



Assessing the impacts of shale drilling

County Case Studies

<http://www.multistateshale.org>

Project Goals

1. Develop and disseminate **factual information** on social, economic and fiscal impacts of shale drilling
2. Improve understanding about the size and character of **social impacts**
 1. Help local officials **anticipate**, plan for, or avoid negative drilling related impacts
 2. Improve capacity to **factor actual costs** and impacts into decision making

Research Methodology

- **Basis for counties chosen.** Largely based on most active counties for shale development, as they are most likely to have experienced impacts.
- **Interviews:** local officials, businesses and residents, informed by review of literature on shale development
- **Data:** where publicly available
- **Media** accounts

Context

- All four counties are small, rural, and generally poorer than state as a whole.
- As of end of 2012, when case studies published:
 - Pennsylvania: 6,245
 - West Virginia: 2,120
 - Ohio: 270 wells
- Carroll County: Half Ohio's shale wells

Economic Impact: Costs v. Benefits

Net Benefit or Net Cost? The overall economic impact—positive or negative—will largely be determined by:

- No. of Jobs & who gets them
- Local economic activity & how many dollars stay local
- Royalties & the local share of them, *and*
- Costs to the community, in short run and long term.

Some benefits exaggerated, some industry practices detract, costs that have been ignored.

Goal to Maximize Benefits, Minimize Costs with dialogue, best practices, oversight, and investments.

Oil and Gas Leases

Benefits

Signing Bonuses to local landowners, vast majority of land leased. Thousands of leases recorded.

Government entities signing lease deals too. Influx of one-time funds.

- Carrolton School District: \$400,000, cover gap created by cuts in state and federal funding
- Carroll County – long overdue renovation of courthouse

Costs / Negatives

- **Recording office overwhelmed**, dial up internet service, Chesapeake spent \$200k to help digitize records
- **Poor lease deals** detract
 - Signing bonus variation: \$10 to \$5800 per acre
 - Unfavorable Lease terms
 - old leases long forgotten dug up
 - Use of mandatory pooling

Oil and Gas Leases

Benefits

Royalties –federal
minimum 12.5%

Costs / Negatives

- Fracking wells taper off dramatically (decrease 40% after first year).
- Lower ROI than traditional oil wells
- **Questionable industry practices**
 - Bartering with sister companies
 - Deduction of “Gathering Expenses” (as much as 90% of royalties).
Manipulation of costs by industry
 - Lack of transparency in royalty payments, lease may not allow for audit, or at owner expense (\$10k)

Local Economic Activity

Benefits

- Oil & Gas industry folks **spend money locally.**
- **Signing bonuses spent locally.** Home and farm repairs, modern, efficient farm equipment
- **Economic Indicator:** increase in sales tax revenue from 2011 to 2012
 - 16.5% increase in motor vehicles and parts
 - 20% increase in food and accommodation
 - Gas station sales 60%

Costs / Negatives

- Oil and gas industry is largely **out-of-state companies**, represents profits leaving state.
- **No real value-added facilities** in community. However, natural gas fired electric power facility proposed in Carroll County (large enough to serve 700,000 homes). There are midstream processing centers, some built and some proposed, in nearby communities (spillover)
- **Water & sewer infrastructure limitations** for development

Jobs

Benefits

- **jobs created**, pay good wages.
- Bigger demand for **jobs in supportive industries**. Local jobs created in truck driving, concierge services, cleaning, restaurant work, mechanics

Costs / Negatives

- **3000 fracking jobs across Ohio**, less than 1/10 of 1% of all jobs statewide
- Many of these jobs are going to **out-of-state workers**
- Carroll County **unemployment rate** is down to 8.3% from recession high of 14%, but higher than pre-recession levels (5.8%)
- Support jobs **don't pay** nearly as well
- **Worker safety**: hard jobs, some injuries, fatalities. Nationwide, record high fatalities in 2012.
- Many of the jobs lack health insurance.

Housing Market

Benefits

- Influx of out-of-state workers has increased demand for rental housing, **rental income increasing** significantly
- Campgrounds, hotel full
- Work for rental agent, concierge services
- **Rehab** of properties for rental market, business at local hardware store
- Market for second-hand furniture developed
- **Investment properties** go quickly, when on market

Costs / Negatives

- **Rental prices rise**, as much as three times previous rates, high per diem for oil & gas workers. locals have trouble affording higher rents with local wages. Shortage of affordable housing
- **Locals fear eviction**, and lower quality housing if have to move
- Fast turnover of rental properties
- **Cloud** over residential properties near drilling. Sellers separating mineral rights. **FHA restrictions** (not within 300 feet, or if air quality issues)

Traffic, Road Costs

- Traffic
 - Increased traffic congestion, increase in heavy and overweight trucks. Can impede police, emergency vehicles, school buses. Council considers changing parking rules, and addition of crossing guards in town center
- Road Damage & Repair
 - Increased wear and tear on roads from heavy trucks, substantial costs for road repair, need for road improvements
- Traffic accidents
 - Doubled traffic-related incidents, calls to sheriff quadrupled.
 - Accidents involving large trucks increased, large truck rollovers, related injuries and fatalities
 - Damage to roads, guardrails, signage.
 - Increased workload for sheriff, firefighters, emergency services

Water Use, Waste Water

Large amounts of Water used

- An Estimated six million gallons for each well.
- Only 6.5% recycled for reuse
- Dry years –water demand could compete with other needs

Concern for contamination of drinking water

- 20 to 40% fracking fluids remain below ground, some toxic chemicals
- Injection wells and landfills, cost to outside communities. In 2012, 14.2 million barrels injected in 200 Ohio wells, half from other states
- 95% of Carroll County is well water, residents feel on own, Carroll Concerned Citizens formed
- Ohio has seen earthquakes, illegal dumping, leaks.

Other health, environmental costs, nuisances

- Flaring
 - Trumbull County – gas flared for two weeks near a neighborhood of 800 low-income families. Bright light and loud noise akin to Tornado warning. Wildlife fled, pets hide
 - In North Dakota – 1/3 of all gas burned in air, \$100 million in economic waste
- Noise
- Ecosystem
- Biodiversity
 - Scenic, serene landscapes in rural area affected by eye sores and loud noises
 - Slurry spills related to pipeline construction cause degradation of wetlands and streams

Next Steps:

Dialogue around Best Practices to
maximize benefits and minimize costs

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