State of Nebraska Department of Roads

Annual Report

2015

Kyle Schneweis
NDOR Director

Moving Forward to Grow Nebraska

Since moving to Nebraska last year to become Director of the Department of Roads, I have had the opportunity to travel extensively throughout the state, meeting with elected officials, business leaders, transportation advocates, as well as our own NDOR staff. In those meetings, four topics came up repeatedly: transportation system preservation, leveraging transportation to support the economy, the need for innovation and improving business practices, and fostering better partnerships.

System preservation has recently been the primary focus of the Department of Roads, and it shows. Five years ago, performance of pavement was in a nosedive. The percentage of pavement in good or very good condition dropped to 74%, far from our desired goal of 84%. Through concentrated effort, that measure has improved to 81% in 2015. It will take sustained and prolonged commitment to keep this positive trend going.

However, for our state to achieve economic growth, we must not only preserve our system, but also move forward by expanding it. That's the vision of the Build Nebraska Act (BNA) and the fruits of that legislation are becoming evident. The first 10 years of BNA funding supports expansion of 17 highway segments, which are broken up into 27 construction projects. To date, 4 segments are open to traffic, 6 segments are under construction or under contract for construction, and 7 segments are under development and scheduled to begin construction before 2023. A statewide process is currently underway to prioritize additional capital improvement projects being considered for funding from the next 10 years of BNA funding and the newly passed Transportation Innovation Act. By inviting and encouraging input from a broad cross-section of Nebraskans, we intend to assure that economic impacts, along with other factors, are fully considered in the selection process.

There are still many transportation infrastructure needs that will not be addressed by the BNA. We need to be innovative to deliver projects faster. That was the goal of the combined efforts of Governor Ricketts and the Nebraska Legislature, with strong support from many interests in the state, in passing the Transportation Innovation Act this year. By creating and capitalizing a Transportation Infrastructure Bank, allowing design/build contracting, creating a program to speed the repair and replacement of local bridges, and creating an economic development fund, the completion of projects that will enhance safety and promote economic growth in Nebraska will be greatly accelerated.

As you review our 2015 Annual Report, you will see that we have a strong foundation on which to build. We are becoming increasingly diligent in assuring that our progress is measurable and that we are able to demonstrate accountability for the trust Nebraskans have placed in us to use the newly available options and funds to ready our state's transportation system for the future.

Safety

Improve Safety on Nebraska's Transportation System

"Toward Zero Deaths" are three key words in NDOR's overall safety goal to reduce deaths and injuries on Nebraska's roadways. Topping the list of performance measures, safety is integrated into every aspect of roadway construction and maintenance, as well as non-infrastructure projects. NDOR continues to focus on identifying and prioritizing projects to address safety concerns such as roadway departures, intersection safety, occupant restraint and distracted driving crashes. New technologies are being implemented such as bridge anti-icing systems, improved winter operations and the "beveled edge" to aid in vehicle re-entry onto the highway after a roadway departure. The Department is also implementing low-cost, effective countermeasures, such as centerline and edge line rumble strips and warning signs for statewide projects.

Year	Nebraska Fatalities
2006	269
2007	256
2008	208
2009	223
2010	190
2011	181
2012	212
2013	211
2014	225
2015	246

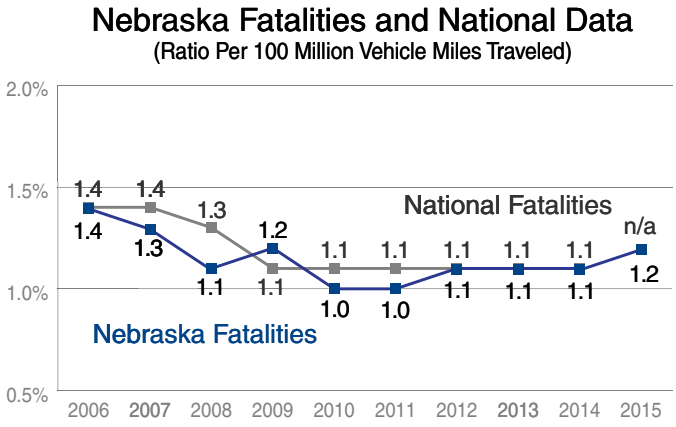
Fatalities on Nebraska Roadways

Description: Measurement of fatalities on Nebraska's roadways: the Interstate, state highways, and local roads and streets.

Purpose: To heighten the awareness of safety and driving responsibility on Nebraska roadways. A consistent decline in fatalities reflects improved safety management practices, greater public awareness of safe driving practices, and will reduce statewide societal costs.

Goal: To reduce fatalities, their number and the rate, to a ratio of 0.5 fatalities per 100 million vehicle miles traveled by 2016.

Outcome: Nebraska's rate of fatalities per hundred million miles traveled in 2015 was 1.2. There were 246 fatalities in 2015, an increase of 21 compared to 2014.



Featured Strategy

Surface Treatments Prevent Accidents and Preserve Bridges

High friction surface treatment (HFST) is an emerging technology that dramatically and immediately reduces crashes and the related injuries and fatalities. The treatment involves the site-specific application of very high-quality, durable aggregates using a polymer binder that restores and maintains pavement friction where a safer pavement surface is essential.

Maintaining the appropriate amount of pavement friction is imperative for safe driving. While the initial cost of a treatment is higher than for conventional pavement, its limited use in critical locations produces a low-cost option over its effective life—about 12-15 years. One of these critical locations is bridges, especially those that tend to ice frequently. In Nebraska, high friction surface treatments and other similar preventive maintenance treatments have been applied to approximately 70 bridges since 2012, with application to several more planned for 2016 and 2017.

HFST also seals and protects bridge surfaces, especially from the effects of de-icing salts. It is not the only method used to protect bridge surfaces, but it is often preferred, especially on newer bridges.

Serious Injury Crashes on Nebraska Roadways

Description: Measurement of serious injury (Type A[1]) crashes on Nebraska roadways; the Interstate, state highways, and local roads and streets.

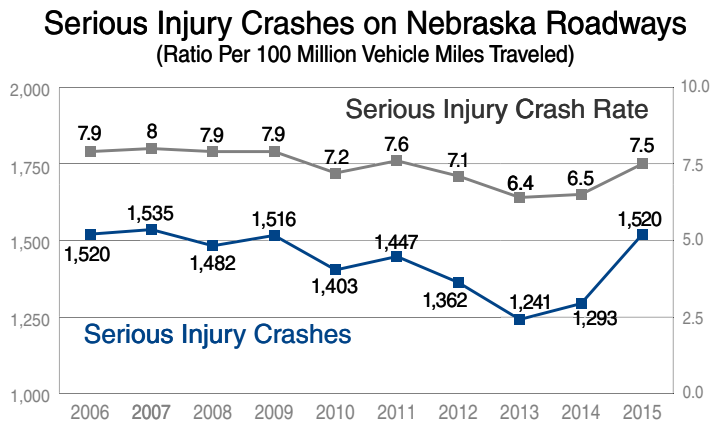
[1] *Type "A" Injury: Disabling injuries - cannot leave the scene without assistance.*

Purpose: To heighten the awareness of safety and driving responsibility on Nebraska roadways. Improved safety management practices and greater public awareness of safe driving practices contributed to a consistent decline in serious injury crashes. Continuation of these practices will reduce statewide societal costs.

Goal: To reduce serious injury crashes in Nebraska to a ratio of 6.0 per 100 million vehicle miles traveled by 2016.

Outcome: Although the rate was up from the 2014 rate of 6.5, Nebraska's serious injury crash rate continues to decline over the ten-year period, from 7.9 in 2006 to 7.5 in 2015.

Year	Annual Vehicle Miles Traveled (AVMT)
2006	19,222,817,000
2007	19,202,000,000
2008	18,864,000,000
2009	19,147,000,000
2010	19,520,000,000
2011	19,111,177,000
2012	19,224,041,000
2013	19,323,263,000
2014	19,795,000,000
2015	20,230,000,000



Featured Strategy

Leveraging Technology for Our Customers

The Nebraska Department of Roads is keenly aware of our users' technology expectations, and has taken the required steps to gather, process and provide this information. NDOR has invested in Roadside Weather Information Systems (RWIS) that gather up-to-the-minute weather data and has deployed them in a multitude of locations throughout Nebraska. We have also installed cameras in a variety of locations to provide drivers with visual confirmation of the roadway surfaces. The information we collect is then placed online for our customers' use with the "511" and related links available on the NDOR website.

The Department has also developed a network of changeable message boards which are positioned throughout Nebraska's highway system. These signs are available to give drivers instantaneous updates to changes in road conditions, emergency instructions, and other valuable information that would otherwise be difficult to distribute. The Department is committed to continual engagement with our customers. We plan to leverage the expansion of technologies, and advance our distribution methods to benefit everyone who uses Nebraska's highways.

Motor Vehicle Crashes on Nebraska Roadways

Description: Measurement of motor vehicle crashes on Nebraska roadways, the Interstate, state highways, and local roads and streets.

Purpose: To heighten the awareness of safety and driving responsibility on Nebraska roadways. A consistent decline in crashes reflects improved safety management practices, greater public awareness of safe driving practices, and will reduce the statewide societal costs.

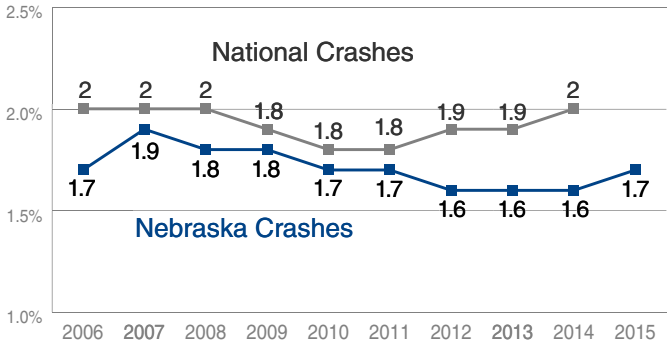
Goal: To reduce motor vehicle crashes in Nebraska to a ratio of 1.3 per million vehicle miles traveled by 2016. The number of crashes is "reportable" crashes, defined as those with property damage of at least $1,000. Due to increases in repair and replacement costs, the number of reportable crashes may increase even though actual crashes do not.

Outcome: Nebraska's crash rate has been below the national rate since 2004. Beginning in 2013, the number of crashes has increased every year, but the ratio of crashes to million vehicle miles traveled remained at 1.6 until ticking up to 1.7 in 2015.

Year	Nebraska Crashes
2006	32,780
2007	35,847
2008	34,604
2009	34,665
2010	33,212
2011	32,302
2012	30,443
2013	31,377
2014	32,318
2015	33,988

Toward Zero Deaths

Nebraska Crashes and National Data
(Ratio Per 100 Million Vehicle Miles Traveled)



Featured Strategy

Flashing Yellow Arrow Traffic Signals and Flashing Blue Lights

In December 2009, the Federal Highway Administration authorized the use of the flashing yellow arrow for permissive left turns at traffic signals. Results from national studies conducted by FHWA indicated that the new signals helped to prevent crashes, move more traffic through an intersection, and provided additional traffic management flexibility for road agencies. NDOR installed its first flashing yellow arrow at the I-80/Gretna interchange in the fall of 2013 and continues to install them at new traffic signals and at modifications to existing traffic signals.

Flashing yellow arrow traffic signals feature a flashing yellow arrow in addition to the standard red, yellow and green arrows. When illuminated, the flashing yellow arrow allows waiting motorists to make a left-hand turn after yielding to oncoming traffic. Otherwise, the new traffic signals work the same as traditional signals. The use of the flashing yellow arrow is reserved for intersections where exclusive left-turn lanes exist with acceptable sight distance to oncoming traffic and pedestrians. At the end of 2015, NDOR was operating flashing yellow arrows at six intersections.

In its 2015 session, the Nebraska Unicameral adopted legislation expanding the allowed use of blue flashing lights by NDOR and local street and highway employees. The use of blue lights in conjunction with flashing amber lights has been shown to greatly improve safety for workers when performing inspection, maintenance and construction activities. NDOR proposed the legislation in order to more prominently identify maintenance and construction workers on the highway, to protect them and to provide additional advance warning to the traveling public. Before passage of this legislation, flashing blue lights could only be used by NDOR during winter operations and could not be used by local subdivisions.

Safety Highlight

NDOR's "Team" Approach Offers Training to First Responders

The Nebraska Department of Roads, a member of the State Traffic Incident Management (TIM) Program Implementation Committee, began offering Train-the-Trainer courses to first responders of highway incidents in 2014. Due to exceptional response to the program, training was extended through 2015. As of March 1, 2016, Nebraska is ranked first in the nation with 36.6% of responders trained.

The trainings are an offshoot of the original TIM training program, which began in Nebraska in 2012. This program is sponsored by the Federal Highway Administration (FHWA), who designed the course as part of the Strategic Highway Research Program (SHRP2) to improve highway safety and reduce congestion caused by accidents. The curriculum is based on extensive research conducted with TIM responders across the country and uses a train-the-trainer approach.

The Committee, a coalition of key state and federal agencies, recognized the importance for crash victims and passing traffic of first responders being quick and knowledgeable in their duties to prevent potentially severe secondary collisions. It was important that responding organizations–law enforcement, firefighters, state and local departments of transportation, towing companies, medical personnel, and other incident responders – were all working from the same plan.

Two Train-the-Trainer courses were held in 2014, with 73 incident responders from across the state attending the free 12-hour course to become instructors. The Nebraska agencies that developed the training included the Department of Roads; State Patrol, EMS/Trauma Program; Fire Marshal's Office; local police, sheriffs, fire and emergency management departments; the Local Technical Assistance Program; and the Professional Towers Association of Nebraska.

In 2015, two more Train-the-Trainer sessions were conducted, the first in May at the Nebraska Fire School in Grand Island, and the second in June, in conjunction with the Greater Omaha Responder Training Initiative, with the goal of eventually training 2,000 responders in the Omaha metro area.

Upon completion of the course, the new TIM trainers return to their communities to conduct free four-hour training courses to cascade the training and make it available to all responders.

Taking an innovative approach to encourage participation in the program, NDOR has used Highway Safety Improvement Program funding to provide participating organizations with tools they need to manage incident sites. Those with at least six members attending the four-hour TIM training course receive device packages worth $600. The traffic control devices provided in the kits are very effective in enhancing the visibility of incident scenes and improving the safety of roadway users and responders.

Local fire departments comprise the majority of the program participants. Of the 478 fire departments with 13,780 firefighters providing vital services to the citizens of Nebraska, most are from sparsely populated areas and have very limited funding to purchase these items on their own. So far, 380 departments have qualified to receive device packages.

NDOR's success in creating these "leave-behind" packages has attracted the interest of other states to incorporate such packages in their train-the-trainer programs. NDOR has submitted the traffic control device packages and TIM training for a national award.

Response to the program has continued to be impressive. As of March 21, 2016, the program has trained over 6,266 of the 17,100 first responders providing vital services to the citizens of Nebraska. Many larger departments have recognized the value of the training and are requiring each of their members to attend the four-hour training.

Fiscal Responsibility

Use Financial Resources Wisely and Make Financial Decisions in an Open and Transparent Way

Fiscal Responsibility is defined as (1) living within our means, (2) using financial resources wisely, and (3) making financial decisions in an open and transparent way. The goal is to optimize the use of funds available to Nebraska for the greatest benefit of the state transportation system while providing funding to meet the Department's goals.

Three measures have been established to reflect the progress toward meeting this goal. The first measure – minimize overhead costs to maximize funding for transportation purposes. The second measure – accurately estimate project costs when the annual program is established in order to maximize program delivery. The third measure – measure the number of projects let in a calendar year and the average number of bids NDOR receives on those projects, with the goal of maintaining a minimum average of three bidders per project over a calendar year.

Overhead as a Percentage of Annual Expenditures

Description: Measurement of NDOR's costs for construction, maintenance and overhead.

Purpose: To maximize funding for transportation purposes by minimizing overhead costs.

Goal: To have overhead costs less than 10% of annual expenditures.

Outcome: NDOR has maintained overhead at less than 10% of annual expenditures over the ten-year period. The overhead for 2015 was 6%.

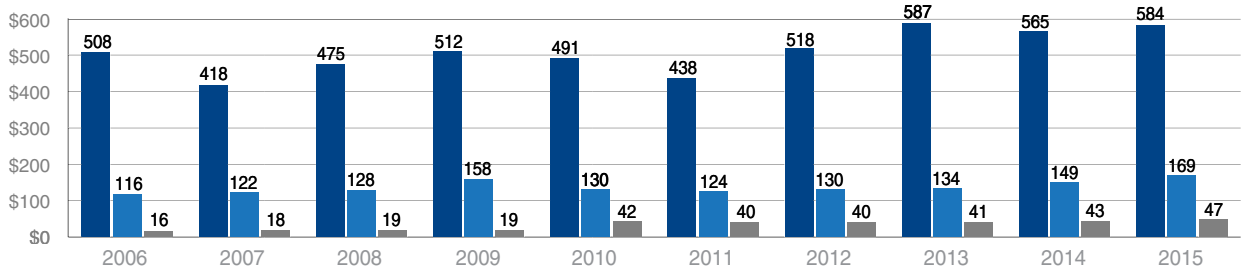
Featured Strategy

Upgrade Financial System Software

Using our financial resources wisely, NDOR commits to upgrade the financial system software to improve efficiency and functionality, reduce risk, and strengthen the financial networks to ensure the integrity of the financial data.

Transportation and Administrative Expenditures

(Dollar amounts represented in millions)



	2006		2007		2008		2009		2010		2011		2012		2013		2014		2015	
Construction	508	79%	418	75%	475	76%	512	74%	491	74%	438	73%	518	75%	587	77%	565	75%	584	73%
Maintenance	116	18%	122	22%	128	21%	158	23%	130	20%	124	21%	130	19%	134	18%	149	20%	169	21%
Subtotal	$624	98%	$540	97%	$602	97%	$670	97%	$621	94%	$562	93%	$648	94%	$720	95%	$714	94%	753	94%
Overhead	16	3%	18	3%	19	3%	19	3%	42	6%	40	7%	40	6%	41	5%	43	6%	47	6%
Total Costs	$640		$558		$621		$689		$663		$602		$688		$762		$757		$800	

Accuracy of Project Estimates Contained in the 1-Year Program

Description: Measurement of the ability to accurately estimate the dollar amount of projects contained in NDOR's one-year schedule of highway improvement projects (1-Year Program).

Purpose: Accurate estimates are necessary for the budgeting and funding of the projects identified in the 1-Year Program.

Goal: To be within 5% of the total estimated cost of the published program as reported in the 1-Year Program.

Outcome: The goal has been met seven out of the last ten years.

Actual and Estimated 1-Year Program Project Cost

Fiscal Year	Projects in 1-Year Program	1-Year Program Estimate	Fiscal Year-End Total Project Cost	Over/Under Program Estimate	Over/ Under
2006	129	$361,918,000	$381,551,000	$19,633,000	5%
2007	124	$335,499,000	$342,443,000	$6,944,000	2%
2008	113	$220,467,000	$237,456,000	$16,989,000	8%
2009	142	$319,044,000	$350,672,000	$31,628,000	10%
2010	160	$387,770,000	$389,302,000	$1,532,000	0%
2011	144	$407,556,000	$400,925,000	($6,631,000)	-2%
2012	142	$333,466,000	$342,528,000	$9,062,000	3%
2013	135	$380,732,000	$376,220,000	($4,512,000)	-1%
2014	152	$466,460,000	$446,529,000	($19,931,000)	-4%
2015	153	$447,786,000	$501,012,000	$53,226,000	12%

Featured Strategy

Coordination of Letting Dates

The Department continually reviews the location and types of projects to be constructed in the future. While there are many factors that determine exactly when a project will be advertised for letting and when it will be constructed, the goal is to optimize the type and amount of work to be let in a particular area and at a particular time.

Mobilizing manpower and equipment to a construction project is expensive. By combining projects within a limited area, the movement of workers and equipment is minimized, thereby reducing the contractor's cost and saving the state money. The cost of moving an asphalt plant ranges from $30,000 to $50,000 and takes four to five days. The plant is also out of production for that four to five days, so the contractor must add those expenses to the cost of any asphalt they produce.

As an example; the costs associated with moving an asphalt plant on projects with small quantities, say 20,000 tons, costs from $1.50 to $2.50 per ton. If two or three smaller projects are combined, those costs are reduced by $.50 to $1.00 per ton. The economic term is called economy of scale—the more units you build, the lower the cost per unit. The contractor can produce more asphalt from one location, saving both time and money and can pass the savings on to the State in the form of lower bids.

Construction Competitiveness

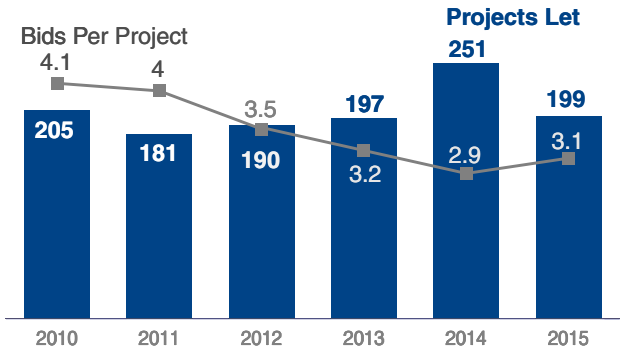
Description: Measurement of the number of projects let in a calendar year and the average number of bids that NDOR receives on those projects.

Purpose: Measure the number of projects let to construction in a calendar year and measure the average competition among the industry players for that calendar year's projects.

Goal: Maintain a minimum average of three bidders over a calendar year.

Outcome: The minimum average of three bidders over a calendar year has been met in five of the last six years.

Number of Projects Let Per Year and Average Number of Bids Per Project



Featured Strategy

Use innovative contracting methods, project bundling, scoping and scheduling techniques to make the projects more attractive to the industry.

Fiscal Responsibility Highlight

Continuous Process Improvement

The goal of any business is to operate in the most efficient and productive manner possible. Government is no different, which is why the NDOR continually looks for ways to improve its efficiencies and customer service.

Opportunities to improve are boundless; however, NDOR's focus on improvement constantly competes with pressing daily issues. These include issues related to technology, the law, and workforce. One significant challenge that looms around the corner is the retirement of baby-boomers. Today, over half of Nebraska state government workers are eligible for retirement in the year 2020. Coupled with low unemployment, state government and NDOR must find ways to accomplish its mission and goals with a new workforce and without the aid of legacy knowledge.

One way to address these challenges is through the use of lean management practices, also called Continuous Process Improvement (CPI). At its core, CPI is an approach used to eliminate process waste and maximize work flow. It starts with understanding the customers' needs and defining what they value. Next, workers must map their process to visualize the flow of work and quantify what they do. After that, the process is redesigned to eliminate waste and create continuous flow according to the customer's needs. This cycle is repeated perpetually until perfection is achieved (which is to say, it continues forever). This concept is time tested and was originally shaped in the auto manufacturing industry. However, governments, health care and other industries began to implement CPI in the early 2000's to find savings in their own organizations.

What these non-manufacturing industries found is that CPI can be applied formally and informally to any process. However, the formal application of CPI provides a better opportunity to realize sustained savings and improved customer service. NDOR continues to receive training on CPI and has begun to hold process improvement events. The first event examined the driver insurance verification process, which is owned by both the NDOR and the Department of Motor Vehicles (DMV). The joint process involved a lot of sorting, mailing, and manual handling of paper. After mapping it, front line workers found that their process took 57 steps to complete. They also found that it took 15 days to do 44 minutes' worth of work.

With this information, workers began brainstorming on ways to make the process better and faster. They evaluated ideas based on their ability to impact the customer and their ease of implementation. A series of easy to implement, high impact, low effort changes was identified. The group also identified some long-term process changes that would cut down on the time it took to complete the overall process.

The ideas were used to update and map a new insurance verification process. When fully implemented the new process would take only 27 steps and only 1.5 days to complete. As NDOR continues to utilize CPI methodology, it expects to find significant opportunities to streamline its business, reduce costs and improve customer service.

Environmental Stewardship

Integrate Environmental Considerations into Planning/Design, Construction, and Operational Activities of Nebraska's Transportation System

Environmental Stewardship is the integration of environmental considerations into the planning, design, construction and operational activities associated with the Nebraska transportation system. These environmental considerations include cultural, natural and human elements. The Department is committed to its role as an environmental steward and to preserving and protecting the environmental features and resources of the state. This goal emphasizes that transportation decisions and investments must be balanced with environmental considerations. The performance measures linked to this strategic goal illustrate our promise to carry environmental commitments forward into construction, take swift corrective action to benefit the environment, when necessary, and to encourage an environmentally sustainable transportation system.

Environmental Commitments in Compliance

Description: A key component of NDOR's environmental stewardship goal is to ensure that environmental commitments for construction projects, documented through the National Environmental Policy Act (NEPA) and permitting processes, are being managed. This entails periodic site inspections to ensure that these commitments are being upheld during construction.

Purpose: To ensure that the Department is following through with our promises made to the public and to the environmental agencies, NDOR is tracking compliance with commitments and has the information necessary to deliver appropriate environmental training to staff and contractors.

Goal: 100% of the environmental commitments are in compliance.

Outcome: This new performance measure reports data for projects from January through December.

In 2015, the measurement of environmental commitments in compliance reveals that 99.8% were in compliance.

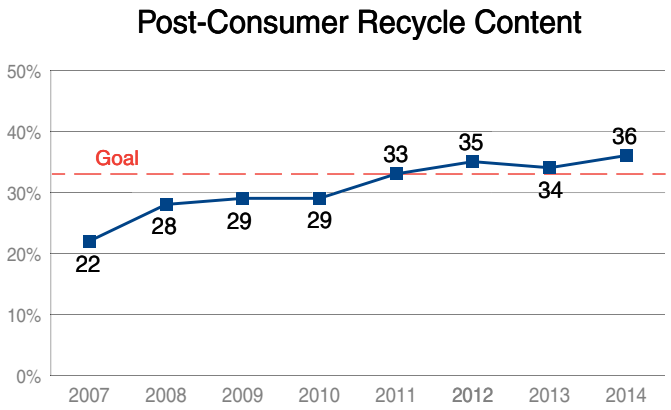
Post-Consumer Recycle Content

Description: Measurement of material removed during highway construction or maintenance work that is available for reuse.

Purpose: To ensure that NDOR is striving to maximize the use of removed or salvaged material. This minimizes the use of virgin materials and keeps reclaimed material out of landfills.

Goal: A minimum of 33% overall replacement content.

Outcome: The content has trended upward, from 22% in 2007 to 36% in 2014, up from 34% in 2013. Post-consumer recycle content comprised 26% of concrete projects and 41% of asphalt projects in 2014.



Post-Consumer Recycle Content

Overall Replacement Content

Year	Raw Materials (tons)	Recycle Content Raw Materials (tons)	Est. Value Recycled
2007	2,331,429	505,475	$14,080,652
2008	1,883,551	520,559	$22,162,766
2009	3,126,047	899,990	$31,994,060
2010	3,270,654	942,679	$34,563,117
2011	3,180,801	1,055,865	$49,834,191
2012	3,477,232	1,210,614	$53,066,480
2013	3,714,339	1,250,167	$53,215,809
2014	3,796,902	1,350,476	$59,292,024

Featured Strategy

Continue Recycling Activities and Get the Word Out

The Department is bringing awareness to the amount of recycled material used in our highway construction projects with the post-consumer recycle content performance measure. A recycle title block has been placed on the cover sheet of every project plan showing the amount of recycled materials intended for use on that project, as well as the value of the recycled material. The quantity shown is a direct savings of natural resources preserved, and/or existing materials that are reused and kept out of landfills. The value is a direct savings to the State of Nebraska and allows for more projects to be constructed each year.

Corrective Actions Completed

Description: This important component of NDOR's environmental stewardship goal is to ensure that corrective actions related to environmental commitments for construction projects are resolved within a seven-day window. Speed of resolution is key to maintaining compliance.

Purpose: To ensure that NDOR is performing timely corrective actions and tracking the compliance information necessary to deliver appropriate environmental training to NDOR staff and contractors.

Goal: 100% of corrective actions completed within seven days.

Outcome: This performance measure reports data for projects from January through December and establishes a baseline from which to measure progress.

In 2015, 87.5% of corrective actions were completed within seven days, up from 59% in 2014, and 97% were completed within 30 days, up from 91% in 2014.

Environmental Stewardship Highlight

NDOR Tire Amnesty Event a Big Success

The Department held its first tire amnesty event on July 24-25 at the maintenance yard in Lexington The event was promoted through local radio stations, newspapers and social media. The result was a pile of thousands of tires—over 420 tons—collected from NDOR and the general public during the event, along with an extension of more than 100 tons of tires allowed by the Nebraska Department of Environmental Quality (NDEQ) after the event. After the tires were collected, they were hauled to Concordia, Kansas, by Champlin Tire Recycling, Inc., the company that had the bid. Champlin recycles the tires to make playground mulch, park benches and picnic tables.

The tire disposal event was offered free of charge to the public, made possible through the receipt of a grant from the NDEQ, which allows for the acceptance of up to 500 tons of tires. The grants are part of the agency's waste reduction and recycling program and are funded by a $1 fee on new tires purchased in Nebraska.

NDOR participated in the event to collect scraps and tires from public roadways as a safety measure, and as a means of preventing environmental pollution. The effort is significant, as Nebraskans generate more than 1.5 million scrap tires annually—about one tire for every person.

Project Delivery

Use Known State and Industry Best Practices, New Technologies, and Creativity to Continually Improve and Deliver Well-Designed, High-Quality Projects, Products and Services

NDOR's goal is to continuously improve project delivery. Project delivery refers to the steps taken to progressively develop plans that define how each highway project will be build. Project delivery teams are responsible for developing these plans and must predict, minimize or prevent negative impacts to the environment, project costs and construction schedules to stakeholders.

NDOR strives to:

- Continuously enhance our expertise in laws and regulations that affect highway projects
- Lead efforts to streamline complex processes
- Implement creative, efficient and flexible solutions to expedite project delivery and construction

The Nebraska Surface Transportation Program is published annually on July 1st, listing projects scheduled for delivery within the next year (1-Year Program) and within the following five years (5-Year Program). The five performance measures and three featured strategies shown in Project Delivery section will assist in assuring that scheduled projects are delivered as planned.

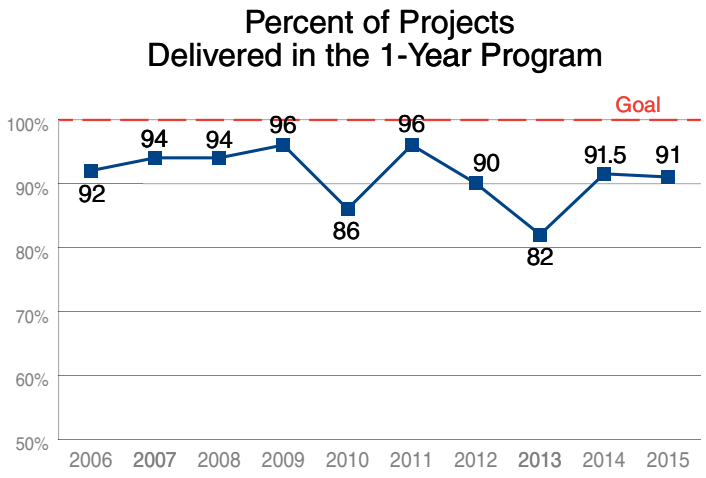
1-Year Program Projects Delivered to Letting

Description: Measurement of the ability to let projects which are identified in NDOR's one-year schedule of highway improvement projects (1-Year Program).

Purpose: This measurement monitors the delivery of projects to the public. Our performance reflects how well we keep our promises to the public.

Goal: To deliver 100% of projects.

Outcome: 91% of projects identified in NDOR's one-year schedule of highway improvement projects were delivered to letting in 2015, compared to 91.5% in 2014.



Fiscal Year	1-Year Projects[1]	Projects Delivered
2006	129	119
2007	124	117
2008	113	106
2009	142	136
2010	160	138
2011	144	138
2012	142	128
2013	135	111
2014	152	139
2015	153	139

[1]*Projects from the Nebraska Surface Transportation Program not included are those counted in the previous fiscal year, projects withdrawn, and projects built by entities other than the State of Nebraska.*

Featured Strategy

Project Delivery Efficiency Team

In the summer of 2015, NDOR and FHWA signed a programmatic agreement which streamlined activities within project delivery. The new agreement right-sized processes, documentation and approval for many environmental clearance and public involvement activities.

In the fall of 2015, statewide training was hosted for NDOR staff and technical stakeholders in Nebraska who are involved in project delivery. These changes were immediately beneficial and reduced time dedicated to accomplishing many project delivery activities. An NDOR Project Delivery Efficiency Team was also formed to keep the momentum going and investigate additional internal processes that could streamline project delivery.

This multidisciplinary team was given eight weeks to develop a proposal, which resulted in:

- New tools and guidance to assist with project programming and planning
- Right-sized project planning and delivery time based on project complexity
- Increased project coordination between Central Complex and District employees throughout the life of a project

The impacts from these teams are expected to improve project delivery each year. NDOR will remain engaged in continuous process improvement opportunities and will use performance measures to monitor progress.

5-Year Program Projects Delivered to Letting

Description: Measurement of the ability to let projects which are identified in NDOR's five-year highway improvement planning program (5-Year Program).

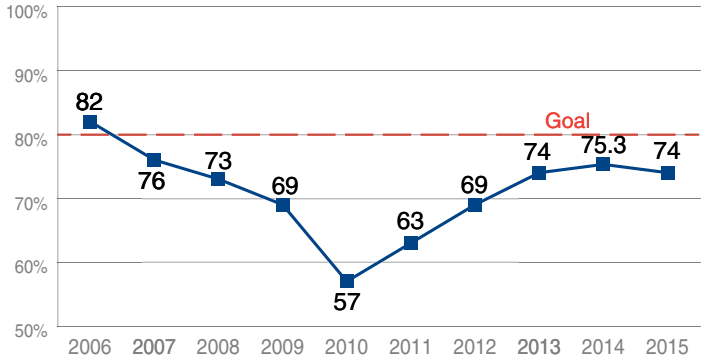
Purpose: This measurement monitors the delivery of projects to the public. Our performance reflects how well we keep our promises to the public, by delivering the majority of the 5-Year Program within five years.

Goal: To deliver 80% of projects in the 5-Year Program.

Outcome: 74% of projects identified in NDOR's five-year schedule of highway improvement projects were delivered to letting in 2015, compared to 75.3% in 2014.

Program Period	5-Year Projects	Projects Delivered
2002-2006	412	337
2003-2007	363	277
2004-2008	346	252
2005-2009	312	214
2006-2010	347	197*
2007-2011	342	215
2008-2012	319	221
2009-2013	270	200
2010-2014	376	283
2011-2015	428	316

Percent of Projects Delivered in the 5-Year Program



Featured Strategy

New Methods of Contracting Available Due to LB 960

The Transportation Innovation Act (LB 960) was adopted by the Nebraska Legislature in April 2016 and authorizes NDOR to use the Construction Manager/General Contractor (CM/GC) and the Design-Build (DB) methods for contracting. These new tools allow NDOR to help accelerate the largest and most complex projects and provide the earliest possible mobility, freight, safety and economic benefits to the public.

The CM/GC method involves hiring a construction manager at the beginning of the project where during design, the contractor provides the agency valuable time and cost-saving input regarding scheduling, pricing, phasing and constructability of the project. Streamlining the process and hiring a construction manager during the preliminary phase of the project accelerates project delivery.

The DB process allows the design engineer and contractor to be selected simultaneously, while also allowing for overlap between final design and construction activities. This results in accelerated project delivery because the traditional successive steps of Design-Bid-Build are condensed by managing contracts, final design, and construction concurrently with fewer steps.

Construction Projects Completed Within Days Allowed

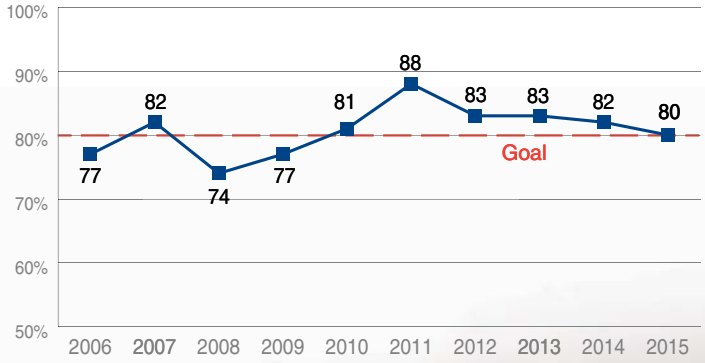
Description: Measurement of estimated time to complete a project (projects with 50 or more estimated workdays, including "calendar day" projects).

Purpose: This is a measure of our ability to accurately estimate the amount of time necessary to complete a construction project (contract time allowance).

Goal: 80% of fiscal year projects (over 50 workdays) completed within the estimated "latest days allowed."

Outcome: The overall Department goal was met with 80% of projects completed within the days allowed in 2015.

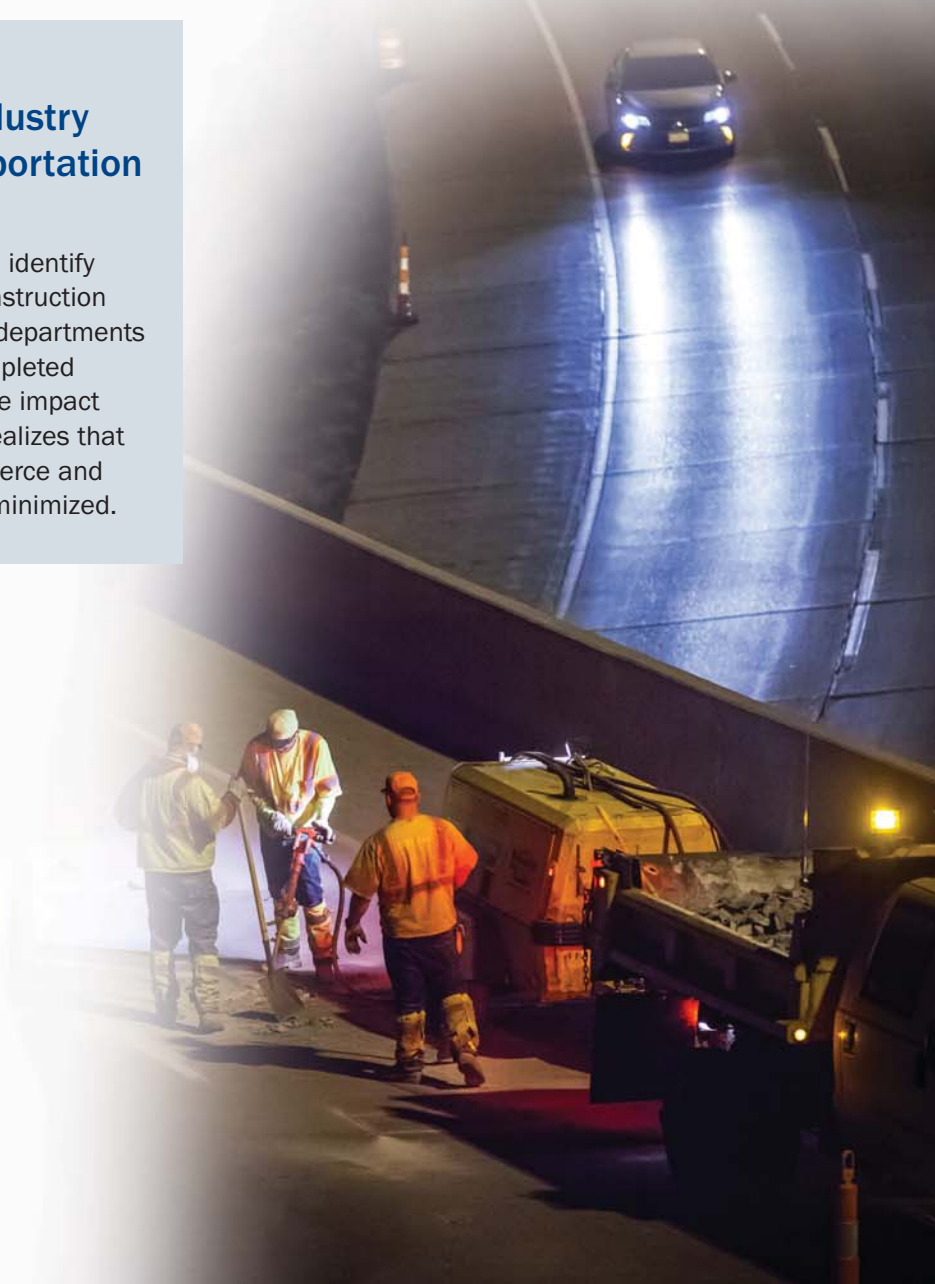
Percent of Projects Completed Within the Number of Days Allowed



Featured Strategy:

Benchmark with Construction Industry and Other Departments of Transportation to Assess Best Practices

NDOR is partnering with the contract industry to identify ways to speed up project delivery during the construction phase. Proven methods of other transportation departments are being explored that allow projects to be completed within the allotted timeframes while reducing the impact of construction on the traveling public. NDOR realizes that it is critical that highways are available to commerce and that inconvenience due to road construction is minimized.



Projects with ≥50 Days Allowed

Fiscal Year	Projects	Projects Completed
2006	103	79
2007	84	69
2008	91	67
2009	99	76
2010	91	74
2011	105	92
2012	112	93
2013	108	90
2014	124	102
2015	107	86

Number of Years to Prepare an Asset Preservation Project for Construction

Description: Measurement of average length of time in years to prepare an asset preservation project for construction.

Purpose: This measure is designed to examine the impacts of the streamlined processes implemented to prepare an asset preservation project for construction.

Goal: To reduce the preparation duration time by 10% to 2.9 years in FY-2016.

Outcome: This is a new measure. The baseline year is FY-2015 when the average length of time to prepare an asset preservation project for construction was 3.2 years.

In FY-2015, the average length of time to prepare an asset preservation project for construction was 3.2 years.

Average Time to Complete the NEPA CE for Federally Funded Construction Projects

Description: Measurement of the average length of time in months to complete the National Environmental Quality Act Categorical Exclusion (NEPA CE) for federally funded construction projects.

Purpose: This measure is designed to examine the impacts of the streamlined processes implemented to prepare and complete the NEPA CE for federally funded construction projects.

Goal: To reduce the completion time by 10% to 13.5 months in FY-2016.

Outcome: This is a new measure. The baseline year is FY-2015 when the average length of time to complete a NEPA CE for a federally funded construction project was 15 months.

In FY-2015, the average length of time to complete a NEPA CE for a federally funded construction project was 15 months.

Project Delivery Highlight

US-77 Wahoo Expressway Opens

The US-77 Wahoo Expressway in Saunders County officially opened to traffic on August 25, 2015. A dedication ceremony was held with a ribbon cutting by dignitaries, including Governor Pete Ricketts, former Governor Dave Heineman, former Congressman Doug Bereuter, State Senator Jerry Johnson and NDOR Director Kyle Schneweis.

The 3.3-mile, four-lane expressway extends from the US-77/Nebraska 92 intersection on the southwest edge of town, crosses the dam that forms Lake Wanahoo and reconnects with its former route near the town's airport. Constructors, Inc., of Lincoln, Nebraska, was the prime contractor for the $13.1 million project.

Work began on November 4, 2013, with the installation of advanced warning signs and barricades. Work included constructing the four-lane expressway around the City of Wahoo on a new alignment and consisted of grading, concrete paving, new drainage structures, guardrail and electrical work. The project also included constructing a four-lane bridge over Dry Run Creek.

A unique feature of this project included a 12-foot by 10-foot by 158.5-foot concrete box culvert built for pedestrians at the Lake Wanahoo Dam that will eventually become part of the trail system.

Some unforeseen weather events delayed the anticipated completion in early 2015. There were multiple 100- and 50-year rain events throughout the course of this project. Recorded amounts of rain included approximately 35 inches in 2014 and more than 30 inches in 2015. In addition to the heavy spring rains, there was a cold snap that halted work for the winter. Despite these setbacks, work progressed well in August, making the long-anticipated completion a reality.

The project was funded by the Build Nebraska Act. The Build Nebraska Act dedicates one-quarter of a cent from the state's 5.5-cent portion of the sales tax for 20 years for road improvements and maintenance.

Asset Management

Operate, Maintain, Upgrade and Expand Physical Assets Effectively Throughout Their Life Cycle

Performance measures have been developed to monitor the condition of Nebraska's roadways, bridges and fleet. Various strategies are used to meet goals and objectives to preserve, rehabilitate and replace major assets managed by the Department of Roads.

Pavement Condition of Nebraska Highways

Description: Measurement of the pavement quality of the state highway surface.

Purpose: This is a measure of the pavement condition of the state's highways. Pavement condition ratings are based upon annual visual inspections and are rated according to the Nebraska Serviceability Index (NSI).[1] This information is used to help determine appropriate strategies for maintenance, rehabilitation or reconstruction.

[1] *The 2014 weighted average NSI for the state highway system was 80.9 and 82.8 in 2015. This weighted average is based on the condition of roadway at the time of rating. No rating improvements were given to highway segments in the one-year program or for segments under construction.*

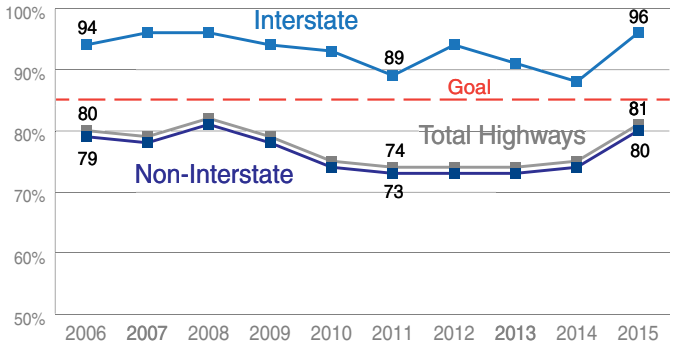
Goal: 84% of the highway system miles shall be rated at least good or very good (NSI ratings ≥ 70).

Outcome Preservation is the main focus of NDOR in the current economy. Overall pavement condition leveled off at 74% good or very good until 2013 when it started trending up to 75% in 2014 and then to 81% in 2015.

Pavement Condition Ratings

	Interstate System	Non-Interstate System	Total State Highway System
Very Good Miles	306	3,437	3,743
Good Miles	119	3,536	3,655
Fair Miles	57	2,177	2,234
Poor Miles	0	247	247
Very Poor Miles	0	23	23
Total	482	9,420	9,902

Pavement Condition Ratings
Percent of Miles Good or Very Good
(Nebraska Serviceability Index)



Featured Strategy

Increase Asset Preservation Funding

Last year, approximately $370 million of asset preservation work, an increase of $12 million over the previous year, improved the condition of 589 miles of highway and 97 miles of interstate. Despite this accomplishment, which improved 63 more miles than the previous year, NDOR fell short of achieving our goal to maintain 84% of highways with a "good" or "very good" condition rating. In order to make progress towards this goal, NDOR will continue to invest heavily in asset preservation. In addition, NDOR state forces will continue to perform more preventive maintenance across the state.

These investment strategies are expected to improve the condition of the highway system. Due to the large scale of the system and long-term of this investment, the results of these investments may take years to determine.

Smoother Roads

Description: Measurement of the smoothness of the roads on the National Highway System (NHS) (3,724 miles). The NHS is a subset of the highway system and includes roads that are important to the nation's economy, defense and mobility.

Purpose: One measure of the smoothness of roads is the International Roughness Index (IRI). This index measures pavement roughness in terms of the number of inches per mile. The lower the IRI number, the better the ride. A smoother roadway is safer and more satisfying to the users of our highway system.

Goal: 69% of all miles on the National Highway System shall be maintained at an acceptable ride quality of "good" IRI ratings. National data is not available for 2014 or 2015.

International Roughness Index (IRI) Rating Scale* *(Inches per Mile)*	
Good	< 95
Fair	95 to 170
Poor	> 170

*The rating scale for IRI was changed in 2015 to match MAP21 requirements

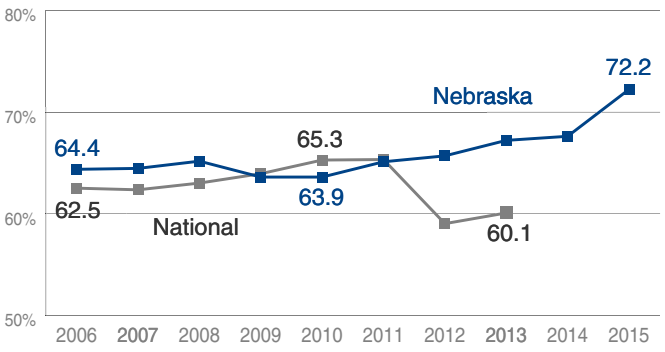
Outcome: 72% of Nebraska's national highway system miles had an IRI rating of good.

Number of Miles Based on Nebraska Serviceability Index (NSI) Rating

NSI	Interstate System	Non-Interstate System	Total State Highway System
Very Good (>90)	338	3,421	3,759
Good (70 to 89.99)	121	4,179	4,300
Fair (50 to 69.99)	16	1,574	1,590
Poor (30 to 49.99)	0	213	213
Very Poor (≤29.99)	0	11	11
Not Rated*	7	56	63
Total	482	9,454	9,936

*Gravel, brick and highways under construction do not have a NSI rating.

Percent of Miles with IRI Rating <95



Featured Strategy

Continue to Use Thin Lift Resurfacing Strategies and Pavement Repair Introduced in 2013

Smoothness lengthens the life of the roadway, reduces wear and tear on vehicles, and provides a much improved driving experience. In an effort to continue our goal of smoother roads, the Department will use in-place repair and thin asphalt overlay strategies where appropriate on our existing highways. Although these strategies will appear similar to larger reconstruction projects, they will only be a thin surface type treatment. These strategies have faster project delivery and construction schedules than traditional rehabilitation or reconstruction strategies, but still offer a noticeable improvement in smoothness along with extending the life of the pavement structure.

Nebraska Bridges in a State of Good Repair

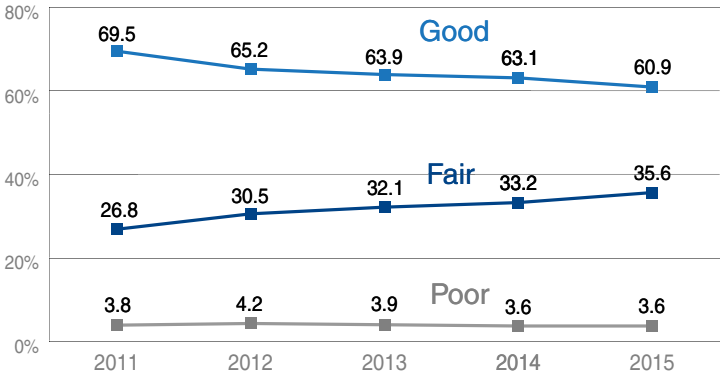
Description: Measurement of the progress towards keeping state-owned bridges in a condition of good repair.

Purpose: All bridges in Nebraska are safety inspected every two years and the condition information is stored in the Nebraska Bridge Inventory. This condition information is used by NDOR Bridge Management Section to determine cost effective strategies to keep the bridges in good repair. The necessary work may include preservation, repair, maintenance, re-decking, rehabilitation or replacement.

Goal: To have 95% of Nebraska state-owned bridges in good or fair condition.

Outcome: 96.4% of Nebraska's state-owned bridges are in good or fair condition. No national averages are reported for good-fair-poor bridge conditions.

Percent of State-Owned Bridges in Good, Fair or Poor Condition



Major Bridge Components *- bridge deck, superstructure, substructure*
Good *- major bridge components are all in good condition or better*
Poor *- one or more major bridge components are in poor condition or worse*
Fair *- all other bridges*

Year	Nebraska Bridges
2006	3,493
2007	3,533
2008	3,520
2009	3,509
2010	3,517
2011	3,516
2012	3,514
2013	3,520
2014	3,519
2015	3,517

Featured Strategy

Jointless Bridges

Bridges expand in hot weather and contract when it is cold. Joints in bridge concrete allow bridges to accommodate this thermal movement without damage to the structure. However, bridge joints can allow potentially corrosive materials, such as deicing chemicals, to contact other elements of the bridge. Significant corrosion-induced deterioration of critical bridge components can result.

In Nebraska, new bridges are designed with joints that are located beyond the end of the bridge. This practice helps to prevent corrosion-induced deterioration of bearings, abutment bridge seats, pier caps, and the ends of beams. Bridge preservation begins with good design.

Deck Area of Structurally Deficient Bridges on the National Highway System

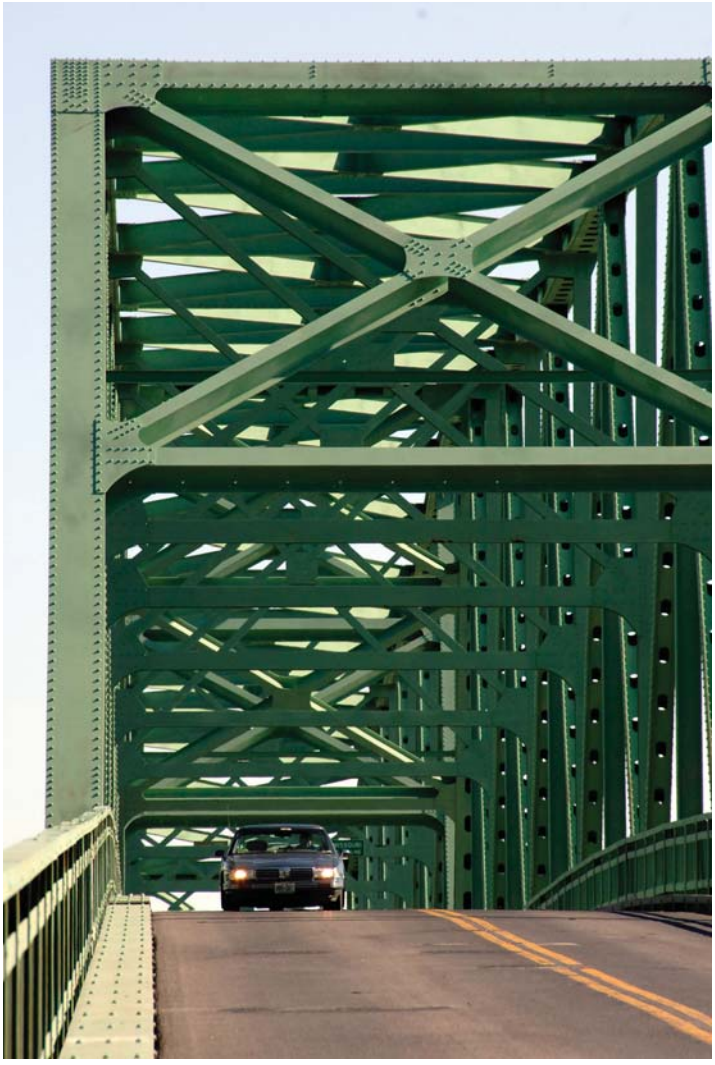
Description: To detail the condition of Nebraska bridges on the National Highway System (NHS), both at the state and local levels. It is important that the bridges in Nebraska are safe and able to carry the loads necessary to keep our economy moving forward. Because funding is not always available to maintain these structures in excellent condition, we must determine the deficiencies to measure our progress.

Purpose: To report on the overall condition of our bridges and compare that condition to the goals we have set.

Goal: Less than 10% of the total deck area of bridges on the NHS classified as structurally deficient.

Outcome: Nebraska has met the goal.

This measure reveals that 98% of the deck area of Nebraska's bridges on the NHS is classified as structurally sound, with only 2% of the deck area on structurally deficient bridges.



Featured Strategy

NDOR Partners with UNL and Local Engineering Consultants to Develop Standard Designs for County Bridges

Many of the Nebraska county bridges are in need of replacement due to structural deficiency or functional obsolescence. Most of the bridges needing replacement are in the 20- to 60-foot range. Current practice for county bridge construction in this span range is to use narrow precast deck units (which span up to approximately 30 feet), cast-in-place concrete slab bridges, and precast concrete girders that require cast-in-place concrete decks. It is proposed to expand the precast deck units to make them wider and cover spans of 40 feet or more. Both conventionally reinforced and post-tensioned precast units will be investigated.

Criteria for the system will be developed through partnering between NDOR, UNL, private engineers, and Nebraska counties. Full-scale precast deck units will be constructed and tested to examine the structural behavior and production efficiency. An important companion to this effort will be the development of an economical concrete mix design that meets the requirements of early concrete strength, mechanical properties requirements and durability. Local aggregates and cements will be used in optimizing the concrete mixture design.

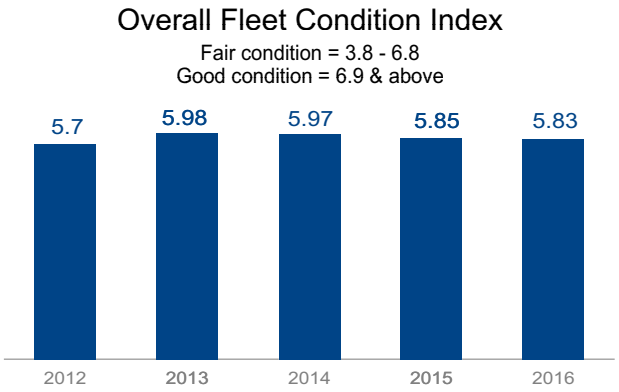
Fleet Condition Index

Description: Measurement of the current condition of the NDOR fleet.

Purpose: This measure is used to determine appropriate strategies for proper maintenance, repair and replacement of fleet equipment.

Goal: Achieve and maintain an overall fleet condition index of good.

Outcome: The fleet condition index has continued to decline for the last 3 years. The index for 2016 is 5.83, .14 points lower than the index for 2013 of 5.97. The overall fleet condition remains in the "fair" range.



Featured Strategy

Develop Facility Condition Index

NDOR has implemented a process to determine a Facility Condition Index (FCI) for facilities across the state. The FCI is a condition assessment process for evaluating NDOR facilities. The purpose of NDOR's condition assessment process is to measure the impact of facility maintenance and repair investments on facility condition.

NDOR began the process of collecting the information by using established teams from each of the eight districts and a team from the Central Complex and Hill campuses. The teams will determine a rating using a scale of 1 to 10 for building components and functionality. Each component is assigned a value based on how critical the component is to the facility. Once the data is collected and the FCI is determined, budgets for future repairs and maintenance can properly be allocated. The FCI rating will be a tool used to assist in determining a replacement schedule for NDOR's facilities.

Asset Management Highlight

Bridge Inspections Pass Two-Year Milestone

On April 1, 2016, NDOR's Bridge Division completed the first two-year bridge inspection cycle of all 3,500 state-owned bridges using a new bridge inspection method called "element inspection." To comply with federal regulations, element inspections report the quantity of each bridge element in a given condition.

The National Bridge Inspection Standard (NBIS) was established in the 1970s to assure the safety of the nation's bridges. The program requires that bridges are inspected at least every 24 months by certified bridge inspectors. The old NBIS inspection method provides a general condition appraisal of major bridge components such as deck, super-structure and substructure, while the new element-level inspection method adds additional appraisal for the condition of individual bridge components called "elements."

Examples of bridge elements include girders, girder bearings, bridge railings, bridge deck, bridge piers and piles. An element inspection gives a more refined, individualized look at each bridge, providing a detailed snapshot of what is needed to keep bridges in a state of good repair. This will allow bridge owners and the Federal Highway Administration (FHWA) to better determine the most cost-effective ways to keep bridges safe and in good condition.

To implement the new Element Inspection protocol, several changes were needed. First, bridge inspectors completed rigorous training to learn the new method. Second, the Bridge Division developed guidance for the new inspection method in the Element Inspection Manual. Third, the Bridge Division upgraded bridge inspection software to collect and store the new element inspection data.

The data gathered in an element inspection is stored using AASHTO's Bridge Management Software (BrM). The latest version of this software allows state inspectors and managers of county-owned bridges to record inspection data and transmit reports to the NDOR central office instantly. The improved software also provides better and more data storage, retrieval and analysis capabilites. One such improvement is the ability to view a picture of a bridge based on its longitude and latitude through the incorporation of Google Mapping and Google StreetView.

The Bridge Division is realizing the benefits of more uniform condition assessments of bridge elements and easier use of data in determining bridge preservation needs. The Department has seen positive outcomes in the past two years and anticipate reaping many benefits in the future, with safety of the traveling public as our number one priority.

Mobility

Improve Mobility on Nebraska's Transportation System Through Increased Reliability, Capacity and Efficiency

The purpose of the goal is to improve mobility on Nebraska's transportation system through increased reliability, capacity and efficiency. Goal objectives include reducing the duration of incident response and clearance times as well as improving the system's operating efficiency. Responding to and clearing an incident on the roadway as quickly as possible will allow traffic to return to normal conditions, thereby improving the system mobility.

Omaha Urban Freeway System	
Hwy.	**Ref. Post**
US-6	356 - 365
US-75	76 - 93
I-80	439 - 455
I-480	0 - 4
I-680	0 - 13

Year	Incidents	Avg. Minutes Per Incident
2009	209	52
2010	201	54
2011	293	52
2012	243	65
2013	227	50
2014	208	49
2015	350	51

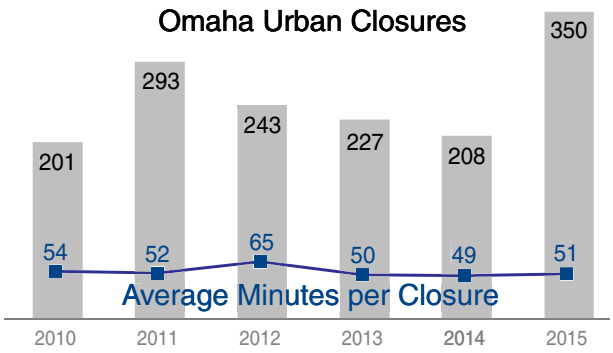
Omaha Urban Freeway Incident Clearance Time

Description: Measurement of the number of and average response time for unplanned, temporary incidents/accidents that impede traffic on one or more lanes of the Omaha freeway system (i.e. debris on the roadway, vehicle fire on the shoulder, crashes, etc.).

Purpose: To increase awareness of the length of incident clearance times in the responder community. Through awareness and incident response traffic control training, responders can shorten certain incident response activities such as towing, quick clearance and moving accidents to the shoulder. Quick response time can help to avoid secondary incidents and return traffic to free-flow speed as soon as possible.

Goal: A 5% reduction in the 5-year rolling average of the number of minutes clearance time per incident per year.

Outcome: The 5-year rolling average of minutes per closure for 2011 to 2015 is 53.4, a 6% reduction from the previous 5-year rolling average.



Featured Strategy

Traffic Incident Planning Training for Omaha Area First Responders

National statistics show that for each minute a freeway lane is blocked by a traffic incident, there is a resulting delay of four minutes after the incident is cleared. In the Omaha metro area, the freeway lanes on I-80, I-480, I-680, US-6 (West Dodge Road) and US-75 (JFK Freeway) are the lifeblood of travel for commuters and coast-to-coast traffic alike. Clearing traffic incidents safer and quicker have far-reaching benefits.

To facilitate the safe, quick clearance of roadways in the Omaha metro, first responders are being trained in Traffic Incident Management (TIM), which is part of the FHWA SHRP2 Program (Strategic Highway Research Program). Law enforcement officers, fire/rescue personnel, towing and recovery workers, and public works forces are learning life-saving and time-saving strategies including vehicle placement and scene protocol to clear traffic incidents more safely and more quickly.

Through the interactive training, as well as through monthly TIM working groups, there is more cohesive, coordinated response to incidents, responders are safer, traffic congestion is reduced, and crashes (particularly secondary crashes) are reduced. See more on TIM on page 4.

Rural Interstate 80 Reliability

Description: Measurement of the number of complete closures[1] and the average minutes per closure on Interstate 80.

[1] *Closures are defined as complete closure of all lanes eastbound or all lanes westbound, closures due to construction (planned closures) are not included. The average number of minutes per closure is measured from the time NDOR is aware of the closure to the time the Interstate is open to traffic.*

Purpose: To track the incident response and mitigation of one of Nebraska's main arteries in an effort to improve and enhance the reliability of the highway system. This purpose helps achieve NDOR's long-range transportation plan objective to improve and expand the transportation system to increase capacity and reliability and enhance operations.

Goal: A 5% reduction in the 5-year rolling average of the number of minutes per closure per year.

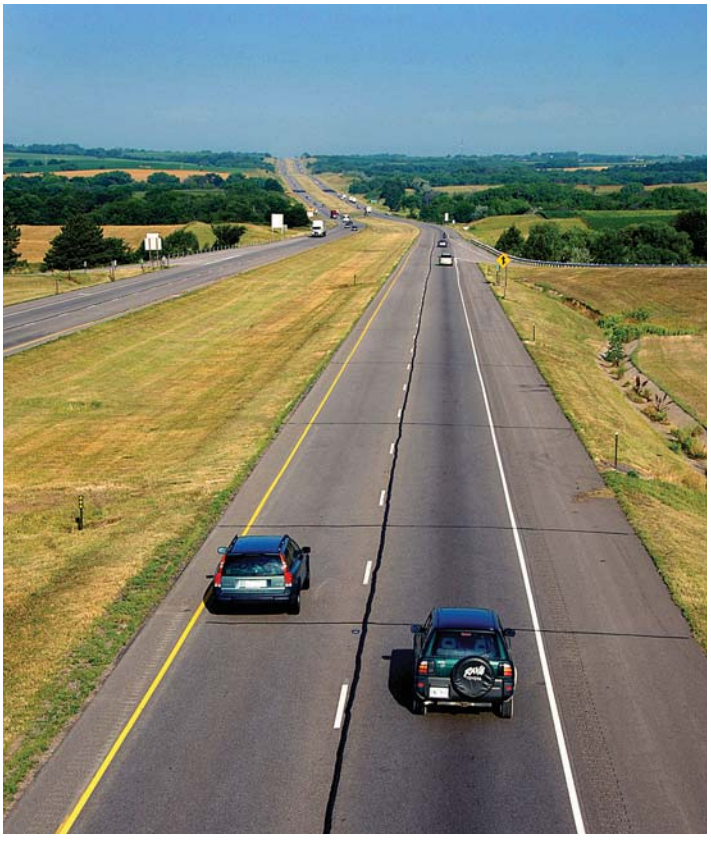
Outcome: From 2011 through 2015, the 5-year rolling average of ***minutes per closure due to accidents*** was 171.8 minutes, a 0.3% increase from the previous 5-year rolling average.

From 2011 through 2015, the 5-year rolling average of ***minutes per closure due to weather*** was 413.2 minutes, a 5% reduction from the previous 5-year rolling average.

I-80 Complete Closures

Year	Incidents	Avg. Minutes Per Closure
Due to Accidents		
2009	21	126
2010	11	121
2011	16	217
2012	24	144
2013	9	227
2014	29	147
2015	28	124
Due to Weather		
2009	5	774
2010	2	300
2011	1	57
2012	3	516
2013	6	702
2014	2*	599
2015	1	192

* *One of these closures "due to weather" was due to conditions in Wyoming which had westbound I-80 shut down from Big Springs west for over 18 hours.*



Featured Strategy

Effective, Timely State Operations Center

A state operations center (SOC) was established at Lincoln in the spring of 2014. The functions of the SOC include:

- Coordinating with the districts to provide consistent, statewide traffic management and operation of the system
- Monitoring traffic using cameras located throughout the state
- Using traffic data to get a real-time picture of traffic conditions
- Assisting the districts when responding to crashes and weather events
- Providing near real-time information to travelers about what is happening on the roadway, including road conditions, incidents and construction via dynamic message signs, and the 511 system via the internet, mobile devices and telephone
- Partnering with Google and Waze to display crowd-sourced traffic information

The information provided to the traveling public, including commercial vehicle operators, will allow them to make more informed decisions regarding how and when to travel.

Mobility Highlight

I-80 Winter Operations Performance Measure

Returning Interstate 80 to normal conditions as quickly as possible following a winter weather event is a critical responsibility of the Department of Roads. It requires rapid and strategic deployment of resources, often across many miles of highway. The Operations Division is developing and testing a performance measure to assess the effectiveness of these efforts. Developing the measure has been complicated since many factors impact the time needed to restore normal conditions and measurement involves several factors.

The first step was to develop a level of service for winter maintenance. From that, NDOR established performance goals to be used to measure their efforts during winter weather events. The performance goal for I-80 (eastbound and westbound) traffic is to regain normal operating speed within six hours after the storm has cleared the area. "Normal speed" was set at 65 miles per hour because many over the road trucks are governed between 64 and 68 miles per hour. Traffic speed is measured using speed data provided by INRIX and is based on an average speed per hour. NDOR deemed that six hours is a reasonable goal for restoring normal conditions. Winter operations are performed 24 hours a day, 7 days a week on I-80 from the beginning of the winter event until normal operating speeds are achieved.

The next step was to determine what factors to measure and how to measure them. Since it would be unwieldy to try to assess performance on every mile of I-80, five study segments were chosen, one in each district through which I-80 runs. The 15- to 20-mile segments include: (1) Kimball to Potter, (2) Ogallala to Paxton, (3) Elm Creek to Minden, (4) Utica to Pleasant Dale, and (5) Platte River Bridge to Hwy. 50 Exit.

For a winter storm to be considered a "measurable event," NDOR forces must first take a maintenance action (plowing or applying deicing chemicals). If an action is taken, the storm is determined to have started when radar indicates precipitation on the study segments. The second criterion is the average traffic speed must drop below 65 miles per hour, as shown by INRIX probe data. The event is deemed over when the storm passes out of the study segment, as indicated by radar.

The NDOR Statewide Operations Center (SOC) began collecting data in November 2015, working with the National Weather Service and local supervisors on the weather events details. The Traffic Engineering Division did speed analyses for each event. Between November 1 and January 1, measurements were recorded for 14 events. Some involved all study segments, some only one. Using the measures, the Operations Division determined that the winter maintenance performance measurement goal was achieved 53% of the time. Going forward, as changes are made to improve processes, the new performance measure will provide useful input about the effectiveness of NDOR's winter maintenance efforts.

Communication, Coordination Collaboration & Cooperation

Collaborate with Stakeholders to Maximize the Value of Nebraska's Transportation Investments

NDOR is developing new communication performance measures to help guide us in serving our customers better. The Department has hired a consultant to work on improving relations with stakeholders.

Featured Strategy

2016 Customer Satisfaction Survey of Local Public Agencies

Early in 2016, the Materials & Research Division, with the assistance of the Communication Division, conducted a survey of local public agencies to determine local partners' level of satisfaction with services provided by NDOR and with collaboration efforts with the Department. Participants in the survey included officials from both county and municipal governments across Nebraska. The officials included mayors, city administrators, city council members, county board members, local responsible charges (RC/PL), county clerks, county highway superintendents, and "other."

The results of the survey were provided to a consultant who will obtain further insights by engaging in face-to-face interviews with local government partners. The consultant will also review practices between state transportation departments and local governments in other states to obtain ideas for best practices.

Some highlights of survey findings include:

- Nearly all respondents reported that NDOR staff are polite and respectful and phone calls and emails receive timely responses.
- Most respondents agreed that projects have been constructed following good construction practices and using high quality materials.
- Most respondents agreed that projects are kept on budget and financial management (handling of payments and invoicing) of projects is satisfactory.
- Areas identified for improvement include the need to provide regular updates on the status of projects and the need to complete projects on schedule.

4Cs Highlight

New Director Tours Nebraska

Upon assuming his duties as Director of the Nebraska Department of Roads in June 2015, Kyle Schneweis immediately embarked on a statewide tour to discern how the state's citizens viewed the Department and Nebraska's transportation infrastructure. He also wanted to collect and evaluate the ideas citizens had regarding the mobility needs of communities and businesses.

Director Schneweis met with business people, chambers of commerce, agriculture professionals, elected officials, and local road and street experts to understand what things the Department should continue to do and what could be done better. Additionally, Schneweis took the time to meet with each district engineer and their staff to learn about the internal workings of the state's third largest agency. Director Schneweis often said after returning, "We (Nebraska) have over 10,000 miles of roads and I feel like I drove them all."

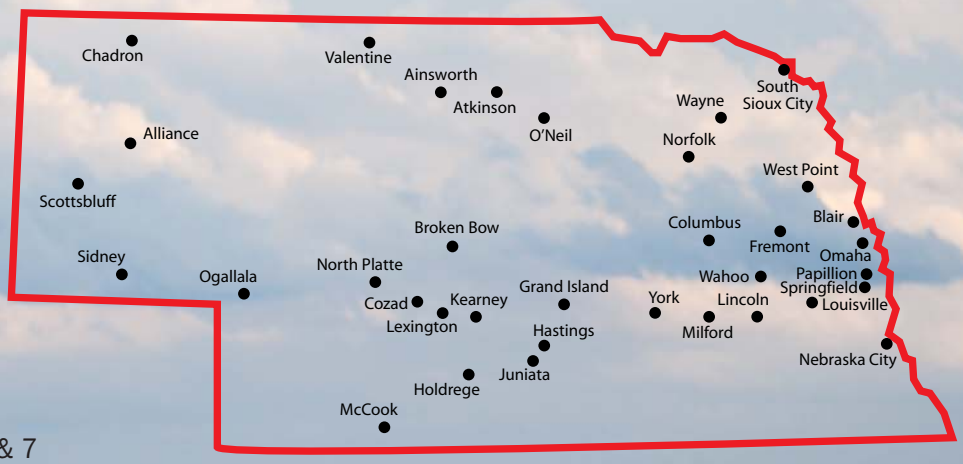
Director Schneweis regularly meets with community and business leaders from across the state. However, this initial tour gave him an introduction to and a speedy education on Husker Nation and the transportation infrastructure that holds it all together.

Stats:

Days on the road: 24
Hours spent driving: 69
Miles driven: Approx. 3,750
Number of Meetings: 79

Visits:

June 24-26: District 8
July 6-8: District 1
July 9-10: District 2
July 26-29: Districts 1 & 3
Aug. 6 & Sept. 4: District 4
Aug. 19-21: Districts 1, 4 & 6
Aug. 31-Sept. 3: Districts 5, 6 & 7



Workforce Development

Support and Facilitate the Development of a Skilled Workforce that Enhances Workplace Productivity and Increases Opportunities for Employees to Learn New Skills

To demonstrate the overall priority of a trained and informed workforce, the Department of Roads has developed goals and measurements for individuals, as well as teams to gauge effectiveness, satisfaction and work place productivity.

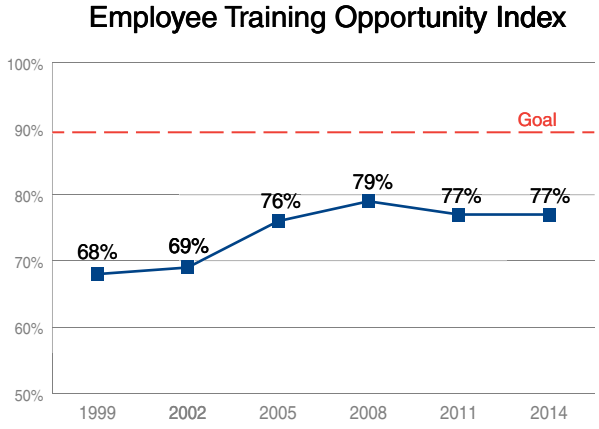
Employee Training Opportunity Index

Description: Measurement of employee satisfaction with NDOR work-related training opportunities.

Purpose: To determine if employees are satisfied with the opportunities they are provided to receive training and improve existing skills (i.e. on-the-job training; formal training: classroom, web-based, vendor-provided; all other training).

Goal: To maintain a 90% index of employee satisfaction with training opportunities to increase job skills.

Outcome: The 2014 Employee Training Opportunity Index is 77%. This index experienced a 10 percentage point increase between 1999 and 2008, and remained steady in recent years.



Featured Strategy

Employee Tuition Reimbursement Raised to 100%

The tuition reimbursement rate for job-related classes taken by NDOR employees increased on January 1, 2016, from 75% to 100%. The benefit is available to permanent employees who want to improve skills or knowledge needed for their present position or to prepare for advancement within the agency. It is also available for employees who want to prepare for technological changes that will impact the agency.

Tuition reimbursement at the 100% rate is available for any in-state college or university and applies to either undergraduate or graduate courses. For out-of-state institutions, maximum reimbursement is the University of Nebraska-Lincoln rate for either undergraduate or graduate study. The employee must receive a grade of at least "C" or "pass" to be eligible for reimbursement. Employees who resign within a year of receiving reimbursement may be required to return the benefit.

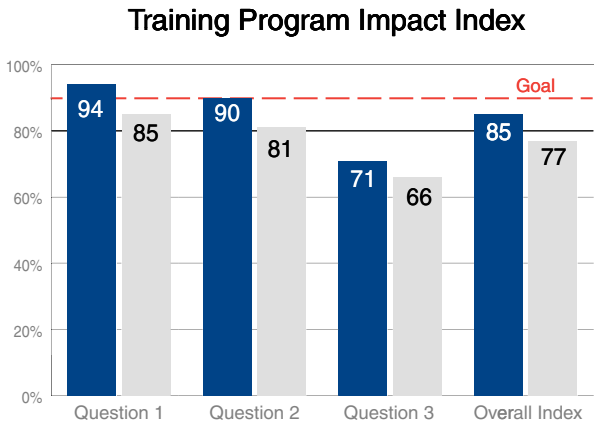
Training Program Impact Index

Description: Measurement to determine the overall impact of formal training for the current job or for career development.

Purpose: This measure demonstrates the relevance of the training content, and the employee's ability to apply and utilize the training on the job or for career development. This ensures NDOR is providing the right training to employees for either their current job or career development.

Goal: Maintain a 90% overall index rating.

Outcome: The overall index dropped to 77.5% in 2015.



Survey Questions	Agree 2014	Agree 2015
Question 1 - *Participant Only:* The training I have completed was relevant to the work done at NDOR.	93.5%	85.4%
Question 2 - *Participant Only:* The training I have completed has made a positive impact on the work I currently do, or will have a positive impact on my future performance.	89.9%	80.6%
Question 3 - *Participant's Supervisor Only:* The training completed by a member of my team has made a positive impact on the job.	70.8%	66.4%
Overall Index	84.7%	77.5%

Featured Strategy

Online Discussion Groups

The Training Program Impact is reported on an annual basis to determine the effectiveness of the training.

Online discussion groups will be created to allow class participants to follow up on topics and strategies discussed during training sessions. This will allow for problem solving and alternative approaches, if employees are met with barriers during implementation of newly learned skill sets. This will also allow for sharing of best practices in the implementation of course concepts.

To support past strategies and encourage supervisor involvement, each supervisor will receive a "highlights" listing regarding the courses the employees will attend. These highlights will outline the behavior changes they should observe when the employee returns from training. This will allow the supervisor to more readily recognize the behavior changes, due to training participation and completion.

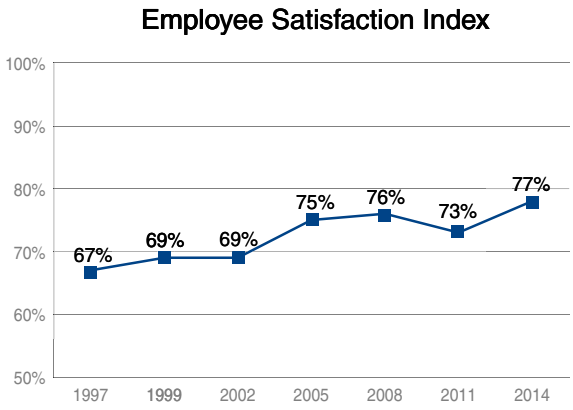
Employee Satisfaction Index

Description: Measurement of the satisfaction of NDOR employees.

Purpose: Satisfied employees are a precondition for increasing productivity, responsiveness, quality and customer service. Measurement provides an indication of the success of leadership in providing an environment where employees can achieve their best.

Goal: To achieve a positive trend of satisfaction.

Outcome: The satisfaction index determined by the most recent survey in 2014 was the highest ever reported, at 78%.



Employee Satisfaction Survey

All 2,148 employees of NDOR were given the opportunity to respond to the Employee Satisfaction Survey in January of 2014. Six out of ten (60%) employees responded, resulting in a margin of error of ±1.7 at a 95% confidence level.

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Human Resources and Management Share Information and Best Practices

In the first few months of 2016, NDOR's Human Resources staff made a concentrated effort to visit with the supervisory and management staff of each district and division. District and division staff were encouraged to ask questions about HR processes and procedures while hearing about new and upcoming initiatives underway by Human Resources. Some of the most prevalent topics discussed included the implementation of a new timekeeping system, recruitment and classification processes, performance evaluations, and coaching or correcting behaviors.

These meetings also provided an opportunity for the members of the HR team to hear about the most pressing issues encountered by the district and division employees, as well as an opportunity to discuss possible best practice methods to be shared with others. These meetings were well attended, and numerous requests were received to conduct these meetings on an annual basis. While it has not been determined how frequently future meetings will occur, it was agreed that such meetings help to reinforce the sharing of information, encouragement of work well done, and empowerment of the staff through knowledge.

Workforce Development Highlight

Leadership Development Program Graduation and Recognition

Finding the time to professionally grow and making the commitment to "get better" can be quite a challenge! Even so, this is exactly what 121 aspiring and current managers did by participating in the 2014/2015 NDOR Leadership Development Program. With scheduling support from the divisions and districts, the Workforce Development staff provided participants with the latest in state-of-the-art leadership concepts and tools. Over the course of NDOR's 18-month program, the average participant completed approximately 9 classes and 50 hours' worth of training.

Ceremonies were held within the Central Complex and at the Maintenance and Project Managers' Conferences for the participants after the program's conclusion in June 2015. Inspirational talks and leadership advice were shared by Director Schneweis and District 5 Engineer Doug Hoevet prior to the award of individual graduation certificates.

The Development Program utilizes training sets from performance improvement companies such as FranklinCovey®, AchieveGlobal®, Interaction Associates Inc., VitalSmarts®, and our own locally-developed material. Program participants reviewed and analyzed innovative managerial methods and employed trouble-shooting aptitudes to work through case studies. They also collaborated in class and were afforded networking opportunities to action-plan; a continuation of their leadership growth and development beyond the classroom. The Manager Maturity tier is an ongoing program which includes a set of core courses and additional offerings designed to address current business, cultural and industry trends.

When one considers the impending retirements of the baby-boom generation in the next few years, the importance of NDOR's Leadership Development Program becomes evident. It is one of the keys to succession planning and ensuring that we "lean forward" in our maintenance and growth of departmental knowledge and managerial skill sets. This next iteration of the NDOR Leadership Development Program will occur in 2016/2017 with a new group of participants.

Leadership Development Program Tiers

Level 1 - Manager Readiness is provided for entry and first-level supervisors

Level 2 - Manager Effectiveness is targeted toward supervisors with two or more years of experience who are first or second-level managers

Level 3 - Manager Proficiency is programmed for leaders with four or more years' experience holding mid-level manager positions

Level 4 - Manager Maturity includes strategic leaders typically in advanced positions such as section heads, division heads and district engineers.

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