

# **The Economic Impacts of Renewed Copper Mining in the Western Upper Peninsula of Michigan**

## **Executive Summary**

**A report prepared for**

**Friends of the Land of Keweenaw  
FOLK**

**by**

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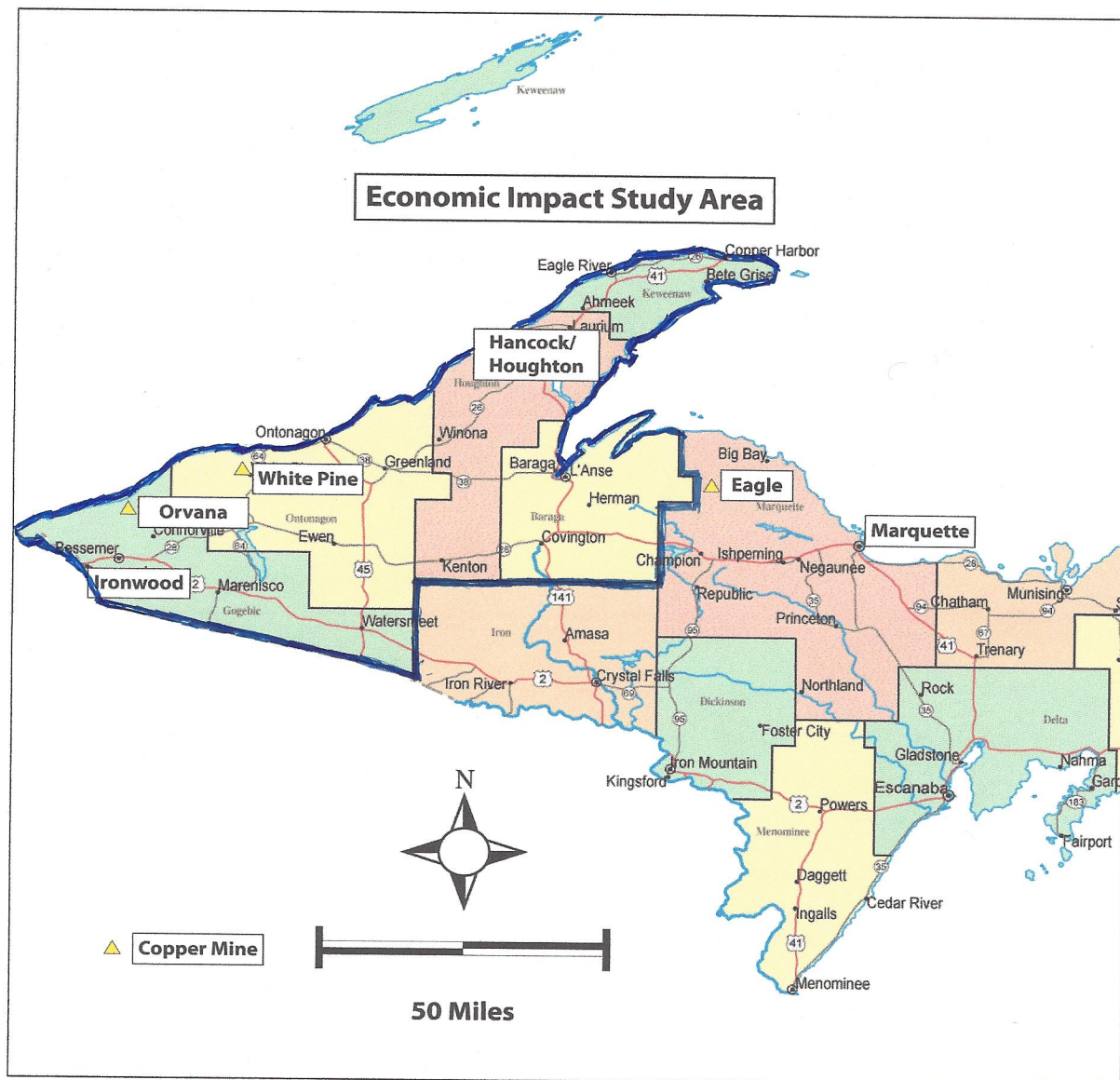


Figure 1

# Executive Summary

## 1. Introduction

In recent years mining companies have returned to the Western Upper Peninsula of Michigan (Western UP) to explore for metal ore deposits and propose a variety of metal ore mining and processing projects. The Friends of the Land of Keweenaw (FOLK<sup>1</sup>), an active all-volunteer organization located in the Western UP, is concerned about the lack of involvement of the resident population in the decision-making about these metal mining proposals. It wants a public assessment of renewed metal mining that engages citizens to discuss and decide if the resumption of metal mining is in the region's best interest.

To that end, FOLK has launched a grassroots "Mining Education and Citizen Empowerment Campaign." The objective of this public campaign is to provide citizens, community leaders, and private and public institutions with the capacity to make informed and responsible decisions regarding new mining projects in the Western Upper Peninsula. This requires that information be made available on the likely impacts of a return to a metal mining economy on the region's natural and social environments and economy.

FOLK commissioned this study of the Western Upper Peninsula economy and the likely impact of metal mining on that economy as part of FOLK's education and empowerment campaign. We define the Western Upper Peninsula as the five-county area including Keweenaw, Houghton, Baraga, Ontonagon, and Gogebic Counties.

## 2. Avoiding a Rear-View Mirror Approach to the Local Economy: The New Economy That Has Emerged in the Western Upper Peninsula

When discussing proposals for economic development in small urban centers and the surrounding rural areas, the focus often falls on the land-based activities of the past that allowed European-Americans to inhabit those areas. As a result, the focus tends to be on the *export base*. In the Western UP that typically involves focusing on mining and

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<sup>1</sup> For more information about FOLK, visit one of its websites: [www.folkup.org](http://www.folkup.org) or [www.folkminingeducation.info](http://www.folkminingeducation.info).

processing metal ores, forest products and other land-based manufacturing, and agriculture.

Although these land-based activities may remain important, focusing on the economic activities that dominated the regional economy decades or a century or more in the past is a dysfunctional and dangerous way to approach economic development. Market economies are constantly evolving over time and the sustainable economic activities of the present and the future may be quite different from those of the past. “More of the same” or trying to relive the past is not a viable economic development strategy.

This report begins with a discussion of the broader view we have to take of the local economy if we are going to understand it enough to design public policies to support local economic vitality and improve local economic well-being. We need to supplement the focus on traditional land-based export-oriented activities by incorporating several other vital dimensions of the local economy:

- i. We need to include in our view of the local economic base *all* economic activities that draw income into the community from outside, regardless of whether traditional exports or any physical exports are involved. In the Western UP that includes:
  - a. The visitor economy including tourism and recreation;
  - b. Urban trade center activities serving the surrounding area including professional and technical services such as medical facilities;
  - c. Universities, colleges, and other residential schools;
  - d. State and federal government institutions and facilities.

Almost all of the job growth in the Western UP over the last four decades took place in the service, retail trade, and state and local government sectors. In 2010 these were also the largest sources of employment in the region. Land-based activities such as mining and agriculture, in contrast, laid off workers by the thousands.

- ii. We need to recognize that “locally-oriented” businesses are not “secondary” in economic importance. It is they that capture and circulate the income that flows into the community, creating the multiplier impacts. A rich and diverse commercial infrastructure focused on serving local needs is important to local economic vitality as well as quality of life just as are export-oriented firms.
- iii. Much income flowing into the Western UP is *not* tied to current employment in the labor force. This “non-employment” income includes investment income (dividends, rent, and interest) as well as retirement-related pension programs including Social Security, Medicare, other government pensions, as

well as private pension programs. Government programs for household income support also contribute to income flows into the region, especially during economic downturns. These non-employment income flows were responsible for a billion dollars flowing into the Western UP in 2010. Those income flows were almost as large as all labor earnings associated with jobs in the region. Those non-employment income flows are a very important source of economic well-being in the region.

- iv. Over half of this non-employment income is associated with retirees. This makes the residential decisions of retired persons potentially important to local economic vitality.
- v. Manufacturing jobs in Houghton and Baraga counties began growing after 1985, adding 1,100 jobs by 2006. The other three counties in our study area added another 160 manufacturing jobs during that period. Much of the growth was associated with the development of a dynamic technology sector in the area around Houghton-Hancock. Beginning in 2001, the Keweenaw Economic Development Alliance (KEDA), in partnership with Michigan Technological University and the Cities of Houghton and Hancock, have been focused on establishing a business support system for technology firms. Since start up, KEDA reports that a technology sector of 35 to 40 companies has been created.

It is important to note that most of these sources of new jobs and local economic vitality are tied to preferences that people have for where they would prefer to live, start a business, retire, go to school, or visit. That is, the attractiveness of an area to current and potential residents, visitors, and businesses is an important source of economic vitality and local economic well-being. That is why one local commentator on the Houghton-Keweenaw County area economy correctly labeled it a “quality of life economy.”<sup>2</sup>

### **3. The Promise and Reality of Mining**

The economic attraction of metal mining is that mining and ore processing pay wages that are substantially higher than the average. Between 1990 and 2000 the average annual pay associated with metal mining in Michigan was 81percent larger than the average annual pay across all Michigan wage and salary jobs. After 2000, metal mining as an industry had shrunk so much that statistics on it were no longer presented at the state and county level. The National Mining Association reported average annual pay in

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<sup>2</sup> “Reinventing the Keweenaw and the Western U.P.: New Strategies, Changing Perceptions, and the Emergence of a Quality-of-Life Economy,” David Harmon, 2012, <http://www.folkminingeducation.info/reinventing-the-keweenaw-and-the-western-u-p/>

American metal mining in 2010 as being 74 percent above all private sector jobs: \$81,300 compared to \$46,751.<sup>3</sup> Metal mining provides some of the highest paid jobs available to blue-collar workers.

Despite the high wages paid in metal mining, the communities that rely on mining have not, in general, shown signs of widespread prosperity and economic vitality. Employment, population, and total community income have grown much slower in mining communities than in communities not dependent on mining. Often unemployment and average income per person have also been lower. This feature of mining communities across the United States and around the world has led economists to study the apparent “curse of natural resource abundance.”

- i The Western UP has had a long experience with mining and it is difficult to detect signs of unusual prosperity that has flowed from that experience. Instead, there has been a series of booms and busts that have left communities in economic difficulty. We identify five reasons for this “anomaly of mining”: The failure of the high pay in mining to bring prosperity to mining communities.
- ii The instability of mine production, employment, and payroll tied to fluctuations in the demand for and price of minerals on national and international markets.
- iii The impact of ongoing labor-displacing technological change that constantly reduces the workforce required for any given level of mine production.
- iv Mine employees are very mobile, commuting long distance to work while maintaining their residences outside of the area immediately impacted by the mining and milling. This leads much of the mining payroll to “leak” out of the region around the mine.
- v Mines, ultimately, always deplete their economically viable ore deposits and shut down. The average life of a metal mine has declined significantly in recent decades. For instance, the copper mining activities in Butte, Montana, have lasted 125 years, albeit, employing a drastically reduced workforce. The White Pine mine operated for almost 45 years. But the proposed Copperwood project in Gogebic County is estimated to last 13 years.
- vi Mining is land intensive and as a result can have nearly permanent impacts on the natural environment. Environmental degradation can significantly reduce the attractiveness of a mining area as a place to live, work, raise a family or start a business.

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<sup>3</sup> Economic Contribution of U.S. Mining in 2010,” September 2012, p. 16.  
[www.nma.org/pdf/economic\\_contributions.pdf](http://www.nma.org/pdf/economic_contributions.pdf) .

Metal mining is often described as a pure benefit: Valuable “treasure” is removed from the earth by paying workers much higher wages than could be earned anywhere else. But, as outlined above, there are clearly costs that are incurred alongside the benefits. Rational decision making requires the costs and benefits to be carefully weighed and there is no reason to believe that the benefits of mining always exceed the costs. Mining companies know this. They do lots of exploration to find mineral deposits and then do lots of drilling and economic-engineering analysis to determine if the value of the mineral once extracted and processed justifies the costs that would have to be incurred. Mining companies regularly decide **not** to actively mine a known ore deposit because the costs are expected to exceed the value produced. Mining companies regularly leave mineral deposits in place because that is the economically rational thing to do.

The public should be as rational and hardnosed as mining companies: The public should carefully study both the costs and benefits of new metal mining, but from a public interest point of view rather than from a commercial business point of view. If the costs appear to exceed the benefits, the public should reject the proposed mine just as a mining company would if the private costs exceeded the private value produced.

#### **4. Sustainable Development of the Western Upper Peninsula Economy**

The most common type of “economic development” strategy urged on communities is to go searching for large companies and try to lure them into locating in your community, thus putting residents to work at, hopefully, relatively high wages. In that approach, community economic development depends on an external agent *bringing* economic development to an area. The local community itself is conceived of as a passive recipient of a gift except for the reciprocal gifts the community may have to give to the new company to encourage it to locate in the community. This assumed community passivity can result in very little actual local economic development taking place because the new industrial operation puts down few roots in the community and a passive dependency is encouraged, something that is the opposite of an entrepreneurial culture. At its extreme, this results in a “company town” mentality in which very little community-based economic development takes place. Instead the community waits for one “outside savior” after another to deliver a fully formed industrial facility to the local area.

There is an alternative to these strategies of passive dependence, an alternative that does not wait for large industrial facilities to magically appear in a timely fashion to maintain local economic vitality and avoid stagnation. Instead the local economy is seen as having its own entrepreneurial energy that with encouragement and modest support can blossom into a variety of small enterprises that have the capacity to grow and interact with other local businesses and the local workforce to provide employment and income opportunities. In this vision of diversified organic economic development, the



local area is not a passive participant. The site-specific characteristics of the community are crucial to encouraging and maintaining local economic vitality: environmental amenities, both social and natural, the quality of the local workforce, schools, public and private infrastructure, cultural richness and openness, independent entrepreneurial spirit, etc.

Protecting and enhancing the qualities that make a location an attractive place to live, raise a family, and do business becomes central not only to local quality of life but also to maintaining and enhancing local economic vitality. What is good for local quality of life also, often, is good for a vital local economy. Rather than there being some tragic tradeoff we have to make, purposely accepting damage to our quality of life in order to encourage someone to “create jobs” for us, we can simultaneously improve both quality of life and economic vitality.

This is not a prescription for a community to passively sit back and wait for something to happen. Rather it involves an active nurturing of existing businesses and support for new start-ups. The Keweenaw Economic Development Alliance’s apt phrase for this is an “Economic Gardening” strategy.<sup>4</sup> A productive garden requires active management that understands, respects, and supports the natural system in which it is embedded. The same is true of a vital local economy.

Empirical analysis of the Houghton-Keweenaw region indicates that local “economic gardening” has a significant potential. Quantitative comparison of the Houghton-Keweenaw Area with growing non-metropolitan counties nationwide indicates that at least three of the requisite characteristics are already present: the natural outdoor amenities, the concentrations of professional and technical workers, and the presence of significant urban areas (Houghton-Hancock and Ironwood).

Keweenaw, Houghton, and Ontonagon Counties make up one set of contiguous counties that were in the top quarter of all U.S. non-metropolitan counties in terms of the quality of outdoor amenities.<sup>5</sup> Gogebic and Baraga Counties were in the top half of U.S. non-metro counties according to that index. Iron and Vilas Counties just across the state line from Gogebic County were also in the top quarter.

In terms of concentrations of professional-technical “knowledge” or “creative” workers, Houghton County is in the top 5 percent of all U.S. non-metropolitan counties in terms of the density of these “creative” workers. Adjacent Keweenaw County is in the top quarter. Gogebic County was also in the top quarter of non-metropolitan counties as were the adjacent Wisconsin counties across the state line: Iron, Vilas, and Oneida.

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<sup>4</sup> “An Economic Overview of the Development of the Keweenaw Peninsula Economy & of an Entrepreneurial Support System,” Phil Musser, <http://kedabiz.com/about.html#historical>.

<sup>5</sup> David A. McGranahan. See “The rural growth trifecta: outdoor amenities, creative class and entrepreneurial context,” *Journal of Economic Geography*, 11(3):529-557, 2011, David A. McGranahan, Timothy R. Wojan and Dayton M. Lambert.

The Keweenaw Economic Development Alliance (KEDA) has also recognized the economic potential represented by this combination of a concentration of professional/technical workers, a vibrant urban center that is also home to two institutions of higher education, and the high quality of life associated with the Upper Peninsula-Lake Superior location. KEDA has adopted an “economic gardening” approach focusing on creating a business support system for technology firms, including high tech incubators and customized business assistance. KEDA has experienced technology commercialization professionals on staff to provide assistance at its three technology incubator facilities. KEDA reports initial success in this effort.<sup>6</sup>

This is not just relevant information for the Houghton-Hancock and Ironwood areas. Almost all of the five-county Western UP study area is within commuting distance of the three regional trade centers serving that area: Houghton-Hancock, Ironwood, and Marquette. There is an interdependency between these urban trade centers and the surrounding smaller towns and rural areas that can lead to a sharing of the benefits of economic development in both urban and rural areas if appropriate local economic development strategies are adopted.

Quality of life matters *economically*: protecting natural landscapes, air and water quality, wildlife, and recreational opportunities protects an important part of a locale’s economic base. Similarly with urban and community amenities: good schools, attractive public spaces, diverse and interesting culture and cultural opportunities. An independent and active business and non-profit community is also important in supporting entrepreneurial activity.

Mining and mill towns have the potential to undermine most of these important local qualities both because they are land and natural resource intensive, seriously or even permanently degrading them. The uncertainty and volatility associated with metal mining and processing also creates economic insecurity that can undermine a community, leading to long commutes and significant leakage of payroll out of the community. That uncertainty can also discourage investment in the community and a certain level of passiveness or fatalism which does not support entrepreneurial activity. Instead, a “company town” mentality of passive dependence can emerge.

Our analysis in this report has documented all of the following:

- i. There are significant costs associated with mining activities that tend to offset the positive impacts of the high pay associated with mining jobs.

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<sup>6</sup> Phil Musser, “An Economic Overview of the Development of the Keweenaw Peninsula Economy & of an Entrepreneurial Support System,” Keweenaw Economic Development Alliance, p. 3. Undated.

- ii. The economies of the Western Upper Peninsula have been successfully transitioning away from past reliance on unstable land-based, export-oriented economic activities.
- iii. The attractiveness of a place in terms of its social and natural amenities is an important part of that place's economic base and future economic vitality.
- iv. For that reason, economic activities that damage those attractive local characteristics are incompatible with the current sources of economic vitality and, if allowed to develop, will displace other important economic activities in the region.
- v. The Western Upper Peninsula has begun to develop a cluster of entrepreneurial manufacturing firms and other supporting firms build around social and cultural assets, high tech knowledge workers, attractive small urban areas, and high quality recreational amenities.

For all of these reasons, it is our professional judgment that a return to metal ore mining and processing in the Western Upper Peninsula would damage, not improve, regional economic well-being and vitality. Instead, the economic development focus should continue to be on local "economic gardening" and further developing the positive economic trends already under way.

***The complete Power report on The Economic Impacts of Renewed Copper Mining in the Western Upper Peninsula of Michigan can be found at:***

<http://www.folkminingeducation.info/>

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