



# The Economic Benefits and Costs of Frac-Sand Mining in West Central Wisconsin

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## Study Overview:

This report seeks to look at both the benefits and the costs associated with frac-sand mining. The objective of the report is to lay the basis for more informed public discussions and improved decisions about how to manage the natural landscape in Wisconsin's frac-sand country. Based on our research on the impacts of mining activity across the nation and around the world, we will raise many questions about the benefits and costs associated with frac-sand mining. The intent is to lay out as clearly as possible the questions that each community needs to ask and answer, as best they can, before authorizing additional frac-sand production.

## Key Study Findings:

- Mining typically supports levels of pay that are far above the average pay level in the rest of the economy.
- The promise that these high incomes can lay the basis for prosperous, vital economies has not usually been fulfilled. Mining has rarely laid the basis for sustained prosperity, and often mining has been synonymous with economic depression, high rates of unemployment and poverty, or simply "ghost towns."
- This "economic anomaly of mining," the apparent contradiction between wealth creation and high wages not leading to community prosperity or often, even, community survival, needs to be recognized and understood if communities are going to manage their landscapes so as to sustain and increase local economic wellbeing.
- The study discusses six reasons for the frequent failure of mining to produce sustained prosperity:
  - 1) Mining tends to be volatile, swinging through booms into busts. These fluctuations can be quite frequent and quite deep. This creates uncertainty about mining jobs and payroll that disrupts communities and depresses local economies.
  - 2) Labor-saving technological change is constantly reducing the number of jobs associated with any given level of mine production. This causes an ongoing loss of jobs even when production is steady or rising.
  - 3) Miners recognize this uncertainty about employment and choose to live away from mines, commuting long distances to work or leaving their families "at home" while they temporarily relocate to work. This leads to substantial leakage of the mining payroll out of the local community.
  - 4) Mines tend to have limited connections with the local economy, especially if the mine is located in a rural area. With limited commercial infrastructure, the local economy cannot provide the mine with either the equipment or supplies it needs and often cannot even provision the mining households. As a result, the income generated rapidly leaks out of the community.
  - 5) Mining is very landscape intensive and has often been associated with significant air and water pollution. That environmental degradation makes mining districts unattractive locations for both homes and non-mining businesses.

- 6) Mining in a variety of ways can discourage or displace other economic activities. In that sense, the economic stimulus provided by the mine is offset by the economic losses also associated with the mine.
- The economic impact of frac-sand production in west central Wisconsin is likely to be quite small. The jobs associated with it will make up only a fraction of one percent of total employment. Over the last twenty years, the Wisconsin economy has created about the same number of jobs every single month on average. Within the frac-sand region that number of jobs has been created about every two months. That level of job creation will have little impact region-wide.
  - For at least the last two decades, west central Wisconsin has shown impressive economic vitality as its economies have evolved away from land-based economic activities towards a more diverse manufacturing and professional services economy. The high quality of life allows the region to hold and attract residents and visitors and new business ventures. The potential impact of frac-sand mining on these existing positive economic trends needs to be carefully examined.

Excerpts from the Study:

“Mineral extraction activities do pay among the highest wages available to blue collar workers. It is not just the mining of metals or energy minerals that pay unusually well. Over the last 40 years the pay for mining non-metallic, non-fuel, minerals such as sand was significantly higher than the average pay in the state. In fact, for the time period we have data on mining of sand, gravel, stone, and other non-metal and non-fuel minerals, the pay was almost 50 percent above the average annual pay across all Wisconsin jobs.”  
(Study, page 7)

“Given the high wages associated with mining, one would expect communities that rely on mining to be unusually prosperous. That, in general, is not the case. If we use population growth as an indication of an areas ability to attract and hold economic activity and the people who energize it, mining regions in Wisconsin have not done very well. ... “The population of all four of the [top mining] counties either trended downward during the 1900 to 1945 period while the mines and metal processing plants were still in operation. That decline continued into 1970 for three of the four counties. ...

“Several important conclusions can be drawn from this brief review of Wisconsin’s historical experience with mining. First, the mining activity has a relatively modest impact on local economic vitality during the period of active mining. That is followed by a loss of population. It is only a considerable time after mining has ended that new economic activities become the source of economic vitality. The mining itself does not lay the basis for sustained economic vitality. In fact, economic depression tends to follow mining.”  
(Study, pages 9-11)

“In order to explore the contemporary local impact of reliance on mining in the United States, we look at the economic performance of all US counties where mining (excluding oil and gas extraction) was the source of 20 percent or more of labor earnings at some time in the 1980s and then follow those counties through 2008. ... For the whole period 1980-2008, despite the resurgence of mining activity between 2001 and 2008, aggregate earnings and per capita income in mining-dependent counties grew over a third slower, personal income almost a quarter slower, and population and per capita income about an eighth slower than in counties without significant mining activities.

“Given this poor economic performance in US mining-dependent counties despite the high wages paid by mining, it is not surprising to find that population growth in these counties was negative during the 1980s and significantly slower than in the rest of the nation in the 1990s. Population growth continues to be significantly slower during the 2001-2008 period too.”  
(Study, pages 13-15)

To read the full report, please visit:

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