to support and improve public transportation in urbanized areas that have a population between 50,000 and 200,000 (Bismarck, Fargo and Grand Forks).

Urban Transit Planning

More than $500,000 is distributed annually to Bismarck, Fargo, and Grand Forks for planning purposes.

Transit Facts - 2016

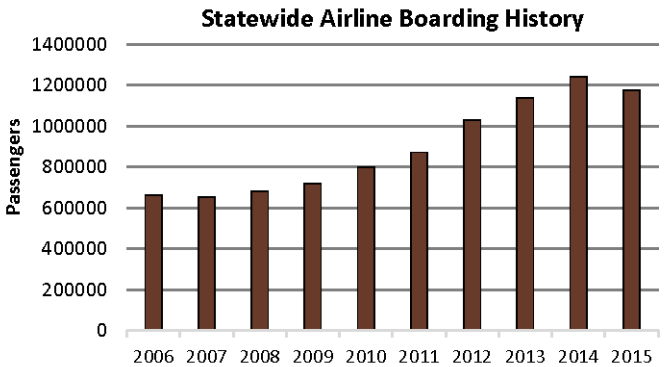
- North Dakota public transit providers, both rural and urban, provided over 2.9 million rides in 2016.
- North Dakota has 34 transit providers statewide (rural, urban and intercity).
- State and federal funds support nearly all the urban and rural transit systems. Collectively, these systems operate approximately 317 buses and vans.

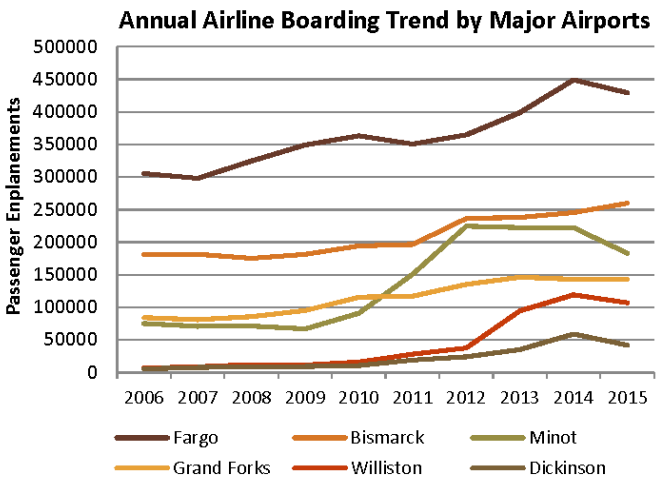
Aeronautics Commission - Aviation Transportation

Aeronautics Mission

To serve the public by providing economic and technical assistance for the aviation community ensuring the safe and cost-effective advancement of aviation in North Dakota.

Aviation in North Dakota functions well with significant local involvement, good communication with the FAA, and a small state agency charged with advancing aeronauticas in North Dakota through encouraging aviation and administering federal and state grants. Aerospace gives to other industries while historically supporting its infrastructure through its own taxes on fuel and sales.





SOURCE: ND Aeronautics Commission
(701) 328-9650
nd.gov/ndaero

Disadvantaged Business Enterprises (DBE)

The DBE Program, administered by the Civil Rights Division, encourages the development and use of firms owned and controlled by minorities, women and socially and economically disadvantaged individuals on federally-aided projects. NDDOT annually reviews each DBE's continued eligibility. A directory of DBE certified contracting, supply, consulting and manufacturing firms may be accessed at dot.nd.gov/dotnet2/dbedirectory/default.aspx.

To achieve NDDOT's overall DBE goal, federal aid projects are assigned participation goals based on the project's total dollar amount. The prime contractor must meet the project's DBE goal or detail their good faith efforts to meet their goal. State projects are not assigned DBE participation goals.

Contact the Civil Rights Division at (701) 328-2576.

	DBEs Certified	North Dakota-Based DBE Firms
FY2015	132	39
FY2014	127	40
FY2013	113	42
FY2012	105	44
FY2011	85	41
FY2010	71	40

	DBE Goal	% Achieved
FY2015	6.22%	6.13%
FY2014	7.40%	7.86%
FY2013	7.40%	7.66%
FY2012	7.40%	6.42%
FY2011	7.32%	7.26%
FY2010	7.32%	7.12%

	DBE $ Achieved	Non-DBE $
FY2015	16,167,870	239,301,587
FY2014	26,372,051	319,355,181
FY2013	26,424,245	306,181,936
FY2012	26,484,872	399,854,772
FY2011	31,860,453	400,692,288
FY2010	32,040,948	408,683,763