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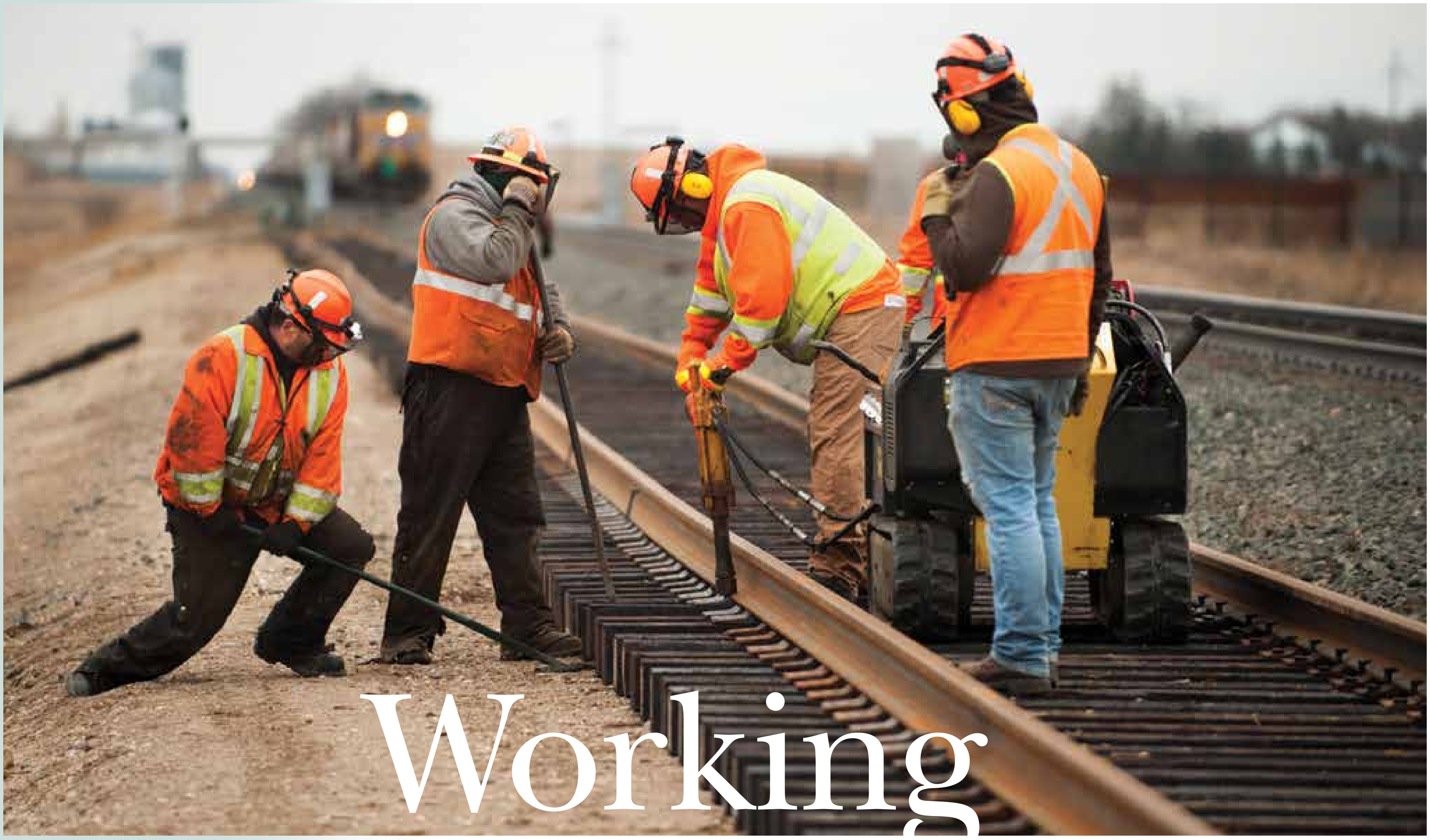

PHOTO BY DEAN RIGGOTT

Working on the railroad

Ninth District railroads have invested heavily to increase capacity. But matching rail supply to demand remains a work in progress.

By PHIL DAVIES
Senior Writer

Thomas Walsh likens the freight rail network to a giant conveyor belt in a factory or warehouse. A smoothly running loop made up of a series of smaller links delivers parts or finished goods efficiently to their destinations, but "if you stop or slow the conveyor [at any point], you're going to have problems all across the system," said Walsh, president of Montana Rail Link (MRL),* a regional railroad based in Missoula, Mont.

Last year, the railroad conveyor in the Ninth District slowed markedly; freight moved haltingly, often making unscheduled stops and taking long detours to avoid bottlenecks. "Railroads in general, especially in the northern tier of the U.S., have really struggled with capacity over the last couple of years," Walsh said.

But rail conditions can change rapidly, often unexpectedly. Over the winter, freight was flowing more freely than it had for much of last year, when farmers, oil companies, electric utilities and other shippers were complaining openly about poor service and higher freight costs.

Some rail customers, such as grain elevators shipping in small quantities and Amtrak passengers, were still frustrated by slow or inconsistent service. But there was a sense that the crisis had passed, with service returning to more normal levels. Compared with last fall, fewer trains were delayed, and fewer farmers were paying a premium for space on grain trains. A January survey of grain elevators in Minnesota, Nebraska and the Dakotas by a trade association for soybean shippers found that rail service had improved significantly since last fall.

One reason congestion eased was a seasonal drop in rail traffic; another was low crop prices, which induced many farmers to store their grain after the fall harvest rather than ship it to market. But robust

* Full disclosure: Larry Simkins, president of MRL's parent company, The Washington Cos., sits on the Minneapolis Fed board.

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THE QUICK TAKE

Responding to widespread rail service disruptions in 2013 and 2014, freight railroads serving the Ninth District have made robust investments in infrastructure, equipment and personnel. Much of this spending has happened in North Dakota, where crude oil shipments have risen dramatically. Rail congestion eased last winter, partly due to a seasonal drop in overall freight traffic. But railroad supply is likely to continue playing catch-up with demand for a while. Railroads expect more business this year in an expanding U.S. economy, although lower oil prices may cut shipments of Bakken and Canadian oil. Potential constraints on increasing rail capacity include ongoing construction work, a backlog of orders for new railcars and proposed safety rules for tank cars.

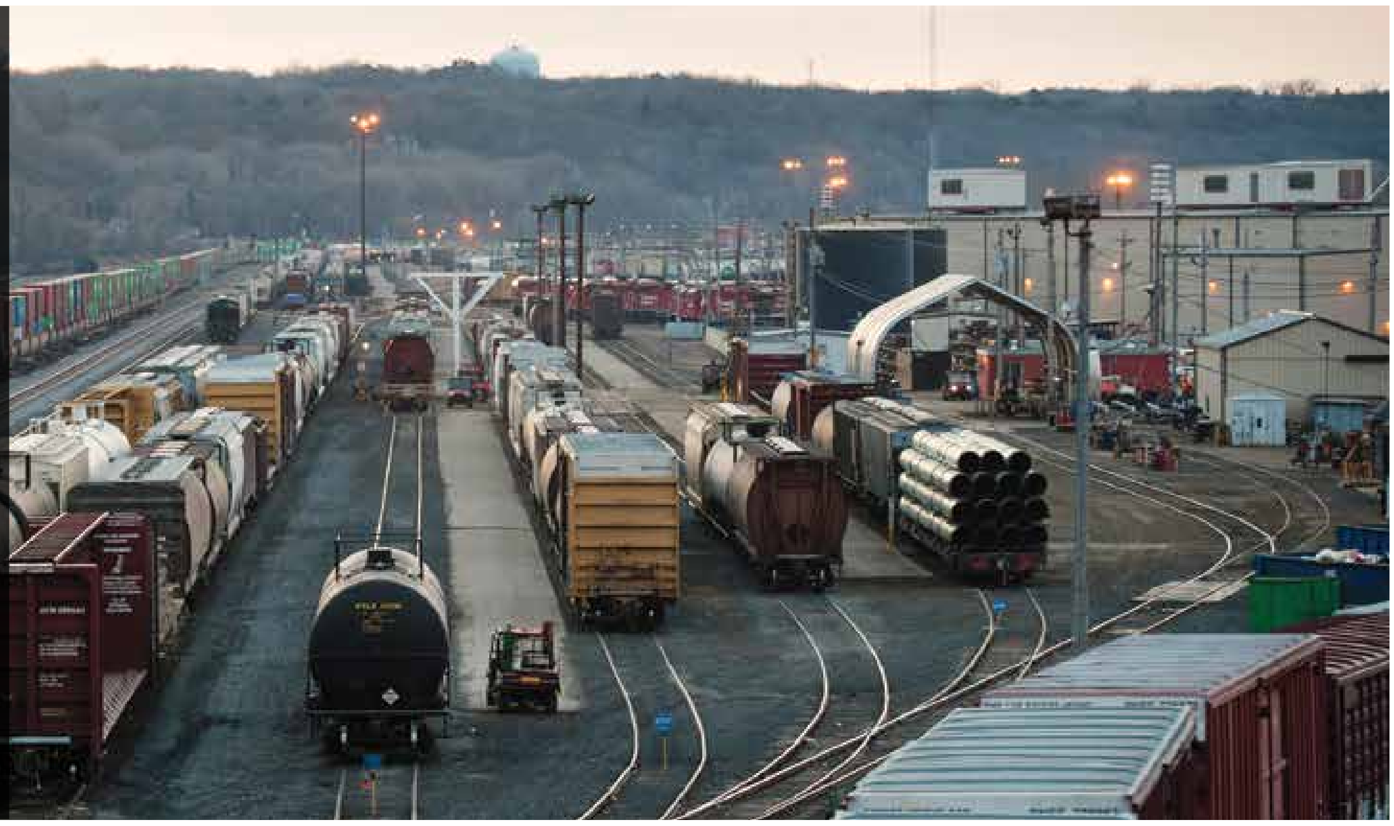

PHOTO BY DEAN RIGGOTT

Canadian Pacific's rail yard in St. Paul is a major junction for trains carrying crude oil, grain and other commodities to destinations in the district and across the country.

Railroads from page 2

railroad investment also played a role in reducing rail delays and costs. In 2014, railroads serving the district—primarily major railroads such as BNSF Railway and Canadian Pacific Railway, but also a number of regional and local railroads—spent hundreds of millions of dollars to expand their capacity by laying new track, acquiring additional rolling stock and hiring workers. Much of this investment occurred in North Dakota, whose thin rail infrastructure has been strained by swelling crude oil shipments over the past half-decade.

Just as a mile-long freight train takes a while to pick up speed, it can take months for such investments to raise overall service levels. Anthony Hatch, a railroad industry consultant based in New York City, sees concerted efforts to boost capacity that began in 2013 finally bearing fruit for U.S. railroads and their customers.

PHOTO BY DEAN RIGGOTT

Canadian Pacific engineering employee Eric Lundon inspects a passing train at Wyndmere, N.D.

"Everybody increased their capital; everybody increased personnel," he said. "Those people, those locomotives, that extra work are starting to have an impact today, and they're going to have a bigger impact every single day as more capacity is added."

However, future rail demand is difficult to predict; many sources fretted last winter that severe rail congestion would redevelop if grain shipments rose

PHOTO BY DEAN RIGGOTT

Canadian Pacific assistant signalman Mark Hasen wires a switch circuit controller as part of the installation of centralized traffic control near Hankinson, N.D.

sharply in the spring. "I understand that farmers are waiting for a more favorable price climate, that's natural," said Mike Steenhoek, executive director of the Soy Transportation Coalition (STC). "But if and when they do sell, will rail be in a position to handle that?"

Matching railroad supply to demand in the region is likely to remain a work in progress for at least the next two years. The industry projects rising freight volume in a burgeoning U.S. economy this year. Continuing efforts to increase rail capacity in the district to accommodate that growth must cope with traffic disruptions caused by infrastructure projects as well as potential constraints on expansion. Those constraints include backlogged orders for new railcars and pending federal regulations that will require replacement or refitting of tank cars used to transport oil and other flammable liquids.

PHOTO BY DEAN RIGGOTT

A Canadian Pacific freight train chugs through eastern North Dakota.

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One of the Minneapolis Fed's congressionally mandated responsibilities is to gather information on the Ninth District economy. The fedgazette is published quarterly to share that information with the district, which includes Montana, North and South Dakota, Minnesota, northwestern Wisconsin and the Upper Peninsula of Michigan.

The opinions expressed in the fedgazette are expressly those of the authors or of attributed sources and are not intended to represent a formal position of this bank or the Federal Reserve System.

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Canadian Pacific workers lay siding track near Wyndmere, N.D.

Complicating any forecast of rail conditions this year is the outlook for crude oil production in the Bakken oilfields, which fell slightly in January. A sharp drop in the price of oil since last summer will likely curtail oil shipments, freeing up capacity for other commodities. But it's not clear when this will occur and how much crude-by-rail volume will fall.

Slow train coming

Rail traffic has increased nationwide since the Great Recession, when shipments of all kinds of goods plummeted. Between 2010 and 2014, freight carried by major U.S. railroads rose 21 percent, according to data compiled by the Association of American Railroads (see Chart 1). Shipments of forest products, metallic ores and motor vehicles rose, and there was huge growth in petroleum products, including crude oil (Chart 2).

Last year, crude oil amounted to less than 3 percent of U.S. rail volume. But crude's share of rail traffic has risen rapidly, and most of that growth has occurred in the Upper Midwest. From 2009 to 2014, crude oil production from the Bakken formation in North Dakota and Montana grew almost sixfold to about 1.2 million barrels a day. Because of limited pipeline capacity (see the April 2013 *fedgazette*), about 60 percent of that oil moves by rail, according to the North Dakota Pipeline Authority.

Crude-by-rail shipments on Canadian Pacific and BNSF—the major railroads directly serving the Bakken oilfields—have surged in recent years; last year, Canadian Pacific oil shipments rose 22 percent, and BNSF carloads of petroleum products increased 12 percent through October compared with the first 10 months of 2013. The two railroads' lines spanning the Great Plains also carried increasing amounts of oil development-related materials such as drilling pipe, frac sand and cement.

Beginning in the fall of 2013, rising crude oil shipments contributed to widespread disruption in rail shipments across the region. Invoking the metaphor of the "perfect storm," railroad executives pointed to a bumper corn and wheat harvest in the northern plains in 2013, and the bitter winter of 2013-14 as exacerbating factors in rail congestion that persisted through most of last year.

The backups affected shippers across the economic spectrum.

For farmers, rail problems meant slimmer profits. A University of Minnesota study found that rail delays cost Minnesota corn, soybean and wheat growers about $100 million in the spring of 2014. Reduced rail capacity raised shipping costs for elevators and food processors, which passed along those charges to farmers. Growers in northwestern Minnesota fared the worst because they have few shipping options besides rail. The region has no large rivers for barge transport, and "you can only go so far with a truck," noted University of Minnesota grain marketing economist Edward Usset, who directed the study.

A contemporaneous North Dakota study indicated that crop producers lost roughly $67 million in revenue due to higher rail rates.

Obliged to deliver grain to processers by a certain date, elevators faced with tardy trains bid up prices in the secondary market for shuttle train railcars—space on grain trains of 100 cars or more that is initially booked by large grain companies and traded among shippers (see Chart 3).

Slow rail service forced other shippers to adopt workarounds, often at higher cost. Last fall, delayed BNSF coal deliveries led Minnesota Power, an electric utility in northeastern Minnesota, to idle four coal-fired generators to conserve coal. To make up for reduced power generation, the utility bought $27 million in higher-priced electricity on the spot market. "We wanted to make sure that we had enough coal as we headed into the winter months, when prices on the market are even higher," said Minnesota Power spokeswoman Amy Rutledge.

As a result, the state's iron mines, which are heavy electricity users, bore an estimated $8 million in extra power costs. And last October, erratic BNSF rail service prompted Hibbing Taconite to take the expensive step of hauling taconite pellets by truck to Duluth-Superior Harbor to supply steel makers on the lower Great Lakes.

Rail congestion also sowed havoc for Amtrak passenger trains, which run on routes owned by freight railroads. In fiscal 2014, ridership on the Empire Builder train from Chicago to Seattle fell 19 percent. In an attempt to bypass congestion, Amtrak diverted the westbound Empire Builder onto an alternate BNSF line, dropping stops at Grand Forks, Devils Lake and Rugby, N.D.

In October, after a series of public hearings about rail service problems, the U.S. Surface Transportation Board (STB) declared that "service disruptions have hindered nearly all carriers" and ordered major railroads to submit detailed weekly reports on their on-time performance.

CHART 1

More goods on the rails

Weekly traffic of major U.S. freight railroads*

* Excludes U.S. operations of Canadian Pacific and Canadian National
Source: Association of American Railroads

CHART 2

Surging tank car shipments

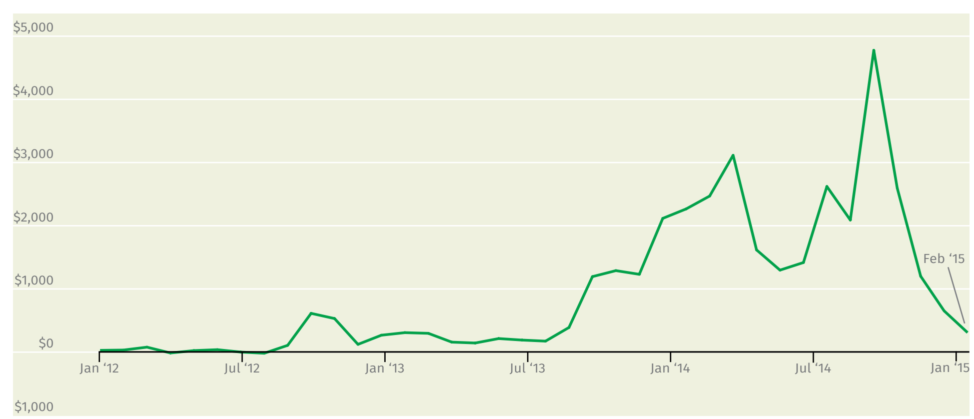
Weekly petroleum traffic, major U.S. freight railroads*

* Excludes U.S. operations of Canadian Pacific and Canadian National
Source: Association of American Railroads

CHART 3

Up and down demand for grain cars

Monthly average bid* for shuttle grain cars on BNSF secondary market



* Shipping cost in addition to railroad freight tariff. Negative values represent capacity sold at a discount.
Source: USDA Agricultural Marketing Service

Sweating the assets

Public furor over intense congestion came after freight railroads had already started to ramp up their capital investments to cope with increased traffic. Last year, the railroads redoubled their efforts to improve service.

Of the four major (or Class 1) railroads serving the district (see map, pages 4-5), BNSF has invested the most in tackling

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Battling backups

Railroad capacity improvement projects in the Ninth District

Source: Railroad communications and interviews

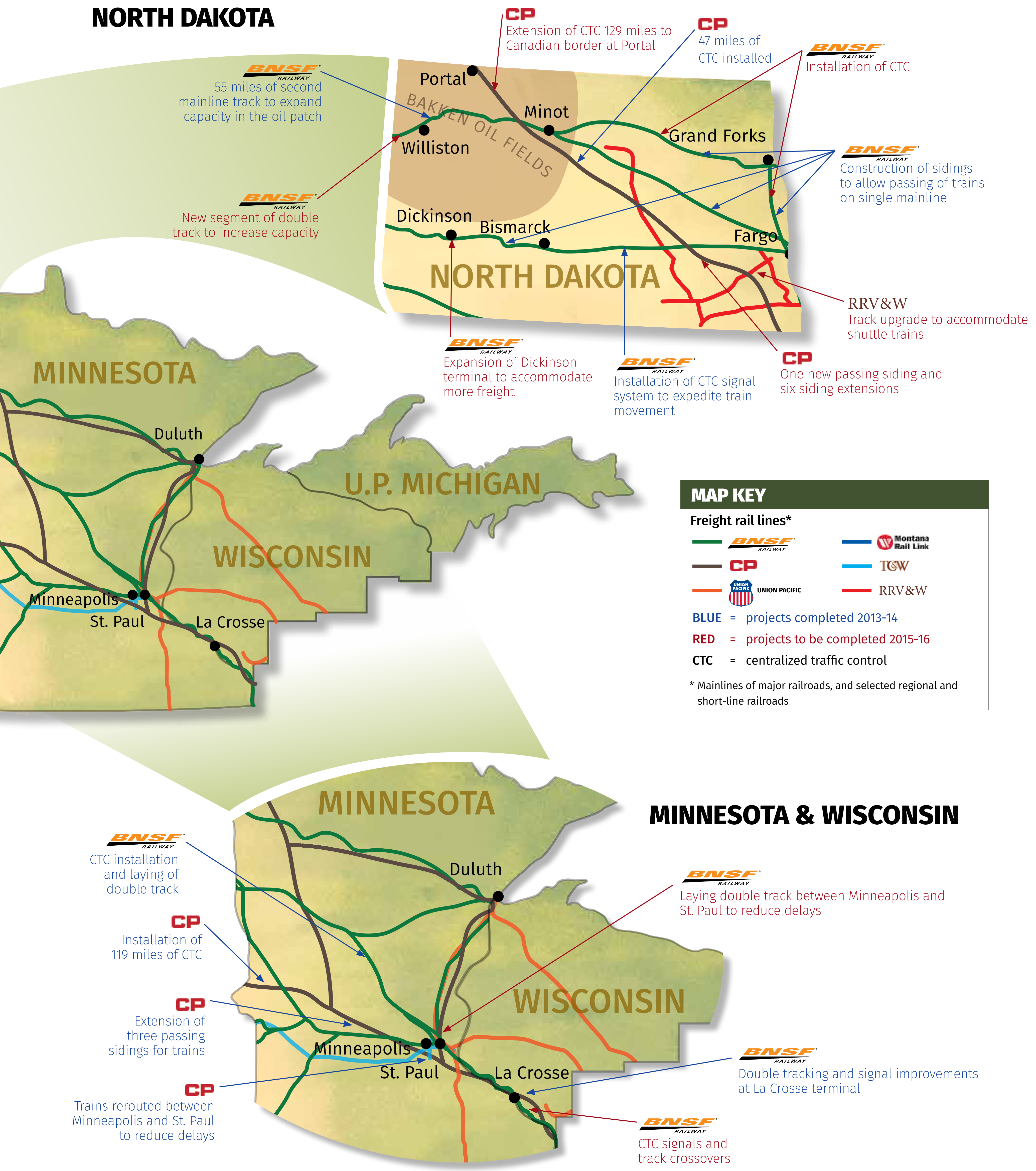

NORTH DAKOTA
CP Extension of CTC 129 miles to Canadian border at Portal
CP 47 miles of CTC installed
BNSF Railway Installation of CTC
BNSF Railway 55 miles of second mainline track to expand capacity in the oil patch
BNSF Railway New segment of double track to increase capacity
BNSF Railway Construction of sidings to allow passing of trains on single mainline
Portal
Minot
Williston
Grand Forks
BAKKEN OIL FIELDS
Dickinson
Bismarck
Fargo
NORTH DAKOTA
RRV&W Track upgrade to accommodate shuttle trains
BNSF Railway Expansion of Dickinson terminal to accommodate more freight
BNSF Railway Installation of CTC signal system to expedite train movement
CP One new passing siding and six siding extensions
MINNESOTA
Duluth
U.P. MICHIGAN
WISCONSIN
Minneapolis
St. Paul
La Crosse
MAP KEY
Freight rail lines*
BNSF Railway
Montana Rail Link
CP
TCW
Union Pacific
RRV&W
BLUE = projects completed 2013-14
RED = projects to be completed 2015-16
CTC = centralized traffic control
* Mainlines of major railroads, and selected regional and short-line railroads
MINNESOTA
MINNESOTA & WISCONSIN
BNSF Railway CTC installation and laying of double track
CP Installation of 119 miles of CTC
CP Extension of three passing sidings for trains
CP Trains rerouted between Minneapolis and St. Paul to reduce delays
Duluth
WISCONSIN
Minneapolis
St. Paul
La Crosse
BNSF Railway Laying double track between Minneapolis and St. Paul to reduce delays
BNSF Railway Double tracking and signal improvements at La Crosse terminal
BNSF Railway CTC signals and track crossovers

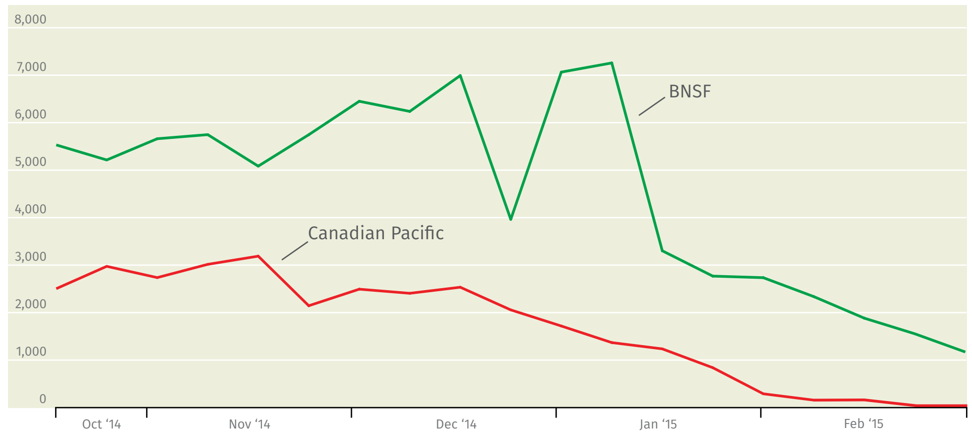
PHOTO COURTESY OF BNSF

Constructing new BNSF track in North Dakota, where crude-by-rail traffic has surged.

Fewer tardy grain cars in North Dakota

CHART 4

Weekly outstanding grain car orders



Source: U.S. Surface Transportation Board

Railroads from page 3

rail delays. Across its 28-state network, BNSF spent $5.5 billion maintaining and enhancing its physical assets last year—a record amount of capital investment by the company, for the third year running. Capital spending included $1.6 billion to add more than 600 engines to its locomotive fleet and buy or renew leases on 5,000 railcars.

"BNSF is way ahead [of other railroads] there," said David Vernon, a railroad industry analyst at Sanford C. Bernstein & Co. in New York. "They're spending a huge amount of capital right now to add resources to the network and bring service levels back up."

Canadian Pacific, a smaller railroad whose trains carry a lot of oil produced in western Canada, spent an estimated $1.3 billion on its North American network in 2014, slightly more than the year before.

BNSF and Canadian Pacific can afford large outlays for maintenance and expansion—for both railroads, at least 20 percent of revenue in 2014—because of rising freight revenues and healthy profits. Last year, Canadian Pacific's sales increased 8 percent to an all-time high of $6.6 billion, yielding record earnings per share.

Belying the image of trains as 19th century "iron horse" technology, much of recent capital spending by railroads has gone toward centralized traffic control and other technology designed to move trains more efficiently and safely (see "Not your father's railroad," page 8).

In the district, BNSF spent roughly $800 million on capital projects in 2014. In North Dakota, $400 million worth of investment included laying 55 miles of double track from Minot west through the heart of the oil patch and building more sidings—stretches of track next to the mainline that allow one train to pull off to make way for another headed in the opposite direction—on predominantly single track routes serving Bismarck and Fargo.

In Montana, BNSF spent $160 million to install extra track at train yards in Glendive and west of Miles City, extend sidings at several stations and implement automated train control systems.

Canadian Pacific has released less information about its investments in the district. But the railroad has said it planned to spend $150 million from 2014 through 2016 on siding extensions, technology upgrades and other improvements along its mainline from the Canadian border near Minot south to Chicago. A big project in Minnesota last summer involved rerouting trains through the Twin Cities to avoid congestion on BNSF tracks used by Canadian Pacific trains; the work cut travel time for westbound trains by more than an hour.

Canadian Pacific has emphasized making the most of its existing rolling stock rather than acquiring more locomotives and railcars, which can worsen congestion. "If you're on a freeway, and things are jammed up, the last thing you want to do is put more cars on the road," said John Brooks, vice president of marketing and sales for the railroad's bulk business. "Job one is to sweat the assets and create as much velocity as we can in the infrastructure we have."

Rail congestion over the past two years was less serious on the Union Pacific Railroad and Canadian National Railway. In the district, these Class 1 railroads serve areas of the district that lie outside main rail corridors for crude oil. But over the past three years, Omaha-based Union Pacific has invested in additional capacity to handle rising frac sand shipments from mines (see the July 2012 *fedgazette*) in Minnesota and Wisconsin. Last year, the railroad spent $130 million on new sidings, signaling systems and other capacity improvements in the two states.

In addition to investing in capital, district Class 1 railroads have built up their workforces in order to move more railcars and cope with logjams when they occur. Last year, Canadian Pacific hired 170 train and engine employees in North Dakota and added another 70 in Minnesota. Union Pacific hired an additional 86 workers in Minnesota and Wisconsin in 2014.

Historically, railroads have had little trouble attracting workers; unionized train and yard crews receive generous wages and benefits. But hiring has been difficult in North Dakota because of very low unemployment and high wages in the oil industry. To recruit workers in the state, Canadian Pacific has offered signing bonuses and provided free accommodations to new hires for up to six months.

Calm before the storm?

Service on the Ninth District rail system improved considerably over the winter. Data on railroad performance in district states are scant; for the most part, metrics like average train speed and station wait times apply to railroads' entire operations, not to specific areas of their networks. However, STB on-time performance reports show that in North Dakota, fewer railcars were arriving late to their destination after the first of the year (see Chart 4).

Bids for shuttle train cars on BNSF's secondary market provide further evidence for an easing of congestion; offers began a steep downward slide in November.

In the farm sector, complaints about poor rail service ebbed as the weather grew colder. In the STC's January survey, all 42 elevators canvassed said that shuttle train cycle times—the number of turns per month between origin and destination—were faster than a year ago. In early November, only 67 percent of elevators reported quicker turnarounds. In addition, in the January survey the number of elevators reporting late railcars had halved over the past two months. Some of this easing can be attributed to seasonal fluctuations in traffic. Typically, rail shipments of commodities such as grain, coal and metal ores drop during the winter months. Last winter, low crop prices accentuated this dip by keeping hundreds of millions of bushels of crops in storage after the fall harvest.

"Certainly one of the reasons rail service has been better than expected thus far with the 2014 harvest has been the fact that farmers have been storing a considerable amount of grain, particularly corn, and so that has resulted in less of a surge on the rail network," said Steenhoek of the STC.

But efforts to increase capacity by railroads big and small likely contributed to freer flowing traffic. Rail service in the district improved despite a year-over-year increase in U.S. rail volume and heavy traffic on some parts of the system. In December, despite near-record freight volumes for the company, train speeds on the MRL network were 17 percent higher year-over-year for some types of traffic, Walsh said.

However, for some rail users, trains still weren't moving fast enough last winter. According to the STB, North Dakota was still seeing consistently more late grain cars than other district states. In North Dakota and in Minnesota, grain elevators complained that relatively short trains carrying mixed cargoes weren't as punctual as grain-only shuttle trains. Over 70 percent of grain shipments in those states are loaded on shuttle trains that travel point-to-point over long distances, often to West Coast ports. These long trains are more efficient to operate than mixed-freight trains, which typically wend their way through multiple terminals to deliver their goods.

"The railroads are focusing on doing a better a job on those shuttles," said Usset of the University of Minnesota. "Lost in that effort is people who ship these smaller five-car, 10-car trains; their service is not quite as good."

Coal-fired power plants in the district had adequate coal stockpiles last winter, but continued concern by Minnesota Power and other plants about inconsistent deliveries prompted the STB in January to order BNSF to submit a plan for keeping coal flowing to power plants in Minnesota and other states.

Steenhoek and several other sources suggested that the rail system's greater fluidity over the winter was merely a respite from congestion, that rising traffic in the spring would again stress rail networks

PHOTO COURTESY OF MONTANA RAIL LINK

Track maintenance equipment stands ready at MRL's Laurel, Mont., yard.

PHOTO BY STEVE WELCH

Montana Rail Link trains transport freight on 900 miles of track in Montana and Idaho.

The little railroads that could

In any network, main arteries carry the bulk of the load, but smaller branches and capillaries share that load, distributing it to and from outlying parts of the system. In the Ninth District's rail network, about two dozen smaller railroads transport goods within limited service areas and link up with the major railroads for long-haul deliveries.

Because regional and short-line railroads tie into a nationwide rail network, traffic slows for them when congestion strikes major railroads. Conversely, backups on railroads serving smaller territories can contribute to delays on the major railroads.

Montana Rail Link, a regional railroad operating in Montana, Idaho and Washington state, connects with BNSF Railway at Helena and Laurel, Mont., and several other points along its 900 miles of track. MRL President Tom Walsh said the railroad probably lost business in 2014 as customers frustrated with delays and higher shipping costs on the BNSF-MRL network sought other outlets for their goods.

In hopes of alleviating or preventing congestion in their parts of the rail network, the district's smaller freight railroads have made their own investments in infrastructure, equipment and people.

MRL's recent investments mirror those made by BNSF, albeit on a much smaller scale. "We, both BNSF and Montana Rail Link, have been working real hard to figure out how to crack this [congestion] problem, how not to let this happen," Walsh said.

Last year, MRL spent $60 million to add sidings on its mostly single-track mainline, reconfigure train yards and add four locomotives to its fleet. The company has also increased its employee headcount by 20 percent over the past two years, to about 1,100. "That's a big jump for a little company likes ours," Walsh said. Most of the new hires were train crews—locomotive engineers and train conductors.

Other smaller railroads in the district that have increased spending to accommodate increasing volume and battle backups include Twin Cities & Western Railroad and Red River Valley & Western Railroad.

Last summer, Twin Cities & Western, a short-line railroad with over 200 miles of track extending west from the metro area into South Dakota, hired five additional crews to help shepherd trains through metro bottlenecks to connect with more fluid lines on the Union Pacific Railroad. "Because of that, we were able to keep the trains moving," said TC&W President Mark Wegner.

The railroad also upgraded track, constructed a new passing siding and leased an additional 100 railcars in 2014, and this year plans to repair a bridge over the Minnesota River to gain direct access to barge terminals.

Red River Valley & Western, a shortline operating mostly in eastern North Dakota, is upgrading 37 miles of track west of Davenport, N.D., this summer. The $14 million project, the biggest infrastructure investment in the company's 28-year history, will allow that section of track to handle BNSF shuttle trains, increasing capacity—and revenue—for both Red River Valley and BNSF.

—Phil Davies

with little capacity to spare. Whether or not crop prices rally, large amounts of crops are expected to come out of storage and head to market via rail, piling onto a seasonal rise in overall freight volume.

Walsh said that MRL and other railroads would be ready for a spring surge in traffic if it came. "There probably will be some frustration, but I think the railroads are more equipped than ever to handle that new business," he said. "We've invested so much in people, power and infrastructure over this last year that we're better equipped to handle it."

Nevertheless, it's clear that the railroads see more expansion work to be done in the district. This year, BNSF planned to spend $1.5 billion in northern states, including $326 million in North Dakota and $124 million in Montana, on maintenance and line expansion projects. Slated work included laying more double track through the Bakken oilfields; expanding a terminal in Dickinson, N.D.; and installing centralized traffic control on extensive stretches of track in central Minnesota and eastern North Dakota.

The improvements are needed to handle anticipated higher shipments in a resurgent national economy, said BNSF Executive Chairman Matthew Rose. "We're expecting big growth this year. [Expanding capacity] is not only to relieve bottlenecks, it's also to handle the additional units we believe we're going to get from the marketplace."

Canadian Pacific, also expecting increased freight demand, planned roughly $1.5 billion in capital spending on its North American network this year. Over $100 million was earmarked for new sidings, siding extensions and technology upgrades along the line from the Twin Cities to the Canadian border.

Painful medicine

For all the new and improved infrastructure, hiring and other investments that railroads have made and plan to make, industry analysts expect traffic slowdowns and snarls to persist in parts of the rail network as railroads continue their efforts to increase capacity.

Like construction on a busy highway, expansion projects impede traffic, reducing capacity until work is complete. Hatch, the New York railroad consultant, visited North Dakota last summer and witnessed the upheaval on BNSF's mainline as crews labored to lay a second main track and build sidings amid huge piles of new rail, ties and gravel. "You saw the problem and the solution, but the solution is a slow process," he said. "In many ways, the cure is tough on the patient."

The railroads face other constraints on meeting freight demand. For example, railcar supplies are tight. Railroads and large shippers looking to build up their railcar fleets face a backlog of 18 months or more for new railcars, said David Nahass, a Chicago-based railroad investment adviser. "There are people who would love to have more cars today, and they're not going to get them because of the backlog," he said. Demand has increased prices for most types of new railcars about 25 percent since 2010.

Railcar supply is also affected by new federal regulations for railcars used to transport flammable liquids such as crude oil, gasoline and ethanol. These regulations will likely constrict tank car supplies as current models are retired or taken out of service for modifications. The U.S. Department of Transportation has proposed implementing the regulations in 2016; the railroad industry has asked for more time.

In addition, railroads face a federal mandate to implement positive train control (PTC) technology to avert train collisions and derailments by year's end. Particularly for smaller railroads, spending on PTC will divert resources from maintenance and expansion projects. "The costs are significant," said Mark Wegner, president of Glencoe,

Continued on page 8

Railroads from page 7

Minn.-based Twin Cities & Western Railroad. "[PTC] is going to play a large role in what we invest in our infrastructure."

Numerous improvements by railroads might prove insufficient for some customers. Grain elevators may still have to compete for space on freight trains with coal mines, oil producers and other shippers, especially during the fall harvest. Rail service is likely to remain slower and less reliable for small-volume shippers because railroads will continue to allocate more resources to operating shuttle trains and other long trains dedicated to a single commodity.

But railways are reluctant to add unnecessary capacity—to lay more track, buy more equipment or hire more workers than demand justifies—because idle assets weigh upon their balance sheets. During and after the Great Recession, weak freight demand led railroads to mothball locomotives, sideline or scrap railcars, and lay off thousands of workers.

Railroads aim to satisfy most customers most of the time, aware that their projections of demand may miss the mark if market conditions change. "If we had perfect demand forecasting, running a railroad would be really easy," said Rose of BNSF. "The reality is that we don't; markets are dynamic; [demand for] these commodities is all driven by world markets."

Crude oil is a case in point. Just as low crop prices reduced crop shipments last fall, the rapid drop in the price of oil in recent months is likely to cut crude-by-rail shipments from the Bakken oilfields and Canadian oil sands. In January, North Dakota oil production fell to just under 1.2 million barrels per day, according to the state Department of Mineral Resources. If oil prices remain depressed, "you have to see some drop-off in oil shipments, and that'll free up capacity to move grain" this spring, Nahass said. Fewer black tank cars on the rails would also make room for other commodities such as ethanol, coal, chemicals and metal ores.

However, future oil prices are uncertain; a rebound could stimulate oil production on both sides of the border and increase demand for tank car and track capacity in the district.

In coming months, railroads will be watching the price of oil, along with a multitude of other factors that affect rail demand. They want to avoid a reprise of the scheduling hitches and breakdowns that afflicted rail service in the district for much of the past two years. "We know that when we get into an issue with congestion, the cost of that congestion is very high, and quite frankly we miss market opportunities," Rose said.

So do thousands of businesses in the district when the train fails to reach its destination on time. f

—Research Analyst Dulguun Batbold contributed data research to this article.

Not your father's railroad

Rail expansion efforts include spending on innovations that make freight trains safer and more efficient

For over a century, the technology required to build and operate a freight railroad was fairly simple. You needed railcars to carry various types of commodities, locomotives to pull them and track for trains to run on. Over the decades, railroads introduced innovations such as diesel locomotives, which displaced steam power in the 1950s; the use of remotely controlled auxiliary locomotives to help propel long trains; and radio communication to direct traffic on rail networks.

But many advances in railroad technology are relatively recent, introduced over the past decade and a half in response to government regulations and competition from the long-haul trucking industry.

In addition to investing massively in basic equipment and infrastructure, Ninth District railroads are spending heavily to implement new technologies that make rail transport safer and more efficient. Some of these technologies increase network capacity by speeding up trains and reducing delays and service disruptions.

"Railroads often aren't thought of as being very technological, but in terms of information power and diagnostic power and motive power, they're world leaders," said Anthony Hatch, a railroad industry consultant.

Major railroads have responded to rising traffic volume and congestion on some routes by installing centralized traffic control (CTC), a train signaling system that puts a central dispatcher in charge of routing actions previously performed by train crews. With the click of a mouse, the dispatcher remotely controls signals and powered switches next to the rail line. CTC supports higher train speeds and helps to avoid lost time and accidents due to misrouted trains.

Canadian Pacific's 2014-16 capital plan calls for over $30 million to be spent on installing CTC along the mainline between Glenwood, Minn., and Portal, N.D., on the Canadian border. This year, BNSF planned to continue deploying CTC on routes linking Minot and Bismarck, N.D., to eastern North Dakota and the Twin Cities.

Under federal law, major freight railroads must also implement positive train control (PTC) by the end of the year. The main purpose of these satellite-controlled signal systems is safety; PTC is intended to prevent train collisions, and derailments such as a recent fiery crash in West Virginia by a train carrying Bakken crude oil. But the technology also confers business benefits—for example, allowing trains to follow more closely and enabling dispatchers to respond quicker to traffic disruptions.

PHOTOS BY DEAN RIGGOTT

Workers installing CTC on a Canadian Pacific line in North Dakota.

Last year, BNSF spent about $200 million installing PTC in the district and elsewhere on its network and plans a similar outlay this year. Twin Cities & Western Railroad, a short-line railroad spanning southern Minnesota, will spend at least $500,000—almost one quarter of its capital budget—to implement PTC this year on stretches of Twin Cities track at BNSF's request.

Other technological innovations not specific to the district implemented by railroads include:

- Fuel-efficient locomotives. In 2013, U.S. railroads moved a ton of freight an average of 473 miles per gallon of fuel, according to the Association of American Railroads. The fuel efficiency of heavy-haul diesel locomotives has steadily improved over the past 15 years, and because of more stringent federal environmental rules, they also emit less soot, nitrous oxide and other pollutants than older models. Railroads also conserve fuel by cutting idling time with automated shutdown and startup systems, and assembling trains more efficiently with the aid of computers.

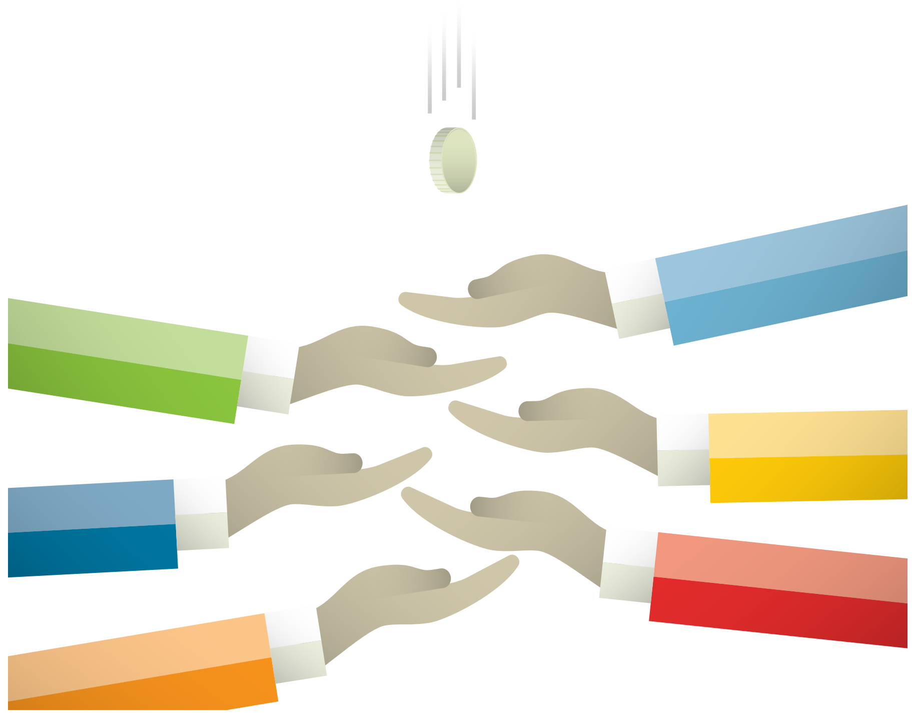
- Track and railcar inspection devices. On-track inspection vehicles use ultrasonic and optical instruments to check track alignment and look for internal defects in rails caused by the continual impact of train wheels or extreme temperatures. Railroads also deploy wayside acoustic detector systems that listen for the sound of damaged wheels, overheated bearings, dragging hoses and other problems with railcars. Defective railcars are tagged in a computer database and routed to repair shops, averting breakdowns that delay trains.

- Advanced demand forecasting. Major railroads develop computer models to predict long- and short-term freight demand based on factors such as regional and national economic conditions, market forecasts for various commodities, seasonal fluctuations in volumes and the production outlook for specific industries. But the science of demand forecasting is still imperfect. Hatch said that BNSF and other railroads failed to anticipate the impact of burgeoning crude-by-rail shipments on their networks. "[Demand forecasting is] incredibly sophisticated, but it can still fail if you drop a brand new, billion-dollar business into North Dakota."

—Phil Davies

All in the (nonprofit) family

The recession's effect on nonprofits was broad but uneven. With a return in giving, the sector's health has improved—but many challenges remain



By RONALD A. WIRTZ
Editor

In every community, there are families that everyone knows.

Consider your own hometown for a minute. Surely you know the NonProfit family. The NonProfit family is big and has been around for a long time. It has all types of individuals, oversized and undersized, young and old, and is spread wide.

In fact, you can find members of the NonProfit family in almost every community, even the smallest. It doesn't matter what you need or have an interest in, you can find a partner in the NonProfit clan. Maybe you need help financially or spiritually, or are interested in political issues and current affairs, or the environment, or culture and the arts. Maybe you need help finding a job, or even just a square meal. Go find the NonProfit family—they are there to serve. You might even call it their mission.

Nationwide, nonprofit organizations play a significant but often underappreciated role in the lives of millions of people, delivering critical help to those in need, but also offering many other services that for-profit businesses and governments choose not to provide. From food shelves to discount clothing, matters of the body (health care) to those of the soul (religion), infants to elders, homeless shelters to housing associations, art museums to animal protection, local issues or international ones, it's not an exaggeration that virtually everyone uses nonprofit services in some way.

But what happens when that support and service system becomes stressed, as it did during the Great Recession? The seminal economic event of this young century is often viewed from the perspective of for-profit businesses and government, the biggest players in the economy. But many nonprofits were also hit hard, including those that many lean on in tough times, and these organizations had to figure out a way to continue providing service—indeed, supply even more of it—while funding became shaky.

During the recession in Rapid City, S.D., "all the grant sources dried up, and at a time when the need was so high," said Renee Parker, executive director of the United Way of the Black Hills. Organizations lost individual donors as well as larger foundation grants, she added, and government spending for nonprofit services also fell "and continues to stay fairly flat."

Like the broader economy, the nonprofit sector appears healthier today, thanks mostly to a slow rebound in charitable giving, a push for more diverse revenue streams and greater collaboration born out of both need and opportunity. But challenges remain, including increasing demand for services, stiff competition for limited funding and changes in donor expectations and volunteer workforces.

First, the ugly

Like that of other sectors of the economy, the current state of nonprofits was heavily influenced by the Great Recession.

The nonprofit sector was put under stress virtually across the board, regardless of mission, because major funding sources—government, individuals and foundations—were themselves stressed. While some organizations suffered funding cuts, many serving the poor also had to cope with a rise in demand.

"Without question, the recession had a tremendous negative effect on many nonprofits in the Upper Peninsula," said Gary LaPlant, executive director of the Community Foundation of the Upper Peninsula, located in Escanaba, Mich. "The local community action agency was swamped with requests from seniors who couldn't pay their heat or water bills. The local St. Vincent de Paul and Salvation Army food kitchens and food pantries saw huge increases in the number of people served."

On the revenue side, he said, "gifts were more infrequent and in most cases smaller, and requests for grants and services were increased by a very considerable amount." In 2011, nonprofits in Michigan also absorbed a double whammy when state lawmakers eliminated income tax credits for most charitable contributions, which LaPlant said "was quite devastating."

In northeastern Minnesota, food shelves and homeless shelters "tried to cope with an unprecedented swell in demand. … Individuals and families that had never before accessed services were turning to nonprofit and/or government assistance," according to Tony Sertich, president of the Northland Foundation, located in Duluth, Minn. "At the same time, there were deep cuts to state and federal funding" which affected organizations serving those most in need.

In La Crosse, Wis., "nonprofits were stressed to just continue their missions," said Sheila Garrity, executive director of the La Crosse Community Foundation, which saw time-consuming grant appeals decline. "I think many were too swamped to generate grant requests."

Across Montana, individuals "whittled down what they gave" during the recession, and grantmakers cut back funding to organizations to "single years rather than multiple years. [So] the ability to plan went away," said Liz Moore, executive director of the Montana Nonprofit Association (MNA).

The slow recovery

The full effects of the recession on nonprofits are complex (see sidebar on page 10). But as was the case in the broader economy, the post-recession recovery for nonprofits was slow and uneven, mostly because of disruption to major funding streams.

Generally speaking, nonprofit revenue comes from a handful of sources (see Chart 1). The largest chunk of nonprofit revenue comes from fees charged to government and private entities for various services, much of it for health care and education.

Between grants and fees, nonprofits receive fully one-third of their funding from government, about $137 billion in 2012. That money was spread among 56,000 organizations nationwide, according to the Urban Institute (UI).

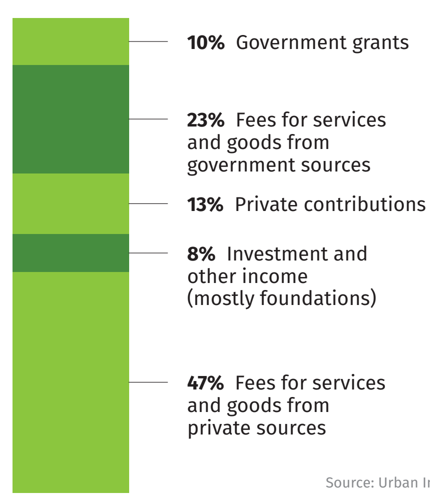
Government funding to nonprofits since the recession, however, reportedly has been slack, though there are scant spending data to verify the matter. Nearly half of nonprofits nationwide reported a decrease in federal revenue in 2012, and 43 percent experienced a drop in state funding, according to the UI report, adding that "nonprofit organizations in 2012 were still dealing with many of the same issues as in 2009." Responses from Ninth District states were roughly on par with national figures. A national survey last year by the Nonprofit Finance Fund found that almost half of respondents reported

Continued on page 11

CHART 1

Sources of nonprofit revenue

2011



Source: Urban Institute

The recession: Good for nonprofit employment?

Recessions rarely are good news for any organization, whether for-profit or nonprofit.

Just how bad things were for nonprofits during and immediately after the recession is a matter of some interpretation. Traditional sources of revenue—individual giving, foundation grants, government contracts—fell for many organizations during the recession, which typically could lead to layoffs.

But nonprofit employment actually grew during and after the recession, in stark contrast to total private employment, according to newly available data on the sector from the Bureau of Labor Statistics (see chart; North Dakota was a major exception to the overall trend, seeing exceptional job growth among both nonprofit and for-profit establishments, due in large part to the oil boom that was gathering steam at the start of the recession).

These competing trends suggest that some nonprofits managed to weather the recession thanks to a variety of strategies or factors, some of them stemming directly from the recession.

First, the numbers

Employment growth in the nonprofit sector was not fickle. BLS data show that nonprofit jobs expanded every year, in every Ninth District state, from 2007 to 2012.

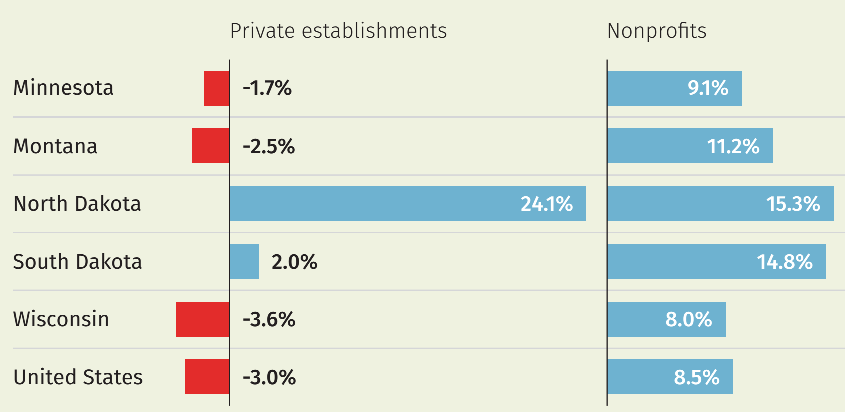
Some of that growth comes from hospitals and higher education institutions. These two sectors account for an outsized portion of nonprofit jobs—nearly 40 percent in Minnesota—and grew at an annual rate of 1 percent per year from 2007 to 2013, according to the Minnesota Council of Nonprofits (MCN), which partners with the Minnesota Department of Employment and Economic Development to gather some of the most detailed data on nonprofits of any state.

But employment at all other nonprofits rose even faster, at 2 percent per year over the same period. As a result, the nonprofit share of total employment in Minnesota rose from 9.7 percent in 2004 to 11.5 percent by 2011. It held steady at that level through 2013, according to the MCN.

The source of this seemingly strong employment growth—during and after the worst recession in generations—is hard to pinpoint exactly.

Nonprofits see strong job growth

Percent change in employment, 2007 to 2012



Source: Bureau of Labor Statistics

Jon Pratt is the executive director of the MCN, and he also serves on the board for the Nonprofit Trust, a group that provides unemployment insurance for nonprofits (no colleges or hospitals), which allows these organizations to opt out of the state-based UI program. The fund saw unemployment claims for its 2,000 members and 200,000 covered workers "go through the roof" during and shortly after the recession, said Pratt. At the same time, he acknowledged, nonprofit employment appeared to be rising. "I don't know why. [Unemployment] claims definitely went up, and total [nonprofit] employment went up."

But sources also identified a mélange of factors that helped certain organizations retain and even add workers in the face of funding struggles.

Many nonprofits, for example, reportedly dipped into their fund balances to stabilize operations and employment during the recession. According to a December 2009 MCN survey, roughly seven in 10 nonprofits had an operating reserve, and one in three of those expected to use some of those funds the following year.

Some job growth also likely came from increased demand for basic needs, and a commensurate increase in funding. Organizations serving the neediest "actually did pretty well because the American people recognized the immediate needs" caused by the recession, said Kate Barr, head of the Nonprofits Assistance Fund.

Others agreed. "During periods of economic hardship, my experience is that most people are more than willing to help those less fortunate," said Gary LaPlant, executive director of the Community Foundation of the Upper Peninsula. "The gifts may not be large, but are much more numerous."

Formal data on such matters are not available, but heavy demand for basic needs such as food and clothing, and services like job training appear to have accelerated the growth of some nonprofits during the recession.

Goodwill-Easter Seals Minnesota, for example, has a unique position serving multiple community needs. Its discount clothing niche, for example, grew from 17 stores in 2007 to 36 stores last year, expanding the organization's employment along the way. But the rise in store numbers is driven by the organization's mission of job training, placement and support.

"Everything begins and ends with service needs. … We're not growing retail for the sake of growing it," said Mary Beth Casement, director of retail marketing for Goodwill-Easter Seals Minnesota. High unemployment during the recession led to a surge in demand for job training services, "and as the need for training grows, that drives [funding] needs, which drives retail growth. … More retail sales means more [job training] case managers" helping people find and retain jobs.

Another likely source of employment growth was the ARRA (American Recovery and Reinvestment Act, a.k.a. the federal stimulus bill) of 2009 that funneled billions of dollars to nonprofits for things like foreclosure prevention, workforce training, heating aid, weatherization programs and other support.

It's difficult to say just how large the impact was, however. Barr said that the federal stimulus bill offered "a bit of a counterweight" to the recession's general pullback, but that revenue "was not at all shared universally."

Anecdotes abound of nonprofits adding jobs, but also shedding them once stimulus money was spent. The net effects appear muted for the simple fact that employment data show little movement during the period of ARRA funding. A lot of ARRA dollars that went to nonprofits also ultimately created jobs at private sector companies carrying out the work.

Changes in employment at the Anoka County Community Action Program (ACCAP), a half-century-old nonprofit with a wide range of programs, illustrate the impact of ARRA at different points during and after the recession.

During the downturn, ARRA funding supported the addition of 10 to 12 employees in areas of technology, Head Start and foreclosure counseling at ACCAP. "The recession caused a huge increase in demand for our services, and we had to add employees to meet that demand," according to Executive Director Patrick McFarland.

The organization drew upon a combination of ARRA and an undesignated fund balance to add employees and "get us through the worst" of the recession, he said. It also used some funding to extend the hours of the Anoka County Workforce Center, which added staff as well. But, after the recession, eight positions went away; ACCAP either laid off people or did not fill vacant positions.

ACCAP and other nonprofit agencies also coordinated much of the ARRA funding for home weatherization upgrades. But, McFarland said, "the big employment gain in our area was with our weatherization subcontractors"—private employers contracted to perform the work paid for by ARRA.

And while ACCAP employment didn't grow much during the recession, it has posted job gains of late. Before the recession, ACCAP employed about 180 people, according to McFarland. By the middle of this year, he expects the organization's headcount to reach 220, with virtually all of the growth in child care and early childhood development, which has received strong financial support in Minnesota.

—Ronald A. Wirtz

Nonprofits from page 9

a five-year decline in government funding.

That decline has left its mark on Ninth District nonprofits. In Rapid City, nonprofits addressing youth, mental health, domestic violence, substance abuse and other services have been affected, Parker said. While the dollar amounts of lost funding might not always seem large, "for them it was substantial. Those programs have really struggled."

Kate Barr, head of the Nonprofits Assistance Fund in Minneapolis, said the social services sector "is still really playing catch-up" because of rising service demands and poor funding. Programs serving people with disabilities, for example, are seeing more clients (profiled in the January *fedgazette*), while funding—typically from federal and state governments—is not keeping pace. Because the service delivery model in most of these programs is very labor intensive, productivity and program efficiency gains over time tend to be very small, Barr said. "So the costs are not in balance with the resources."

Sertich, from the Northland Foundation, said the erosion of public funding "continues to have a strong impact" in northeastern Minnesota. Programs serving children and youth lost significant operating funding from government, he said, and many organizations sought support from area grantmakers. But Sertich added that "the scale of support that the federal and state governments can provide is difficult to replace by local governments, philanthropy and community giving."

A foundation of individuals

Compounding lagging government funding has been an apparently slow recovery of charitable donations from individuals and foundations.

The biggest pot of charitable giving comes from individuals. In Minnesota, individuals account for three-quarters of charitable contributions, according to the Minnesota Council of Nonprofits (MCN), and most states see relatively similar levels. As a result, said Sertich, in Duluth, "many nonprofits are looking to increase their individual giving programs, particularly those that have traditionally relied on public funding and contracts."

But individual giving has been sluggish since the recession, at least according to some sources. Available data on charitable contributions are sparse, and not particularly timely. IRS tax returns through 2012 show that cash and noncash charitable contributions nationwide have grown modestly every year since the end of the recession, but remain below pre-recession levels on an inflation-adjusted basis (see Chart 2). In Minnesota, individual giving rebounded from $3.8 billion in 2009 to $4.1 billion by 2012. But giving remains well below the $4.4 billion peak in 2007 (see Chart 3).

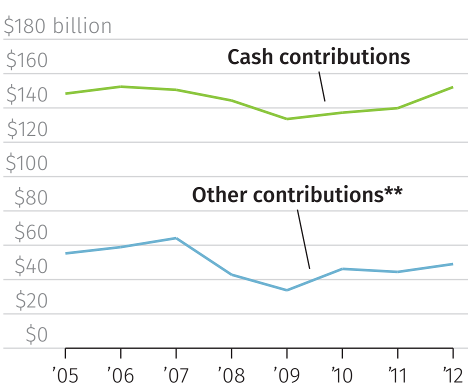
To put increased individual giving in a broader context, a large proportion of total charitable giving—roughly one-third, according to Giving USA—goes to reli-

Continued on page 12

CHART 2

Individual giving remains sluggish

Cash and noncash contribution deductions on IRS returns
Inflation-adjusted*



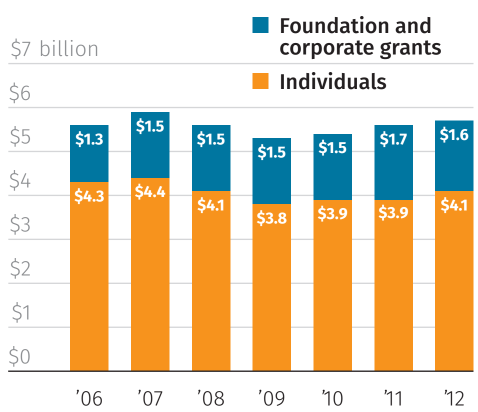
* Using PCE Index
** Includes donations of securities, real estate and other noncash items of value

Source: IRS and author's calculations

CHART 3

A little more charitable

Charitable giving in Minnesota
Inflation-adjusted*



*Using CPI as published in MCF report

Source: Minnesota Council on Foundations

A world of nonprofits

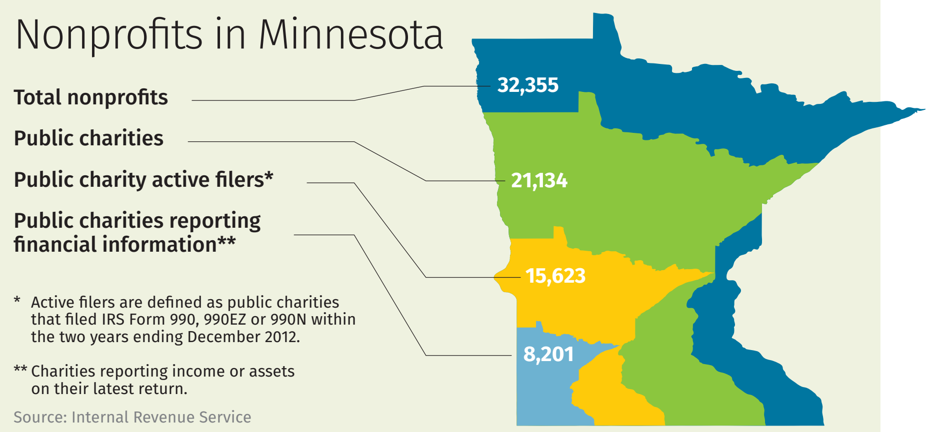
Tracing the arc of nonprofits since the Great Recession comes with a host of caveats. For example, this umbrella term covers organizations involved in most everything: health care, human services, the arts, higher education, the environment, public and international affairs, sports, animals, religion and science. It encompasses multibillion-dollar organizations along with hundreds of thousands of groups with diverse missions that have neither revenue nor assets.

As a result, the term nonprofit itself is a bit of a misnomer—"a kind of fiction … because the components are so varied," said Kate Barr, executive director of the Nonprofits Assistance Fund.

Data on the sector are improving, but they're significantly less robust than those on the overall private economy and its many sectors like finance or manufacturing. Part of the measurement problem stems from the way nonprofits are defined and categorized; they're ubiquitous, yet largely hidden from view. For example, Minnesota has more than 32,000 registered nonprofits, but many have no staff or income; fewer than one in three reports any revenue or assets to the Internal Revenue Service.

Nonprofits come in a plethora of forms, thanks to carve-outs in the federal tax code. The most familiar (and largest) category of nonprofits is 501(c)(3)—tax-exempt organizations that can accept tax-deductible contributions. This category includes most public charities and private foundations.

Nonprofits in Minnesota



* Active filers are defined as public charities that filed IRS Form 990, 990EZ or 990N within the two years ending December 2012.

** Charities reporting income or assets on their latest return.

Source: Internal Revenue Service

There are dozens of additional classes of tax-exempt, noncharitable organizations, most of them narrow and small: social and fraternal clubs, farming and political organizations, business and civic groups.

Public charities make up slightly more than half of all nonprofits, and about two-thirds of those have reportable revenue or assets. The number of charitable groups is also growing, rising almost 30 percent from 2003 to 2013 in the Ninth District and nationwide.

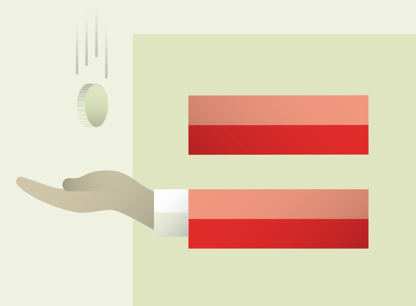
The ranks of noncharitable organizations, on the other hand, shrank by 26 percent in the district and 24 percent in the nation over this period. This downward trend among noncharities started well before the recession, driven by a long-term decline in social, fraternal and civic groups (like Rotary) once common in communities.

Among all nonprofits, there are also revenue haves and have-nots. Despite the impression that nonprofits—especially charities—survive on donations, in fact the sector takes in almost 70 percent of its revenue from fees paid by either government or private sources. A disproportionate chunk of this revenue is earned by health care providers and higher education institutions ("eds and meds" in nonprofit-speak).

Where possible, the main article focuses on trends among public charities and foundations, excluding noncharitable nonprofits. Among charities, the discussion (particularly from expert sources) centers on nonprofits other than health care and higher education.

—Ronald A. Wirtz

Not all states are created equal when it comes to foundation giving



Nonprofits from page 11

gious congregations. Many nonprofits see only modest support from John Q. Public, and going after individual donors—large or small—often involves big outlays of time and resources.

Nonetheless, the outlook for charitable giving among nonprofit groups might be described as cautiously sanguine. Charitable donations nationwide grew by 4.4 percent in 2013, according to Giving USA, the fourth consecutive year of increase since the end of the recession.

In the Rapid City region, the United Way's donor campaign raised $2.4 million—the first increase going back to at least 2010, according to Parker. Though the increase was just $100,000 (about 4 percent), Parker said there is more optimism in the region, mostly due to a better economy.

"It's much easier getting into workplace campaigns. Doors are much more open today," said Parker. In the past, many employers wouldn't allow United Way representatives to talk with workers about giving, which she understood. "How can they be expected to donate when these workers are getting pay cuts or reduced hours?" Parker said. "Everybody here says it feels different now."

The other big source of nonprofit funding—foundation grants—is following a similar path in district states, according to the Foundation Center, a clearinghouse of philanthropic information. Giving by foundations typically is determined by their financial assets, which took a big hit in value during the recession, triggering a steep decline in overall grants from 2007 to 2009. While foundation grant funding appears to have recovered somewhat in Ninth District states, as of 2012 it remained below pre-recession levels (see Chart 4).

But Foundation Center data cover only 1,000 foundations nationwide, including 800 of the largest in the country. Minnesota alone has more than 1,500 foundations. As such, Foundation Center data arguably are a rough indicator of broad trends.

More comprehensive data from the Minnesota Council on Foundations (MCF) suggest that total corporate and foundation giving in that state did not dip much during the recession, and by 2012 was nearly 9 percent higher in real terms over pre-recession levels (see Chart 3). Unfortunately, similar data for other states aren't available.

While foundation giving has increased in recent years, it hasn't done so evenly among the many nonprofit sectors. The Foundation Center data suggest that arts and culture took the biggest funding hit from grantmakers (see Chart 5), and local sources said that is the case. Jon Pratt, executive director of MCN, said the sector experienced a sharp decline in giving, probably more than any other. The same was true in Montana, said Moore of MNA. "The thing that doesn't get funded in Montana is the arts. … Arts have been hit hard and have not come back."

Many sources also noted that while foundation giving appeared to be returning, its emphasis has changed. Sertich, from the Northland Foundation in Duluth, said that "many foundations have recovered financially from the recession. However, there is a shift in the style of grantmaking resulting in … more prescribed funding as foundations focus on specific types of issues and activities."

This shift has affected general operating budgets the most. Maria Isley is head of the MCN branch office in Duluth. "Foundations are not giving for operating costs," preferring to support bricks-and-mortar projects "versus keeping the lights on," she said. "That's been a tough thing. These organizations can't function without operating funding."

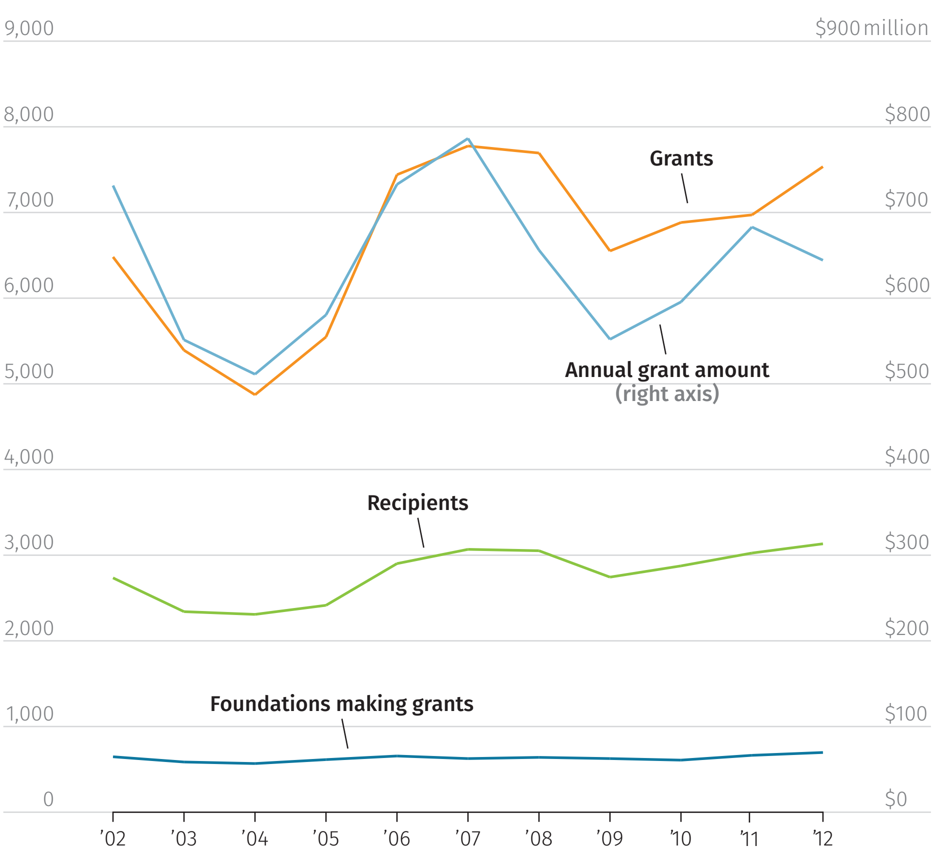
The change in funding approach shows up in the data, at least in Minnesota. According to annual giving reports by the MCF, grants for general support have been falling gradually as a share of total giving by foundations, from about 27 percent (the average from 2002 to 2005) to just 20 percent in 2012.

The same appears to be happening in other states. "Foundations have changed their criteria … and are asking for more goal-oriented programs," said Parker, in Rapid City. "They want innovative ideas to solve problems." While logical and laudable on its face, not all new programs are better, Parker said, and they can pull re-

Foundation roller coaster

CHART 4

Grants* from the top 1,000 foundations to recipients in Ninth District states**
Inflation adjusted (right axis)***



* Based on grants of $10,000 or more awarded by a national sample of 1,000 larger U.S. foundations, including 800 of the 1,000 largest ranked by total giving. For community foundations, only discretionary grants are included. Grants to individuals are not included.

** Minnesota, Montana, North Dakota, South Dakota and Wisconsin

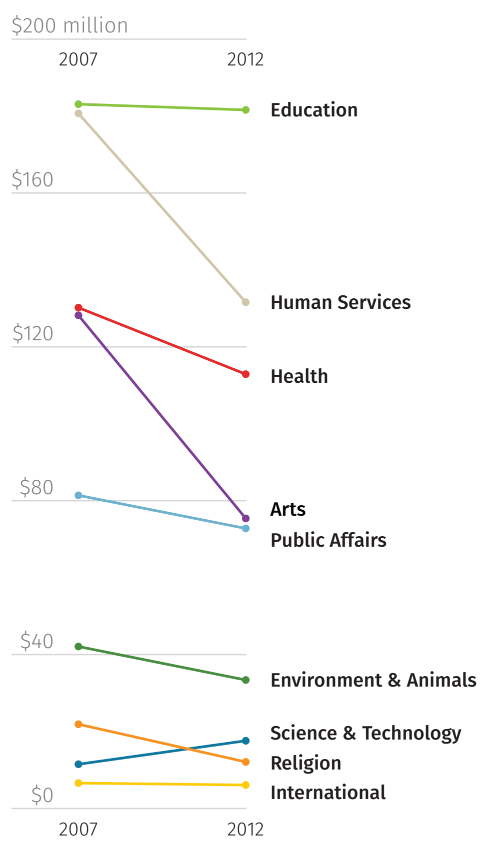
*** Using PCE Index

Source: The Foundation Center

The good ol' pre-recession days

CHART 5

Foundation giving in Ninth District states, by category*

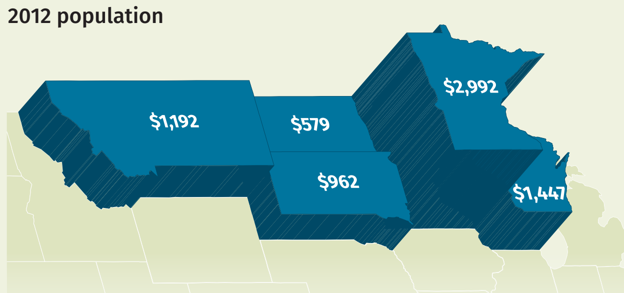


*Includes Minnesota, Montana, North Dakota, South Dakota and Wisconsin. Figures based on all grants of $10,000 or more awarded by a national sample of 1,000 larger U.S. foundations, including 800 of the 1,000 largest ranked by total giving.

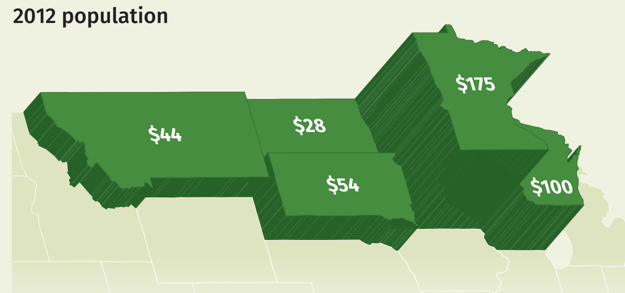
Source: The Foundation Center

In 2012, foundation grants to Minnesota recipients totaled $421 million, compared with $151 million for Wisconsin and between $20 million and $30 million for the Dakotas and Montana. Though many foundations give to recipients nationwide, foundation grants in a given state tend to be a function of the number and (especially) asset size of in-state foundations. Wisconsin has the largest number of foundations, both by absolute and per capita measures, but they tend to be smaller in asset size, at least compared with Minnesota's foundations. Minnesota not only has a healthy number of foundations, but many have considerable assets, which translates into higher overall giving. In 2012, Minnesota had more foundations with $100 million in assets than the other four district states combined (16 to 13). In 2013, the number of such Minnesota foundations grew to 24, according March 2015 data from the Minnesota Council on Foundations.

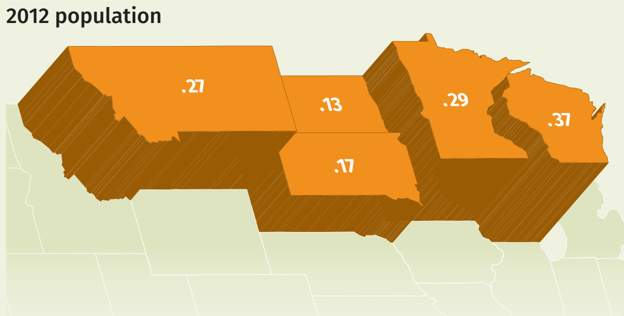
Foundation assets per resident
2012 population



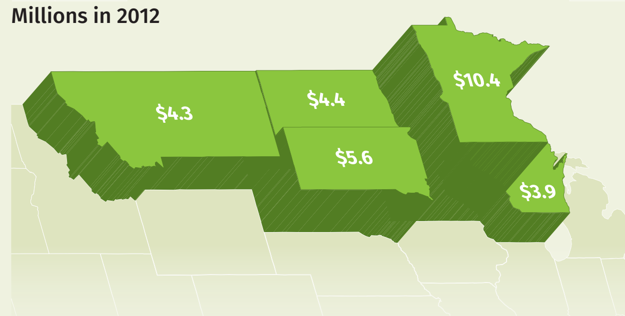
Annual foundation giving per resident
2012 population



Foundations per 1,000 residents
2012 population



Average assets per foundation
Millions in 2012



Source for all charts: The Foundation Center

sources from effective, long-running programs that "are not so jazzy."

Parker and other sources also noted that funders increasingly believe that short-term funding should help make programs ultimately self-sustaining. But for programs serving troubled youth, domestic or substance abuse, the homeless and many other populations with ongoing needs, "those people can't pay for services they are using so you're always going to need those dollars. You have to pay for program services in an ongoing way," said Parker.

No rest for the weary

In terms of future funding, nonprofits see an opportunity for windfall resources with the retirement of baby boomers and the subsequent transfer of generational wealth. As one source said, "That's where the real money is."

But even under the best assumptions—wealth transfers, higher government spending and a continued rebound of more traditional charitable giving—nonprofits aren't likely to get much of a breather despite an improved economy because demand for nonprofit services has been rising, and that trend is likely to continue.

"The consensus among nonprofits is that the needs of people are much more complicated today," said Sertich. "People are facing multiple, complicated issues such as mental health, substance abuse, low educational attainment, criminal record and so on. This makes helping them find economic security and stable housing difficult."

According to a national survey last year by the Nonprofit Finance Fund, 80 percent of respondents reported an increase in service demands in 2013, the sixth straight annual increase; only 3 percent said demand decreased. Almost three in five respondents said their organization was unable to meet demand in 2013—the highest level in the survey's history. Eighty-six percent expected demand to climb further in 2014.

All the while, donors will be asking for more tangible results and a closer accounting of spending. "One of the biggest challenges facing nonprofit organizations is their ability to demonstrate success and advancement of their missions," said Judy Alnes, executive director of MAP for Nonprofits, located in St. Paul. "The contributing community wants results, and nonprofits need to make certain that they are both achieving results and measuring results."

Some are struggling to make that adjustment, according to Alnes. "Many nonprofits in our communities are not organized for success. They operate as microorganisms and only chip away at the issues they aim to address."

But many sources said the recession nonetheless had some beneficial—if unintended—consequences for the nonprofit sector as a whole. Barr said that the recession had a silver lining in that it forced organizations to identify their strengths and focus resources on their service mission. "There were a lot of hard decisions, but they were good decisions" about the best way forward, she said. "They really had no choice."

Parker said that during the recession, "every agency was trying to fight for themselves" and their survival. Competition is still fierce for funding, "but people are joining hands and collaborating now" to provide service, she added. "We've seen great collaboration partly because they have to," Parker said. When considering funding requests to the Black Hills United Way, Parker said, "if you are an organization that doesn't play well with others, we don't fund you."

Diversify, and the hidden subsidy

The recession has also forced nonprofits to diversify their revenue—or else. "We're seeing more organizations that have an earned-income component," said Alnes, which gives organizations "less dependence on the vagaries of contributions. This makes it possible to exercise more self-determination" over what to do with revenue.

Nonprofits with retail lines like Goodwill-Easter Seals Minnesota, with its discount clothing and merchandise stores, have carved out successful revenue-raising niches to support their missions. From 2008 to 2013, the organization saw retail sales rise from $29 million to $67 million, according to its annual reports; net retail income, used to support the nonprofit's mission of job training, placement and support, rose from $18 million to $35 million.

But retail enterprise is hardly a sure-fire approach to solvency. Many nonprofits that have historically depended on earned income—especially from sales of discretionary products or services such as admission tickets to the zoo or artistic performances—suffered considerably during the recession and are reportedly still playing catch-up.

Even for those able to make the necessary funding adjustments, sources said other organizational challenges exist. Several people noted that the implicit service contract with government had eroded and needs to be renegotiated.

"Generally, the trend has been to shift traditional government services to the private sector, mainly nonprofits," said Sertich. "Early in this trend, 30 years ago, there was significant government funding to cover these costs. Over time, that funding has diminished."

The good news, said Barr, is that "the charitable sector has risen to the occasion," even during times of hardship. Nonprofits did "amazing things" to simply keep the doors open during the recession.

But she added that the nonprofit sector is starting to seriously grapple with the long-standing, hidden subsidies in many of its services—"where government underpays and gets a good deal," thanks to either volunteer labor or underpaid staff at nonprofits. Many organizations are now dealing with shifts in volunteerism and difficulty attracting skilled professionals to lower-paying jobs, especially in light of rising student loan debt.

Eventually, Barr said, "the subsidy is not sustainable, and there comes a point where [an organization] can't do it anymore." f

See fedgazette *article on page 14 discussing volunteer trends among nonprofits in the Ninth District.*

Organize it, and they will come?

Nonprofits dealing with shifts in volunteering

By RONALD A. WIRTZ
Editor

Nonprofits depend heavily on volunteer labor. In 2013, the value of volunteer labor was worth an estimated $163 billion, according to an Urban Institute report, with a labor equivalent of almost 5 million full-time workers.*

But free labor isn't free of cost for organizations. Taking on volunteers "takes an investment of resources for the experience to be valuable" to both parties, said Mary Quirk, executive director of the Minnesota Association for Volunteer Administration (MAVA). She added that there is a misassumption "that organizations are standing ready and waiting for as many volunteers as possible." That's not always the case because supply and demand of both volunteers and opportunities "all need to be in sync."

But volunteer habits have been shifting in response to economic, demographic and societal changes, according to Quirk and other nonprofit sources. Data suggest that volunteer participation has been in slow decline, and sources say the motivations and expectations of volunteers have evolved. All of these changes make the matching process more difficult and costly for nonprofits.

National data on volunteering from the federal Corporation for National and Community Service (CNCS) show a long-term downward trend in volunteer rates and average hours (see chart). Research by the Urban Institute, using self-reported data in the federal Current Population Survey, also found a decline—though much smaller—in volunteer rates and median hours from 2007 to 2013. (CPS data also suggest that average hours volunteered are several times higher than CNCS estimates.)

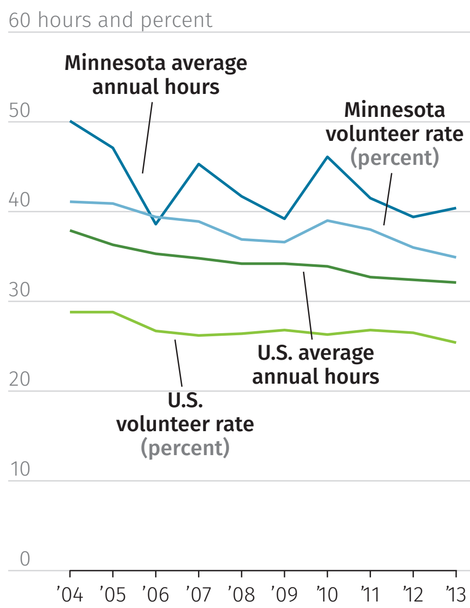
The good news is that volunteerism in all Ninth District states is consistently higher than the national average, according to CNCS data. For example, 35 percent of Minnesotans volunteer versus 25 percent nationally, and they donate an average of 40 hours annually versus 32 hours nationally.

Moreover, volunteering actually increased during the recession, both in the data and according to local sources. "It was almost a glut," said Quirk. "Organizations had trouble placing all of their volunteers." Some people volunteered in order to network for job leads, she said, "but some just had down time and wanted to do something good with their time."

But local evidence concerning a longer-term drop in volunteerism is mixed. Most

Volunteering on a slow decline

Volunteer rates and average annual hours



Source: Corporation for National and Community Service

sources suggest that volunteerism declined as the economy improved after the recession, but that drop has not continued. For example, many nonprofits say they are relying more heavily on volunteers, which at least hints at greater volunteer availability.

MAVA has conducted a handful of surveys on the matter since 2010, and "we have pretty consistently found that half [of respondents] are seeing an increase in reliance on volunteers," said Quirk. The main driver of the increase is financial pressure.

Some sources were not seeing much if any decline in volunteers. Renee Parker is executive director of the United Way of the Black Hills in South Dakota. "From our perspective, volunteering is getting better," she said. "Nearly every day, we have people call us who want to do something meaningful. … They want to know where the need is." The organization's board of directors has 35 people, "and there's a waiting list."

Changing of the guard

Rather than shrinking outright, sources said volunteering is changing, and that's creating some tension in the mechanism matching prospective volunteers and organizations looking for nonpaid help.

For example, the composition of volunteers changed as the recession eased. Today, the most volunteer inquiries come from students and interns who see volunteering "as a means for finding a job," sometimes indirectly by networking with other volunteers, said Quirk. That was particularly the case in health care, which has seen an increase in volunteers. In a 2014 MAVA survey of volunteer programs in Minnesota, 45 percent of respondents reported seeing more inquiries from students and interns, the highest of any category.

There are geographic variations in volunteering trends. A 2012 MAVA survey of rural Minnesota nonprofits found that volunteer numbers actually rose for 41 percent of respondents, with only 12 percent seeing a decrease. But Quirk pointed out that even in rural areas, there are "haves and have-nots when it comes to volunteers."

Half of the survey respondents said that older volunteers were no longer able to volunteer and that there was no one to replace them. In rural areas of western Minnesota, Quirk said, many communities had stagnant, aging populations. "Those places are having a lot of trouble recruiting [new] people. Everyone's after the same volunteers." Food shelves, for example, are having difficulty replacing a very loyal set of volunteers, many of whom have given their service over decades and are now in their 70s and 80s and unable to keep up the commitment, Quirk said.

But across the district, nonprofits are seeing changes in volunteerism driven by broad shifts in how households and families and individuals allocate their time. Volunteers are particularly hard to come by in the Bakken oil region, which stretches from North Dakota into the eastern edge of Montana, according to Liz Moore, executive director of the Montana Nonprofit Association. Here, the cost of living is so high that both parents often have to work and more seniors are working just to make ends meet. In both cases, volunteerism is undercut.

Parker, of the United Way of the Black Hills, acknowledged that while the organization has a healthy supply of volunteers, the makeup of those helpers is changing. "Younger people want to do a specific thing for a specific day," she said. "They like the juicier projects where there is more networking and it's more social. You have to make things fun."

The stress of hectic work and home schedules is also affecting some potential volunteers. In the tourism-based economy of the Black Hills, many families "are working one, two, three jobs," which makes it tougher to find the time to regularly volunteer, Parker said.

With busy work schedules, more people are also getting involved through their employers. In 1999, United Way hosted its first "Day of Caring" in Rapid City, which encouraged employers to let employees take time off work to volunteer. In the first year, all the volunteers fit on a small stage for a picture, according to Parker. This year, the event filled the Rushmore Center, one of the largest conference venues in the region, with attendance estimated at 1,200. "Employers are really supporting their employees to volunteer."

The growth of this event and the preferences of young people are part of a general shift to more episodic volunteerism, often tied to specific events. A 2014 survey by MAVA found that 55 percent of nonprofits were seeing increased interest in short-term volunteering opportunities.

Earlier generations, said MAVA's Quirk, "seem to be motivated to where the need was greatest, doing whatever was needed, and they were very loyal" to organizations and causes. Today, "more volunteers need to see impact [from their involvement] and more want to use their skill base" directly in their volunteer work. That shift has some upsides; for example, it gives organizations access to highly skilled individuals who would command high wages if they were hired for the same work. "Many want to share skills, and they have amazing skills," said Quirk.

But matching those types of volunteers with the right opportunities is difficult, in part because of splintered communication channels. It's no longer good enough to put an ad for volunteers on a website, or even in TV or newspaper ads. "The way people consume media today, you can't put [volunteer opportunities] in one place" to reach potential volunteers. There are some online sites that match volunteers with opportunities, but even these aren't much good "if volunteers don't know they are out there." To reach volunteers requires a more concerted, targeted effort, according to Quirk, but the time and money necessary are often scarce at nonprofits.

Many organizations also don't need highly skilled volunteers. Instead, they need a steady supply of regular folks who will commit to getting the job done. "For many organizations, they have work set aside for volunteers to do, and they are having trouble finding volunteers to do the work they've always done," Quirk said. f

**In this article, it is assumed that the vast majority of volunteering is for nonprofit organizations, including charities and noncharities.*

fedgazetteRoundup

Highlights from the fedgazette blog of business and economic activity from around the Ninth District

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The aches and pains of working-age disability

Since the 1980s, working-age disability has been rising, and particularly over the past decade. Many disorders can qualify a person for one of two major federal disability programs: Social Security Disability Insurance (SSDI) or Supplemental Security Income (SSI).

However, recipients are increasingly qualifying for these programs because of either mental disorders or conditions related to the musculoskeletal system or connective tissue, which covers a variety of muscle, back and joint disorders like arthritis, back pain, tendonitis and herniated discs.

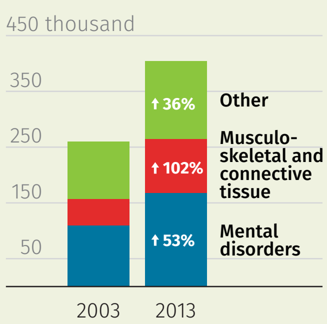
In Ninth District states, the most common disability diagnosis (at 42 percent) for SSDI recipients is a mental disorder, such as anxiety, post-traumatic stress disorder, depression or bipolar disorder (see below). While recipient growth in this category exceeded 50 percent from 2003 to 2013, it has leveled off in recent years.

The fastest growing diagnosis involves conditions related to the musculoskeletal system and connective tissue. This category covered about one in four SSDI recipients in 2013; total recipients have doubled over the past decade. Growth in these two major diagnosis categories has also been faster in the Ninth District than in the nation over the past decade (see below).

For much more on disability trends in the Ninth District, see the January *fedgazette*.

—Ronald A. Wirtz

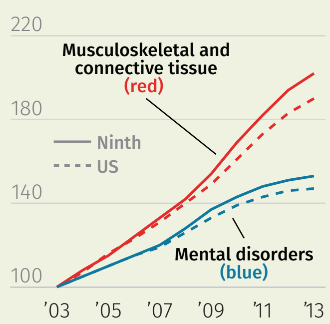
Ninth District SSDI recipients* by diagnostic category and percent increase from 2003 to 2013



*Minnesota, Montana, North Dakota, South Dakota, Wisconsin

Source: Social Security Administration

Index of SSDI recipient growth* by diagnostic category (2003 = 100)



*Minnesota, Montana, North Dakota, South Dakota, Wisconsin

Source: Social Security Administration

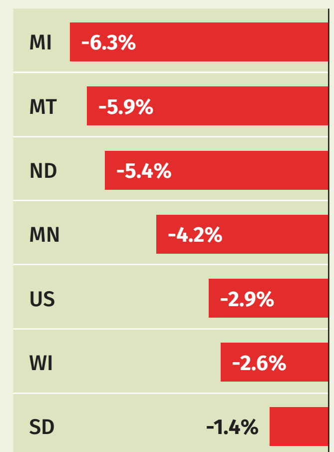
College enrollments falling in Ninth District, nationwide

Something is happening on college campuses across the country—or rather, not happening.

Despite all the messages encouraging college attendance—not to mention job and other data that demonstrate its utility—higher education enrollments have been dropping steadily in recent years, according to data from the National Student Clearinghouse Research Center.

Every state in the Ninth District has witnessed an enrollment drop at degree-granting higher education institutions for at least two consecutive years. The drop from fall 2012 to fall 2014 was highest in Montana, at almost 6 percent, while North Dakota and Minnesota were also above the national average (see adjacent chart). In fact, save for South Dakota, enrollments have declined in every district state for at least three years running.

Statewide higher education enrollment in degree-granting institutions, fall 2012 to fall 2014



Source: National Student Clearinghouse Research Center

Some of the reason behind the drop is a cyclical economy. Joblessness, for example, tends to push people into school to obtain better skills for the job market, and enrollments swelled during the Great Recession. A stronger job market is likely pulling many students away from their books.

Demographics are also playing a key role. When national higher education enrollment peaked in 2011, people in their so-called prime college years (18 to 21 years old) were also at their peak and have since declined, leading to lower enrollments.

—Ronald A. Wirtz

Ninth District foreclosures declining, staying ahead of nation

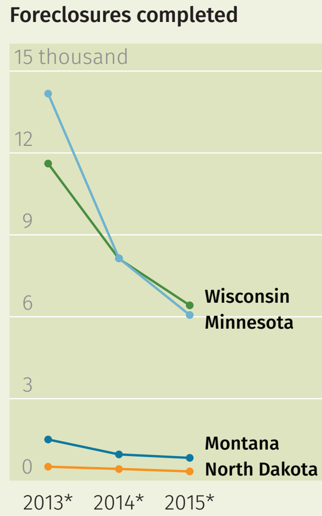
While home sales in 2014 were not particularly strong, the housing market is showing continued strength in terms of foreclosures, which have ratcheted down from very high rates as recently as 2012, according to data from CoreLogic, a real estate and financial services analytics firm.

Over the 24-month period ending this past January, district states saw the number of completed foreclosures drop by between 34 percent (North Dakota) and 57 percent (Minnesota). This comes on top of the fact that the proportion of troubled mortgages in district states is lower than the national average.

The national rate of seriously delinquent loans currently stands at 4 percent—its lowest level since 2008, according to CoreLogic. But delinquency rates have also been falling in district states and are a fraction of the national rate, with North Dakota's rate at just 1 percent.

—Ronald A. Wirtz

Foreclosures completed

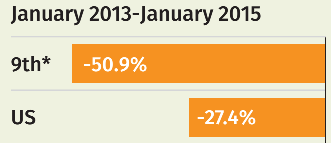


*12-month period ending January

Foreclosure figures not available for South Dakota

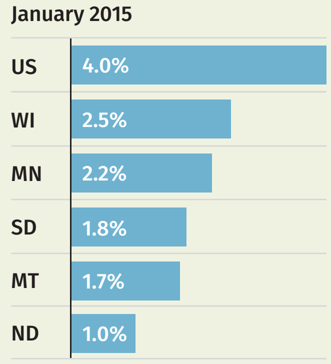
Source for all charts: CoreLogic

Decline in foreclosures January 2013-January 2015



*Minnesota, Montana, North Dakota, Wisconsin

Seriously delinquent mortgages January 2015



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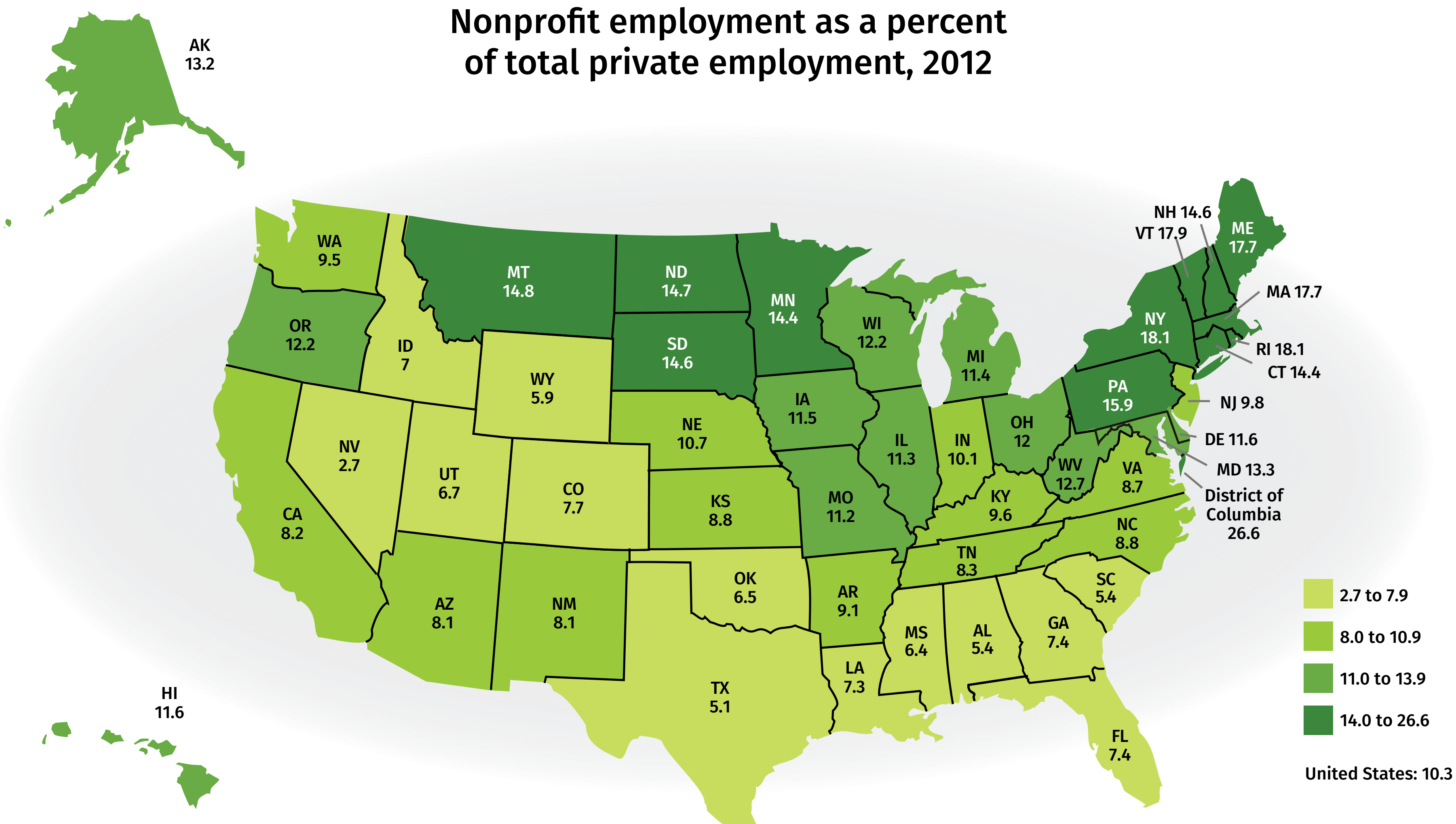
Working on the railroad
April 2015

Nonprofit employment as a percent of total private employment, 2012



Source: Bureau of Labor Statistics