Why Rural Matters:

Describing the Value of Rural North Dakota

Prepared for and funded by Rural Economic Area Partnership Investment Board (REAP) Prepared by Great Plains Center for Community Research & Service Minot State University, Minot, North Dakota January 2013

Acknowledgements

Data was obtained from the IMPLAN Version 3 model, 2011 dataset, by USDA / NRCS economists David Buland and Jodean Nichols.

State data was compiled by Anthony Anderson, Minot State Student Intern.

Essay developed by B. Belinda Strotheide, Great Plains Center for Community Research & Service.

With special thanks to Shirley Brentrup, SJB Consulting, and Bill Davis, USDA Rural Development, for their assistance.

This publication is available electronically at: http://www.developerstationnd.org/resources.html

Questions may be addressed to: Great Plains Center for Community Research & Service, Minot State University, 500 University Ave W, Minot, ND 58707, Phone: 701-858-4215

Contents

Essay	4
Appendix	8
Report Considerations	9
Tables & Charts	
Incorporated Cities	10
Population	11
Rural Counties Map	12
Agricultural Land	14
Employment	15
Top 20 Industries	16
Employee Compensation	20
Personal Income	21
Value Added	22
Gross Regional Product	23
Rural Counties Overview	24
References	25

Impacts made by rural people are significant. The rural lifestyle is an important culture. Rural communities provide a heritage with valuable traditions and future opportunities for the state of North Dakota.

For a number of years the urban areas of the United States have captured the limelight with stories of large companies' success and growth while rural America has been characterized with articles that abound on poverty, diminishing population, health care disparities and social isolation, but few articles voice the benefits that have come from rural investment. North Dakota, especially, profits from the contributions of rural communities. Farming, mining and tourism are the largest industries in the state driving employment, as well as state revenues. Most of this production is taking place in small places where people are dependent upon rural communities for their homes, health care, utilities, water, society and schools. Though small, rural communities are home to large numbers of people in North Dakota. According to the USDA definition of rural, 51% of the state's population lives in a rural area.¹

North Dakota has 357 incorporated communities, 96% with a population of 3,000 or less.² Small does not mean unimportant as throughout the entire state there are many vital rural cities. These communities support agriculture and livestock industries and renewable energy developments. They are closest to most of the oil and gas wells. They maintain recreational and tourism sites for over 500,000 visitors each year. People living in rural North Dakota manage over 36 million acres of farmland and an additional 3 million acres of conservation or wetlands.³

Farms and ranches cover 90% of North Dakota's landscape.⁴ This industry is maintained by small communities scattered throughout the state. Towns with granaries, railroad spurs, feed stores; towns where farming families buy groceries and gas, attend church and send their children to school are all important supports for this nearly \$7 billion concern.

North Dakota currently leads all states, except one, in oil production.⁵ Oil and gas in North Dakota is predominantly produced in rural counties. Sixteen of the nineteen oil and gas producing counties have no communities with populations over 3,000 residents.

In the first nine months of 2012, these rural counties produced 137.9 million barrels of oil, nearly 82% of the state's total production.⁶ In the same nine months in 2012, natural gas production in rural counties accounted for 77% of the total production in North Dakota.⁷ Of the \$1.5 billion in taxes collected on oil production in 2011, 80% was collected in rural counties.⁸

The coal economy is another productive source of revenue for North Dakota that is generated in rural counties. The North American Coal Corporation's Freedom Mine in Beulah, North Dakota delivers over 15 million tons of coal annually.⁹ The Falkirk mine in Underwood, North Dakota delivers an average of 7.5 million tons of coal each year.¹⁰ Coal Creek Station, the largest power generation plant in the state, is also located in rural Underwood and fueled by coal from the Falkirk mine. Coal Creek Station produces energy for consumers in both Minnesota and Wisconsin and employs 220 people. Through an additional partnership, the Coal Creek Station generates 50 million gallons of ethanol each year from the same rural location.¹¹

After agriculture and oil, travel and tourism is North Dakota's third largest industry. Rural areas provide important opportunities for tourism. In 2010, rural communities generated \$976 million, 42%, of tourism revenue.¹² Two of the three national parks are located in rural North Dakota. In 2010, the Knife River Indian Villages and Theodore Roosevelt National Park, both in rural areas, along with the Fort Union Trading Post near Williston, brought in over \$31 million in economic benefit. In 2011, the parks received more than 600,000 visitors.¹³

Rural tourism provides unique, interpretive, cultural experiences for tourists. The sites connect people to the land and the heritage of North Dakota. Visitors gain an appreciation for the richness of the state's culture, history and natural beauty. They leave with a better understanding of the character of the people who persevered to settle in North Dakota.

Natural resources of rural North Dakota provide a playground not only for out-of-state tourists, but for urban residents from within the state. It is where visitors hunt, fish, hike, enjoy birding and experience the open spaces. North Dakota is also home to approximately 400 lakes, rivers and dams that provide the public with around 500 fishing sites.¹⁴ Over 80% of these are located in rural counties. These vast land resources are predominantly managed and protected by people living in rural places.

Nearly 95% of the land in North Dakota is privately owned,¹⁵ of this, 840,000 rural acres in 2012 were opened to resident hunters through the Private Land Open to Sportsmen program (PLOTS) of the North Dakota Game and Fish Department.¹⁶ This allows hunters from urban areas of the state to enjoy hunting on land owned and managed by rural North Dakotans.

Though they are more difficult to quantify, North Dakota's rural communities make valuable contributions to the state's cultural landscape. Small community residents feel deeply about the places settled by their ancestors, churches founded by their great grandparents and farms homesteaded by their families. These communities tend to contain and preserve much of North Dakota's cultural heritage and 89% of State Historic Sites, as designated by the State Historical Society, are located in rural places.¹⁷ Additionally, 58% of the locations or buildings listed on the National Register for Historic Places are also found in rural North Dakota.¹⁸

Rural communities afford an exceptional opportunity for citizen participation. They provide a unique lifestyle where cooperation and perseverance is demanded and accountability is an everyday occurrence. It is different than an urban experience, but no less valuable. Small communities encourage people to participate in democracy like no other places. In small places there is a call for people to serve on the ambulance board, the school board, the park board, the city council, the church board or other community organizations. Residents develop skills to work together, a capacity to solve problems and a willingness to cooperate for a common goal. When rural people migrate from their communities to larger cities they bring civic skills and an understanding that volunteering is important. Many times, their willingness to participate and knowledge of local politics are noticed and appreciated by the groups they choose to serve in their new homes.

In 2008, nearly 47% of all charitable organizations in the state were located in rural areas.¹⁹ Between 2008 and 2010, of the 16 million volunteer hours contributed by North Dakota citizens, over 34% were performed by residents of rural communities.²⁰ This only accounts for volunteer hours recorded by the Corporation for National and Community Service. Many volunteer hours are never documented by groups in small communities.

Education is a core value among rural populations and, for communities boasting a college or university, supporting education frequently shows up in the local strategic plan. In the fall of 2011, nearly 28,000 North Dakota residents enrolled in a university within the state.²¹ Of those, almost 26% were from rural counties in North Dakota.

Historically, residents of rural communities have also made key intellectual and scientific contributions. Since 1976, the U.S. Patent & Trademark Office has awarded a total of 2,662 patents to North Dakota inventors.²² Twenty-six percent (26%) of the inventions were from rural inventors with patents for things such as new crop varieties, polymers, electronic devices, kitchen appliances, clothing and industrial machinery.

Rural development is an ongoing endeavor. There has been a tremendous amount of capital investment in rural infrastructure over the years from both federal and state

funds. Capital has been invested in schools, telecommunications, electrical systems, water treatment facilities, water and wastewater systems and highways to support rural agriculture and other industries such as energy development and tourism.

To capitalize on this investment, there are many opportunities that support rural growth and sustainability. Clean energy development of wind power and bio-fuel production are current projects that increase jobs and revenue in rural areas. Animal livestock production, such as small cow-calf producers, is a sustainable endeavor that provides a good return and supports communities through purchasing supplies and equipment locally.

Rural development could include sustainable food systems that expand opportunities for local and regional production, processing, and distribution. These systems link rural areas to urban neighbors in stronger partnerships. Local food supply networks also hold promise as import replacement strategies allowing more of the products created in North Dakota to be consumed in the state, rather than purchasing food products developed and shipped from outside the state.

Developing strong rural communities may include plans and strategies that increase new farmer education and incentives or state policies that include goals and resource commitments targeting the future of rural cities.

The recent energy boom has impacted many of North Dakota's rural spaces and brought healthy revenues, along with a new population of job-seekers to the state. With new human and financial resources in North Dakota, planning a new vision must include defining rural communities by their contributions, not only their apparent needs. The significant contributions made by rural areas can easily be diminished if rural development support is not viewed as an investment with economic, social, cultural, and intellectual returns that strengthen the entire state of North Dakota.

Rural is the heritage of a state with a landscape of 69,000 square miles, the 17th largest state in the nation, but with a population that is one of the smallest, ranking 48th of all states. The rural lifestyle is a culture of people who historically settled the state; began farms and ranches and developed communities; and who continue to pioneer industries in places still defined as frontier.

The impact of rural people and places in North Dakota is measurable and significant for the future of the state. Rural North Dakota contributes to the well-being of the state as a whole. It is in the best interests, of both the rural and urban populations, for these contributions to be adequately considered and supported in planning and policy-making.

Appendix

Report Considerations

This project is an initiative of the Rural Economic Area Partnership Investment Board (REAP) and is an effort to recognize and quantify the contributions of rural counties within the state.

The Great Plains Center for Community Research & Service at Minot State University compiled existing data for the report.

For the purpose of this report, "rural community" is defined as any city or town with a population of less than 3,000.

To be consistent, in the report "rural county" is defined as a county with only communities of 3,000 or less in population; therefore rural counties comprise nearly 85% of North Dakota counties. The exceptions are considered urban counties and include Barnes, Burleigh, Cass, Grand Forks, Morton, Ramsey, Stark, Stutsman, and Ward. Although Williams County is considered an urban county, for this report the data is shown separately as an economic anomaly due to its exceptional growth.

The report combines regional information from the U.S. Census Bureau, U.S. Bureau of Economic Analysis, USDA Economic Research Service, North Dakota Department of Commerce, NDSU Department of Agribusiness & Applied Economics, and other groups as diverse as the U.S. Patent & Trademark Office and the State Historical Society of North Dakota. The most recent data set available from each reporting agency is used; due to differences in reporting cycles, the most recent data available from most state or federal agencies is either 2010 or 2011.

Industry tables and production charts in the Appendix were created from data obtained from IMPLAN Version 3 model, 2011 dataset by USDA / NRCS economists David Buland and Jodean Nichols.

North Dakota Incorporated Cities

Total number of incorporated cities in North Dakota is 357.

342 incorporated cities have populations of less than 3,000 (96% of all incorporated cities in North Dakota)



North Dakota Rural Counties

Total population in North Dakota is 683,932.

81% of all counties are considered Rural Approximately 29% of the population lives in a Rural County*.

Rural Counties

Urban Counties

Adams	McKenzie	Barnes
Benson	McLean	Burleigh
Billings	Mercer	Cass
Bottineau	Mountrail	Grand Forks
Bowman	Nelson	Morton
Burke	Oliver	Ramsey
Cavalier	Pembina	Stark
Dickey	Pierce	Stutsman
Divide	Ransom	Ward
Dunn	Renville	Williams *
Eddy	Richland	
Emmons	Rolette	
Foster	Sargent	
Golden Valley	Sheridan	
Grant	Sioux	
Griggs	Slope	
Hettinger	Steele	
Kidder	Towner	
LaMoure	Traill	
Logan	Walsh	
McHenry	Wells	
McIntosh		* data compiled separately

*defined for this report as counties whose largest cities are no more than 3,000 in population

Мар

Rural Counties as Defined for Report



SOUTH DAKOTA TO THE SOUTH



North Dakota Population

Total population in North Dakota is 683,932.

Approximately 29% of the population lives in a Rural County*



*defined for this report as counties whose largest cities are no more than 3,000 in population

Agricultural Land

Rural agricultural property tax revenue in 2011 was over \$173 million.



Employment in North Dakota

Total employment is 536,446

26% of all employees work in Rural Counties



in Rural Counties by Employment

Sector	Description	Labor Income	Output	Employment
437	* Employment and payroll only (state & local govt, non-education)	\$704,957,000	\$816,055,700	17,355
2	Grain farming	\$794,843,100	\$2,473,487,000	16,081
1	Oilseed farming	\$695,093,400	\$1,451,182,000	6,365
319	Wholesale trade businesses	\$342,252,300	\$956,857,700	6,157
438	* Employment and payroll only (state & local govt, education)	\$214,343,900	\$248,557,600	6,082
413	Food services and drinking places	\$62,703,100	\$215,643,700	4,595
398	Nursing and residential care facilities	\$125,558,600	\$232,700,400	4,402
335	Transport by truck	\$278,109,900	\$644,155,700	4,136
36	Construction of other new nonresidential struc- tures	\$162,813,400	\$332,722,800	3,003
397	Private hospitals	\$113,803,300	\$279,673,000	2,557
29	Support activities for oil and gas operations	\$113,463,058	\$485,951,263	2,328
356	Securities, commodity contracts, investments, and related activities	\$179,624,527	\$257,379,211	2,311
354	Monetary authorities and depository credit in- termediation activities	\$3,393,135	\$667,254,456	2,272
39	Maintenance and repair construction of non- residential structures	\$90,508,583	\$225,341,537	2,259
324	Retail Stores - Food and beverage	\$108,459,396	\$86,689,354	2,110
9	Sugarcane and sugar beet farming	\$34,109,173	\$242,472,900	1,987
360	Real estate establishments	\$21,928,408	\$203,393,295	1,872
331	Retail Nonstores - Direct and electronic sales	\$3,771,296	\$105,447,060	1,805
11	Cattle ranching and farming	\$11,041,914	\$704,760,620	1,774
31	Electric power generation, transmission, and distribution	\$38,315,796	\$1,398,188,354	1,756
Data fro	m IMPLAN Version 3 model, 2011 dataset			

in Rural Counties by Employment



in Rural Counties by Production

Sector	Description	Employment	Employee Com- pensation	Output
2	Grain farming	16,081	\$65,995,247	\$2,473,487,061
1	Oilseed farming	6,365	\$9,364,207	\$1,451,182,007
31	Electric power generation, transmission, and distribution	1,756	\$190,886,520	\$1,398,188,354
205	Construction machinery manufacturing	1,486	\$74,110,794	\$1,146,198,853
319	Wholesale trade businesses	6,157	\$314,255,676	\$956,857,727
437	* Employment and payroll only (state & local govt, non-education)	17,355	\$704,956,970	\$816,055,664
361	Imputed rental activity for owner-occupied dwellings	0.00	\$0.00	\$766,787,231
115	Petroleum refineries	12	\$842,854	\$713,137,634
11	Cattle ranching and farming	1,774	\$38,315,796	\$704,760,620
354	Monetary authorities and depository credit intermediation activities	2,272	\$90,508,583	\$667,254,456
46	Fats and oils refining and blending	164	\$8,215,271	\$646,156,128
335	Transport by truck	4,136	\$224,644,165	\$644,155,701
49	Beet sugar manufacturing	963	\$69,902,412.41	\$636,358,948
28	Drilling oil and gas wells	739	\$67,524,467.47	\$527,542,114
32	Natural gas distribution	516	\$62,759,552.00	\$518,100,708
29	Support activities for oil and gas operations	2,328	\$179,624,526.9 8	\$485,951,263
21	Mining coal	1,173	\$117,542,984.0 1	\$442,282,043
44	Wet corn milling	170	\$12,593,678.47	\$395,079,834
203	Farm machinery and equipment manufactur- ing	538	\$24,240,442.28	\$393,275,757
20	Extraction of oil and natural gas	867	\$55,259,803.77	\$365,235,596
Data fro	m IMPLAN Version 3 model, 2011 dataset			

in Rural Counties by Production



Employee Compensation

Total Employee Compensation is \$21.98 billion

In North Dakota, Rural counties provide over 21% of all employee compensation (\$4.6 billion)



Personal Income

Total Personal Income in North Dakota is \$22.2 billion

29% of personal income in North Dakota is held by people living in Rural Counties



Value Added*

Total Value Added in North Dakota is \$53.7 billion

21% of all Value Added comes from Rural Counties



Value Added equals: Employee Compensation + Proprietor Income + Other Property Type Income + Indirect Business Taxes

Total Gross Regional Product (Statewide GRP)

Total GRP in North Dakota is \$53.7 billion

21% of Gross Regional Product comes from Rural Counties



Rural Counties Overview

	Copyright 2013 Minnesota IMPLAN		
ND_Rural	Group, Inc.		
Model			
Information			
Model Year	2011		
GRP	\$11,288,518,101	Value Added	
Total Personal	60.044.044.000	Employee	<i></i>
Income	\$9,044,844,000	Compensation	\$4,647,764,677
Total	140.015	Proprietor	60 AAC 707 AAA
Employment	140,815	Income Other Property	\$2,416,727,114
		Other Property Type Income	\$3,446,299,820
Number of		Indirect	<i>33,440,233,</i> 620
Industries	217	Business Taxes	\$777,726,490
Land Area (Sq.		Business rakes	<i>ç,,,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Miles)	51,910		
	,	Total Value	
Area Count	43 Counties	Added	\$11,288,518,101
Population	196,894	Final Demand	
Total			
Total		Households	
Households	84,577		7,273,151,882
	84,577	Households State/Local	7,273,151,882
Households Average Household			
Households Average	84,577 \$106,942	State/Local Government	7,273,151,882 \$1,857,867,448
Households Average Household		State/Local Government Federal	\$1,857,867,448
Households Average Household Income		State/Local Government Federal Government	
Households Average Household Income Trade Flows	\$106,942	State/Local Government Federal	\$1,857,867,448 \$720,409,663
Households Average Household Income Trade Flows Method	\$106,942 Trade Flows Model	State/Local Government Federal Government Capital	\$1,857,867,448 \$720,409,663 \$2,903,136,949
Households Average Household Income Trade Flows	\$106,942	State/Local Government Federal Government Capital Exports	\$1,857,867,448 \$720,409,663
Households Average Household Income Trade Flows Method	\$106,942 Trade Flows Model	State/Local Government Federal Government Capital	\$1,857,867,448 \$720,409,663 \$2,903,136,949 \$13,829,519,574
Households Average Household Income Trade Flows Method Model Status	\$106,942 Trade Flows Model	State/Local Government Federal Government Capital Exports Imports	\$1,857,867,448 \$720,409,663 \$2,903,136,949 \$13,829,519,574 \$14,751,187,397
Households Average Household Income Trade Flows Method Model Status Economic	\$106,942 Trade Flows Model	State/Local Government Federal Government Capital Exports	\$1,857,867,448 \$720,409,663 \$2,903,136,949 \$13,829,519,574
Households Average Household Income Trade Flows Method Model Status	\$106,942 Trade Flows Model	State/Local Government Federal Government Capital Exports Imports Institutional	\$1,857,867,448 \$720,409,663 \$2,903,136,949 \$13,829,519,574 \$14,751,187,397
Households Average Household Income Trade Flows Method Model Status Economic Indicators	\$106,942 Trade Flows Model	State/Local Government Federal Government Capital Exports Imports Institutional	\$1,857,867,448 \$720,409,663 \$2,903,136,949 \$13,829,519,574 \$14,751,187,397
Households Average Household Income Trade Flows Method Model Status Economic Indicators Shannon-	\$106,942 Trade Flows Model Multipliers	State/Local Government Federal Government Capital Exports Imports Institutional	\$1,857,867,448 \$720,409,663 \$2,903,136,949 \$13,829,519,574 \$14,751,187,397

References

¹ United State Department of Agriculture, Economic Research Service
(http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx)
² United States Census Bureau, "2010 Redistricting Data Table"
(http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_P
L_GCTPL1 .ST13&prodType=table)
³ United State Department of Agriculture, Economic Research Service
(http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx)
⁴ United State Department of Agriculture, Economic Research Service
(http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx)
⁵ North Dakota Petroleum Council, "North Dakota Gas Industry Facts & Figures 2011"
(http://www.ndoil.org/?id=89)
⁶ North Dakota Industrial Commission, Department of Drilling and Production, "Monthly oil production
totals by county." (https://www.dmr.nd.gov/oilgas/stats/statisticsvw.asp)
⁷ North Dakota Industrial Commission, Department of Drilling and Production, "Monthly gas production
totals by county." (https://www.dmr.nd.gov/oilgas/stats/statisticsvw.asp)
⁸ United States Census Bureau, 2011 Annual Survey of State Government Tax Collections
(http://www.census.gov/govs/statetax/)
⁹ Lignite Energy Council, Freedom Mine (https://www.lignite.com/?id=79)
¹⁰ Lignite Energy Council, Falkirk Mine (https://www.lignite.com/?id=82&page=Falkirk+Mine)
¹¹ Great River Energy, Coal Creek Station
(http://www.greatriverenergy.com/makingelectricity/coal/coalcreekstation.html)
¹² North Dakota Department of Commerce – Tourism Division, "2009 Satellite Account Report"
(http://www.ndtourism.com/uploads/resources/555/nd-tourism-finalglobal-insight-report.pdf)
¹³ United States Department of the Interior, National Park Service
(http://www.nps.gov/state/nd/index.htm?program=all)
¹⁴ North Dakota Game and Fish Department (http://gf.nd.gov/fishing/fishing-waters)
¹⁵ North Dakota Game and Fish Department, PLOTS
(http://gf.nd.gov/hunting/private-land-open-sportsmen)
¹⁶ North Dakota Game and Fish Department, PLOTS
(http://gf.nd.gov/hunting/private-land-open- sportsmen)
¹⁷ State Historical Society of North Dakota, "Historic Sites" list
(http://history.nd.gov/historicsites/index.html)
¹⁸ National Register of Historic Places (nrhp.focus.nps.gov/natreg/docs/Main.xlsx)
¹⁹ North Dakota Association of Nonprofit Organizations, "2010 Nonprofit Sector Report"
(http://www.ndano.org/resources/publications.html)
²⁰ Corporation for National & Community Service, North Dakota profile
(http://www.nationalservice.gov/about/role_impact/state_profiles_detail.asp?tbl_profiles_state=ND)
²¹ North Dakota University System, "2011 Fall Enrollment Report Revised"
(http://www.ndus.nodak.edu/uploads/reports/95/fall-2011-enrollment-report5-12.pdf)
²² United States Patent and Trademark Office Full-text Database
(http://patft.uspto.gov/netahtml/PTO/search-adv.htm)