

**ENERGY**

**IMPACTS**

**IN**

**NORTH DAKOTA**

**2011**

## ***What are the impacts of energy development in North Dakota?***

That was the question the Western North Dakota Energy Impact Symposia Project, a collaboration of Dickinson State University and Minot State University and conducted in cooperation with the Great Plains Energy Corridor, was tasked with answering. Grant funds from the United States Department of Energy made the project possible.

The first two symposia, ***Energy Independence and Security*** (Minot State University, March 2010) and ***Energy Technology*** (Dickinson State University, August 2010) examined the importance of North Dakota's fossil fuel and renewable energy resources and how technology made the recent development possible. The focus for the 2011 symposia was on direct impacts of energy development. Minot State University hosted ***Growing with Energy: Economic and Infrastructure Impacts*** in March, and Dickinson State University explored ***Environmental and Workforce Impacts; Emergency Preparedness and Response*** at its September symposium.

Dickinson State University included a series of outreach meetings in the heavily impacted areas of central and western North Dakota as an addition to its work plan for 2011. Knowing that it wouldn't be possible for everyone who was interested in sharing information to attend one of the meetings, the DSU committee developed a survey that was distributed in conjunction with the outreach meetings. The goal of both the outreach meetings and the survey was to discover, through first-hand accounts, the impacts of energy development in central and western North Dakota. The results - some expected and others surprising - are detailed on the following pages.

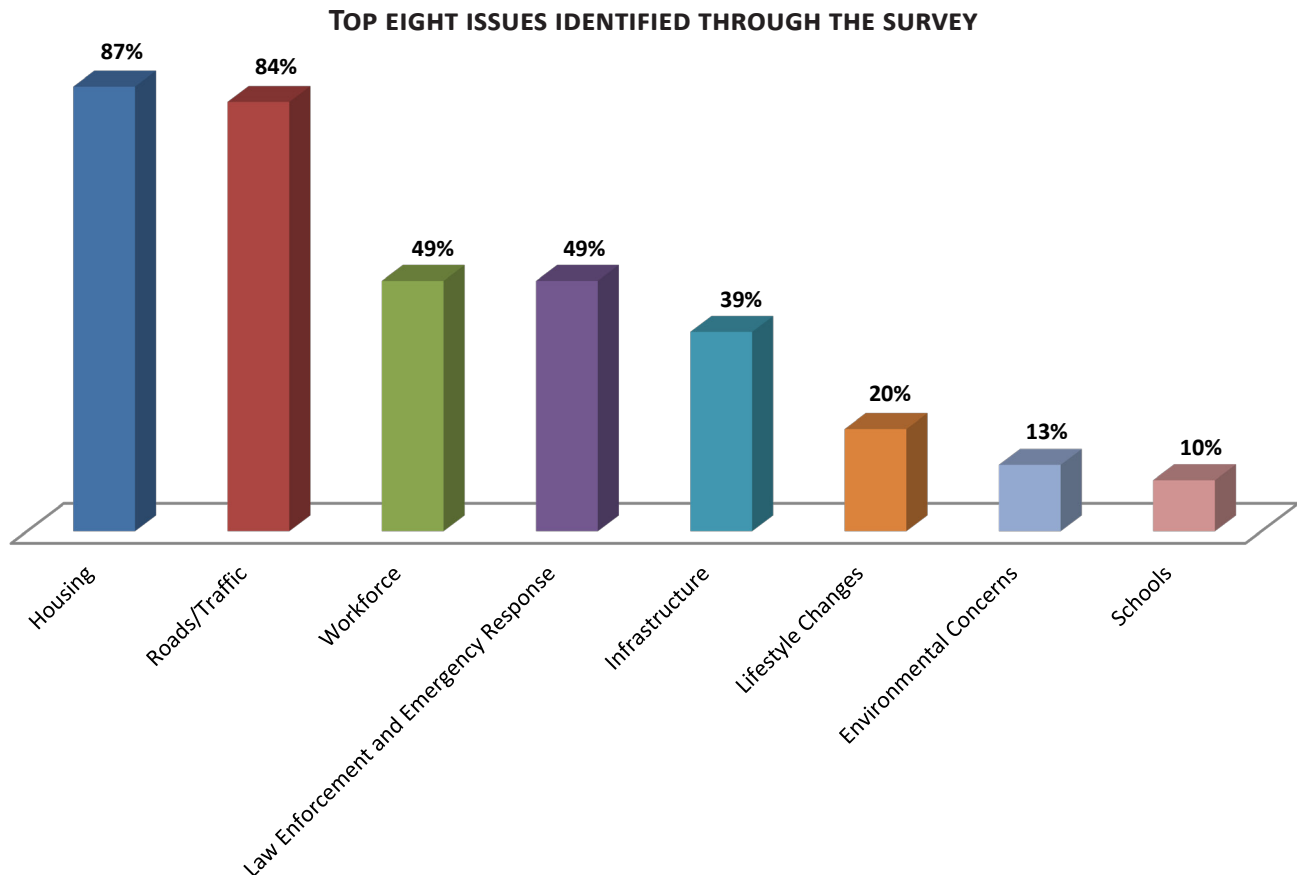




The first question on the survey was

***“Please identify, in priority order, the top five issues your community/county is facing. Please use specific examples where possible.”***

Housing, roads/traffic, workforce, law enforcement/emergency response, infrastructure, lifestyle changes, environmental concerns, and schools were the top eight issues identified through the survey. Comments made at the outreach meetings have been inserted under the appropriate categories.



## HOUSING

- In Killdeer, the local Jobs Development Authority, law enforcement agencies and the school district are considering building some multi-family dwellings because housing is so scarce for prospective employees.
- “Because construction costs are so high, a building subsidy is necessary for anyone who is considering ‘speculative’ building.”

- People are living in cars, trailers (not mobile homes) and substandard housing.
- Some people believe that temporary housing facilities are a good solution to the housing shortage. The nursing home in Westhope has been turned into a crew camp with 20 rooms and a bar.
- The general consensus of the Golden Valley county commissioners was that there should be a bond posted before a crew camp is constructed; they thought an engineering firm should be able to suggest a reasonable amount. The bond should have an accelerator clause. Something to keep in mind: a crew camp is “temporary” and will be taxed differently than a permanent structure would be.

- “Man camps don’t pay taxes on their structures only on the land beneath them.”
- “A lot of farmsteads have trailers on site; the problem is there are no sewer systems in place.”
- “Someone remodeled a garage and furnished it (in Minot); it’s renting for \$2000 per month.”
- “A fellow bought a number of properties in town at reasonable prices and is now trying to sell them at ridiculous prices. These properties have terrible wiring, plumbing and building materials.”
- Increased rental fees are especially troublesome for those on fixed incomes. Some people are seeing rate increases every 6 months.
- Someone with a Section 8 voucher probably won’t get into housing for a year. The rate the government pays for Section 8 housing is well below the “market.”



## ROADS/TRAFFIC

- “We are experiencing dangerous road conditions. The roads are too narrow to handle the truck traffic; they’re not safe for cars, school buses or farm equipment; and dust limits visibility.”
- “Only 25 percent of gravel road projects are matched by the State. Gravel roads are impacted as heavily as paved roads are.”
- County road equipment will definitely see the impact of increased activity by more frequent maintenance and replacement of parts.
- In Golden Valley County, townships are dissolving because legislation prevents them from raising mill levies, and they cannot meet the increased expenses of keeping the roads drivable.
- There was concern expressed about the way oil company road equipment operators maintain roads and remove snow. “They make huge banks on both sides of the road.” One suggestion was to require all operators to take a course in proper grading.
- “For each well, there are 1012 truckloads per month, and one truck has the impact of 26,000 cars.” (Statement made at a Divide County meeting.)
- Farmers have difficulty moving from field to field because of the steady stream of trucks.
- “Pipelines will reduce traffic and save roads.”
- A resident of Mountrail County counted 53 vehicles (44 were semi-trucks) in a 25-minute period going by her ranch.
- Road conditions are taking a toll on cars, trucks and school buses.





## WORKFORCE

- Farmers are losing farmhands to the energy industry.
- “Some people will do oilfield work for only a year or two because it’s so demanding.”
- “The county engineering department is depleted because everyone left to work in the oilfields.”
- “I worry about the stress people are experiencing on the job.”
- “Stress is definitely an issue.”
- “We’re experiencing frustration, overload and burnout. The stress level is becoming intolerable.”
- Some local businesses have had to close early because of staff shortages.
- Retaining current employees and hiring new ones is a challenge because many businesses can’t compete with oilfield salaries.
- Communities are seeing a lack of contractors for housing needs and fixing streets and roads.
- There is a shortage of city/county workers, teachers and daycare employees.
- “The skilled labor force is inadequate.”
- Because employees aren’t being trained sufficiently, accidents are increasing.
- Plumbers, electricians, auto mechanics, etc. are not as readily available to residents because of increased opportunities for work in the oilfields.
- Demand for law enforcement, emergency response, public health, social services, public works, and medical services is growing. Current employees are working longer hours and feeling the stress of doing so.



## LAW ENFORCEMENT AND EMERGENCY RESPONSE



### LAW ENFORCEMENT

- Most counties in the impacted areas are trying to increase their law enforcement staffs. Many are having difficulty doing so because of lack of affordable housing. In Dunn County, “police calls have quadrupled in the past year.”
- In Billings County, assaults, domestic calls, and bar fights are on the rise.
- The deputies hired in Golden Valley County are generally from out of state, and they don’t stay very long. “This is a training ground for law enforcement personnel.”
- The increased traffic is keeping everyone busy. Residents are concerned about the speed of trucks on all roads.
- In Ward County, in the first 6 months of 2011, there were 1000 more calls than last year for the same time period.



- Burke County officials reported that burglaries on farmsteads, both abandoned and occupied, are increasing.
- “Twenty percent of the people coming in (to Divide County) have criminal records. A lot of the people arrested have extensive criminal records; one was on parole for attempted murder. Criminal activity has increased 60-70 percent ‘across the board’.”
- “Calls for service have tripled from 2009-2010 in Williston, and we’re on pace to do the same this year. The biggest complaint is that we don’t have officers to monitor busy traffic areas.” Lack of housing makes it difficult to recruit staff. “Once we get staff trained, they are difficult to keep because of the higher salaries in the oilfields.”
- The Dickinson Police Department is getting 2000 calls a month consistently. They’re seeing more “medium risk events” that require more than one officer to respond. More of the calls are related to people who are looking for work than those who are employed. “Last week, 3 individuals were in town less than 24 hours and ended up in jail.”
- “Some out of state workers either don’t know or ignore North Dakota traffic laws.”
- In Bottineau County, “traffic enforcement is responsible for the major increase in law enforcement.”



#### EMERGENCY RESPONSE

- A paramedic who splits his time between Stark and Billings Counties said that ambulance service is up 86 percent from last year in Billings County. He is concerned about equipment wearing out, no back-up ambulances, and staffing. The current volunteer force is aging. Finding new, younger volunteers is challenging because more people are working out of town, and employers are becoming reluctant to let employees serve because of the high volume of calls.
- Volunteers in Bowman County are starting to “drop off because of the increased hours of commitment.”
- In Divide County, the number of ambulance/EMT calls by mid-June 2011 equaled the total for 2010. More accidents are “trauma-related.” The county had to purchase a 4-wheel drive vehicle to get to the remote sites in the county.
- The Beach Fire Department has had “more calls for extraction than for fires.”
- Dunn County has seen a major increase in ambulance, law enforcement, and fire calls both in number and type.
- In Bottineau County, the general consensus of the meeting participants was that the biggest concern is spillage. One participant summed up the sentiment that oil spills aren’t as bad as salt water spills. He said, “If we get a major salt water spill in the western part of the county, it will probably get into the river.”
- Public health staff are worried about “health concerns because of the lack of resources for emergency response”.
- “Emergency Management is one person and that person is



part-time. We need some long-term planning and an increased staff.”

- “We used to be able to rely on volunteers. Now we need to pay for some full-time paramedics and EMTs, and we need money.”

## INFRASTRUCTURE

- “Infrastructure (water, sewer, lagoons) is going to be a big factor in some of the smaller communities.”
- “We’re beyond capacity for the sewer system.”

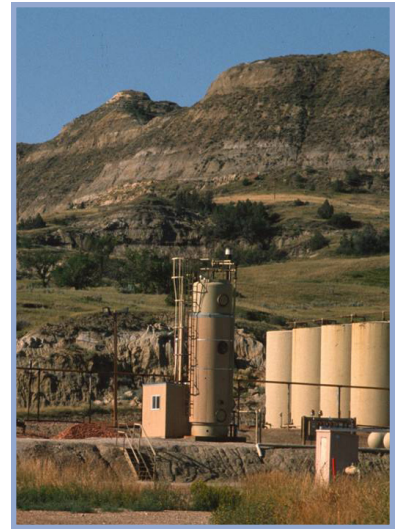


## LIFESTYLE CHANGES

- “Customer Service has lost its meaning here.”
- “The culture in the area is changing.”
- “People like living in Minot because it’s safe. The people are friendly, and there are good schools at all levels. Now, however, there is some angst.”
- “Minot is used to having lots of new people in town, but there is no commander to call ‘to get your people in line’ when it’s necessary. Maybe there should be a ‘representative council’ of energy industry folks that meets with the Chamber on a regular basis.”
- “People are experiencing growing pains; they used to be able to drive across town (Williston) in five minutes.”
- “We are mourning a lifestyle that will never be the same.”
- “It bothers me that my grandson will never know what this country was like before the oil was here.”
- “People (in Dickinson) don’t feel as safe as they did before the recent development. People used to leave cars and houses open, but now they’re locking everything.”
- “In one week’s time, I heard three teenagers say, ‘I want the old Dickinson back.’”
- “Much of the population growth is by ‘transients’, and most don’t have a commitment to the community.”
- “The community has a different feel.”
- People are experiencing decreased comfort in their own homes. They’ve gone from knowing everyone and leaving their houses and cars unlocked to locking up everything and knowing fewer people living around them.
- Sub-developments and man camps are springing up.
- Price gouging at restaurants and stores is occurring.
- Cost of living increases are evident.
- Surface owners and others who are not profiting from the boom are experiencing increased costs and poorer quality of life.
- People are frustrated about wasting time on long lines, traffic, and slow service.

## ENVIRONMENTAL CONCERNS

- What will spills do to the environment and wildlife?
- “I am concerned about environmental degradation.”
- “Congestion/invasion – industry has encroached upon wildlife habitat, fragmenting open areas, and making it like living in a perpetual construction zone.”
- “Littering is harmful to livestock and wildlife, and it prevents haying ditches.”
- People expressed concerns about fracking.



## SCHOOLS

- The number of special needs students has increased in Golden Valley County. A school administrator indicated that it was because more students are being diagnosed, some come from poor family structures, and others are lacking foundation skills from less effective school districts in other states. “One student has been in thirteen school districts.”
- The Williston School District had 300 new students at the beginning of the 2011-2012 school year, and additional students continue to arrive each week. The percentage of special needs students among the new arrivals is higher than the historical base of 17 percent in the district.
- Virtually every community in the oil-impacted areas is seeing increases in student numbers. For some school districts, these additional students can be absorbed quite easily. For those districts in the heart of the development, large numbers of new students are very problematic.
- Many teachers are nearing retirement; there is a lack of adequate housing for new teachers.
- Buses are wearing out quickly because of road conditions. Districts are having difficulty finding bus drivers. In McKenzie County, some routes have been discontinued and parents are responsible for getting their children to school. There is general concern about the safety of buses with so many trucks on the road.
- Schools are experiencing an increased need for ESL instructors. A suggestion from Bowman County was to have “diversity training in the impacted communities”.
- “Industry needs to tell the University System what they need.”
- Center School District has an incentive program for teachers. Any teacher who moves into the district and teaches for 5 years will receive \$10,000 plus the interest accrued during that time. Teachers who don’t live in the district but who bring their children to school in Center can earn one-half of the incentive.
- People expressed concerns about increased school populations, lack of school funding, aging school infrastructure, the number of teachers nearing retirement, and a shortage of housing for teachers.



Although the following issues didn't make the "Top 8", there was significant discussion about them at the outreach meetings.



## PUBLIC HEALTH

- Sexually transmitted diseases are a serious concern. Staff in Williams County indicated that for women under the age of 26, there was no change in the number tested, but there was a 150 percent increase in "positives" from 2009 to 2010. The staff indicated that they are currently seeing "a marked increase in STD testing" and in "risky behaviors". Staff in Mountrail County said that the number of STDs is higher in their county than in any other county in the state.
- The influx of new students has had a huge impact on the public health staff because they have to check immunization records, and every state has slightly different requirements. Counties are processing more vaccination certificates with no reimbursement mechanism. Although the number of people who do not vaccinate has increased, more families have accessed the Vaccines for Children (VFC) Program because they don't have insurance.
- The staff is taxed because they have to license and inspect septic systems and inspect non-community water systems. Disposal of waste is a concern.
- Substandard and previously abandoned houses are now being occupied. Public health staff can require broken windows, etc. to be repaired but they cannot require any action if mold is present since there is no national standard for mold. They can, however, encourage the owners to clean up the property.
- Among the comments made during the public meetings in Williston and Stanley:
  - "Everyone is so busy playing catch-up that they don't have time to look forward."
  - "By mid-June, (the public health unit) had already spent what it had for the previous year."
  - "The (public health unit) needs help assessing the gaps in public health services, developing a plan, and obtaining funding to hire well-qualified staff and to provide temporary housing."

## DAYCARE

- The waiting lists for daycare in Williston are "well over one year."
- "Some women aren't working (in Dickinson) because they can't find daycare. There are 800 daycare spots and 2000 children to fill them."

## HEALTH SERVICES

- "The emergency room at the hospital (in Mountrail County) is almost like a clinic."
- "St. Joseph's Hospital and Health Center (in Dickinson) is averaging 1200 emergency room visits per month."

## STATE RESPONSE

- Retroactive payments from the State are a problem for townships and counties. "There's an 18-month delay in some cases."
- "The number of state regulators to monitor and control illegal, unethical and unsafe business practices is inadequate."



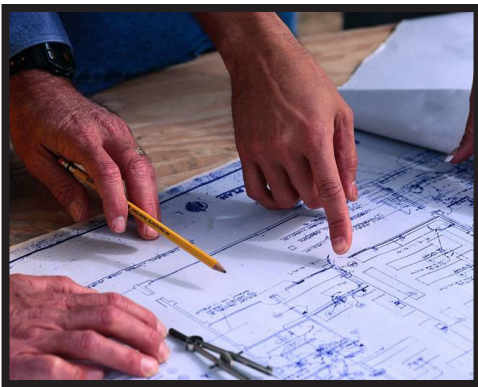
- Rural communities need access to grant funds.
- “Government agencies have exhibited a lack of advanced planning or flexibility to resolve or alleviate problems created by rapid growth.”

## PLANNING AND ZONING

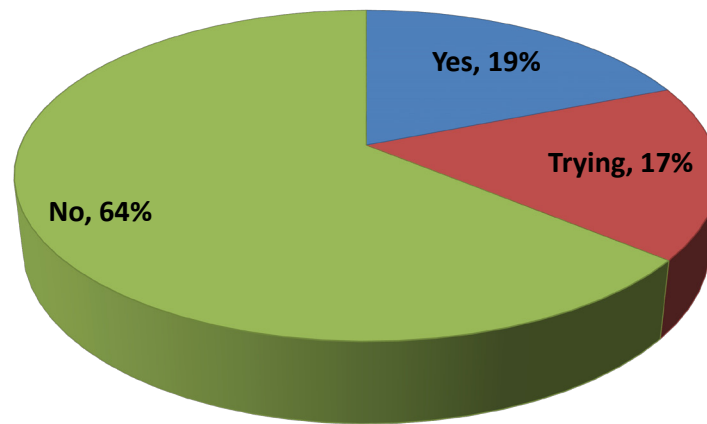
- “Appropriate city/county ordinances should be enacted to properly handle rapid expansion.”
- “Haphazard growth has resulted in the landscape being scarred with businesses’ field operations.”

## OTHER

- There is the misconception that oil counties have an endless supply of money.
- Services for children are stretched thin.
- Youth need safe recreational and social activities.
- “Healthy living options (walking paths, smoke-free venues, nutritious options, and worksite wellness) are not a priority.”



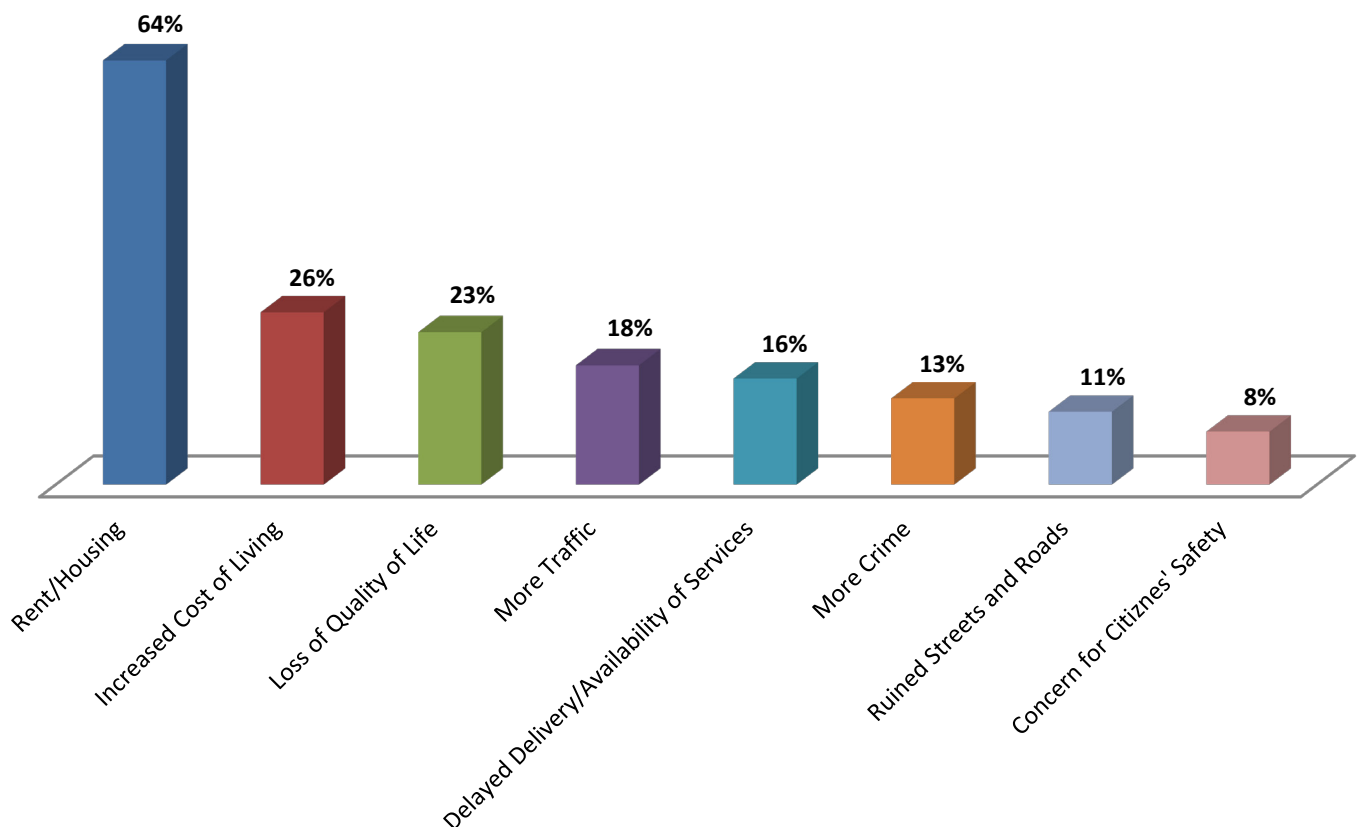
***“Is government responding appropriately to the rapid energy development?”***



***“If no, what assistance (besides money) do you need to help resolve your issues?”***

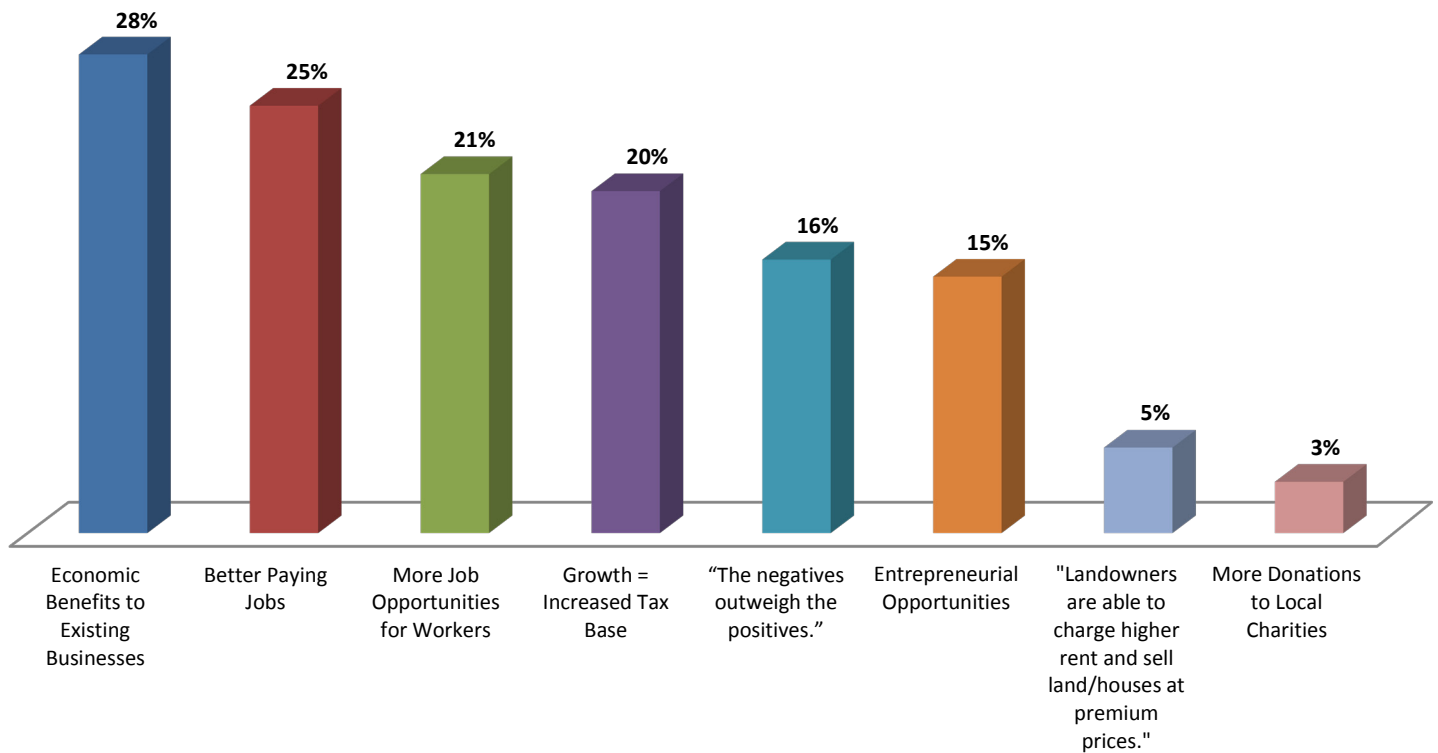
- Variations of “more regulations and enforcement” appeared in 29 percent of the responses.
- Guidance and training for local governing boards; long-range planning – 9 percent
- More state law enforcement for both safety and weight restrictions – 9 percent
- A streamlined process for getting funds from the State to cities and counties – 6 percent
- State legislative action is needed more frequently than every two years to keep up with the pace of growth. – 6 percent

***In what ways have long-term residents been impacted by energy development?***





***While energy development has brought some challenges, it has also created some opportunities and positive benefits. How has your community/county benefitted from energy development?***

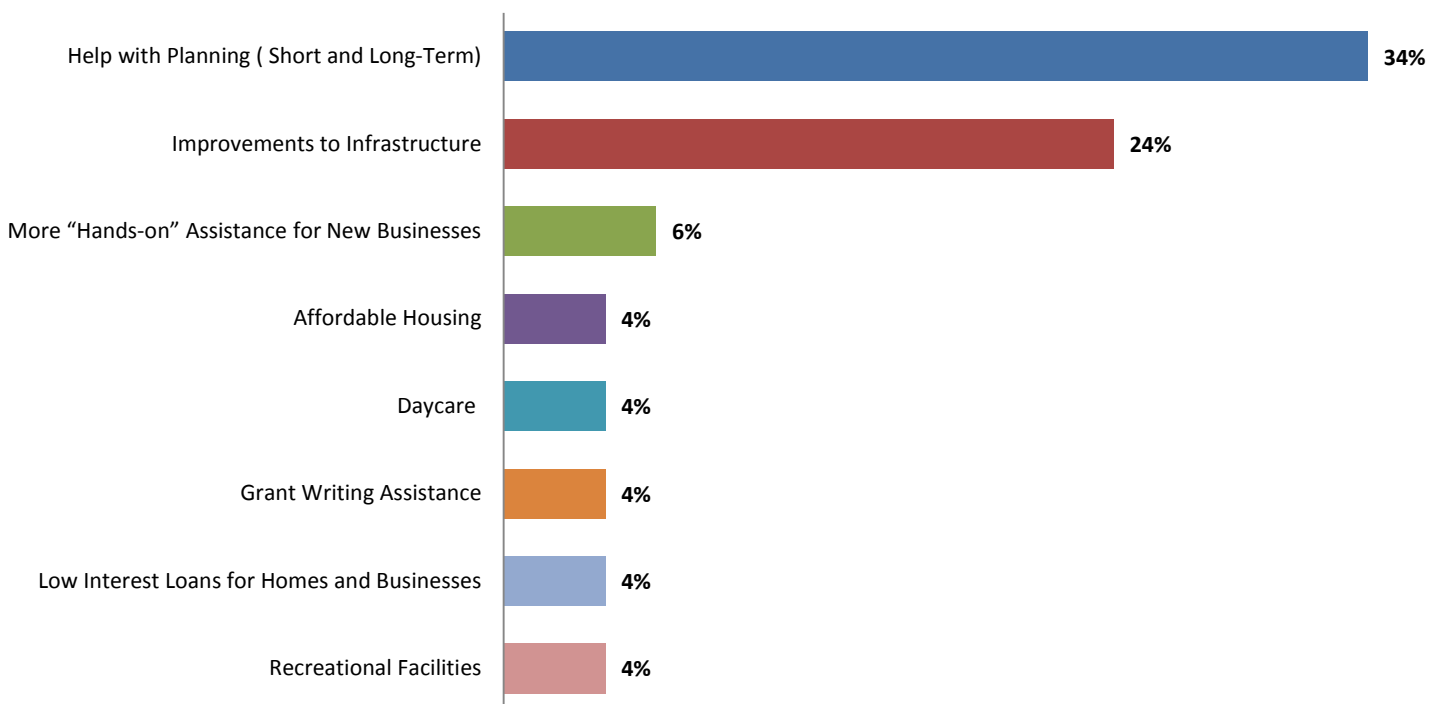


Among the other statements about "positive impacts" were the following:

- "Most people have moved up a level to a higher paying job."
- Many landowners have mineral leases and are realizing financial benefits.
- Agriculture producers are seeing added income through pipeline, well site, and road easements.
- "The oil boom has helped keep people on the farm because of 'outside' income opportunities."
- Community facilities are being used year-round.
- Because of increasing enrollments, schools are receiving more money.
- Old houses are being fixed up or torn down.
- Federal and state dollars have made community improvements possible.
- Hotels, restaurants and other retail establishments are experiencing increased business.
- Communities have a more diverse population.
- "We're finding more Spanish food in the grocery stores. People in the community want to learn Spanish so they can be better neighbors."
- "There are new cultures and languages in town."
- "There's a great new Mexican restaurant in Stanley!"
- "Without the oilfields, a lot of roads wouldn't have been opened this winter."

- “Fewer people are receiving economic assistance.”
- “The oil boom has brought younger people into the decision-making process.”
- “The oil industry is willing to have partnerships with local entities.”
- “It’s a really interesting time; it’s kind of fun actually.”

***What assistance do you need to take advantage of the economic opportunities that exist during this period of energy development?***



Although the top four issues: housing, roads/traffic, workforce shortages, and law enforcement/emergency response were “hot button” items in all of the outreach meetings, it was interesting to see how the backgrounds and interests of the participants influenced the discussion of other pertinent topics. If we had a group of “environmentalists” in the room, the discussion leaned in that direction. Likewise, when public health staff joined the discussions, we heard about the issues they are facing. And so it went. Fortunately, we had a good cross section of participants, and we believe we have captured the current, significant issues.

We came away from the meetings with two clear impressions: those impacted by energy development are “overwhelmed” with the increased demands on their time, and they need help dealing with the issues. The survey responses reinforced these impressions.

Dickinson State University appreciated being able to take the first step in helping communities and counties deal with the impact of the energy boom, identifying the major issues. We look forward to working with our partners in using this information for the next step, developing strategies for dealing with these very important and serious issues facing North Dakota.

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