

# Natural Gas Drilling Will Not Affect Everyone Equally

The Marcellus Shale has been represented by the gas industry as the cure-all for the Upstate New York economy, a rising tide that will lift all boats. In reality, some will gain while many others will lose if intense drilling using high-volume hydraulic fracturing takes place.

Who Benefits	Who Does Not Benefit
Gas Companies	Majority of Adults in the Community
Large Rural Land Owners	Local Governments
Bar/Restaurant Owners	Hunters/Fishermen
Some Retail Stores	Outdoor Enthusiasts
State Tax Revenues	Tourists
Annual US Natural Gas Supply*	Agriculture, Wineries
	Wildlife
	Sustainable Local Economy

\*Increases by 3.5%<sup>1</sup>

## Negative Economic Impacts

*New York must pay attention to what has happened in other communities where intensive gas drilling has taken place, to avoid the same economic problems:*

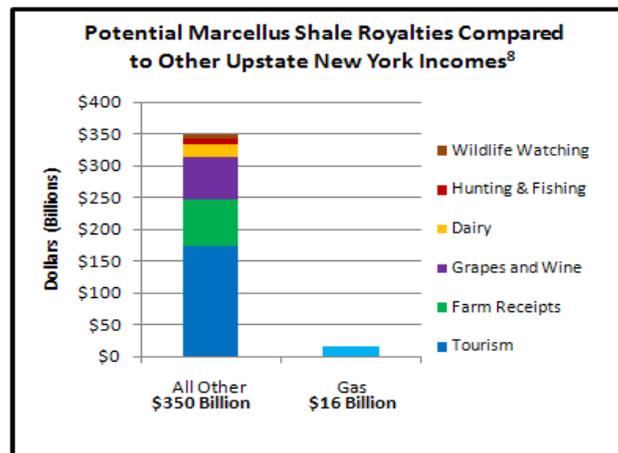
A comparative study<sup>2</sup> of 26 rural counties in the Western US found that counties that relied on gas extraction for economic growth did **not** do well. Compared to other counties, gas-reliant counties had:

- economies that grew more slowly
- less economic diversity and resilience
- a greater gap between high- and low-income households
- less ability to attract investment and retirement dollars

A 2002 review<sup>3</sup> of over 300 economic studies of resource extraction found that **only a quarter** report that the community studied was better off when extraction became a significant part of its economy (half of the studies found the community was worse off; the remaining quarter found no change).

*Economic costs may be greater than income from gas drilling:*

- Increased expenses for repairing local roads and bridges and providing emergency responses to spills, fires, explosions, and leaks. (The cost in Sullivan County, NY for repairing roads damaged by gas trucks over two years was \$550,000;<sup>4</sup> PA has seen many spills, leaks, and fires over the last year.<sup>5</sup>)
- Decreased revenue from tourism, hunting and fishing, outdoor recreation, and wildlife-watching.
- Lower crop yields due to ozone and other air pollutants.<sup>6</sup>
- Decreased sales by wineries and organic farmers due to both real and perceived contamination from gas drilling chemicals.
- Lower property tax revenues due to declining property values.
- More lost work time and medical expenses for community members due to exposure to air and water pollutants (such as ozone, particulates, benzene, and other chemicals).<sup>9</sup>



*Even in heavily leased areas, a relatively small proportion of the residents will benefit directly by receiving royalty payments:*

In Tompkins County, 39% of the land area has been leased for gas drilling in the last 5 years. However, only 6% of the adult, non-college-student population own those leases.

In the rural Town of Caroline in Tompkins County, 54% of the land area has been leased for gas drilling in the last 5 years. Those leases are owned by less than 8% of the adult population.

*Local municipalities should have the right to control where and how rapidly gas development occurs within their jurisdictions.*

Sociological studies of communities where intense gas development has occurred<sup>10</sup> show that there is:

- a changed social structure, causing long-term residents to report lower satisfaction with their community and quality of life
- significant inflation (especially in housing and rent), driven by the influx of transient, out-of-state workers
- increased demand on medical facilities: evidenced by more medical visits and ambulance trips
- a rising number of court cases, arrests, and crimes

## References:

- 1 Assuming 250 trillion cubic feet of recoverable Marcellus gas, 15% of which is in New York, 2000 wells drilled each year and an annual natural gas consumption of 23 trillion cubic feet (the current consumption, as reported at [www.eia.doe.gov](http://www.eia.doe.gov)).
- 2 Headwaters Economics. 2009. "Fossil Fuel Extraction as a County Economic Development Strategy: Are Energy-focusing Counties Benefiting?" [http://www.headwaterseconomics.org/energy/HeadwatersEconomics\\_EnergyFocusing.pdf](http://www.headwaterseconomics.org/energy/HeadwatersEconomics_EnergyFocusing.pdf)
- 3 Freudenburg, W.R. and Wilson, L.J. 2002. "Mining the Data: Analyzing the Economic Implications of Mining for Nonmetropolitan Regions," *Sociological Inquiry*, Vol. 72, No. 4, Fall 2002, 549-575.
- 4 Goldstein, J. (Lebanon Town Supervisor). July 22, 2009. Letter to the Editor in The Madison County Courier <http://www.madisoncountycourier.com/county-events/lebanon-supervisor-comments-on-recent-natural-gas-article-3135/>
- 5 Schankman, S. January 27, 2010. "Pennsylvania's Gas Wells Booming—But So Are Spills," *Pro Publica*. <http://www.propublica.org/feature/pas-gas-wells-booming-but-so-are-spills-127>  
Wilbur, T. December 4, 2009. "Diesel Spill Occurs at Pa. Natural Gas Drilling Site," *PressConnects.com* <http://www.pressconnects.com/article/20090224/NEWS01/112040013/-1/news11/Diesel+spill+occurs+at+Pa.+natural+gas+drilling+site>  
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- 6 United States Department of Agriculture Agriculture Research Service. Accessed 4/28/10. Effects of Ozone Air Pollution on Plants. <http://www.ars.usda.gov/Main/docs.htm?docid=12462>.
- 7 Tillman, C. September 26, 2009. "Is the juice worth the squeeze?" [http://baddish.blogspot.com/2009\\_06\\_01\\_archive.html](http://baddish.blogspot.com/2009_06_01_archive.html)
- 8 Numbers originally gathered by John Schwartz, reanalyzed and replotted here by the Marcellus Accountability Project. Gas revenue assumes there are 250 trillion cubic feet of gas in the Marcellus shale reserve, approximately 15% of which is in New York; a gas price of \$10.00/1,000 cubic feet (2x current price); and a 12.5% royalty rate. Sources used by Dr. Schwartz:
  - (a) National Agricultural Statistics Services. See New York State and Cash Receipts link. \$3.65 billion annually over 20 years = \$73 billion from Marcellus Shale region [http://www.nass.usda.gov/Statistics\\_by\\_State/New\\_York/Publications/County\\_Estimates/index.asp](http://www.nass.usda.gov/Statistics_by_State/New_York/Publications/County_Estimates/index.asp)
  - (b) Stuff about States. All New York State, select dairy products. \$1.95 billion cash receipts in 2004. Over 20 years, that totals \$39 billion for the whole state. Assume half of that comes from Marcellus drilling areas. <http://stuffaboutstates.com/new.york/agriculture.htm>
  - (c) For all of New York, annual total Hunting and Fishing income: \$1.6 Billion, Wildlife Watching: \$1.6 billion. Source: U.S. Fish & Wildlife Service New York 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Scale to 20 years and assume one quarter comes from Marcellus drilling areas. <http://www.census.gov/prod/www/abs/fishing.html>
  - (d) New York Agricultural Statistics Service, op. cit: \$3.4 billion annually: New York's Grape, Grape Juice and Wine Industry Profile. Source: NY Agricultural Statistics, 2007-2008 Annual Bulletin, Table 34. Over 20 years, \$68 billion from Marcellus Shale region.
  - (e) "Tourism Impact in the Adirondacks." The Marcellus Shale counties constitute about 17% of the \$51 billion spent in New York in 2007. That totals \$173 billion over 20 years from Marcellus Shale region. [http://www.adirondackbasecamp.com/2008/09/tourism-impact-adirondacks/Drilling for Natural Gas in the New York State Marcellus Shale](http://www.adirondackbasecamp.com/2008/09/tourism-impact-adirondacks/Drilling%20for%20Natural%20Gas%20in%20the%20New%20York%20State%20Marcellus%20Shale)
- 9 Koken, P.J., et al. 2003. "Temperature, Air Pollution, and Hospitalization for Cardiovascular Diseases among Elderly People in Denver." *Environmental Health Perspectives*. Vol. 111: 1312-1317.  
Dales, R.E., Cakmak, S., Doiron, M.S. 2006. "Gaseous Air Pollutants and Hospitalization for Respiratory Disease in the Neonatal Period." *Environmental Health Perspectives*. Vol. 114: 1751-1754.  
U.S. EPA. 2008. *Fact Sheet: Final Revisions to the National Ambient Air Quality Standards for Ozone*. Available at <http://www.epa.gov/groundlevelozone/actions.html>. This study has been criticized for underestimating the benefits of lowering ozone levels.
- 10 Jacquet, J. 2009. "Energy Boomtowns & Natural Gas: Implications for Marcellus Shale Local Governments & Rural Communities." NERC RD Rural Development Paper No. 43. <http://nercrd.psu.edu/Publications/rdppapers/rdp43.pdf>