

# THE RELATIONSHIP BETWEEN UNCONVENTIONAL OIL & GAS DEVELOPMENT AND LANDOWNERS

Bakken • Powder River Basin • Marcellus

This report summarizes a survey that investigated the effects that unconventional oil and gas drilling had on landowners in four counties: Richland County, Montana; McKenzie County, North Dakota; Sheridan County, Wyoming; and Tioga County, Pennsylvania. It also asked landowners about the ways they tried to mitigate and manage the impacts of development. The survey was sent by mail during periods of decline in oil and gas development.

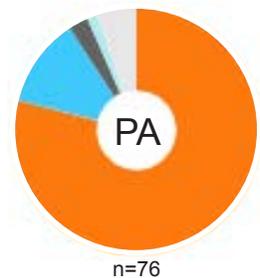
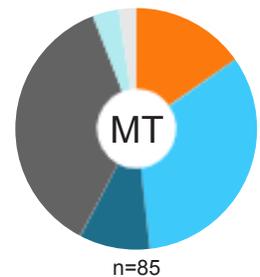
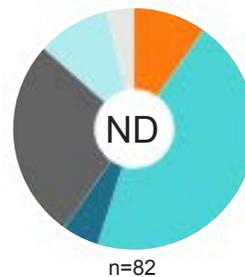
## PERCEPTIONS OF COSTS & BENEFITS

Two-thirds of the survey respondents reported a positive impact of oil and gas development on their households, and 75% said that their county was better off. These endorsements of oil and gas impacts should be recognized alongside those who reported no change in wellbeing at the family (16%) or county (8%) scale, and those who felt that they, their families, and their county were worse off (17%).

The most common benefits reported in open-ended answers related to finances and the local economic stimulus. Respondents reported benefiting from improvements made to road, electricity, and water infrastructure on their properties. Some of the most common costs cited were significantly higher income and property taxes, higher cost of living and living expenses, and legal fees associated with dealing with the oil and gas companies. Many landowners also said that time, stress, and headaches were a major cost for themselves and their families.

The responses to this survey did not endorse a perspective that oil and gas development precludes

## MINERAL RIGHTS OWNERSHIP OF SURVEY PARTICIPANTS



- Full ownership
- Partial ownership
- Federal government
- Privately owned by others
- Other
- I don't know

**59%**

Of surveyed landowners did not own full mineral rights on their property

## SURVEY METHODS

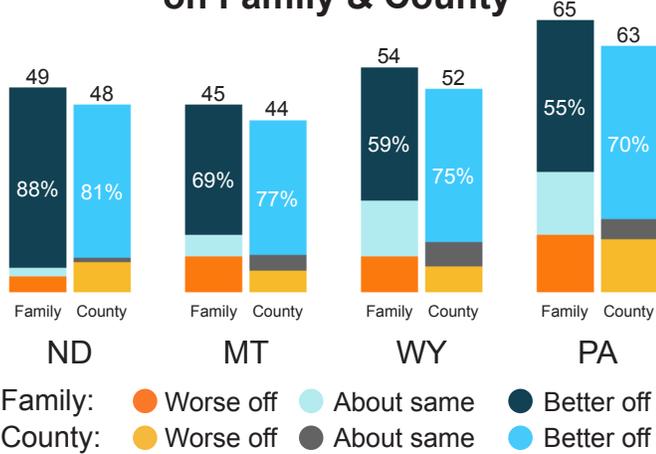
**Sample Size:** 1,000 landowners in four counties with oil and gas development (250 per county)

**Response Rate:** 24.2% (242 respondents)

*The survey was administered in spring 2016 by Penn State's Survey Research Center.*

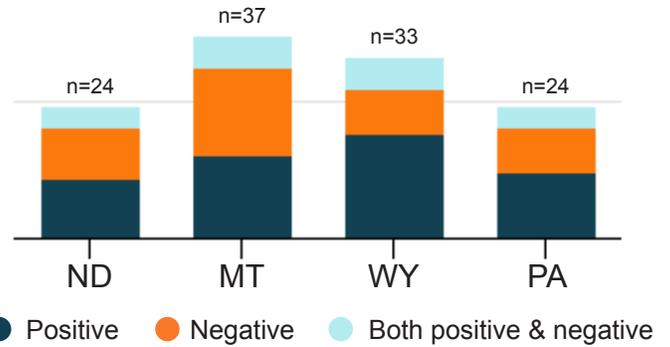
# OIL & GAS IMPACTS ON LANDOWNERS

## Overall Effects of Oil & Gas on Family & County



44% of landowners in the survey said that they or someone in their family farms or ranches

## Oil & Gas Effects on Farming



**76%**

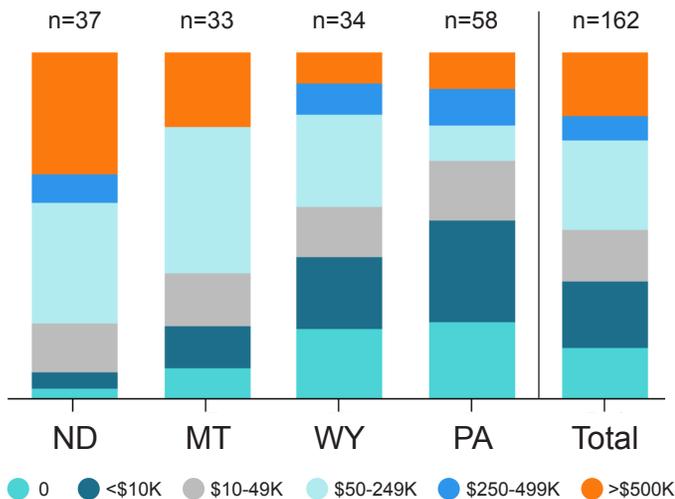
Of landowners did not seek help from a formal financial advisor

**68%**

Of landowners did not change their farm or land management strategies due to oil and gas

## Income & Investment Strategies

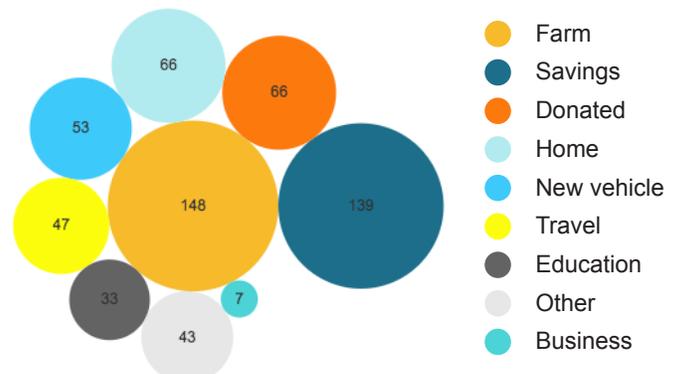
### Distribution of Royalty Payments to Landowners by Dollar Amount



**8 of 10**

Landowners reported their mineral rights were leased for oil and gas development, and 58% of respondents live on land that was leased

### How Rural Landowners Spent Oil & Gas Income



## WANTED THE INCOME

Top reason why landowners leased mineral rights, followed by "did not expect leasing to affect land use" and "price was right"

other rural land use activities or that it is changing agriculture directly in terms of products or farming/ranching activity. But the experience of costs and benefits is mixed: Overall, 62% of respondents said that there were positive effects of oil and gas development on their farming operations, 43% said there were negative effects, and 21% said that there were both positive and negative impacts.

The majority of farming and ranching respondents said that drilling has not affected their ability to use their land, although that proportion was less (68%) if the respondent had infrastructure on his/her land. For those reporting impacts to land use, when asked whether or not the effects of oil and gas development on the land that they owned were permanent, nearly 82% across all four states said yes. Among 43 respondents who said the effect on their operation had negative effects on earnings, the majority reported lost production and lost rent.

Ownership of and benefits from mineral leases was also uneven, with 41% of respondents claiming they had full ownership of the minerals associated with their land and 43% reporting a mix of ownership involving the surface owner and other private parties. 25% of respondents in Wyoming were surface owners above federally-owned mineral estate. Payments, including royalties, bonus payments or surface damage agreements, varied widely in their amounts. 19% of respondents reported receiving under \$10,000 in total from royalty income, while another 18% reported receiving over \$500,000 in total. Answers to questions about why landowners leased their land suggest that most did it for the income (76%) and that many also hoped it would not affect their own use of the land (41%).

## **ADAPTATION & INVESTMENT STRATEGIES**

Landowners, including farm and ranch operators, largely adapted to oil and gas impacts (both positive and negative) in an individualistic manner. More than half spent time monitoring oil and gas activity on their land during the peak of development. Among those who reported having to respond to oil and gas activity with changes in farm and ranch practices, the majority did not consult with outside expertise.

Across all landowners that reported receiving royalty payments, the most common types of spending from those payments were home/family needs and savings (each at 67%). More than half of all respondents (53%) reported spending royalty payments on various farm expenses, about 14% spent on other things, and nearly 5% spent on another non-farm business. The majority of all respondents (76%) said that they or someone in their household did not work with a financial advisor to help manage the leasing/royalty income.



## **What are the positive effects of oil & gas development on your farming operation?**

“Extra income.”

“Provided a water well. Provided cattle guards. Maintained roads. Installed infrastructure - electric, power, telephone.”

“None.”

“Better roads so easier access.”

“The added income makes it much easier to farm and allows us better equipment, etc.”

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## **What are the negative effects of oil & gas development on your farming operation?**

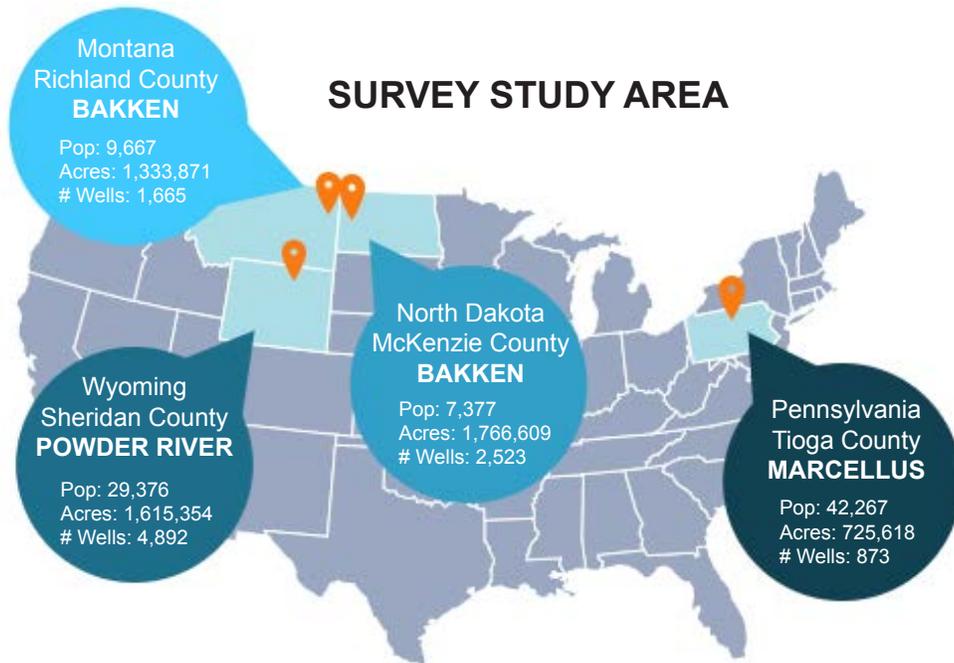
“We now have easements and electric poles running all over our property.”

“Dust, traffic, garbage, time, disruption of rangeland.”

“No reclamation.”

“None.”

“Loss of privacy, answering surveys, loss of grazing land to oil and gas infrastructure.”



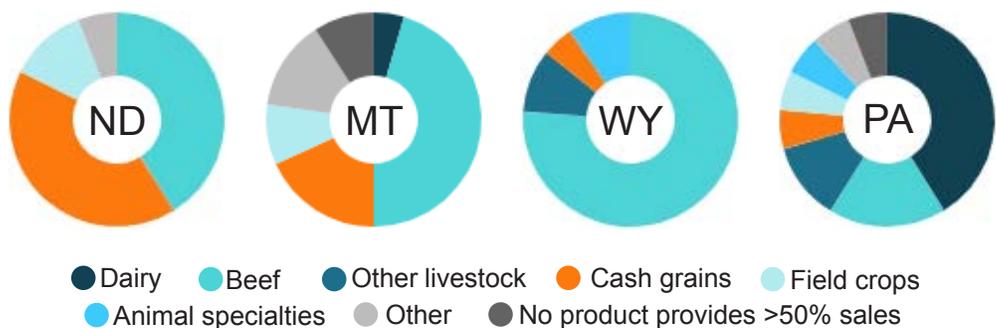
### CHARACTERISTICS OF RURAL LANDOWNERS NEAR OIL AND GAS WELLS

Of the 1,000 surveys distributed, 242 usable responses were received, yielding an effective response rate of 24.2%. Response rates varied by state: 32% in PA, 28% in MT, 24% in ND, and 22% in WY. Our survey respondents were overwhelmingly male (72%) and over half of them were over the age of 50. One-third had owned the land since before 1960, one-third acquired their land between 1961 and 1990, and the remaining one-third were newcomers since 1991. Only 64% of respondents had oil and gas infrastructure on their land (the other 36% were within 1,000 feet of a well by survey design). 44% of the respondents reported that mineral leasing involving their property dated to prior to 1960, with 10% reporting it occurring since 2009—and the remainder distributed between 1960 and 2009.

# 47%

Of landowners in the survey used their land for something other than agriculture

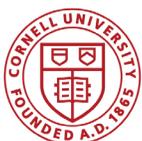
### Dominant Agriculture Product of Farms and Ranches in Survey



**Full Survey Reports: [www.montana.edu/energycommunities/findings.html](http://www.montana.edu/energycommunities/findings.html)**

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