

Marcellus Drilling: Pace, Perception and Rural Impacts

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In mid-December, Cornell University hosted the annual Agribusiness Economic Outlook Conference. The morning panel focused on the effects of gas drilling on agriculture, while afternoon sessions examined the current state of fruits, vegetables and dairy.

Richard Stedman, from the Department of Natural Resources at Cornell University, opened the discussion with a look at how NY and PA residents view drilling. Even though drilling hasn't happened in NY, people's perceived impacts of drilling drive their behavior, he said. Noting the similarity between the northern tier of PA and southern tier of NY, both situated over the Marcellus reservoir, Stedman said the region is "hungry for the next big thing". And that big thing is the Marcellus Shale play.

Stedman reviewed data from his study of residents in 29 counties, eight in NY and 21 in PA, atop the Marcellus Shale. Although PA has seen nearly a decade of drilling activity, respondents from that state seemed to know no more than NY respondents about how Marcellus exploration would eventually play out. However, Stedman said, people in PA seem to have more trust in what the gas industry tells them than the folks in NY. Respondents from NY tended to trust information from scientists, cooperative extension and local environmental groups.

The majority of respondents from both states agreed that the environment and quality of drinking water would probably get worse in drilling areas. While there was a lot of uncertainty in those responses, Stedman noted that New Yorkers responded more negatively about environmental effects and potential overall benefits. This could be a reaction to seeing things go wrong in PA and wondering "what can NY learn from this?"

Stedman said that the biggest failing of the draft Supplemental Generic Environmental Impact Statement (SGEIS) is the lack of assessments of cumulative impacts. The NYS Department of Environmental Conservation (DEC) needs to consider the combined effects of multiple wells and how gas wells could fit in with other energy generating technology, such as wind turbines, he said.

Tim Kelsey, Penn State professor of agricultural economics and rural sociology, presented data from his most recent study of Bradford and Tioga counties in PA. Bradford County is one of the top ten agricultural counties in the state, so drilling does effect farmers in that region. While there are a lot of anecdotal stories, there isn't the sort of data that can show the change in numbers of farmers due to drilling. One question that continually comes up is whether farmers who cease farming are leaving by choice or whether they are forced out.

A more important question, Kelsey said, is what the impact is on remaining farmers. If farmers choose to give up dairy or other agricultural ventures due to drilling, will feed mills and other infrastructure remain viable?

"We've heard a lot about competition for labor," Kelsey said. Drivers with commercial licenses (CDL) are being hired away from milk haulers and other support services, such as agricultural input suppliers.

The number of wells in an area has an impact on farming. Kelsey reported that areas where there were 150 or more gas wells lost 19 percent of their dairy herd while areas with no wells experienced only a 1 percent loss. "Dairy farmers are choosing to leave agriculture," he said.

Another issue facing farmers is the lack of availability of rental land. Landowners who used to lease fields to farmers are now renting their land for other uses related to drilling, such as water withdrawal sites. Large impoundments also take land out of production, and crop yields show decline in reclaimed pipeline right-of-ways. Another issue is how consumers perceive the safety of food raised near gas wells.

Kelsey encouraged landowners to do their homework before signing leases. Those who do, he said, get a better deal. His data show that people who spent time learning about leases, who attended educational meetings, spoke with more than one gas company and consulted attorneys, ended up with higher signing bonuses and better lease terms.

David Kay, senior extension associate for the Dept. of Development Sociology at Cornell, wound up the panel with a discussion about what NY has learned from Pennsylvania's experiences with Marcellus drilling. The number of jobs turned out to be about half of what was predicted, he said. He then touched on the most critical factors affecting rural economic development with respect to drilling: pace, scale and geography.

Towns, counties and states need to better understand when and where companies plan to drill. They also need to know more about the economic behavior of landowners and the long-term and short-term economic prospects for regions that depend on natural resource extraction.

"Pace, scale and the pattern of drilling drive all other impacts," Kay said. Experience in Bradford County, PA indicates that drilling begins broadly and then, very quickly, focuses on core areas. This points to a more concentrated pattern of development than expected, he said.