

Natural Gas Drilling Effects on Municipal Governments in the Marcellus Shale Region (Part II)

This column is presented weekly by the Public Education sub-committee of the Clinton County Natural Gas Task Force in an effort to provide accurate, up-to-date information on activities surrounding the Marcellus Shale formation and the natural gas exploration industry. For more information on Task Force activities, visit the Task Force page on the Clinton County government website at www.clintoncountypa.com.

The information in this article is part of a larger economic impact study conducted by the Marcellus Shale Education and Training Center, which is a partnership of Penn College of Technology and Penn State Extension. External funding for the project came from the Pennsylvania Department of Community and Economic Development.

The economic impact survey was sent to nearly 500 Pennsylvania townships, boroughs and cities in a 12-county region, which included Clinton and Lycoming Counties. The survey was conducted in the fall of 2010 and was designed to provide insights into what occurred across the Marcellus Shale region.

Overall Changes and Impacts

Survey respondents were asked how Marcellus shale development activities have affected a variety of aspects of their governments and communities. The municipal governments with Marcellus-related activity reported some major changes.

About 25 percent said that their populations had increased, and more than half said road maintenance had increased (Table 1). About 89 percent said tourism had not changed, and only 4 percent said tourism had declined. School enrollments increased in 19 percent of the municipalities, as has crime in 15 percent of the jurisdictions. Property values were reported to have increased in 38 percent of the municipalities, and declined in only 7 percent.

About one-third of the municipalities said community conflict had increased due to Marcellus shale development. The majority of municipalities indicated no change in many of the areas listed. Similarly large numbers of local officials reported changes in local economic conditions (Table 2). About half said employment had increased, but only 28 percent said unemployment rates had decreased. The disparity between these two numbers is likely related to the amount of in-migration of new workers; there are more jobs due to Marcellus shale, yet the in-migration of workers means there are more workers competing for those new jobs, reducing the impact on unemployment rates.

Some also noted that Marcellus shale development had increased residential construction (7 percent), hotel construction (9 percent), and other commercial construction (21 percent). The local officials also noted changes in the local environment due to Marcellus shale development (Table 3). Almost half of the officials (48 percent) said that water use and disposal had increased in their municipality. About 18 percent said water quality had decreased, and 12 percent said air quality had decreased. Twenty percent said storm water runoff had increased, likely due to the amount of land disturbance associated with well pad, access road, and pipeline construction.

When asked to describe other impacts Marcellus shale development has had on their local governments, municipal officials reported resident complaints (including traffic and water quality concerns), as well as the additional time required by the municipal staff. When asked how the development is affecting their municipalities overall, about one-third of the officials (32 percent) where gas activity is occurring indicated that the impacts are positive, while 26 percent said the impacts were negative. The remainder said the impacts either were unclear (20 percent) or that there were none so far (22 percent). The responses indicate that the impacts of Marcellus development on municipal governments are mixed and vary depending on local circumstances.

Implications

The responses from municipal government officials across the Marcellus shale region of Pennsylvania indicate that they believe natural gas development is having major impacts on their communities. The officials are observing major employment increases in their communities due to Marcellus shale. At the same time, many are also experiencing growing demands for public services and higher costs. This includes road maintenance and construction and use of emergency services. In addition, many noted increasing social or environmental issues, including more community conflict, water use and disposal, and storm water runoff.

It is important to keep in mind that the survey responses reflect local government officials' perceptions of what is occurring. These perceptions likely are more accurate for some issues, such as local government spending and revenues, with which they deal directly. Their perceptions of other issues where they lack direct experience or expertise, such as worker immigration, manufacturing, tourism, and air and water quality, may be less accurate.

A larger number of officials said their costs are increasing than said that their revenues are increasing as a result of Marcellus activity, which suggests that development of Marcellus shale is creating fiscal concerns in some municipalities as they try to respond to higher service needs. The relatively low proportion of officials observing increases in earned income tax and local service tax revenues is surprising, given the amount of new employment activity occurring, and indicates that additional investigation is needed to determine why these do not seem responsive to Marcellus activity. The lack of clear patterns when we compared changes in revenues, services, and expenditures by the level of drilling activity shows that many municipal governments are being affected regardless of whether wells are actually being drilled within their jurisdictions.

Next week's column will offer additional survey results, including specific survey responses from Clinton and Lycoming County municipalities participating in the survey.

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