



Impacts, Opportunities, and Challenges for Marcellus-Related Businesses in Pennsylvania

Introduction

The rapid and growing development of Marcellus shale is bringing significant opportunities and challenges to local businesses in Pennsylvania. Anecdotes from businesses suggest that many are responding, but that some face barriers to doing so. There has been little prior empirical research on these issues.

This fact sheet describes impacts, challenges, and opportunities of Marcellus shale development on Pennsylvania's businesses that have intentionally positioned themselves to benefit from the expected increase in economic activities. It also examines the varied strategies employed by businesses to address future impacts and the types of assistance they are seeking. This work is intended to help these businesses plan carefully for the future, an important step in ensuring the responsible development of the Commonwealth's natural gas resources.

Methods

In spring 2011, a web-based survey was sent to businesses identified from the mailing list of the online Marcellus shale business directory **PAGasDirectory.com**. The directory lists about 1,200 firms interested in business opportunities associated with Marcellus shale.

The results describe the impact on businesses that have specifically identified wanting to work more closely with Marcellus shale-related activity, not all businesses.

The survey was electronically distributed through e-mails to directory members in March 2011. Completed responses were received from 70 businesses, for a response rate of 6 percent. This is a very low response rate, so the results need to be treated with caution.

Business Profiles

Responses came from businesses physically located in 35 different counties—all but three in Pennsylvania with some concentration of Marcellus activity.

Table 1. Businesses by gross sales.

<i>Total gross sales this year (before taxes)</i>	<i>Number of businesses</i>	<i>Percent of businesses</i>
Less than \$100,000	3	4%
\$100,000–249,000	5	7%
\$250,000–999,999	8	12%
\$1–5 million	20	29%
More than \$5 million	32	47%

Most businesses reported operating in multiple counties, ranging from 1 to 67 (every county in Pennsylvania); the average business worked in 20 counties, not including one business operating in 1,000 counties across the United States. Similarly, 48 businesses (69 percent) operated in states other than Penn-



sylvania, with a handful in Canada, Mexico, or other international locations. The average business had been operating for about 38 years, and nearly half (47 percent) grossed more than \$5 million in the last year (Table 1).

More than half of the respondents (56 percent) indicated that their business activities were directly related to natural gas drilling or development in the state. The number of full-time, year-round employees ranged from 1 to 1,700—not including two very big businesses with more than 10,000 employees—with the average at about 161. About half of the businesses employed 1–350 part-time staff, and a few hired 2–250 seasonal employees.

Impacts of Marcellus Shale Development

In general, the impacts of Marcellus shale development on businesses have been quite varied. Just over half (57 percent) of survey respondents indicated that their business activities have changed since the advent of Marcellus shale natural gas drilling activities. These changes included major increases in business activity: 64 percent said sales have increased, 43 percent reported hiring more employees (2 percent said they had lost full-time employees), and 17 percent shifted services (Table 2). One respondent noted that the effects of the Marcellus development have been “up and down, just like the drilling activity.” Three businesses in engineering, consulting, and manufacturing reported that changes have not been “nearly as much as expected to date.”

Table 2. Changes in business activity due to Marcellus shale activity.

<i>Changed business activity</i>	<i>Number of businesses</i>	<i>Percent of all businesses</i>
More sales	45	64%
More employees	30	43%
General services and business	12	17%
More hours of operation	10	14%
New equipment or inventory	8	12%
New facilities	3	4%

About 88 percent of the businesses that have seen changes indicated that they had actively sought out the Marcellus shale-related business activity. About 4 percent said they had been approached by the natural gas industry.

Opportunities and Barriers to Business Expansion

About three-quarters of the respondents (74 percent) said they either are planning to or would like to expand their business to capture opportunities from Marcellus shale development. Of these, only 15 percent (8 businesses) said they would like to expand but are unable to do so. The businesses that are unable to expand described several major reasons preventing them from expanding, including a lack of funding (3 businesses), not receiving enough new business so far to warrant expansion (3 businesses), not having the management expertise to expand (1 business), and being wary of the uncertain path of drilling activity. Two respondents indicated that if they did not get funding for expansion, their current business might be jeopardized.

The businesses were asked what types of assistance or training would help them better respond to the opportunities and challenges arising from Marcellus shale activity. About 16 percent of the respondents indicated that they could benefit from technical training for their employees, such as pipeline crews, commercial drivers’ licenses, or other training (Table 3). Ten percent said they would benefit from grants to help fund their expansion or work, such as rail freight or environmental grants. Nine percent suggested that they would benefit from

Table 3. Types of assistance businesses would find helpful.

<i>Types of assistance</i>	<i>Number of responses</i>	<i>Percent of examples</i>
Training for employees	11	16%
Specific grants, access to capital	7	10%
Networking opportunities	6	9%
Other	4	6%

increased networking opportunities to meet with natural gas companies. Other types of assistance, such as larger facilities, were mentioned by 6 percent of the respondents.

Implications

The survey responses from companies that have actively identified themselves as interested in Marcellus shale activity present a varied picture of how such businesses are being affected and responding to the opportunities and challenges from natural gas development. Furthermore, because we relied on the PA Gas Directory e-mail distribution list, the survey is only as representative of Pennsylvania businesses as that distribution list. The response rate to the survey was very low, which limits the strength of the results, but the answers demonstrate that experiences differ across the business community.

About half of the businesses said that their activities have changed as a result of Marcellus shale development, with about the same percentage saying they are experiencing more sales activity. In addition, about one-third said that they have more employees than prior to the shale activity. Very few of the respondents reported negative impacts on their business.

The majority of the respondents plan to expand due to Marcellus shale, suggesting that many of the businesses view the natural gas development as an opportunity. Yet only 15 percent of the businesses said there were barriers that prevented them from making such an expansion. Respondents most often identified funding as a barrier, but the current level of business activity and managerial expertise were also mentioned.

Additional research is needed to explore these barriers and, in particular, to develop possible policy solutions to overcome them. In addition, such information would be helpful to know about other businesses being affected by Marcellus shale, not just those establishments that self-identify as being related to natural gas development.

About the Businesses in PAGasDirectory.com

The PA Gas Directory was founded in February 2010 to connect Pennsylvania businesses (from startups to multinationals) with the natural gas industry. The directory mostly includes businesses based in Pennsylvania, and is expanding into Ohio, West Virginia, and New York as [ShaleDirectories.com](#).

Written by Eleanor Andrews, graduate student in geography, and Timothy W. Kelsey, professor of agricultural economics and state program leader for economic and community development.

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Visit naturalgas.psu.edu.

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