

## Attitude towards Marcellus Drilling Influenced by Risk Perception

*Survey to chart opinion progression; suggests need to find middle ground*

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*Broader View Weekly, September 23, 2010*

Over the past year researchers at Cornell and Penn State universities have been surveying people living in the Marcellus Shale region in order to learn how they feel about the gas industry. The biggest factor, says Penn State sociologist Kathy Brasier, isn't age, income or how long a person has lived in the community. It's how the person perceives the risks associated with drilling.

Brasier, who presented preliminary data from the "Community Satisfaction Survey" in a September 16 webinar, explained that the reason for doing the survey was to establish a baseline of community attitudes in areas that have seen little Marcellus development. Close to 1,920 people from 21 counties in Pennsylvania and eight in NY – including Tioga, Chemung and Tompkins – mailed in responses. Brasier plans to return to the communities in two years, once Marcellus drilling moves into the area, and do the survey again. That will allow her to track changes in people's experiences and attitudes.

Nearly 80 percent of those responding to the survey had lived in their communities for 20 years or longer; half had lived in the same place their entire life. "Clearly, these people are very attached to their communities," Brasier noted. And that is linked to the likelihood that these people will get involved in local issues.

On a related question, most people rated their quality of life as "very good", with more than 70 percent of respondents listing drinking water, neighborliness and the natural environment as the reasons for living where they do.

About 44 percent of those returning surveys own land in the Marcellus region; 10 percent had already signed a lease with a gas company and one percent had existing drilling or pipelines on their property. Just under half of those leased expressed satisfaction with the terms of their leases.

The counties surveyed haven't experienced an influx of Marcellus wells, but residents are concerned that the expected level of drilling will have an impact on their community. While 42 percent of respondents felt that jobs will get better, close to 50 percent believe that the environment will get worse. At least one third of those surveyed felt that roads would get worse, and expressed concern about increasing crime and the availability of affordable housing.

One of the things Brasier learned as she compiled survey results is that people's opinions may be informed by their experiences with gas drilling. "Those supporting Marcellus development tend to have wells nearby," she said. "They are also more likely to expect jobs and job training opportunities to increase."

Those who support gas development also perceive risks differently from those opposed to Marcellus drilling. Risk perception has a lot to do with the level of fear, uncertainty and familiarity with the industry, Brasier pointed out.

It is also based on the potential for catastrophic events, how preventable problems are, and the distribution of risk. "For example, are those who benefit economically also taking

the risk?” Brasier asked. Nearly half of the survey responses indicated concern that only a few people in the community will benefit from drilling.

More than half of the people felt that potential negative impacts of drilling could be prevented. But nearly 40 percent said they were concerned about the ability of the industry or state to mitigate negative environmental impacts.

What has become clear, as Brasier has analyzed the data, is that risk perception reveals two distinct ways that people think about drilling. “These polarized groups have fundamentally different orientations towards the natural environment, sources of trusted information, and expectations for impacts,” she said.

Those who perceive lower risks associated with Marcellus wells demonstrate a higher trust in the gas industry and basically view humans as dominating nature. In contrast, people who perceive a higher risk with Marcellus drilling tend to place their trust in environmental groups and view humans as being an integral part of the ecosystem as a whole. Each group sees the risks and rewards differently.

Interestingly, NY respondents expressed a higher level of concern and negativity towards drilling than their PA counterparts. Brasier believes this is a result of the NY Department of Environmental Conservation (DEC) decision to not issue generic Marcellus drilling permits until their study of High Volume Hydraulic Fracturing is complete. This “effective moratorium” created an opening for debate that allowed for a high level of mobilization and organization on both sides.

This polarization makes it particularly difficult for communities trying to navigate the conflict, Brasier noted. She listed some strategies for communities dealing with polarized interest groups. “First, recognize the context in which concerns are raised,” Brasier said. “Acknowledge what is at risk for each group.” Equally important, Brasier urges community leaders to assemble the best information from multiple sources.

“Building trust will require transparency, discussion and a commitment to agreed-upon goals,” Brasier said. She suggests that communities struggling with these debates take the time to create a process that allows people to identify the basic issues they have in common. “Not their positions on an issue,” Brasier says, “but their interests in having good jobs for their children or protecting some feature of their community that they all value.” This will take time, she cautions. The process must give people the opportunity to learn, to discuss, and to create relationships with others throughout the process. It has to provide a safe environment for people to listen to one another and, maybe, move their positions without losing face.