What are the major socioeconomic impacts of the increase in unconventional resource extraction in the North Dakota portion of the Bakken shale play since ~2005?

Industry concentration plays an important role in regulatory outcomes and the impacts from industry on communities. Industry concentration is represented by the Herfindahl-Hirschman Index (HHI). For this calculation, market share is defined as squared market shares of all firms. The HHI is calculated by taking the sum of the squared market shares of all firms. Markets with an HHI below 1,500 are considered to be unconcentrated. Markets with an HHI between 1,500 and 2,500 are considered to be moderately concentrated. Markets with an HHI higher than 2,500 indicates almost perfect market share. Generally, an HHI close to zero indicates almost perfect competition in a market. An HHI over 1,000 signals a monopoly. Markets with an HHI between 1,500 and 2,500 are considered to be moderately concentrated. Markets with an HHI higher than 2,500 are considered to be highly concentrated. Markets with an HHI below 1,500 are considered to be unconcentrated.

How might newspaper coverage of oil and gas development reflect differences in local and national attitudes on the issue?

From 2003 – 2014, the media household income of the 16 “Bakken” counties grew by more than 100%.

How will the recent drop in prices affect production and output?

A great deal of natural gas produced in North Dakota is “flared,” or allowed to enter the atmosphere without being captured for use as energy. This is often due to inadequate pipeline capacity and infrastructure in the region. Flaring is not expressly prohibited under U.S. regulations, but it has been linked to health problems and reduced air quality, which has caused other states to implement heavy restrictions. During the flaring process, the methane from the well is converted into carbon dioxide (CO2). Though still a contributor to climate change, CO2 is a much less potent greenhouse gas than methane. Many suggest that the decrease in prices of natural gas on the market has also contributed to an increase in flaring practices (see chart below). (Data from U.S. EIA)

Where is the industry located, and where is the industry most heavily concentrated?

DAWSON MCCONE RICKLICH ROOSEVELT SHERIDAN BILLINGS BOTTINEAU BURKE DIVE DUNN GOLDEN VALLEY MCHENRY MCKENZIE MCLEAN MERCE MOUNTAIN MOUNTAIN RENVILLE STARK WARD WILLIAMS

2,500 Number of horizontal wells that have been drilled in Montana, North Dakota, and Saskatchewan over the past two years. Each well costs between four and eight million dollars to build. According to case study on the Bakken region, this suggests that the oil and gas industry has invested $15 billion in energy infrastructure in the region.1