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More on Intergenerational Income Mobility ...

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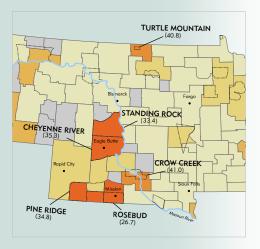
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Regional Business & Economics Newspaper

Bruce Vold, pastor, Trinity Lutheran Church, Carrington, N.D.

FEW NOTIONS ARE AS INGRAINED in the national psyche as the American dream—the idea that kids will be better off than their parents and that anybody can make it to the top in this country with a little grit, determination and hard work, no matter their starting place on the ladder.

But there is national hand-wringing over the state of the dream—a victim of income inequality, a sluggish economy coming off a horrendous recession or sundry other factors. A Wall Street Journal/NBC poll in early August found that "Americans are registering record levels of anxiety about the opportunities available to younger generations." A CBS poll in early summer reported that almost three in five believed that "the American dream has become impossible for most people to achieve

Bruce Vold has a multigenerational perspective on the matter. The pastor at Trinity Lutheran Church in Carrington, N.D., he's a third-generation churchman who has lived the American dream even if that was never the goal. Vold's pastor grandfather was paid "in chicken" in the 1930s—rather than receiving a salary, parishioners would give him chickens or "a cow for milk for a family of seven. They had nothing," Vold said. But each successive generation has attained a higher standard of living.

Continued on page 2



#### **Income mobility** from page 1

#### The Quick Take

Upward income mobility—children faring better financially than their parents—is widely believed to be stagnant, even decreasing in the United States. New research by a team of academics has found that, in fact, the American dream is still alive, but achieving it depends heavily on where you grow up.

In large swaths of the country, upward income movement across generations is low. But if you live in the Ninth District, statistically speaking, you're more upwardly mobile than people living elsewhere in the country. The reasons for this are hard to pinpoint, but appear to stem, at least in part, from comparatively better education outcomes, greater family stability, strong local economies that foster a larger middle class and access to good-paying jobs, whether in oilfields or in larger cities where wages are higher. In rural areas, the strength of the farm economy-as well as its cyclicality—also appears to play a role in improving the fortunes of children compared with their parents.

Vold and his wife, Anne, have three children: two out of college and one still attending. "Certainly, we wanted them to have professional success," said Vold. "But I didn't care what they did. ... I'm looking more for how they are contributing to society."

Nonetheless, the young Vold clan appears poised to continue the sought-after American dream of moving up financially. Middle child Matthew has a business degree and works at Dakota Growers, a large pasta plant in his hometown. Daughter Kelly is studying dentistry at Concordia College in Moorhead, Minn.

Eldest son Bryan is an accountant in Minneapolis. He also attended Concordia College, and "didn't have a clue" about what he wanted to be until he took a sophomore class in accounting in 2006. With the Great Recession looming, "accounting looked like [a career that] I should be able to get a good job in," he said. He was right, landing a position at tax and audit giant Grant Thornton before the start of his senior year. After five years, he now makes about \$70,000 annually.

Regarding his financial prospects, "I always felt I would do better" than his parents in terms of income, but not because of a poor upbringing, said Bryan. Growing up, "we didn't lack for anything, but there wasn't any excess."

The Vold kids also heard about the importance of going to college—not so much for careers and big money, but to obtain a broad world view and "to learn how to learn," said Bruce Vold. "I think I'm a frugal person and try to be wise about things and feel good about getting my kids through college. … But

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they are going to do better financially."

One family's story cannot capture the national experience when it comes to intergenerational income mobility—how kids fare financially compared with their parents. But reports of the death of upward income mobility in this country may be exaggerated. Groundbreaking research by a group of academics has found that, in fact, the dream is quite alive in the United States.

However, the research also unearthed a major caveat: It matters where you grow up. In large swaths of the country, upward income mobility is low. But if you live in the Ninth District, statistically speaking, your upward mobility is much higher and rivals anywhere in the country. The reasons for this are hard to pinpoint, but appear to stem, at least in part, from comparatively better education outcomes, greater family stability, strong local economies that foster a large middle class and proximity to and availability of good jobs in oilfields and higher-paying metro areas. In rural areas, the strength of the farm economyas well as its cyclicality—also appears to play a role in how children do financially compared with their parents.

That's not to say that everyone, everywhere in the Ninth District is upwardly mobile. Some places, particularly Indian reservations, continue to experience generational poverty and income stagnation. But even these places have a unique story to tell regarding the quality of life where people call home.

#### The research base

Recently, a group of academic researchers led by Raj Chetty of Harvard University released a comprehensive study on the intergenerational income mobility of poor families nationwide. (See Chetty, Hendren, Kline and Saez 2014. NBER Working Paper 19843.) All of the data in this study were made public, serving as the foundation for this *fedgazette* analysis.

The research—which has evolved into an ongoing study called the Equality of Opportunity Project—looked at the incomes of children from the poorest families to see how these children later fared as 30- to 32-year-olds. Subjects in the study, who were identified anonymously through federal tax records, were then grouped into commuting zones, or clusters of counties with strong commuting ties that serve as a rough proxy for regional economies nationwide. (For more on the study's methodology, see "And now, a word

from our sponsor" on page 7.)

The study found that upward income mobility, while generally lower in the United States than in many developed countries, hasn't changed much. But the researchers found major differences in income mobility depending on where children grew up. In Atlanta, for example, only 4.5 percent of children from households in the lowest 20 percent of income can expect to be in the top 20 percent as adults. In Rochester, Minn., and Fargo, N.D., it's 14 percent, which compares favorably with high-mobility countries around the world.

We actually came in just asking a simple question of whether the American dream is still alive and whether the U.S. is a land of opportunity, and what we found is that that question really doesn't have a straightforward answer because the answer seems to depend very much on geography. That is, it depends on where you grew up," said Chetty earlier this year in St. Cloud, Minn., where he was giving a speech at St. Cloud State University. "In some parts of the U.S., kids who grow up at the bottom of the income distribution, in disadvantaged families, end up having very high chances of moving up ... and in other places the American dream doesn't seem to be nearly as alive."

Enter the Ninth District, where adult children in the study scored much higher on two fundamental measures of income mobility analyzed by the *fedgazette*: absolute upward mobility and bottom-to-top mobility (see maps with related mobility definitions on page 3). This performance was not a methodological quirk—something driven by, say, the Bakken oil boom and a red-hot North Dakota economy. Every district state outperformed the nation as a whole in both measures, often by considerable margins

For absolute upward mobility, the distribution of the district's 87 commuting zones shifts far to the right, or up the income mobility ladder, compared with 622 other commuting zones across the country (see Chart 1 on page 4; due to small samples, a number of commuting zones in the nation and district had no rank and are not included here). At the same time, the chances of going from rags to riches—from the bottom quintile of income to the top—were also higher in the district (see Chart 2 on page 4).

#### We're #1 (through #6)

The district is home to many of the nation's highest income mobility commut-

### fedgazette

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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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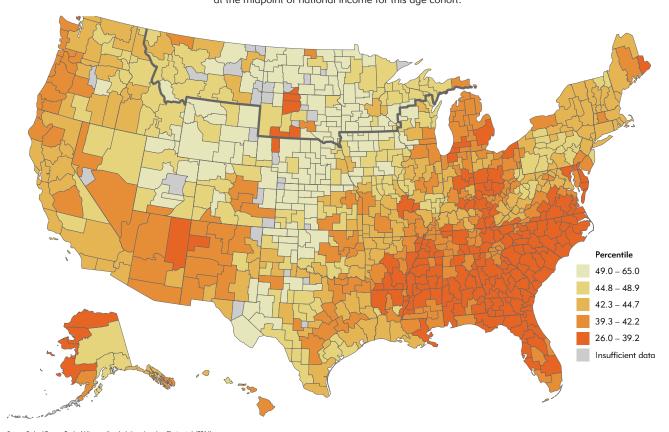
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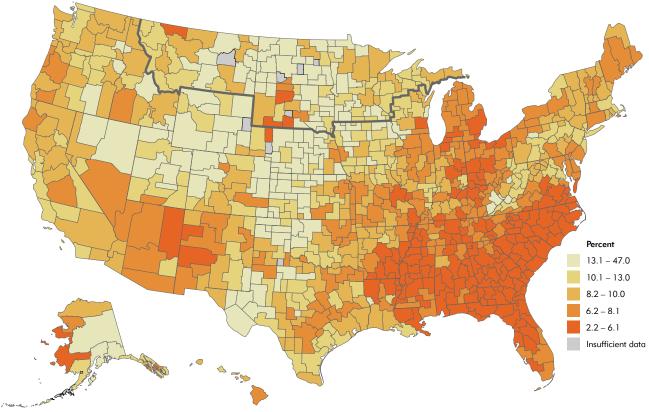
#### Absolute upward mobility

Expected percentile rank of adult children (30 to 32 years old in 2011-12) whose parents were in the 25th percentile of income distribution, roughly \$30,000 (2012 dollars) or less, in 1996 to 2000. A percentile rank of 50 for a commuting zone means that adult children in this zone rank at the midpoint of national income for this age cohort.



#### Bottom-to-top mobility

Probability that a child of a parent ranked in the bottom quintile of national parent income in the late 1990s is in the top quintile of national income for his or her age cohort as an adult (30 to 32 years old in 2011-12).



Source: Federal Reserve Bank of Minneapolis calculations, based on Chetty et al. (2014)

ing zones. North Dakota alone grabbed the top six scores in absolute upward mobility in the country, and seven of the top eight. Two of these are located in the western oil patch, a region that has seen unprecedented income gains over the past decade. But the other five are rural commuting zones located outside the Bakken region.

One of them is the Carrington area, home to the Volds, located in the heart of the state and encompassing Foster and Eddy counties. The commuting zone is ranked eighth nationally in absolute upward mobility, but doesn't necessarily look or feel rich in the way you might expect in a place reported to be upwardly mobile. Until about 2010, the city's population had been in gradual decline and has increased by only a few dozen people since then, according to the U.S. Census Bureau. Homes lining the streets, and the vehicles plying them, are like a new pair of comfortable shoes: nice, functional, but not gaudy. There is wealth in the community, numerous sources said, but it is not often publicly displayed.

Income mobility rankings by the Chetty research team do not solely depend on the net change or difference in the income of children versus that of parents (see "And now, a word from our sponsor" on page 7). Nonetheless, income gains are a decent predictor. In Foster and Eddy counties, for example, annual median income for the adult children rose to \$61,500, up from \$53,000 (inflation-adjusted) for their parents.

Carrington, which sits at the intersection of two major state highways, feels like a city of more than 2,100 people. There's a new hotel in town, and Central City Grain is erecting an 820,000-bushel steel bin to match the slightly smaller one it put up two years ago. The streets in many places are a mess—not because of neglect, but because they are being torn out and replaced, thanks to a new 1 percent increase in the local sales tax. The city boasts 50 to 60 job openings, and that's only the advertised jobs.

Vold said the growing affluence in the community can be seen in the parking lots. "We're not in the suburbs of Minneapolis or St. Paul or wherever ... but the number of newer pickups that kids drive and park in the school parking lot" seems to be growing, he said.

On a map, Carrington is an island in a sea of agriculture, 45 minutes by car from Jamestown (pop. 15,000) and two

Chart 2

25

20

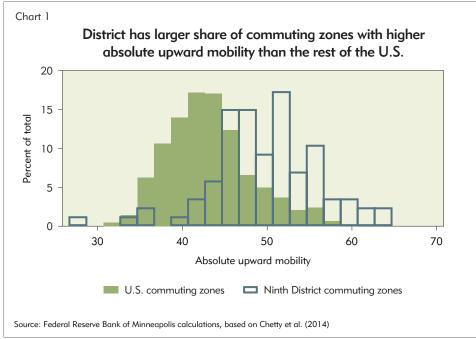
10

Percent of total

50

# fedgazette

#### **Income mobility** from page 3



10 Probability in percent U.S. commuting zones
Ninth District commuting zones Source: Federal Reserve Bank of Minneapolis calculations, based on Chetty et al. (2014) a lot of money," said James Linderman, nificantly lower than the statewide aver-

hours from Fargo, Bismarck and Minot. That seeming isolation has its advantages. Two decades ago, the city beat out almost 30 other communities competing for the Dakota Growers plant, which employs about 200. The community's central location and its good highway and rail access were factors in the firm's decision to build in Carrington.

Today, Agro-Culture Liquid Fertilizer is building a new plant in Carrington "because they can distribute to a fourstate area from here and save themselves

#### Ninth District metro cities rank high in absolute upward mobility 381 MSAs nationally

MSA N	lational Rank
St. Cloud, Minn.	1
Bismarck, N.D.	4
Grand Forks, N.D.	7
Rochester, Minn.	9
Mankato, Minn.	11
Sioux Falls, S.D.	14
Fargo, N.D.	15
Eau Claire, Wis.	24
Billings, Mont.	25
La Crosse, Wis.	26
Great Falls, Mont.	42
Duluth, Minn.	58
Minneapolis-St. Paul, Mir	nn. 67
Rapid City, S.D.	76
Missoula, Mont.	89

Source: Federal Reserve Bank of Minneapolis calculations, based on Chetty et al. (2014)

Carrington economic development director. "So that's been a really big help for us-our geographical location within the state and what's around us."

#### Don't forget the big cities

Larger cities in the Ninth District also fared well among their peers. St. Cloud scored highest among 381 metropolitan statistical areas nationwide in absolute upward mobility; several others were in the top 25, and all 15 MSAs in the district ranked in the top quartile (see table at left).

These results were something of a revelation to some observers, such as King Banaian, a St. Cloud resident and state representative in the Minnesota House. "It did surprise me to some extent," he said. Nonetheless, Banaian had no problem offering possible explanations for the ranking, in part because he's an economist and interim dean at the School of Public Affairs Research Institute at St. Cloud State University (SCSU) and co-author of the St. Cloud Quarterly Business Report.

St. Cloud might not have the upper income potential of the Twin Cities, he said, but the city has always had good places to work. The region has a higherthan-average percentage of manufacturing jobs, at 15 percent, and many are in high-value sectors like technology and precision instruments.

While the region has lost manufacturing jobs, the overall rate of job loss from 2003 to 2013 (6.5 percent) was sigage (10.8 percent) over this period. At the same time, the area has seen strong growth in other sectors like health care. The region is a medical center for much of the north-central part of the state, Banaian noted.

Banaian also believes that St. Cloud's proximity to the Twin Cities, roughly an hour away, is a big reason for the ranking. Minneapolis-St. Paul is a big draw for St. Cloud residents. That matters because the Chetty research team assigned all income of the adult children to their home commuting zone when they were 16 years old. So in the study's statistical framework, St. Cloud children who left home for the bright lights of Minneapolis nonetheless had their paychecks attributed back to their home commuting zone.

"We're just a way-stop to the Twin Cities," Banaian said. "Our number one export is smart kids." The department recently found that of roughly 700 alumni, 400 lived in the Twin Cities. "Most probably went down there to earn more money than they could get here."

Many sources in other communities similarly acknowledged that their sons and daughters had gone elsewhere to make their living, very often to larger cities that historically have paid higher wages, thus offering a better opportunity to surpass mom and dad's income.

Vold is not even the sole pastor at Lutheran Trinity whose children went away for college and later found good jobs in bigger cities. His colleague, Russ Christiansen, grew up 35 miles away in the little town of McHenry. He and his wife

of 38 years have two kids; a daughter lives in South St. Paul, Minn., and does administrative work out of her home for a hospital based in Duluth. Their son works in Fargo for Microsoft and "earns more than my wife and I together," said Christiansen.

District commuting zones have higher probability of movement

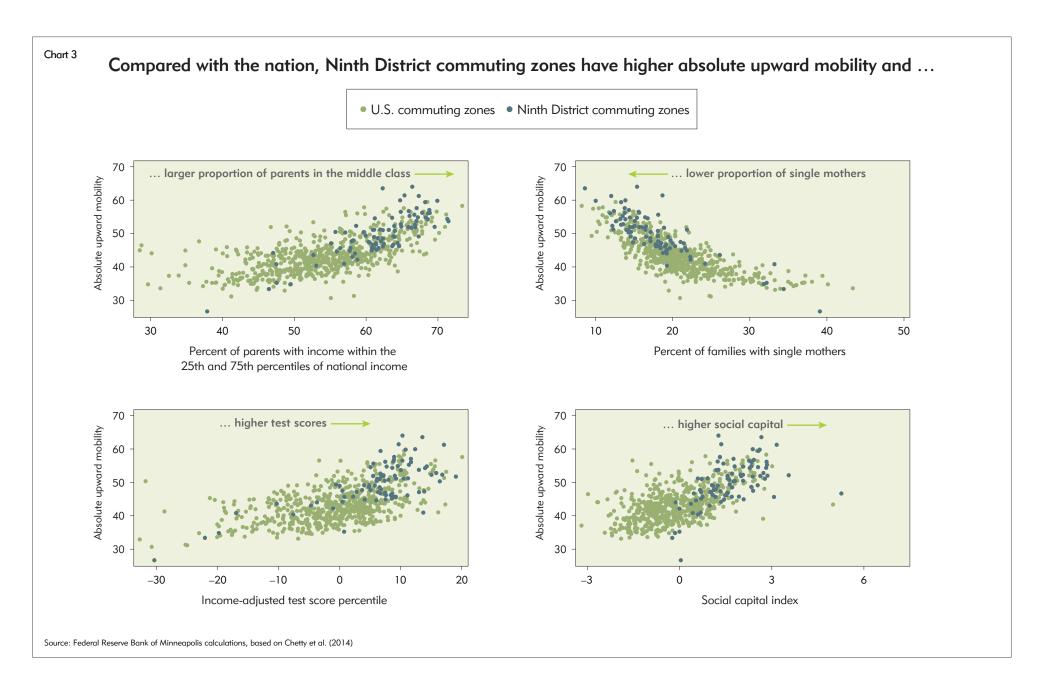
from bottom quintile to top quintile of national income

Of course, no community keeps all of its own, and young adults from every community move away to find their fortune. But higher upward mobility in the district might also be related to comparatively high college attainment in district states; North Dakota and Minnesota rank among the top seven states for percentage of adults ages 25 to 64 with an associate's degree or higher, and South Dakota and Wisconsin are above the national average, according to Census



King Banaian





figures. Such attainment makes it more probable that hometown kids will land higher-paying jobs in professional fields, whether at home or elsewhere.

In Carrington, "I see the expectation of the student [to achieve] from the parents, from the community, from the school," said Brian Duchscherer, superintendent of Carrington Public Schools. He said that 86 percent of the high school class of 2013 had plans to pursue two-year or four-year degrees. "Combine that with the economic climate in North Dakota right now ... [and] I think it's the perfect storm when those two meet."

#### More on why and how

Ultimately, the factors behind intergenerational income mobility are many and vary by location. But it's not hard to infer why some commuting zones have high income mobility.

For example, the commuting zone of Dickinson, N.D.,—which includes the counties of Stark (home to Dickinson), Billings and Dunn—has the highest absolute upward mobility ranking in the country. While there is no irrefutable proof, its location in the Bakken oilfields likely plays a considerable role in its high rank.

In 2013, for example, 47 percent of the 22,000 jobs in Stark and Dunn counties, and 67 percent of income earned, were related to the oil and gas industry, according to a recent report by Job Service North Dakota. (Figures for much smaller Billings County were unavailable.)

In the Chetty study, average annual income for adult children in the Dickinson commuting zone was almost \$76,000 in 2011-12 (current dollars); that com-

pares with about \$65,000 for parents in this zone (1996-2000 average, adjusted for inflation to 2012 dollars).

But in other places, as well as more broadly across states, teasing out the reasons for high or low upward mobility is a very complex task because a multitude of economic and social factors influence income over generations. Rank could even be influenced by methodology.

Robert Johnson, professor and chair of the Ethnic Studies and Pre-College departments at SCSU, suggested to Chetty after his speech in St. Cloud that the city's top ranking in absolute upward mobility among MSAs might be influenced by the timing of the parent sample. By choosing to study children born in 1980 to 1982 and measuring income of the parents in the latter half of the 1990s, the St. Could population

sample "at the time, would have had low ethnic and minority populations," who typically fared worse on mobility measures nationwide.

Over the past two decades, St. Cloud has seen a considerable increase in immigrant—particularly Somali—and domestic minority populations, according to Johnson. Whether these new St. Cloud residents will experience similarly high mobility, "you'll have to wait another 10 to 15 years for those results."

While the Chetty research team did not specifically factor for demographic changes in local population samples, it did investigate a number of variables looking for correlations to mobility—not causal proof, but evidence that the presence (or absence) of a particular factor was common to those with high (or low) upward mobility. Among almost three dozen variables studied, five

#### **Income mobility** from page 5

stood out for having a significant correlation with income mobility: residential segregation, size of the middle class, K-12 test scores, social capital and single parenthood.

As one might expect given their high mobility rankings, Ninth District commuting zones generally outperformed the nation on these measures. Residential segregation, which includes income and racial segregation, is lower in many district communities. This might be partly due to the fact that many district commuting zones are smaller in population (which tends to limit the upper end of the income distribution) and largely white (reducing racial segregation by default).

Other correlations also offer a notable contrast compared with the rest the country. For example, the middle class—defined as the percent of parents with incomes between the 25th and 75th percentile of the national income distribution—is larger in Ninth District commuting zones, while the fraction of children living with single mothers is smaller. As for school performance, income-adjusted school test scores in English and math for children in third through eighth grades tend to be uniformly higher (see Chart 3 on page 5).

Ninth District commuting zones also tend to have higher social capital, which the Chetty team gauged through voter turnout, percentage who return Census forms and participation in community organizations. Upwardly mobile St. Cloud offers a good example.

"There is tremendous social capital here. ... People are willing to invest their time, talent and treasure into the community. And you can see it," said Banaian. He pointed to the renovation of Lake George and Eastman Park near downtown, which had fallen into disrepair. In 2007, the St. Cloud Rotary Club raised over \$1.5 million from local businesses and members, which helped leverage a total investment of \$7 million to transform the lake and park into a community destination with walking and biking trails, sitting areas, fishing piers, a splash park and meeting facilities.

In 2011, the club started hosting "Summertime by George," a weekly festival at the park featuring live music, a farmers market, food vendors and family activities. Attendance reached 86,000 people in the summer of 2013, and Rotary members logged 1,500 volunteer hours.

"It's the biggest thing in town. This is like a party on steroids," said Bana-

ian. "If you're looking for anyone on Wednesday night, they are down there."

#### Back home on the farm

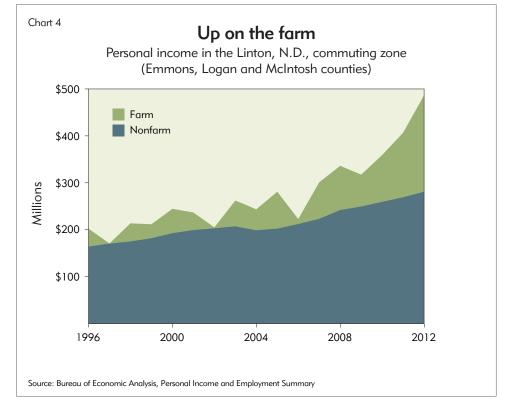
The Chetty research team looked at only a few isolated factors directly related to local economies, including the share of manufacturing jobs and workforce participation rates, and found no strong correlations. An exhaustive review of other local-economy factors—like employment growth and industry mix—is outside the scope of the project. But there does appear to be one factor—identified by multiple sources and supported by data—that seems likely to have influenced upward mobility rankings, particularly for lightly populated rural areas: agriculture.

In this case, the time frame for measuring the income of parents (1996 to 2000) came when the farm economy in many ag-dependent counties was poor to modest, but was followed by one of the strongest farm economies of recent memory. The ag surge appears to have had significant spillover effects.

For example, the commuting zone of Linton, N.D., includes the counties of Emmons, Logan and McIntosh, with a combined population of just 8,200. The zone ranks second in the country in absolute upward mobility, but that's not necessarily obvious in the zone's biggest city—Linton, population 1,100. Broadway Street downtown is active, but also has a few vacant storefronts and has lost some business anchors over the years, according to local sources. The town of tidy neighborhoods and unassuming, well-maintained houses appears content with what it has, rather than dreaming about what it might become.

Without a vibrant farm economy, it's difficult to see how this commuting zone could be ranked so high, and the study's timing likely plays a role as well. In the late 1990s, farming in the region was struggling, responsible for just 13 percent of the three-county economy, according the Bureau of Economic Analysis; in 1997, annual net farm income in this region averaged less than \$25,000 per farm (unadjusted for inflation), including fairly generous government subsidies, according to the USDA's Census of Agriculture.

Things didn't improve quickly, but a confluence of factors over the next decade and a half—rising commodity prices, higher yields from better farm prac-



tices and movement to more profitable commodities like corn and soybeans—eventually led to record farm income in the region (and across North Dakota). By 2012, annual average net farm income had risen to almost \$120,000 per farm in these three counties, and agriculture's share of total personal income in this commuting zone leapt to 42 percent (see Chart 4).

Spencer Larson is a recently retired senior farm loan officer for the USDA's Farm Service Agency in Linton. He came to Linton in 1972 to work for the Farmers Home Administration (renamed the Farm Service Agency in the 1990s). Over a 42-year career, Larson has ridden the agricultural roller coaster with local farmers, including the brutal 1980s, when many farmers went bankrupt.

Things started turning around in the 1990s, Larson said, thanks to more consistent precipitation, better farming techniques and technology. Eventually, farmers started making real money, and some weren't quite sure what to do, Larson said. "One young farmer said, 'You know, now that I'm making money, it's more stressful on my wife and [me] because we have to decide where to spend it instead of giving it all back to the lender."

He knows of one young man who came back to the area to farm. "His dad gave him a nice part of his unit to farm, gave him all of the equipment—he just had to borrow money for the inputs

and the rent." Despite fairly high rent that first year, Larson said, "the kid ... hit the crop, hit the price and he was on his way ... from basically nothing to six-figure [net worth]. In less than 10 years of farming, he probably has equity in excess of \$1 million today."

For some, the hardscrabble days seem like ancient history. "I'm on the third or fourth generation of farmers," Larson said. "The dads that have turned over [operations] to their sons and daughters have said, 'My kids have never experienced a bad year. I'm worried what's going to happen when that happens.' We've had no crisis, no severe weather issues, no overall big disasters," but he added that current low crop prices would be a big test for young farmers.

While farm consolidation continues, new opportunities have opened up in the farm economy, according to Larson and multiple other sources. For example, agronomy—the science and technology of food production and farm management—has brought new companies and jobs to town, helping farmers with soil science, irrigation, weed and pest control, crop rotation and more. Many agronomy jobs involve considerable schooling, bringing jobs for college graduates to many rural communities. "So that's been a job opportunity that was nonexistent 20 years ago," said Larson.

Thriving agriculture also offers a chance for sons and daughters to come



home. While there are no good data on such matters, local sources suggest that there has been a boomerang effect on young adults. Allan Burke might be called the eyes, ears and mouth of Emmons County. In 1993, Burke and his wife Leah bought the Emmons County Record, the oldest business in the county and the third-largest weekly newspaper in the state. While Burke is semi-retired, he still keeps close tabs on the community as the publisher emeritus.

Before the ag boom hit, "our farmers were aging, and nobody wanted their kids to come back and farm. But now, they want junior to come home ... [and] we have a lot of young couples and young farmers who have come back" to work the land, he said. Burke's son graduated from high school in 2007 and recently moved to Washington state to teach high school biology—a common move for many graduates in the past. "Nobody stayed around here, or very few," said Burke. But that appears to be changing. "Now there's like five or six boys from his class [of about 34] who are farming, and then there's a couple who are in agronomy."

Vold has seen the same phenomenon in Carrington. "There was a point in North Dakota [where we said] goodbye to our kids. Graduation felt like a funeral. It was like, 'Well, nice having you here for these 18 years, and you're all going to go off and get jobs everywhere around the country," said Vold. "Now, we have all kinds of people, young families [coming back]. Many of them are farming, but [there are] also a lot of other choices. We have three excellent doctors in our clinic and three physician assistants, and they're all from here."

Vold's middle child, Matthew, "grew up here, went off to college, came back, and he's got a good job" in the business office at the pasta plant in town. Just 26 years old, "he bought a house here in town. Doing better that way than I was" at that age, Vold said.

Though Vold's older son, Bryan, said he enjoys living in the Twin Cities, he hasn't dismissed the idea of coming home. "I definitely have not ruled it out." Bryan Vold is single right now, but if he were raising a family, he said, "I would rather do it in Carrington. It just feels better." **f** 

## And now, a word from our sponsor

The genesis of this fedgazette project on intergenerational income mobility, and the raw data that underlie it, comes from research by a group of academics that gathered unprecedented (and anonymous) income records from the Internal Revenue Service on 40 million individuals.

The principal researchers—Raj Chetty and Nathaniel Hendren from Harvard University, and Patrick Kline and Emmanuel Saez from the University of California, Berkeley-started by looking at 1996 tax records of 30 million people, who were identified only by a Social Security number. Dependents also were listed by Social Security number on tax returns, allowing the team to identify 10 million children born between 1980 and 1982.

In February, Chetty discussed this undertaking, dubbed the Equality of Opportunity Project, in a radio interview with St. Cloud State University economist King Banaian, who is also a state legislator and radio host on the Wall Street Business Network.

"We're trying to understand the determinants of intergenerational mobility. A simple way to think about it is 'your odds of moving up in the income distribution,' [which is] kind of the core ideal of the American dream. We want to investigate what factors seem to increase kids' chances of moving up in the income distribution and what we can do to promote the outcomes of disadvantaged youth," Chetty said.

"The way I think about the work that we're doing is using big data to improve public policy in much the same way that private sector companies like Amazon or Google are trying to use big data to improve the products that they deliver."

The team calculated parents' income by averaging family income from 1996 to 2000. It then calculated the income of the (now adult) children in 2011 and 2012, when they would be between the ages of 30 and 32 years old. Then the researchers added a geographic component by assigning the income of both parents and their children to their place of residence when the children were 16 years old, regardless of where the income was earned when children were 30-somethings.

To better generalize the geographic data, the research team grouped income records by commuting zones, which are clusters of counties that are characterized by strong internal commuting ties (as defined, in this case, by the 1990 census). Because employers and workers in a local market tend to be located within commuting distance, commuting zones serve as rough proxies of local economies. Because these zones don't rely on the presence of a major city (as with metropolitan statistical areas) they cover the entire United States, including rural areas.

In all, the team collected data on 741 commuting zones



across the countryincluding 101 in the Ninth District. Some zones were eliminated because sample sizes were too small to include, bringing the final tally of commuting zones in the study to 709 nationwide and 87 in the Ninth District. The team also made its data publicly available, which the fedgazette used

as the foundation of its investigation.

Mobility rankings by the Chetty research team don't solely depend on the net change or difference in the income of children versus that of parents. In many commuting zones, the income of the children (as 30- to 32-year-olds) does not exceed that of their parents, in part because the children's income is measured comparatively early in their careers.

Instead, the Chetty team used a so-called rank-rank analysis, whereby parent household income is ranked against the income of other parents with children in the same birth cohort, and adult children are ranked based on their household incomes relative to other adult children in the same birth cohort. The Chetty team then ranks upward mobility based on a linear regression of child rank against parent rank.

The research findings run counter to much of the conventional wisdom on intergenerational income mobility, Chetty said in the local radio interview.

"Many people have the perception that the U.S. once was a land of opportunity, and maybe upward mobility has been declining over time. What we find actually, in contrast, is looking over the past 30, 40 years or so, mobility seems relatively stable at the national level. There haven't been significant changes. So the much bigger story here, in our view, is not so much that mobility is declining over time, but rather that there are some places in the U.S. that have persistently low levels of upward mobility relative to others."

Chetty said that the odds of a child moving from the bottom fifth to the top fifth of the income distribution "are three times as large in places like Salt Lake City or parts of Minnesota relative to other areas such as Charlotte or Indianapolis or Atlanta." So the best income mobility places in the United States—many of which are in the Ninth District—"look somewhat like Denmark or Sweden or Norway, on average." But he added that the United States looks "significantly worse" overall because it has "many places with much, much lower levels of upward mobility."

"Why are we seeing these really large differences in kids' outcomes across these areas? A very likely reason is local policy or other differences in local economic conditions."

—Ronald A. Wirtz

"The one thing I really like is that



Ann-erika White Bird, her husband Josh Dillabaugh, daughter Osina and son Josh Dillabaugh II

#### The Quick Take

Upward income mobility is very high across the Ninth District, but very low in some places, most of which have a large Indian reservation. These places have struggled for years with low income, high unemployment and poverty, and high rates of violence and alcohol and drug abuse, among other things. But reservation populations appear to be growing-modestly by official count, but faster according to tribal sources. That tribal populations appear to be growing at all, given the struggles of reservation life, suggests that there are important, nonfinancial reasons why people live where they do in spite of circumstances that appear not to be in their best economic interest. Anecdotes from tribal members returning to their place of birth are a signal that something besides income and financial opportunity influence where some people choose to live and raise their families.

By RONALD A. WIRTZ Editor

Maps are very confident things.

They tell you specific facts about geography, the people living in those places, and the economy coursing over the land and through the lives of these people. Maps are great for innumerable comparisons, offering demarcations with little wiggle room: You are here or there, this or that, one or the other and never both.

Recent research on intergenerational upward income mobility—a geeky phrase for how well kids do financially compared with their parents—puts much of the Ninth District on the proverbial map for having some of the highest upward mobility in the nation (see cover article). These data suggest that the American dream is more alive in the Ninth District than virtually anywhere else in the United States.

But not everywhere in the district, mind you. Income mobility maps show-indeed, highlight-that some of the places with the least upward mobility are also in the Ninth District (see map on page 9). Virtually all of these places have large Indian reservations. The region that includes the Rosebud Reservation, home to the Rosebud Sioux Tribe, has the dubious distinction of having the worst upward mobility rank in the country.

If the American dream means doing better than your parents, or going from the bottom floor to the penthouse, the map implies that achieving the dream also means leaving the reservation.

But go to the Rosebud Reservation in south-central South Dakota, or to the Cheyenne River Reservation to the north, and a story emerges that doesn't always fit the income mobility map. Rather than emptying out, reservations appear to be growing, luring back members who were pursuing the dream somewhere else, only to decide later that they wanted something else they could get only on the reservation.

A decade ago, Ann-erika White Bird and her husband, Josh Dillabaugh, were living in Denver after they both earned bachelor's degrees at the University of Colorado in Boulder. She was a paralegal at a civil rights law firm, Josh worked construction and they enjoyed the city, she said. They were making good money and started a family, having a daughter and then a son two years later. Then the recession hit, and Josh's work became more sporadic. Coupled with the costs of raising children, owning a home and

city life in general, the downturn got them thinking that maybe city life wasn't for them anymore.

"The only reason to be in the city is to make money. I mean, there's opportunity, [but] if you can't build a life and you're just living from paycheck to paycheck, go home. That's why we came home," said White Bird, a member of the Rosebud Sioux Tribe. (Her husband is a member of the Cheyenne River Sioux Tribe.) So three years ago, they packed up the family and moved to the Rosebud Reservation.

White Bird is now a part-time instructor in foundational studies-reading and writing-at Sinte Gleska University in Mission, S.D., in the heart of Rosebud. She also put her English degree to work by starting a news blog called Lakota Voice, covering tribal governance and politics. Josh works construction in the area.

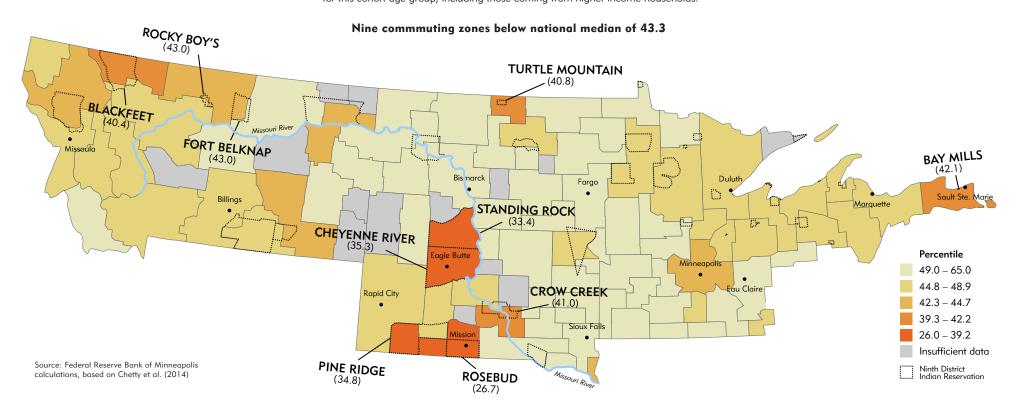
Their income is a fraction of what it used to be, and the transition to the reservation wasn't flawless. But their children, now ages 6 and 4, "acclimated really quickly," said White Bird. "It was really great because we wanted the kids to have the kind of imagination that we had" playing outside and improvising tovs from sticks.

Make no mistake, the income mobility

# fedgazette

#### Absolute upward mobility

Expected percentile rank of children whose parents are in the 25th percentile of household income distribution (roughly \$30,000 or less in 2012 dollars) in the late 1990s. A percentile rank of 50 for a commuting zone means that the adult children (30 to 32 years old in 2011-12) in this commuting zone rank at the middle point of national income for this cohort age group, including those coming from higher income households.

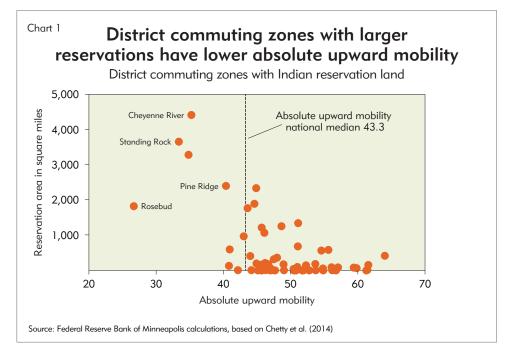


maps don't lie. Economically speaking, life is a struggle for many on the reservation. Educational attainment is low; unemployment, poverty and suicide rates are high. Housing is often in short supply and subpar. Jobs in the private sector are scarce; well-paying jobs in tribal government are more numerous, but can be difficult to get without a family connection, according to numerous sources.

But the maps are incomplete, two-dimensional fact sheets that lack descriptive depth and nuance about why people live where they do despite challenging circumstances in some cases. The fact that some—possibly many—tribal members return to their place of birth is a sign that something besides income and economic opportunity influence where people choose to live and raise kids.

#### Income immobility

A team of researchers from Harvard and the University of California, Berkeley, investigated the intergenerational income mobility of parents and their adult children across the country. Parent household income was measured in the late 1990s, and child household income was measured in 2011 and 2012



when children were in their early 30s. The research team organized households and their income by commuting zones—a multicounty designation that serves as a rough proxy for local economies, including rural ones like those on reservations. (For more discussion of research methodology and definitions of income mobility, see the cover and side-

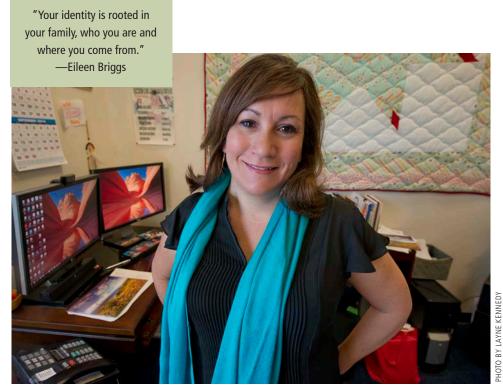
bar articles.)

The research shows that commuting zones with the least upward income mobility in the Ninth District typically have a sizable reservation within their borders. Of the 709 commuting zones analyzed nationwide, four zones in the Dakotas with huge reservations—Rosebud, Pine Ridge, Cheyenne River and Standing

Rock—rank in the lowest 25. Reservations make up all or most of the territory of these four commuting zones.

Among 87 commuting zones in the district, only nine are ranked below the national median of 43.3 for absolute upward mobility (see Chart 1). Seven of them have sizable reservations (at least 600 square miles) and/or tribal populations. The four lowest-ranked commuting zones are almost entirely reservations; the populations of four other commuting zones are between 20 percent and 65 percent tribal. Only one commuting zone below the national median has neither a large reservation nor a large tribal share of population (Sault Ste. Marie in the Upper Peninsula of Michigan, which has two small reservations and roughly 4 percent of the population).

There are reservations in many higher-mobility commuting zones, but these reservations tend to be much smaller, and the nonreservation, nontribal population of the zone much larger. There are also a few large reservations in the district located in high-mobility zones. For example, the 1,500-square-mile Fort Berthold Reservation in North Dakota is split among three high-ranking commuting zones—Bismarck and Dickinson, N.D., and Sidney, Mont.



Eileen Briggs, executive director, Tribal Ventures

#### Calling home from page 9

All three are located in or very near the Bakken oil patch, which is generating tremendous economic activity and high-paying jobs.

Tribes on Fort Berthold—Mandan, Hidatsa and Arikara Nation, also known as the Three Affiliated Tribes—have also received considerable tax and royalty income from oil production on the reservation, according to state and federal records. In fiscal year 2014, the tribes received \$249 million in oil tax revenue; in fiscal year 2013, they took in almost \$100 million in royalties, while individual trust land residents earned royalties of at least \$350 million (see related article on page 15).

#### Tough indicators

It's not difficult to identify some of the likely reasons why upward income mobility lags on many Indian reservations.

The Chetty research team investigated factors associated with either high or low income mobility. Among the variables most correlated with mobility, the nine district commuting zones below the national median scored much lower (or more negatively) in school test scores, size of middle class and fraction of children with single mothers (see Chart 2 on page 12).

Some of these measures likely carry less explanatory weight than others. For example, commuting zones with large reservations ranked poorly for the size of their middle class. The Chetty team targeted this variable (among others) to see what role income inequality had on mobility. But on reservations, rather than a matter of income inequality (with more high- and low-income households) the absence of a large middle class stems solely from low household income, often 50 percent to 75 percent of the state median. In fact, Chetty's team measured income

inequality more directly (using Gini coefficients, not shown here), and reservation-based commuting zones ranked relatively higher because of the general lack of higher-income households.

Probably no indicator offers more insight to the low-mobility puzzle than education outcomes. The Chetty research, for example, shows that K-12 test scores in district commuting zones below the national median are widely lower than those in other Ninth District commuting zones. Other data from the South Dakota Office of Indian Education offer further clues. For example, the graduation rate for high school students in South Dakota is about 83 percent (measured as a cohort group in ninth grade). Among all South Dakota reservations, the graduation rate is 57 percent. At the Todd County School District, which serves Rosebud, the rate is 48 percent; two Rosebud sources put the rate at closer to 30 percent. In Shannon County, home of the Pine Ridge Reservation, the state says the graduation rate is just 7 percent.

Reservations also struggle with other, related problems. Domestic violence and crime are high on reservations, often generated from alcoholism, drug abuse and depression that are "pandemic," according to a Simply Smiles, a tribal children's services program on the Cheyenne River Reservation.

Those struggles trickle down to youth, who often lack communal gathering places and activities, according to several tribal sources. The rate of violent teen deaths in Todd County is roughly four times the state average, according to South Dakota KIDS COUNT. According to congressional testimony by Julie Garreau, executive director of the Cheyenne River Youth Project, native youth nationwide are two to three times more likely than other youths to commit suicide, but tribal youth in the Northern Plains region "are often five to seven times more likely" to take their own lives.

"I think a lot of our young people are really struggling to find their place here," said Eileen Briggs, executive director of Tribal Ventures, a 10-year-old initiative to reduce poverty on the Cheyenne River Reservation funded by the Northwest Area Foundation. "So if they want to survive, sometimes they will leave, not because they don't want to live here, but because there isn't opportunity here for them."

#### Poor yardsticks

Given these challenges, it would be easy to assume that tribal members living on the reservation are heading for the exits en masse, looking for a better life off the reservation. But that doesn't appear to be the case; in fact, there is evidence that the opposite might be occurring—many are staying or seeking to return, which speaks to a reservation dynamic that is not easily captured by income or other socioeconomic data.

Wayne Ducheneaux II is a tribal council member with the Cheyenne River Sioux Tribe, a lifelong resident of the reservation and the son of a two-time tribal chairman and former president of the National Congress of American Indians. He said you can't judge the quality of life on the reservation from the outside, or from the official data. "While you have the high poverty, the high unemployment, and the material quality of life is very poor, the family, the spiritual, the emotional quality of life is very high here because we're close-knit. You thought everybody in Mayberry knew everybody's business. It's 10 times worse here. Everyone's related to everybody."

The matter of population growth—especially from returning tribal members—is difficult to pin down exactly. Census figures suggest modest growth in population. Todd County, which is entirely reservation territory, has grown by 10 percent since 2000, according to U.S. Census estimates.

Then there's the recurring matter of accurate counts, which tribal officials often dispute. Official statistics say the population of the Cheyenne River Reservation grew by about 300 from 2010 to 2013, or 4 percent. Many believe that significantly undercounts the population increase.

Ducheneaux said tribal members make up about 80 percent of the reservation's population, or about 6,000 people. But tribal enrollment "is currently hovering right around 20,000 members. There's no way in hell two-thirds of our population lives off the reservation," he said. To do so would mean members live outside both Dewey and Ziebach counties, whose boundaries closely mirror those of the reservation—all 4,300 square miles of it, fourth largest in the country.

Based on tribal applications to feder-



Wayne Ducheneaux II, Cheyenne River Sioux tribal council member

al grant and other programs, according to Ducheneaux, the tribe believes the Native population on the reservation is closer to 10,000. "I would argue that it's more than that," said Ducheneaux. "It seems to me that on any busy Friday, any payday Friday, you have 6,000 Indians in Eagle Butte that day."

Confirmation of whether population growth on reservations is large or small, real or imagined, is difficult. But there is evidence that official head counts on reservations are understated. In a 2012 report, the Census estimated that its 2010 survey had undercounted the American Indian population living on reservations by 4.9 percent and overcounted the Indian population living off reservations by 2 percent. Nationwide, the overcount of all people was estimated at just 0.1 percent.

The Cheyenne River Sioux have been working on this population matter with the state demographer, who has presented some preliminary evidence that post office receptacles on a per capita basis are much lower in Indian communities. In turn, this would negatively affect the number of native households receiving (and returning) census questionnaires, potentially leading to an undercount, according to Lakota Mowrer, assistant director at Four Bands Community Fund.

#### Home is for the heart

The idea of growing reservation populations flies against the challenging winds that life on the reservation can present. The income mobility data from the Chetty project make it clear that reservations are not the place to get ahead financially. Conventional wisdom says to find opportunity elsewhere.

But for Native Americans growing up on reservations, suffice to say that not all decisions are financial ones. Roughly a dozen sources on the Rosebud and Cheyenne River reservations were virtually unanimous in their belief that more tribal members are returning after a spell off



 ${\it Cora\ Mae\ Haskell\ with\ family\ members\ from\ four\ generations,\ Eagle\ Butte,\ SD}$ 



Wizipan Little Elk, director, Rosebud Economic Development Corp.

the reservation, most often from a spiritual calling or a duty to their tribal family.

According to White Bird, who moved from Denver, "for me, part of it is spiri-

tual. ... The one thing I really like is that capitalism isn't the religion here. ... You can figure out a way to make it, and people will help you along the way. If you are homeless and your family can't help you, you can always go to the tribe. I appreciate that culture of generosity," she said. Of course, not every tribal member acts in such a way, she said, "but the understanding of how we should be is still there. That's why I live here."

Cora Mae Haskell has lived her whole life on Cheyenne River and is the asset development coordinator for the Four Bands Community Fund. Before that, she taught for more than a decade at the high school.

"I see many of the students I taught returning to the reservation for various reasons, but mostly because it will always be their home," said Haskell. She believes more young tribal members are returning home now than in the past, in part, because they were more likely to leave the reservation for advanced education, "and now they feel a need to return to actually help their tribe and their families." Most still have family on the reservation, and "they feel it is time to come home to be with family, which is a value very close to all Lakota people."

Haskell herself is a mother of six, four of whom have always lived on the reservation and "one that has returned after 25 years away"—a younger daughter who has lived and worked "at various places, but decided there is no place like home."

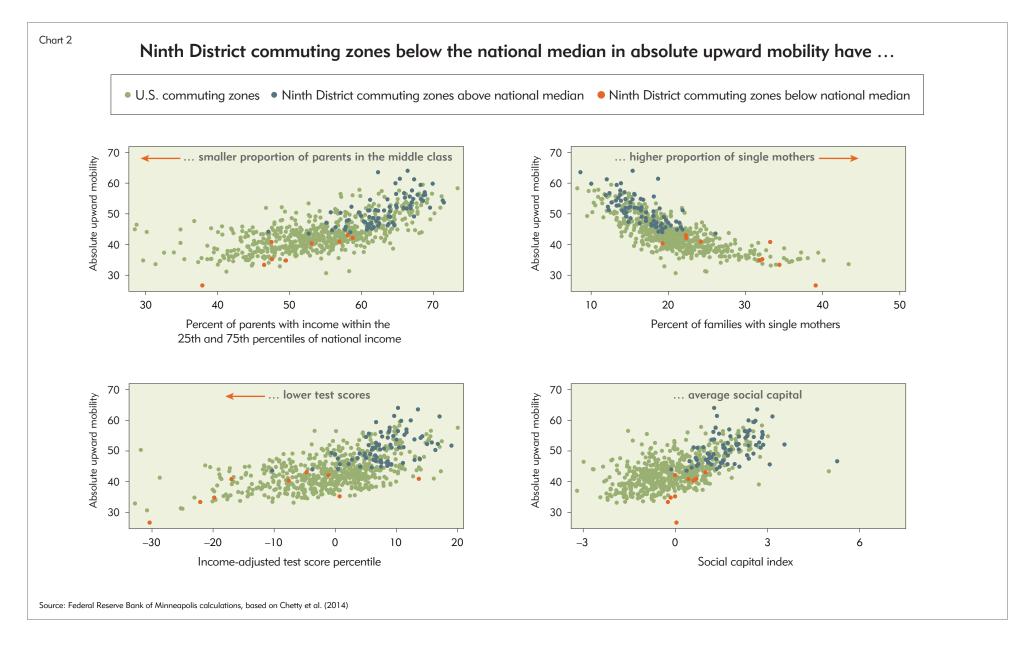
Briggs, from Tribal Ventures, grew up on the reservation, her mother a tribal member and her father a nonmember. When she was 12 years old, her family had to leave the reservation when her mother became ill, and "when we left, I thought I would just go away—like, we would come back and visit grandparents and such, but I didn't expect that I would live here." There wasn't much opportunity to begin with, she said, and her mother later died, loosening her ties to home even more.

Or so she thought. Briggs lived in different places—Minneapolis; Madison, Wis.; Columbus, Ohio—but as she grew older, occasional trips back home started taking on new meaning, "like I'm always coming home here," she said. Eventually, she returned to be with family. "I actually came back for my mother, even though she was passed. It's all your connections to who you are. Your identity is rooted in your family, who you are and where you come from," said Briggs.

Many, like Briggs, are giving up better financial opportunities elsewhere to come back and support development in their own communities—something that is surely worthwhile, but doesn't necessarily compute favorably or immediately on income mobility indexes.

Wizipan Little Elk, director of the Rosebud Economic Development Corp. (REDCO), believes the attraction to come home is growing. "I see a lot more people who are in their 20s that are going off, going to school and coming





#### Calling home from page 11

back and working at home. It's one of the things where we need those people to come home for a quality of life and education. We need our own tribal members here to help develop the tribe, and it's something I think is becoming more prevalent."

Little Elk is living what he's preaching. He grew up on Rosebud, left after graduating from high school and eventually graduated from Yale University. But as a freshman, he said he had an "epiphany" while home for Thanksgiving.

"I'm driving around at two in the morning through St. Francis, and I just look around and I realize that everything is wrong. It just doesn't fit, it's not right, the poverty"—a stark contrast to "going to school with some of the richest and most powerful children in the world," said Little Elk. "So I kind of had this epiphany where whatever I do in life has to have an impact on improving the quality of people's lives" on Rosebud.

It didn't happen overnight or as Little Elk had planned. After interning for former U.S. Sen. Tom Daschle doing Indian affairs work, he got a lobbying job in Washington D.C., and later went to law school. In 2008, Little Elk landed on newly elected President Obama's

transition team for his role in drafting a 50-state strategy for garnering Indian election support, and he eventually became deputy chief of staff for the assistant secretary of Indian Affairs.

But all the while, Little Elk's attention was not far from home. "The plan, my wife and I, our plan was to come back in 2012," after the president's first term. But life intervened. Little Elk had already lost a brother in 2007, and his sister died in 2010, leaving behind a 2-year-old son. So Little Elk and his wife moved back. "I was called home. ... My spiritual guides said it's time for you to come back."

He returned with no formal job in hand, but did some work for the tribe. Eventually, the REDCO position came open, "and so I put my name in the hat and here I am, a little over two years later."

#### Needs list

None of this should imply that everyone who leaves the reservation comes back, or that those who do return find perfect harmony or stay permanently. Sources widely acknowledged that reservation life presents considerable obstacles for growing roots, particularly for the well-educated.

Returning to the reservation invariably involves some economic sacrifice—being underemployed and underpaid (sometimes both) or living in crowded or substandard housing. Any notions of returning home also bring up questions about the quality of schools, job opportunities for spouses and even where families can live—something Little Elk experienced firsthand.

"The hardest thing, when my wife and I moved home, we lived with my mom for four months because we couldn't find a place to live," said Little Elk. "So there's a lot more issues than just people wanting to come back."

Pay scales also are much lower on the Rosebud Reservation—even in comparison with other reservations with healthier economies. A decade ago, Shawn Bordeaux decided it was time "to come home to work and live to be near family" on the Rosebud Reservation, leaving his post as the vice president of Ho-Chunk, Inc., the economic development arm of the Winnebago Tribe of Nebraska. He accepted a pay cut of more than 50 percent to do so. "I was happy to take a pay cut," said Bordeaux, who then rephrased. "Or more like, I was happy to find a goodpaying job" that helped him come back.

Bordeaux took a job at Sinte Gleska University as a consultant working on economic development, planning and legislative affairs. He is now the director of the Land Institute at Sinte Gleska and directs four federal grant programs. "I haven't had a pay raise since I started. But I am content, and that is all that counts."

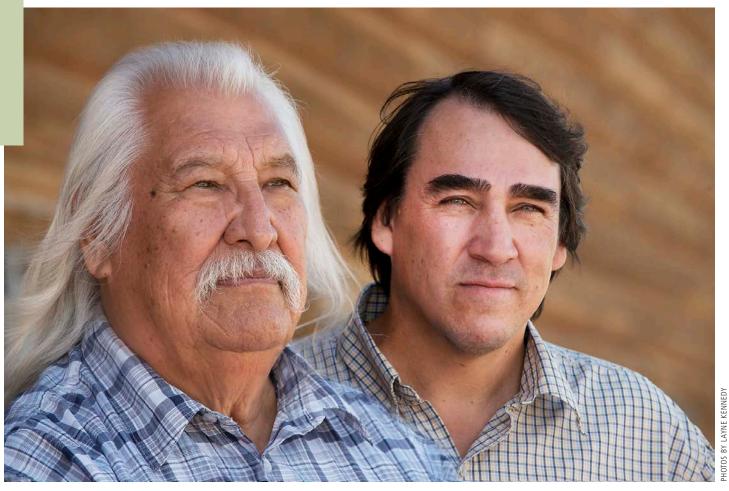
Little Elk agreed that it can be "extremely difficult to bring people back because we can't pay them enough. And I don't think people want to make money hand over fist, but they want to at least feel that they're fairly compensated." In one example, Little Elk said, REDCO hired a "kid who came out with his MBA, very smart, very talented, but I ended up losing him because I couldn't pay him enough."

But for many, the inconveniences and self-sacrifice of living on the reservation pale to the obligations many feel toward their people. Maybe no one embodies that notion for the Rosebud Sioux Tribe like Lionel Bordeaux, father to Shawn Bordeaux and president of Sinte Gleska.

The senior Bordeaux grew up in White River, about 20 miles north of Mission, "in a rural area, no plumbing, no heat, no what-have-you, walked a mile for a pail of water and you chopped

"Hope's not a strategy, but it's sometimes all that you have and everybody ought to be allowed to dream. Dreams started this [university] and it's now a reality."

-Lionel Bordeaux



Above: Lionel Bordeau, president, Sinte Gleska University, left, and son Shawn Bordeau, director, Land Institute at Sinte Gleska University Below: Lionel, Shawn and Shawn's grandniece Parianna (center) and daughter Keely

wood. You didn't have anything to compare it with, so you thought, 'that's a good, happy life, a lot of horses and fishing and hunting."

After graduating valedictorian of his high school class, Bordeaux left the reservation for college, graduated and worked in different places for the Bureau of Indian Affairs (BIA), during which he pursued his doctorate at the University of Minnesota. "I'm 32 years old with a family of four little kids, and my life seemingly ahead of me all laid out."

As Bordeaux neared the completion of his doctoral degree, a tribal elder, Stanley Red Bird Sr., "called me and then came to my apartment with the damnedest message that I could ever hear at that time," said Bordeaux. "He said, 'I'm here to give you a message. I recruited, and I used medicine men and spiritual leaders and their ceremonies to help me find a Lakota-speaking young guy who has academic credentials and ... your name has come through from the spirit world. I'm here to tell you that you've been selected to be the next president of Sinte Gleska."

That was all it took. Bordeaux moved back to Rosebud, assumed his leadership position at Sinte Gleska and took a pay cut from what he had been earning with the BIA. He also received no retirement benefits—the same today—because, as Redbird told him that day, other tribal members "don't have financial security when they grow old, so you can't have any. So to this day, I don't have retire-



ment and I'm going on 42 years here."

Bordeaux sees firsthand the difficulties parents and their children experience on the reservation. He sees it in his students, many of whom struggle to pay for tuition or even the means to get to class. The school recently developed a transportation system to bring students to school from across the expansive reservation. It also instituted a day care and access to a modest meal for students in need.

"Some of the students get on that bus at seven in the morning and they're here until [late] at night, and that's all the food that they have." Before the bus service was operating, "one guy I used to pick up used to sleep in a culvert. ... He would come to school, and if he wasn't picked up, he'd sleep in his culvert and then next morning he'd turn around and come back to school again."

It's those students, striving for a better life, that give Bordeaux hope. "You always have that hope. Hope's not a strategy, but it's sometimes all that you have and everybody ought to be allowed to dream. Dreams started this [university] and it's now a reality. So, yeah, your hope is always to train as many and get as many young ones to come back and to find their role, and know their responsibility as a teacher to the next generation," said Bordeaux. "So you always have an evolving dream that's materializing generation to generation."

—Claire Hou, research assistant, contributed data and other research to this article.



# Hunting for economic development

Both opportunities and obstacles abound on reservations looking for more economic activity

Although many tribal members are drawn to reservations by cultural and familial ties, economic development strengthens the bond between native peoples and their homelands. New businesses and jobs, tribal officials say, are critical to raise living standards of members and address some of the social ills that plague tribal membership, which in turn will help sustain the tribes culturally and economically.

That strategy sounds good on paper, but is exceptionally difficult to put into action. Successful economic development—whether on rural reservations or in big cities—is like searching for the end of a rainbow. The journey is long and the goal elusive.

Daunting obstacles stand in the way of tribal economic development: small, scattered populations with entrenched poverty; inadequate infrastructure such as roads and water systems; scarce investment capital. In addition, businesses (especially nontribal firms) often face complex legal and administrative barriers to market entry.

But both the Rosebud and Cheyenne River tribes have opportunities to create jobs and increase economic productivity on their reservations in South Dakota. The mission of the Rosebud Economic Development Corp. is to generate revenue for the tribe and to promote economic development for the benefit of tribal members. It owns and manages 10 subsidiary companies, including auto service and parts businesses, and a propane delivery service, according to Wizipan Little Elk, REDCO director.

Some are modestly successful; some are not at all. When Little Elk took over REDCO two years ago, it was \$4 million in debt with four failing businesses. Some that fail take a lot of precious tribal capital with them. The tribe invested \$11 million in a grocery store that it has since pulled out of, according to Little Elk. It now leases the building to an outside operator.

Part of the difficulty is matching opportunities and job skills. Many highly educated and skilled tribal members often find themselves underemployed in immature economies on reservations. In other cases, the tribe doesn't have the right type or amount of professional human capital to take advantage of employment opportunities, at least not yet.

Little Elk and others, for example, see opportunity embedded in the almost 1 million acres held in trust by the tribe and tribal members across the reservation, most of which lie in Todd County, but also in parts of nearby Melette and Tripp counties. A large portion of this land is arable. Yet in 2012, only one in eight acres in Todd County was planted with crops, according to the USDA. In Tripp County, which consists mainly of nontribal land, more than one in three acres is farmed.

Tribal members farm very little of the land in either county. Instead, most is leased to nontribal farmers, according to Little Elk, with contracts—and lease prices—handled in volume by the Bureau of Indian Affairs, the trustee for tribal lands.

"The old paradigm has basically been for the tribe to lease its ag land at dirt cheap prices to non-Indians and watch them become millionaires," said Little Elk. "That's happened for decades." But the tribe does not have the capacity to negotiate contracts on the scale necessary for that to change.

The reservation also sits at the northern head of the Oglala Aquifer, one of the largest underground reservoirs of fresh water in the world. The aquifer supports almost 30 percent—about 13 million acres—of irrigated crop production in the nation's heartland. Though most of the reservation sits atop the aquifer, the tribe irrigates less than 1,700 acres of land, according to Little Elk.

Other economic development opportunities are a matter of capturing built-in advantages of tribal sovereignty, including the sale of cigarettes, alcohol and blended gasoline (no sales tax), and the creation of foreign trade zones (no import duties) and holding companies for leveraged corporate buyouts (no corporate income tax), according to Little Elk.

"We really need to take a look at [opportunities] that come from simply being a tribal business. ... My biggest hope is that we can harness all of the advantages that we have and parlay those into a corporation that's doing \$100 million-plus [annually] and providing 1,000 good-paying jobs," he said.

"My biggest fear is that we're not moving quick enough" to turn things around for the tribe and its members, a problem exacerbated by the fact that REDCO "is still a small organization, and we don't have nearly enough

people or the required expertise to do what we need to do."

Money is part of the problem. While the tribe has some resources, it also has abundant community needs, as socioeconomic data make clear. Money for economic development "is a stopper in the sense that if the tribe wanted to, it could allocate resources," said Little Elk. "But they're unable to because of the level of need [within the] tribe, and so the tribe is unable to really invest."

#### Water grows business

The Cheyenne River Sioux Tribe has a growing reputation for entrepreneurship. Much of it flows from the Four Bands Community Fund, a tribally chartered organization that has made almost 1,000 small loans worth \$7 million to kick-start business ventures of individual tribal members. The fund also provides business training and technical assistance to entrepreneurs and financial literacy courses for adults. The organization has helped start or expand 100 businesses on the reservation.

Lakota Mowrer, Four Bands assistant director, believes much of the "entrepreneurial spirit" of the Cheyenne River Tribe stems from something it doesn't have. "I would say [entrepreneurship] is more palpable because we are the only Great Plains tribe without a casino," said Mowrer. Without proceeds from gaming, "our [tribe] needs to rely more heavily on innovation to fund operations, [and] innovation's best conduit is entrepreneurs."

But economic growth on the reservation is hampered by a lack of basic needs, especially housing, which several sources cited. Rundown or scarce housing can be a roadblock to returning home for tribal members, some of whom would bring business experience and other valuable skills to the local economy.

On the Cheyenne River Reservation, tribal officials say the shortage of housing—and economic development more broadly—stems from the lack of water infrastructure. Eagle Butte, the reservation's largest city, reached its water capacity years ago and has enforced a moratorium on new hookups for the last 10 years.

The bare bones of a want-to-be-developed residential subdivision lie to the north of town. "There's streets up there. There's curbs, gutters, sewers"—all of the infrastructure to build 183 homes, including two apartment complexes, according to Wayne Ducheneaux, a tribal council member. There's also a "great big white water tower. It's empty. We don't have enough pressure" to fill it, so the development lies dormant until the water system is upgraded and expanded. "We've had the money to build the houses; we haven't had the water," Ducheneaux said. And without water, "we haven't been able to attract any business. ... It's just been stifling."

But a solution is in the works. Partnering with the federal Department of Agriculture, Eagle Butte is undergoing a \$73-million sewer and drinking water expansion, with completion slated for early 2016.

The water upgrade also coincides with a recent settlement between the tribe and the federal government for the decades-long consequences of damming the Missouri River in the 1950s, which put many thousands of acres of tribal land—and its best farmland—underwater. Numerous tribes were affected, but none more than the Cheyenne River, according to Ducheneaux.

In 2001, the federal government established a \$292 million trust, with all interest on the trust going to the tribe. The first interest payment of \$144 million—an accrual of 10 years of interest—came to the tribe in 2011; smaller annual amounts are due in subsequent years.

Congress appropriated the money to address economic and infrastructure development and to improve education, health and social welfare on the reservation. Among many new projects receiving funding, \$16 million went to the water expansion project, which required tribal cost-share (the remainder of the expansion will be funded by the federal government).

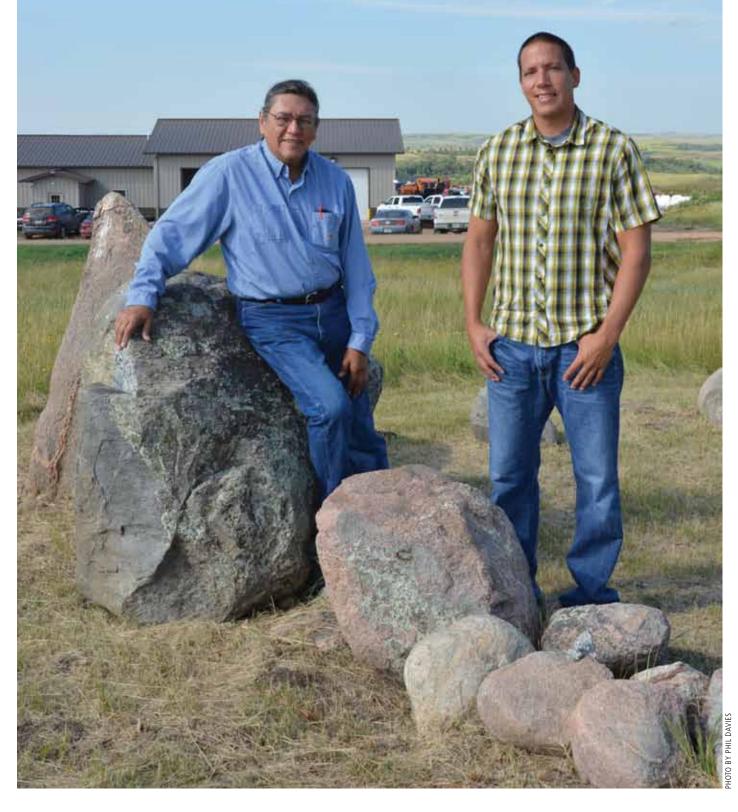
Once completed, the project will allow Eagle Butte to "grow by leaps and bounds," said Ducheneaux. "When we get water here, we'll be able to build more houses, and we'll be able to bring in economic development." Given pent-up demand because of the moratorium, Ducheneaux predicted, "you'll see Eagle Butte triple in size in 10 years."

—Ronald A. Wirtz

# Homeland of opportunity

The Bakken oil boom has brought unprecedented prosperity—and daunting challenges to the Fort Berthold Indian Reservation





### By PHIL DAVIES Senior Writer

Paige and Jason Baker exemplify the economic opportunity the oil boom in western North Dakota has brought to the Three Affiliated Tribes and their homeland, the Fort Berthold Indian Reservation. Father and son own Baker Consulting, a company that monitors wells, delivers supplies and performs

other chores for oil and drilling firms in the Bakken oilfields. Both grew up on the reservation but moved away to pursue careers: Paige as an educator and National Park Service official, Jason as a civil engineer.

vices, it took off faster planned," Jason said.

Since then, the Bakseveral million dollars taking out a bank le upon family funds to be

In the late 2000s, when the oil rush came to the reservation, the Bakers came home to start an engineering firm that before long diversified into oilfield services. "When we got into oilfield ser-

other chores for oil and drilling firms vices, it took off faster than we had ever a daily struggle in an area with low unin the Bakken oilfields. Both grew up on planned," Jason said.

Since then, the Bakers have invested several million dollars in their business, taking out a bank loan and drawing upon family funds to build and equip an operations facility near the small reservation community of Mandaree.

As of August, the firm employed 20 people, including seven American Indians. Hiring and retaining workers is

a daily struggle in an area with low unemployment—a stark contrast to a few years ago. "We're constantly on the lookout for new workers," Paige said. "Everybody here who's capable and interested in work is working, or they're trying to get their own business going."

Scores of other Indian-owned firms have opened their doors in the Fort Berthold area since oil drilling began in earnest six years ago. And thousands of

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"Things are growing so fast that the tribal government as a whole and its agencies are doing trial and error, trying to come up with a mode of approach where we can get a handle on things."

—Edmund Baker, director of the tribes' environmental division

people—both Indian and non-Indian—living on the reservation have felt the economic ripples of oil and gas development. Many tribal members have found jobs in the energy industry and in non-oil businesses, sharply raising average incomes.

"The oil boom has turned the reservation socioeconomic outlook completely around," said Frank de la Paz, an official with a tribal department that promotes employment and business opportunities for Indians. "Poverty levels have decreased substantially; the choices for employment and the business opportunities are limitless here." Wealth has also flowed into the reservation in the form of oil and gas royalties to leaseholders and state taxes on oil production distributed to the tribal government.

However, rapid oil development has exacted a toll on this tight-knit rural community; consequences of the boom include ravaged roads, pipeline spills, scarce housing and increased drug abuse.

The tribal government is responding to these challenges, drawing upon its oil revenues. But some tribal leaders say the tribes must do much more to reap the benefits of energy development, mitigate its costs and sustain the economic lift from the boom, even after the oil runs out.

### After the flood, a "gold rush"

The Three Affiliated Tribes comprise the Mandan, Hidatsa and Arikara, native peoples who have endured hardship and loss for much of the past two centuries. The tribes that greeted Lewis and Clark on their journey west in 1804 were decimated by smallpox and saw their once vast lands shrink in a series of broken treaties with the U.S. government.

In the 1950s, the damming of the Missouri River to control downstream flooding inundated reservation communities and destroyed the livelihoods of many Indian farmers. In the ensuing decades, jobs were few and poverty widespread on the reservation, which covers 1,500 square miles and is home to about 6,500 people.

The fortunes of the tribes (also called the MHA Nation) improved in the early 1990s with the opening of the 4 Bears Casino on the shore of Lake Sakakawea. The casino doesn't disclose revenues, but undoubtedly gaming income has benefited the local economy. In 2012, the casino added a 122-room hotel wing and is planning to expand its event center.

But oil and gas development has been the real game changer for the MHA Nation, broadening its economic horizons as never before. Although Fort Berthold sits in the sweet spot of the Bakken-Three Forks shale oil play, regulatory uncertainty discouraged drilling for years. After the 2008 signing of a revenue-sharing agreement between the tribes and the state, the number of active wells on the reservation quickly rose to almost 1,000. Over the past six years, oil production has surged to 170,000 barrels per day about 15 percent of North Dakota's output—according to the tribes' Energy Division (see chart to the left).

If the reservation were a state, it would rank as the 10th biggest oil producer in the country, ahead of Kansas. "It's a modern-day gold rush," Tribal Chairman Tex Hall said in a speech at the tribes' annual oil and gas expo at the 4 Bears Casino & Lodge in April.

Oil and associated natural gas production has generated hundreds of millions of dollars in revenue for the MHA Nation government and tribal members. Over half of the wells on the reservation sit on land held in trust by the federal government for either the tribal government or individual Indian households. (The rest are situated on private property, or fee land, much of it owned by non-Indians.)

Every barrel of oil produced on the reservation yields extraction and production taxes of 11.5 percent collected by the state. Under the tax agreement with the state, the tribal government receives half of the tax revenue from production on the reservation. (Last year, a revised revenue-sharing pact increased the tribes' share of taxes from production on fee land). State tax records show

that as of July, the tribal government had received \$249 million in oil tax revenue over the preceding 12 months.

The tribes also receive per-barrel royalties from oil companies for the right to pump oil from their land. In fiscal 2013, oil firms paid \$99 million to the tribal government, according to figures released last year. Individual trust land residents, who enter into their own lease agreements, likely earned an even larger royalty total in 2013—at least \$350 million, based on figures for previous years from the U.S. Bureau of Indian Affairs (BIA). Given rising production on the reservation, royalties were probably higher for the tribal fiscal year that ended this September.

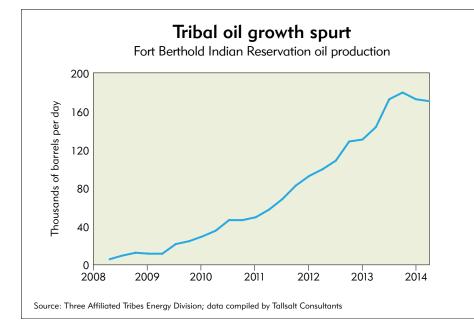
In addition to tax and lease revenue, the tribal government collects millions annually in fees paid by energy companies to do business on the reservation, including drilling, trucking and contractor licensing charges.

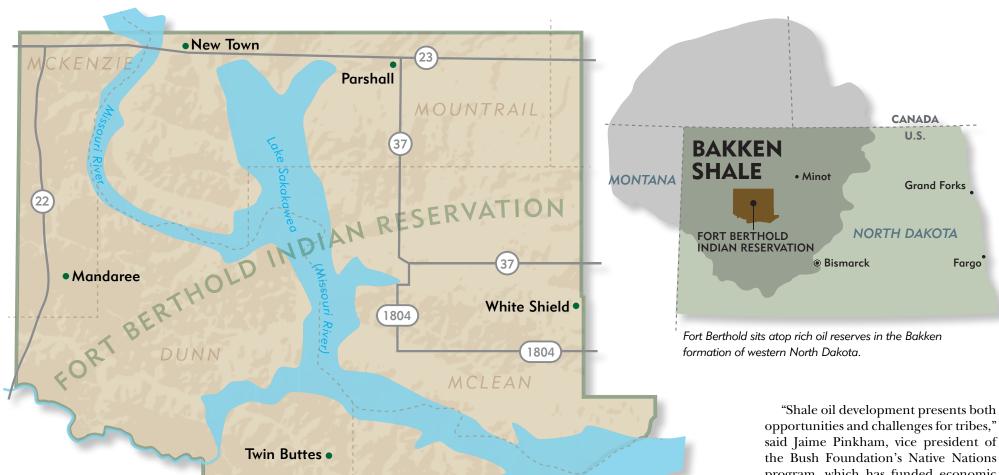
### "Beyond our wildest dreams"

Impressive as these direct payments to the tribes are, they're dwarfed by the overall economic impact of oil and gas development on the reservation. Billions of dollars of spending by oil companies in the Fort Berthold area has galvanized the local economy by creating jobs, increasing business income and supporting new enterprises.

The U.S. Census collects demographic data for federally recognized Indian reservations as well as for counties and communities; the most recent data are estimated averages for 2008-12. A *fedgazette* analysis shows that Fort Berthold leaped ahead of other Indian reservations on several socioeconomic yardsticks between 2000 and the oil boom period. By most measures, the reservation's economic health also improved relative to the Ninth District as a whole.

Between 2000 and the boom period,





the reservation's population grew about 11 percent, a higher rate than the average for 40 other district reservations and the district overall. Both tribal members living elsewhere in the United States and non-Indians have moved to the reservation, likely attracted by job and business opportunities.

The reservation also made marked progress on other measures of economic well-being (see "The Bakken effect," page 18). Labor force participation increased and unemployment dropped, in contrast to trends in the district as a whole, which were profoundly influenced by the Great Recession. Changes in workforce participation and unemployment were similar to those in oil-producing counties in the Bakken region, which have seen torrid economic growth since the mid-2000s. Annual household income on the reservation rose dramatically, and the poverty rate fell (although the most recent measure pegs the Fort Berthold poverty rate at 23 percent, almost double the districtwide rate).

The forces behind these changes are manifest on the streets of New Town, the commercial hub of the reservation (but a civic entity separate from the MHA Nation, with its own city council and regulations). Tanker trucks stream endlessly along Main Street, oilfield workers pack the Better B Café, and two new hotels and a number of housing developments are going up in town.

A spate of construction activity combined with rising incomes in the area has spurred rapid growth at Lakeside State

Bank in New Town. Over the past six years, the bank's deposits have more than tripled while its loan portfolio has more than doubled. "Our growth has been beyond our wildest dreams," said CEO Gary Petersen. "In the last couple of years, our lending activity has increased roughly 20 percent annually, which for a small community bank is phenomenal." Petersen expects further growth if regulators approve a planned merger with Cornerstone Bank of Fargo.

Another sign of economic vitality on the reservation is the swelling ranks of Indian-owned businesses, particularly in oilfield services. Only a "handful" of Indian residents ran their own oilfield firms in 2008, said de la Paz, who works with Indian contractors in the Tribal Employment Rights Office. Today there are over 150, most of them owned, like Baker Consulting, by MHA Nation members. Under TERO regulations, Indianowned firms receive preference for oilfield work on the reservation, including contracts awarded by private companies.

Tribal members have also seized opportunities in non-oil industries that are riding the oil boom. Last winter, Melanie Luger relocated her western-themed jewelry business from Mandan, N.D., to her hometown of New Town and added a women's clothing line. Luger's customer base has doubled since Coulee Creek Designs opened on Main Street, and she's confident that oil development will continue to drive strong sales. "I think it's going to be here for a while," she said.

Down the street, Tom Hale and his wife, Jodi, put in long hours as owners of TDH Fast Foods. Sales in their restaurant have increased by half since 2008, and they've expanded into catering, serving up smoked brisket, steaks, burgers and other dishes at oilfield sites or venues in town. The oil boom "no doubt has impacted my livelihood," Hale said while loading his truck for another catering run. "It's nice to be busy instead of sitting around wondering where the next payment's going to come from."

#### Oil in Eden

The effects of the oil boom on the reservation have not been entirely salutary. Accelerating energy development has strained the physical and social fabric of what was until a few years ago a quiet farming community.

"Shale oil development presents both opportunities and challenges for tribes," said Jaime Pinkham, vice president of the Bush Foundation's Native Nations program, which has funded economic development initiatives in Indian Country. "One of the challenges is the rapid development of the resource base. How do you respond to the increased demand for infrastructure, whether it's for homes, health care or schools?"

State highways and the thin network of tribal roads on the reservation are taking a beating from heavy oil trucks; an influx of new residents and itinerant oil workers has bid up housing prices—rents in New Town have tripled since 2009; and oil spills and pipeline breaks have increased, despoiling natural areas and threatening the water supply.

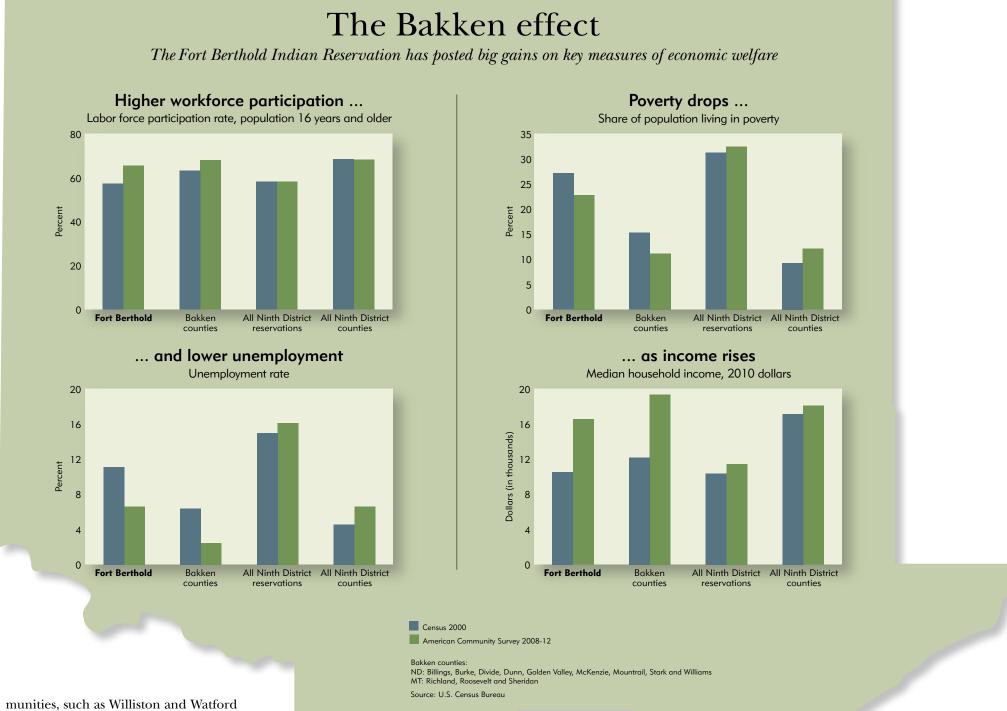
The boom has also brought social ills to the reservation. As incomes have soared, so has substance abuse with the arrival of gangs from the southwestern United States and Mexico peddling heroin and methamphetamine. According to a 2013 tribal law enforcement report, 60 percent of crimes committed on the reservation were drug-related. Increased arrests have overwhelmed the tribes' court system and jail facilities.

The downsides of hypergrowth have similarly affected other oil patch com-



"It's nice to be busy instead of sitting around wondering where the next payment's going to come from."

—Tom Hale, owner of TDH Fast Foods Homeland from page 17



munities, such as Williston and Watford City. But the impact is all the greater on the MHA Nation because it was even less prepared to cope with large-scale industrial development. Before the boom, the tribal administration was small because the BIA and other federal agencies had for decades assumed responsibility for managing tribal land and providing public services such as schooling and road maintenance.

In recent years, the Tribal Business Council, the elected body that sets policy on the reservation, has asserted more authority over government functions and hired more administrative workers—the tribal employee headcount has doubled to about 1,000 since 2010. But some departments still lack the staff and regulatory tools to cope with increased demand for public infrastructure and services.

"Things are growing so fast that the tribal government as a whole and its agencies are doing trial and error, trying to come up with a mode of approach where we can get a handle on things," said Edmund Baker, director of the tribes' environmental division.

For example, a lack of zoning in areas of the reservation beyond New Town's jurisdiction has contributed to haphazard housing development. In some areas, houses have been built but remain unoccupied because developers are waiting for water or electricity hookups.

In Baker's department, one person is responsible for monitoring water quality on the entire reservation. And because of scant tribal oversight of pipelines laid by oil and gas firms, environmental workers can only react to spills rather than taking steps to prevent them.

#### Eye on the future

However, money has the power to cure many ills. The MHA Nation has immense

financial resources with which to minimize the fallout from the oil boom while maximizing its economic potential. How the tribal government spends its oil and gas income is hard to discern; the tribes' chief financial officer declined to disclose budget details. But it's clear that the administration is making big investments to address community needs and capitalize on energy development.

Last spring, the tribes reported to the state Legislature \$71 million in spending for ongoing infrastructure development, including \$24 million to reconstruct a key road artery; \$30 million for housing, streets and utilities; and \$6 million for sewer systems.

Providing affordable housing for tribal members is a priority for the Tribal Council. New tribal housing developments include 113 single-family homes in New Town reserved for health care

and law enforcement personnel, and 30 rental units in Mandaree—a significant increase in the housing stock of the town of 600 people. The tribal government charges below-market rent for many of its apartment units and subsidizes home ownership by offering low-interest financing.

The tribes have also spent tens of millions of dollars on health care and education. In July, ground was broken on a new \$14 million K-12 school in the community of White Shield.

And, with an eye to fostering more commercial development on the reservation, the tribal government has taken on the role of real estate developer. In the New Town area, a nonprofit economic development group sanctioned by the Tribal Council is moving to acquire private land and erect new buildings that would be leased to Indian entrepreneurs. Hale, vice president of the group, is involved in plans to rebuild a full block of Main Street. "What we want to do is put in a lot of unique retail stores here—hopefully, get some of our enrolled members to start their own businesses," he said.

At the same time, the MHA Nation has launched multimillion-dollar initiatives to stake a larger claim in oil and gas production through tribally owned energy enterprises (see "Sovereignty by the barrel").

These investments in community assets and economic development make it more likely that economic growth on the reservation will continue even after oil and gas production eventually declines. (A more explicit use of oil dollars to provide for the future is the People's Fund, a \$200 million trust created by the Tribal Council in 2010. In August, the fund paid out its first annual distribution—\$500 to each adult tribal member.)

But some tribal leaders say that even greater investments—in human capital, quality of life and tribal institutions—are necessary to complete the economic transformation that the oil rush has begun. Ed Hall, a tribal elder who is Tex Hall's uncle, worries that the tribes lack a strategic plan for sustaining prosperity and controlling their destiny: "What's our vision? What are we going to do to preserve our reservation and exercise our sovereignty and live the way we want to?"

Hall directs MHA Nation Tomorrow, an attempt to create such a vision—a blueprint for the tribes' economic, social and cultural development. The program has received grants from the Bush Foundation and the Northwest Area Foundation to help the tribes improve governance, seen as crucial to further reducing oversight by the federal government and effectively managing economic growth.

Recommendations that may emerge from the visioning process include enacting zoning regulations and a comprehensive tribal tax code; forming a "Human Wellness One-Stop Board" to combat alcohol and drug abuse; and establishing a tribally owned bank to facilitate business creation and expansion.

Baker, the tribes' environmental director, would like to see more support for higher education, perhaps in the form of grants to tribal members pursuing college degrees. An ongoing need for environmental monitoring and regulation on the reservation has created career opportunities for hydrologists, geologists, petroleum engineers and other professionals.

He adds that protecting the environment is just one aspect of the monumental task the MHA Nation faces in managing the oil boom. "We've never seen activity like this before, as a people," he said. "We're going to have to think ahead."

Research Analyst Dulguun Batbold contributed data research to this article.



"What's our vision? What are we going to do to preserve our reservation and exercise our sovereignty and live the way we want to?"

—Ed Hall, tribal elder and director of MHA Nation Tomorrow



### Sovereignty by the barrel

By 2009, oil companies had leased most of the land on the Fort Berthold Indian Reservation for exploration and drilling. Since then, the tribal government has received tax revenue and royalties from energy production, but over 80 percent of the proceeds from that production goes to off-reservation firms and their investors.

That has begun to change with the advent of two tribal enterprises involved in the production, transport and processing of oil and gas. The aim is to capture a larger share of the reservation's mineral wealth, seen by tribal leaders as key to not only growing the economy but also achieving greater political autonomy. "We are of the firm belief we will become more sovereign by the barrel," said Tribal Chairman Tex Hall in a 2011 speech to the North Dakota Legislature.

Both fledgling businesses have large ambitions backed by tribal oil dollars. The Tribal Business Council created Missouri River Resources (MRR) as an independent business in 2011. The New Town firm has spent over \$50 million in tribal funds to acquire working interests in wells drilled by Marathon Oil, Enerplus and other companies on the reservation. Oil and gas sales from those wells will generate about \$3 million in revenue this year. "We realize that the greatest value of the oil is at the wellhead," said CEO Dave Williams.

MRR is planning a major step forward early next year—drilling its own oil wells on tribal land near Mandaree. And the firm has a joint agreement with a Texas firm to lay oil and gas pipelines on the reservation. New gas pipelines would reduce the amount of natural gas flared on the reservation and eventually supply a gas-processing plant in the early planning stage.

Thunder Butte Petroleum Services, also created by tribal fiat three years ago, is focused on the end of the production chain—refining crude oil into diesel fuel, gasoline and other products. The firm has started building a \$450 million refinery near the eastern edge of the reservation capable of processing 20,000 barrels of oil per day. The facility is slated to open in 2016.

Williams said that MRR may supply oil to the refinery once it's operating. Such an arrangement would give the tribes control of the petroleum value chain from wellhead to finished product.

—Phil Davies



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