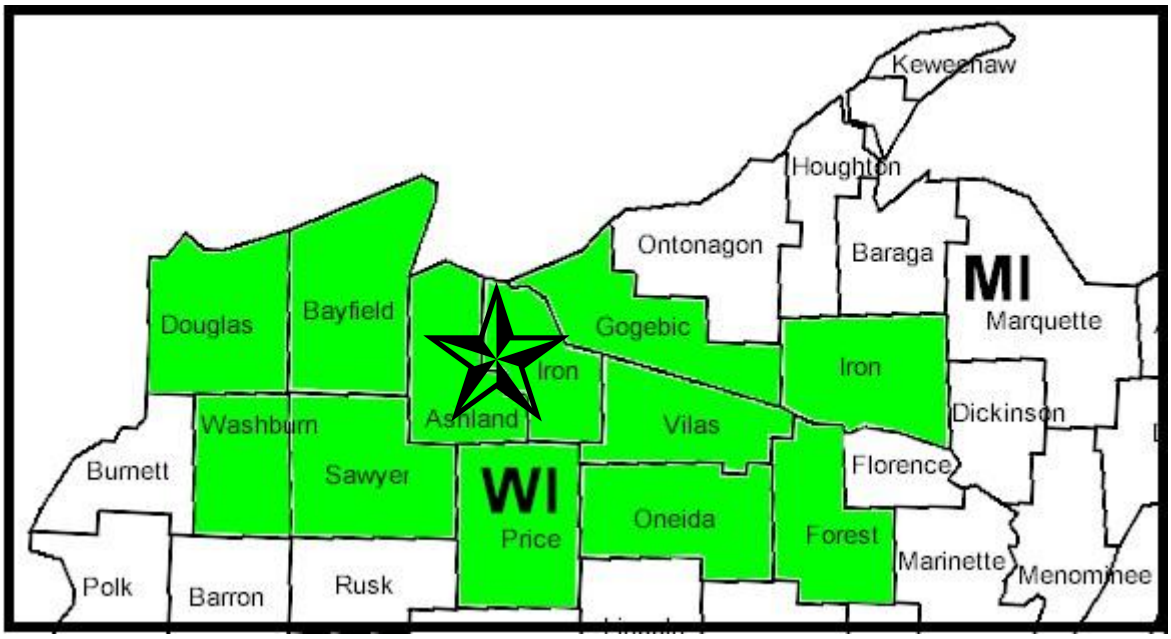
The Economic Impact of the Gogebic Taconite Mine



NorthStar Economics, Inc.

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THE ANNUAL ECONOMIC IMPACT OF THE GOGEBIC TACONITE MINE

Phase I GTAC Mine	Phase II Expanded Mine
• 2,834 Long-Term Jobs (includes 700 direct mining jobs at average labor income of $82,984)	• 5,668 Long-Term Jobs (includes 1,400 direct mining jobs at average labor income of $82,984)
• $604 Million Total Annual Economic Impact	• $1.2 Billion Total Annual Economic Impact
• $17.15 Million Annual State/Local Tax Revenue	• $34.3 Million Annual State/Local Tax Revenue

THE SHORT-TERM ECONOMIC IMPACT OF CONSTRUCTING THE GOGEBIC TACONITE MINE

- 3,175 Jobs (Each year over a 2-Year period)
- $2 Billion Total Economic Impact (2-Year Total)
- $20.6 Million in State/Local Tax Revenue (2-Year Total)

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Executive Summary

Construction and operation of an iron mine in the twelve-county Gogebic Range region in Northern Wisconsin and the Upper Peninsula of Michigan would produce significant economic benefits in a region that has suffered job loss and population decline over the last several decades. The overall annual economic impact of operating the mine at a production level of 8 million tons would be $604 million. The mine operation would also support 2,834 jobs in the region and would produce an annual state and local tax yield of over $17 million. The direct jobs created by the mining project would be good paying jobs. The estimated average labor income, including benefits, would be $82,984, or 87% more than the Wisconsin all-industry average labor income.

If the mine were expanded to 16 million tons of annual capacity, the economic benefits to the region would roughly double. The overall economic impact of operating the mine at a production level of 16 million tons would be $1.2 billion. The mine operation would also support 5,668 jobs in the region and would produce an annual state and local tax yield of over $34 million.

In addition to the operation of the mine, there would be economic benefits associated with the construction of the mine. These benefits would be one-time benefits that occur over the 2-year period while the mine is being built or expanded. The overall short-term economic impact of the construction of the mine would be more than $2 billion. This economic activity would support 3,175 jobs each year over a 2 year period. Construction of the mine would yield over $20 million in state and local sales, income and property taxes.

This proposed mine project in the context of the economic situation in the twelve-county region would have significant annual benefits in terms of overall economic impact, payroll, jobs created and taxes derived. More importantly, the jobs created would be good paying jobs in a region that lacks high paying job opportunities. Similar jobs in metal mining in neighboring Minnesota and Michigan have an average annual labor income (wages + benefits) of $81,680 and $88,171 respectively.

Purpose and Scope

The purpose of this study is to analyze the potential economic impact of Gogebic Taconite's (GTAC) proposed iron mine operation in Iron and Ashland counties (the GTAC mine). The economic impact is based upon an iron mine that produces 8 million long tons of taconite pellets or concentrates per year during Phase I of its operation. A second phase, Phase II, of the project is also analyzed within this study. Phase II would increase production over Phase I by an additional 8 million long tons per year.

The scope of economic impact includes the annual overall economic impact on the 12 county region, the annual number of direct and indirect jobs supported in the region, and the overall tax impact including state and local property, income and sales taxes. The study is based upon 2008 IMPLAN economic multipliers.

The economic impact measurements also include the one-time overall economic impact of constructing the mine. This part of the study reports on the number of one-time direct and indirect jobs created in the region, the overall economic impact on the region, and the overall tax impact.

The mine's potential economic impact derives from spending on operations of the mine, as well as spending by miners and other personnel employed by the mine. The spending from these sources, in turn, creates jobs and generates tax revenue.

This economic impact study is based upon initial estimates provided by GTAC of the mine proposed in the Gogebic Range.

The **Gogebic Range** extends from Lake Gogebic in Michigan's Upper Peninsula (UP) across the Wisconsin border in the east, including parts of Wisconsin's Ashland and Iron Counties, where the GTAC mine will be located. It is located at the far western tip of the UP on the south shore of Lake Superior. It refers both to the range of mountains that runs along the route and to the surrounding communities that built up during a boom period following in the 1880s.

The Economic Impact Model

Economic impact is calculated using an IMPLAN input/output model. An IMPLAN model is capable of determining the overall economic impact that initial spending has on a regional economy. The IMPLAN model estimates to what extent different spending categories affect the regional economy in terms of initial effect, direct effect, indirect effect, and induced effect. This model provides a means to capture and measure these effects. The model uses three effects to measure economic impact:

- **Direct effect** refers to production change associated with a change in demand for the good or service itself. It is the initial impact to the economy, which is external to the model. In the case of the GTAC mine, it is the spending in the project area that comes from the operation of the mine.

- **Indirect effect** refers to the economic impact or multiplier effect that comes from the direct spending on a project or operation. For example, the GTAC mine will buy materials and services needed to operate the mine from suppliers. In turn, the suppliers spend that money on payroll and material, causing additional economic activity which is termed the indirect effect. The economic success of the mine affects all of the mine's suppliers.

- **Induced effect** is caused by changes in household spending due to the additional employment generated by direct and indirect effects. The induced effect measures the effects of the changes in household income: the workers at the mine and the mine's suppliers spend money at restaurants, grocery stores and shops.

Economic impact is calculated using economic multipliers from the Minnesota IMPLAN Group (MIG). MIG provides region-specific data to enable users to make in-depth examinations of regional economies. MIG, Inc. has been developing databases and distributing IMPLAN® software to public and private organizations since 1993.

Economic input/output models are the result of years of research and development that began in the federal government. The IMPLAN model is one of two major input/output econometric models used widely in the U.S. to calculate economic impact.

The National Impact of Mining

The economic impact of mining on the U.S. economy is reported in a recent study by PricewaterhouseCoopers (PWC): *The Economic Contributions of U.S. mining in 2008*, published in October, 2010 (the PWC study). The PWC study report notes the following summary of mining's economic contributions to the U.S. economy in 2008:

- 564,400 direct jobs leading to 1.8 million total jobs generated in the U.S. economy
- $107 billion in labor income
- $189 billion total impact on the U.S. gross domestic product (GDP)
- $44.7 billion in taxes generated

There are 15,000 operations that mine raw materials in the United States. There is mining activity in all 50 states.

The economic activity generated by the U.S. mining industry includes "upstream" economic activity from the suppliers of inputs to the mining industry. The mining industry buys raw materials, equipment, power and other inputs needed to carry on its mining operations. The biggest upstream suppliers of mining inputs are shown below in Figure 1.

Figure 1: Top Five Suppliers to the Mining Industry

Rank	Supplying Industry	Value of Mining Inputs
1	Utilities	$6.3 billion
2	Management Companies and Enterprises	$2.7 billion
3	Truck Transportation	$2.7 billion
4	Professional & Scientific Services	$2.5 billion
5	Rail Transportation	$2.5 billion

Source: *The Economic Contributions of U.S. Mining in 2008, October 2010, page 2*

The economic activity generated by mining also includes "downstream" economic activity for purchasers of mining output. The downstream businesses take mining output and add value to that output by producing a product that is then sold to other sectors of

the economy. The purchasers of mining output employ millions of people who in turn spend money and create a multiplier economic effect. The biggest downstream purchasers of mining output are shown in Figure 2.

Figure 2: Top Five Purchasers of Mining Output

Rank	Purchasing Industry	Value of Mining Output
1	Primary Metals Manufacturing	$14.8 billion
2	Construction	$9.8 billion
3	Utilities	$7.9 billion
4	Non-metallic Manufacturing	$7.9 billion
5	Motor vehicles, bodies, parts and trailers	$6.8 billion

Source: *The Economic Contributions of U.S. Mining in 2008, October 2010, page 2*

Metal ore mining is an important segment of the overall U.S. mining industry. Metal ore mining contributes the following to the U.S. economy:

- 88,090 direct jobs leading to 289,360 total jobs generated in the U. S. economy
- $18.1 billion in labor income
- $37.2 billion total on U.S. GDP

Metal Mining in Minnesota

Wisconsin's neighboring state of Minnesota has a significant metal mining industry. In the PWC study, the economic impact of mining for each state is presented. Minnesota's metal mining is concentrated in the northeastern part of the state. The region is known as the Iron Range and it consists of four major iron deposits. These deposits include the Mesabi Range, the Vermilion Range, the Gunflint Range, and the Cuyuna Range. Mining activity in this area started in the late 19th century and iron mining continues to be a major activity in the Iron Range. The Iron Range produces about 75% of the U.S.domestic iron ore.

There are six major active iron ore mines in Minnesota. All of these mines are taconite mines and together they are capable of producing more than 40 million tons of taconite annually. Figure 3 below summarizes the direct employment and approximate annual production for each mine.

Figure 3: Active Iron Mines in Minnesota

Mine Name	Total Employment	Estimated Annual Capacity (tons)
Hibbing Taconite	639	8.0 million
Keetac	420	6.0 million
Minntac	1286	16.4 million
Minorca	340	2.8 million
Northshore	618	5.7 million
United Taconite	520	5.4 million
TOTAL	**3,823**	**44.3 million**

The economic impact of these metal mines on the Minnesota economy includes the following:

- $3.4 billion total economic impact and contribution to the gross state product of Minnesota
- 27,000 jobs including direct mining and transportation jobs and indirect and induced jobs.
- $1.7 billion in labor income
- 1.2% of the gross state product of Minnesota
- Average labor income of $81,680
- $367 million in state and local taxes

The overall economic impact of metal mining in Minnesota is important to the regional and state economy. The Iron Range relies on natural resource activity as the major economic driver in the region. The overall direct employment in the mines is more than 3,800 workers. In addition, there would be over 5,000 transportation jobs needed to move final product to downstream purchasers of the taconite production.

Most important is the high job value associated with mining jobs. The PWC study reports that the average labor income for metal mining jobs in 2008 was $81,680. Labor income includes annual wages and benefits. This compares to the overall Minnesota average income for all industries of $49,970. Metal mining jobs in Minnesota paid 63% more than the average for all industries.

Metal Mining in Michigan

Wisconsin's neighboring state of Michigan also has a significant metal mining industry. According to the PWC national study, metal mining contributed $1.3 billion to the state economy in 2008. There were 10,650 jobs that resulted from metal mining in Michigan.

Michigan's metal mining industry is located in the Upper Peninsula of Michigan (UP). The Peninsula has a long history of copper and iron mining and other mineral deposits including silver and gold are present.

There are two active iron mines in the UP. Figure 4 below shows the active mines and the number of jobs and the capacity of those operations.

Figure 4: Active Iron Mines in Michigan

Mine Name	Total Employment	Estimated Annual Capacity
Empire Mine	703	5.5 million tons
Tilden Mine	768	8.0 million tons
TOTAL	**1,471**	**13.5 million tons**

Mining jobs in the Michigan metal mining industry are good paying jobs. The average annual labor income (wage + benefits) is $88,171. This compares to the Michigan statewide average for all industries of $50,880 as reported in the PWC national mining study. Metal mining average labor income in Michigan is 73% higher than the average labor income for all industries in that state.

The 12-County Project Region Economic Scorecard

The economic conditions within the 12-county region for the proposed project are below both state and U.S. averages. This is a region that is losing population and jobs. Median income is below average. The average age in the region is more than 9 years greater than either the state or U.S. average.

A separate section of the report contains the detail on the economic conditions of the 12-county region. The scorecard below summarizes those conditions compared to state and national averages.

Figure 5: The Economic Scorecard for the 12-County Region

INDICATOR	12-County Region	Wisconsin	U.S. Average
Population	Declining	Rising	Rising
Median Age	45.6	38.2	36.5
Educational Attainment (% Graduated)	89.6% High School 20.0% College	89.0% High School 25.5% College	84.6% High School 27.5% College
Median Earnings	$24,328	$28,641	$29,050
Unemployment	9.8%	8.1%	9.6%
Growth in Business Establishments	Stagnant	Moderate	Strong
Jobs over the Last Decade	Losing	Gaining	Gaining

Overall Economic Impact of the GTAC Mine

There is no metal mining currently in Wisconsin. The GTAC mine would produce economic activity and impact similar to the taconite mines in Minnesota. The mine is projected to produce an estimated 8 million tons of taconite in the first phase of development. A second phase of the taconite mine would expand production to an estimated 16 million tons of taconite annually.

The potential economic impact of opening the GTAC mine on the community, the 12-county region, and the State of Wisconsin is greater than just the activity that occurs within the mine construction and operation. The GTAC mining activity would have a greater economic impact on the surrounding community through the ripple or multiplier effect of dollars spent by the mining company and its employees. For example, for every dollar spent on goods and services to operate the mine, there are a number of people and businesses in the 12-county region that would provide those goods and services. These providers in turn spend the income they receive from the mine on other goods and services in the community, such as food, clothing, services, and housing. The direct economic activity of the mine expands through the regional and state economy through the multiplier effect. The multiplier effect occurs as spending dollars flow through the community, support job activity, and generate tax revenue. Figure 6 shows the total annual economic impact of GTAC mine activity.

Figure 6: Total Annual Economic Impact of Operating the GTAC Mine

Total Economic Impact	**Output**
Direct Effect	$500,000,000
Indirect Effect	$62,031,500
Induced Effect	$42,012,948
TOTAL ECONOMIC IMPACT	**$604,044,416**

Overall, the GTAC mine would have an economic impact of $604 million dollars on the regional and Wisconsin state economy. The direct economic impact would come from the estimated operating costs that include items such as wages, energy, operating supplies and maintenance. That direct impact is then "multiplied" as spending cycles through the regional economy. The overall calculation of this economic impact comes from an econometric model which is described briefly below.

Economic multiplier models are the framework for analyzing this economic impact. Derived mathematically, these models estimate the magnitude and distribution of economic impacts, and measure three types of effects: direct, indirect, and induced changes within the economy. Direct effects are determined by the amount of the initial annual spending. Indirect effects are determined by the amount of the direct effect spent within the study region on supplies, services, labor and taxes. Finally, the induced effect measures the money that is re-spent in the study area as a result of spending from the indirect effect. Each of these steps recognizes an important leakage from the economic study region spent on purchases outside of the defined area.

The "multiplier effect" refers to the recurrent economic activity generated by an initial expenditure. For example, money spent directly on construction will cycle through the local economy again as wages to trades-workers, purchases of construction materials such as lumber, tools and nails, fuel for machinery and worker transportation. The initial wave of spending generates a second and third wave of spending as wages paid and profits made on the direct construction spending spin through the economy in several cycles. Thus, the original direct expenditure yields a greater economic impact than just the money initially spent. Some money "leaks out" of the regional economy at each level as some spending is done outside the region (some goods purchased may originate in another state, for example). As a result, the subsequent spending cycles decrease in impact.

Jobs

A major impact of any industrial project is the creation of jobs. The GTAC mine would support a large number of jobs as shown in Figure 7 below. As indicated in the above sections on metal mining in Minnesota and Michigan, the jobs created in metal mining are good paying jobs. Average annual income in 2008 for metal mining workers was $88,171 in Michigan and $81,680 in Minnesota. Wisconsin currently does not have an active metal mine in operation.

Job creation from the mine would include direct jobs involved in mining the iron ore, indirect jobs that come from upstream suppliers, induced jobs that result from the spending from payrolls and operations, and transportation jobs needed to move the large amount of taconite material to downstream purchasers. Figure 7 shows the job creation projected for Phase 1 of the proposed project. Further explanation of the job creation numbers shown in Figure 7 follows in this section of the report.

Figure 7: GTAC Mine Job Creation Phase I

Impact Type	Jobs
Direct Effect	700
Direct Transportation Jobs	953
Indirect and Induced Effect	1,181
TOTAL JOBS	**2,834**

Based on similar-sized operations, the GTAC mine is expected to employ approximately 700 workers in its first phase. These jobs would include mining, support, and management jobs. Plans for Phase I of the GTAC mine would have an initial annual payroll of more than $58 million. Average labor income for these jobs, including wages and benefits, would be $82,984. These mining jobs would pay 87% more than the Wisconsin all industry average labor income. As indicated in the *Regional Economy* section of this report (see page 20), there is a need for high-paying jobs in the GTAC region.

The indirect jobs supported by this project come from the upstream suppliers who employ the people necessary to deliver raw materials, equipment, supplies and services to the mine. In Wisconsin and the surrounding region, companies like Caterpillar, P&H, Bucyrus and Metso are critical equipment suppliers for mining. These firms, most of which are located in the Milwaukee and southeastern part of Wisconsin, would employ people to manufacture the mining equipment used on this project, a good example of the indirect jobs shown in Figure 7.

A third type of job created in this mine project is induced by the spending from payroll of the direct and indirect jobs. Payroll is spent on "Main Street" as workers and their families buy groceries, clothing, housing and other necessities of life. That spending in turn creates jobs in grocery stores, auto dealerships, insurance agencies, schools and other private and public enterprises.

Finally, as pointed out in the PWC study, the downstream transportation of the taconite product creates a large number of jobs. The initial movement of the product to mills in the Midwest and subsequent movement of finished steel products to manufacturers and builders create many jobs. These jobs would include direct transportation jobs created to handle the large volume of finished product - iron ore pellets - produced by the mine. The PWC national study documented the adjustment needed to account for the downstream transportation of finished product. A similar methodology is used in this study.

In regard to this cycle of iron ore mined and then shipped to mills, Wisconsin has an interesting connection. Ore mined in Ashland and iron counties in Wisconsin would be transported to mills in Indiana and Ohio and finished product would then be transported to southeastern Wisconsin and the Fox Valley where vehicle, ship, and other metal manufacturers are concentrated and employ tens of thousands of people. The ore mined in Northwestern Wisconsin would then be used to support jobs in Northeastern and Southeastern Wisconsin.

In addition to the economic impact of the mine's operating costs, there would be significant capital expenditures involved in building the GTAC mine. These would be one-time expenditures of approximately $1.5 billion, with that amount being spent over a two-year period. There would be a large number of jobs created by building the mine which would last for the period in which the mine is under construction. A separate section of this report details the jobs created as a result of constructing the mine.

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Total Annual Tax Impact

The economic activity created by the mine will generate tax revenue for state and local government. Payroll to workers will generate income taxes, property taxes, and sales taxes. Upstream suppliers and the mine operation itself will pay income taxes, sales taxes, local property taxes, and a variety of other business taxes.

The total annual local and state tax impact from the operation of the GTAC mine is $17,157,019, based upon Phase I of the GTAC mine.

Who benefits from the mine operation?

Operating the GTAC mine would stimulate the economy of the region and the state. However, some industry sectors would benefit more than others. The primary recipients of economic benefits as a result of GTAC mine operations would be food services and drinking places, and transport by truck. The industries in the region that would benefit to the largest extent are listed in Figure 8 below.

Figure 8: Recipients of the Economic Contribution of the GTAC Mine

Industry Sector	Jobs	Economic Impact
Food Services & Drinking Places	75.6	$3,713,971
Transport by Truck	73.2	$10,416,769
Architectural, Engineering, and Related Services	39.6	$4,779,158
Monetary Authorities and Depository Credit Intermediation Activities	36.4	$5,895,885
Management of Companies and Enterprises	28.7	$6,349,965
Wholesale Trade Businesses	23.9	$3,493,208
Private Hospitals	23.0	$2,589,719
Real Estate Establishments	22.9	$2,498,099
Retail Stores – Food and Beverage	22.4	$1,242,916

The Economic Impact of the Construction of the GTAC Mine

In addition to the annual economic impact of operating the mine, there will be one-time economic benefits relating to the capital investment in constructing the mine. The current estimated capital investment for the mine will be $1.5 billion invested over a period of two years. Assuming this investment pattern, the economic benefits associated with the building of the mine would be as follows:

Jobs

The capital investment in the mine will support construction and construction related jobs in the region. In each year of the construction, there would be 3,175 jobs associated with the building of the mine

More than 6,300 jobs will be created over the 2-year construction period and those jobs will come from direct employment on the project, indirect jobs as a result of the construction activity, and induced jobs derived from the spending of those directly and indirectly employed on the project. Figure 9 below shows the jobs supported by the mine construction.

Figure 9: Jobs Supported by the Construction of the GTAC Mine

Effect	Year 1 Jobs	Year 2 Jobs	2-Year Construction Period Total
Direct	2,296	2,296	4,592
Indirect	632	632	1,264
Induced	247	247	494
Total	3,175	3,175	**6,350**

Overall Economic Impact of the GTAC Mine Construction

The overall, short-term, regional and state economic impact of the mine construction is $2,054,116,844.

Figure 10: Economic Impact of the Construction of the GTAC Mine

Effect	Year 1	Year 2	2-Year Construction Period Total
Direct	$750,000,000	$750,000,000	$1,500,000,000
Indirect	$204,199,650	$204,199,650	$408,399,300
Induced	$72,858,772	$72,858,772	$145,717,544
Total	$1,027,058,422	$1,027,058,422	**$2,054,116,844**

Tax Impact

The short-term state and local tax impact associated with constructing the mine is $20,643,422. This tax impact includes state and local sales, income and property taxes that will be collected by state and local units of government over the 2-year construction period.

Expansion of the GTAC Mine

The Phase I development of the GTAC mine would result in a mine with an annual production capacity of 8 million tons of finished product. A second phase of the mine would expand that production capacity to 16 million tons of finished product annually.

Initial plans call for doubling the workforce and the operations of the mine. Under a Phase II scenario in which production capacity is increased by 8 million tons, the economic impact of the project would double.

Overall Economic Impact of the Expanded GTAC Wisconsin Mine

Figure 11 below shows the total economic impact of the GTAC mine at 16 million tons of annual capacity.

Figure 11: Total Annual Economic Impact of Operating the GTAC Mine

Total Economic Impact	**Output**
Direct Effect	$1,000,000,000
Indirect Effect	$124,063,000
Induced Effect	$84,025,896
TOTAL ECONOMIC IMPACT	**$1,208,088,896**

The annual economic impact of the GTAC mine operating at $16 million tons of annual capacity would be $1,208,088,896.

Jobs

A doubling of the capacity of the GTAC mine would lead to a doubling in total jobs created. Figure 12 summarizes the jobs created by the GTAC mine at 16 million tons of annual capacity.

Figure 12: GTAC Mine Job Creation with Phase II

Impact Type	Jobs
Direct Effect	1,400
Direct Transportation Jobs	1,906
Indirect and Induced Effect	2,362
TOTAL JOBS	**5,668**

The expanded GTAC mine would support 5,668 jobs annually.

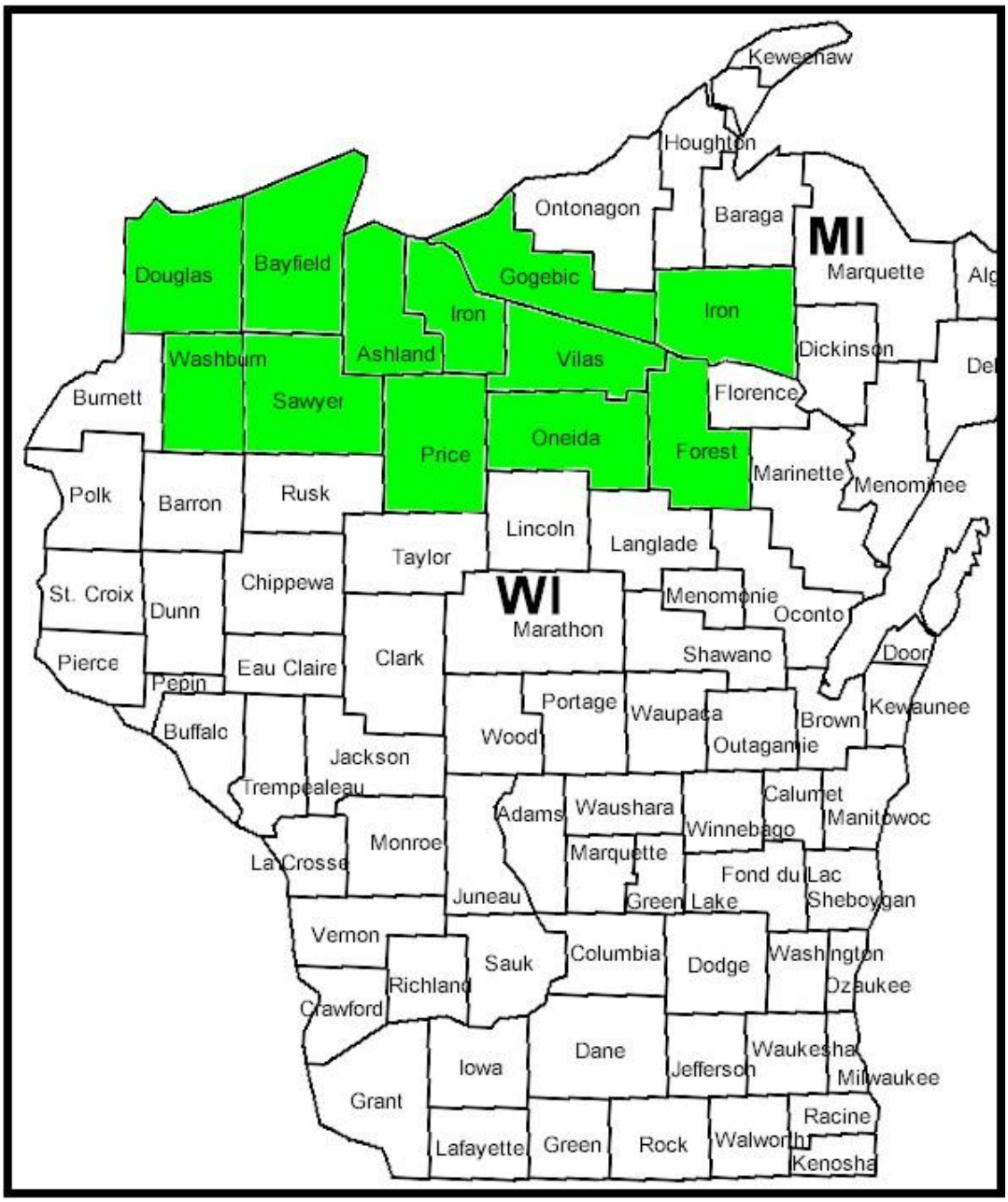
Total Annual Tax Impact

The economic activity created by the expanded mine will generate tax revenue for state and local government. Tax generation would double with the expansion of the mine. Total annual local and state tax impacts from the operation of the expanded GTAC mine is $34,314,038. This would be annual tax revenue based upon completion of Phase II of the GTAC mine.

Regional Economy

The proposed GTAC mine would primarily impact a 12-county area (10 counties in Northern Wisconsin, plus Michigan's Iron and Gogebic Counties), shown in Figure 13 below. To provide important context for this study, a summary of the 12-county regional economy and demographics follows.

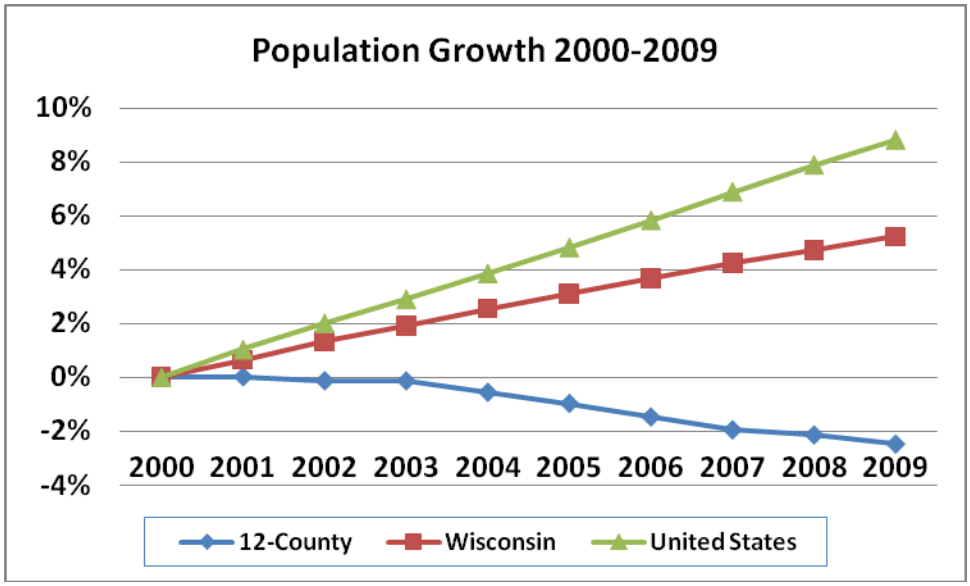
Figure 13: 12-County Economic Region



Population

Over the course of the last decade, the national population has steadily increased. Wisconsin's population has also steadily increased, though at a lesser rate than the national average. The 12-county region however, has experienced a population decline during the same period. Figure 14 below charts the population growth of the U.S., Wisconsin, and the 12-county region. As a general rule, negative population growth means negative economic growth. The economic success of any region is dependent upon a stable workforce earning wages, paying taxes, purchasing property, and buying other goods and services. A new enterprise in the region like the GTAC mine has the potential to reverse this trend and draw hundreds of new workers to the region.

Figure 14: Population Growth for the 12-County Region, WI, and the U.S. 2000-09



Age

As Figure 15 illustrates, the residents of the 12-county region are older than the state and national averages. New employment opportunities, like the GTAC mine, could serve to revitalize the area as more young people are drawn to the region for work.

Figure 15: Median Age of the 12-County Region, Wisconsin, and the U.S.

	12-County	WI	U.S.
Median Age	45.6	38.2	36.5

Educational Attainment

Residents of the region have a higher level of high school graduation than the state as a whole. However, regional residents lag well behind the state and national average rates of college degree attainment. The regional workforce needs adequate employment opportunities, such as the GTAC mine, for workers who lack a college degree.

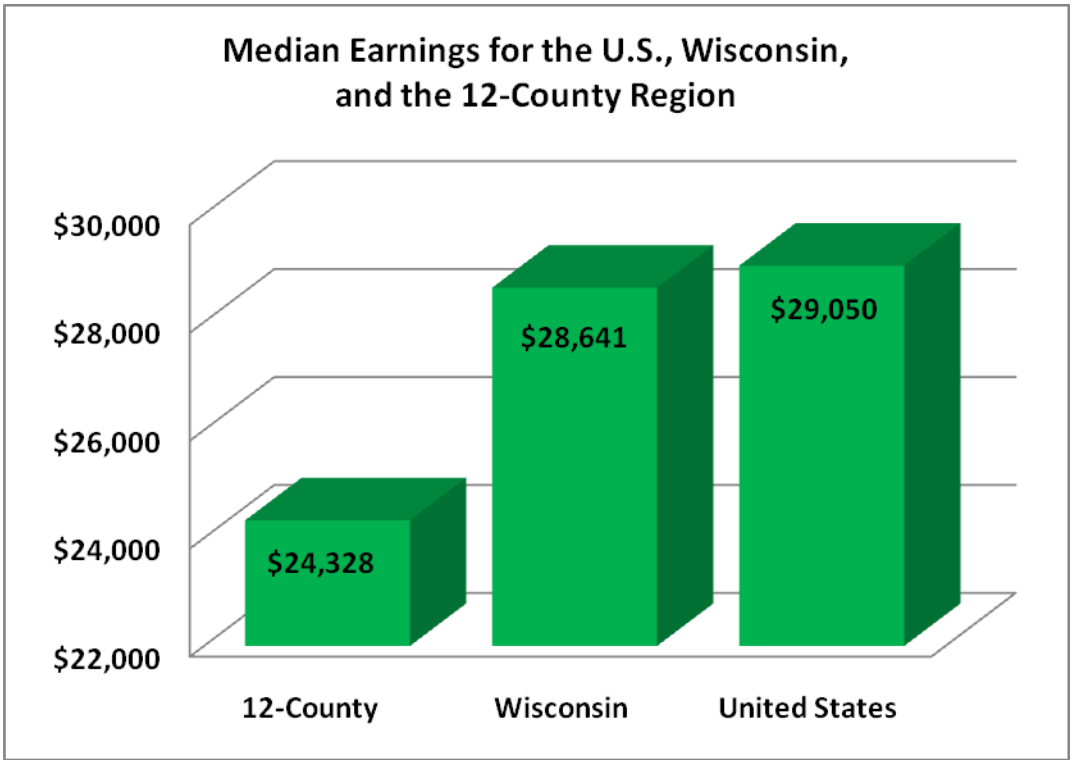
Figure 16: Educational Attainment in the 12 County Region, Wisconsin & the U.S.

	12-County	WI	U.S.
High School Diploma or Higher	89.6%	89.0%	84.6%
Bachelors Degree or Higher	20.0%	25.5%	27.5%

Income

As illustrated in Figure 17, median annual earnings for the 12-county region are significantly lower than the state and national averages. Given that the average labor income projected for the GTAC mining project in Wisconsin is higher than the state average, employment opportunities with the GTAC mine could help substantially with closing the earnings gap in the region. Higher wages in the region would result in more spending and have a significant impact as that spending cycles through the regional economy.

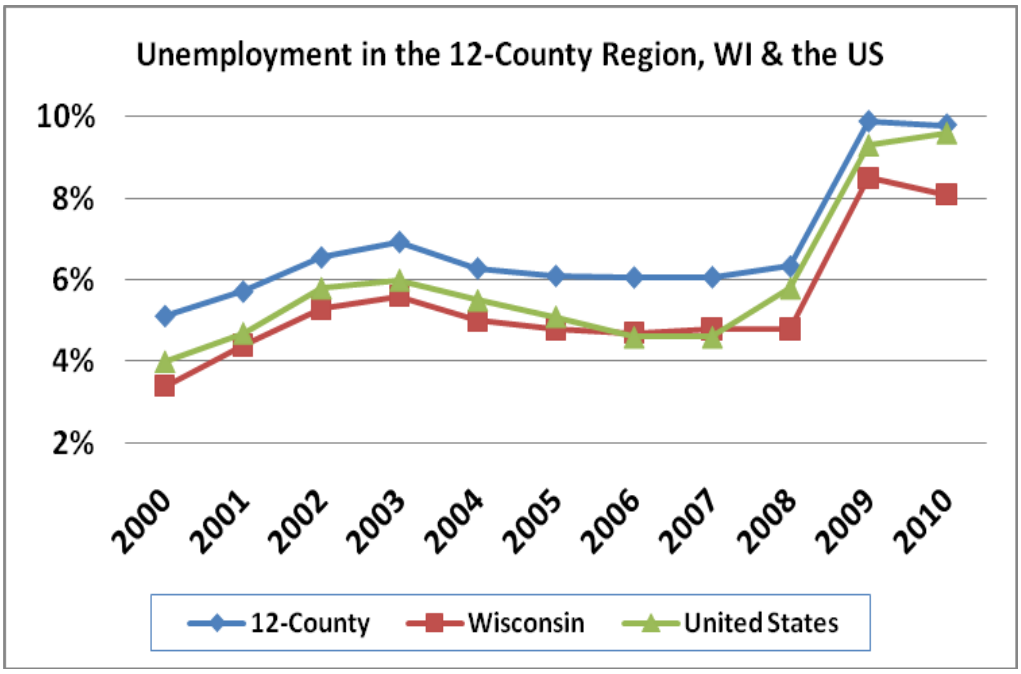
Figure 17: Median Earnings for the 12 County Region, Wisconsin & the U.S.



Unemployment

For the last decade or more, the 12-county region has consistently experienced a higher rate of unemployment than Wisconsin and the U.S., as indicated in Figure 18. The 2,834 jobs that the GTAC mine would create in Phase I would serve to close this gap.

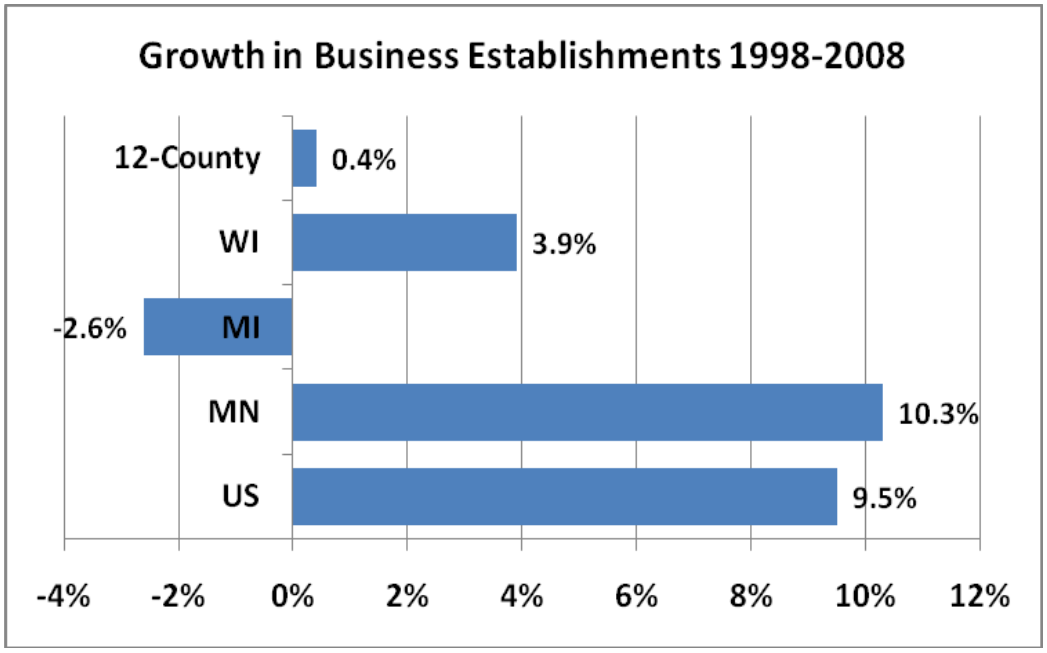
Figure 18: Unemployment Rate in the 12-County Region, WI & the U.S., 2000-2010



Business Establishments

Business establishment growth in the 12-county region has been stagnant. Over the decade from 1998 to 2008 (the most recent year for which data is available), the number of business establishments in the United States grew by 9.5%. While Minnesota exceeded the national average (10.3%), Wisconsin experienced a much lower growth rate (3.9%), while Michigan experienced a loss of 2.6%. From 1998 to 2008, the growth rate in the 12-county region was negligible at 0.4%, as shown in Figure 19 below. As a single entity, the GTAC mine would initially have a negligible impact on the number of establishments in the region. However, as the mine is projected to support thousands of jobs on an annual basis, it can reasonably be anticipated that new businesses will be established or relocate to the region to serve the new markets created by the influx of new workers to the region.

Figure 19: Growth in Business Establishments 1998-2008



Shift Share Analysis

If the 12-county region had kept pace with national trends, it would have gained nearly 1,100 jobs from 1999 to 2009. Instead, the region lost more than 1,800 jobs. The University of Georgia's online shift-share analysis tool was used to analyze employment changes for the study region over a period of ten years (through 2009, the most recent year for which data is available).

The shift-share analysis consists of three components. The first of these is the national growth component, which examines employment changes attributable to trends in the U.S. economy during the same timeframe. During the time period from 1999 to 2009, the nation's employment grew by 1.3% (from 126.9 million to 128.6 million). Booms and recessions at the national level affect employment at the regional level as well. Trends in national employment growth contributed 1,099 jobs to the 12-county region during the ten years from 1999 to 2009. The Education and Health Services sector experienced the highest national growth component, with 232 new jobs attributable to trends in the national economy.

The second component of the shift-share analysis is the industrial mix. This component is designed to measure how well each industry sector has grown, separate from effects of the overall business cycle. The industrial mix is determined by calculating the growth rate for each industry sector at the national level and subtracting out the national growth component. In the 12-county region, the strongest industrial mix occurred in the Education and Health Services sector, with 3,829 jobs attributable to growth in the industry. Overall, the industrial mix for the study region was positive, with a gain of 990 jobs from 1999 to 2009, due almost entirely to trends in the Education and Health Services sector and the Leisure and Hospitality sector.

The final component, competitive share, represents the remaining employment change in the region, after accounting for trends due to national growth and the industrial mix. This component indicates whether or not a region is at an advantage or a disadvantage in promoting employment growth. The 12-county region has a modest regional advantage in the Public Administration sector, with a 16.5% increase in employment due to the regional competitive advantage in the industry. On the whole however, it is clear that the region is not competitive in securing new employment, as the net competitive share overall reflects a loss of 3,921 jobs in the last decade due to regional disadvantages.

In other words, if the region had kept pace with national trends, it would have gained nearly 1,100 jobs from 1999 to 2009. Instead, the region lost more than 1,800 jobs. Of that difference of roughly 2,900 jobs, none can be attributed to industry trends (since industry trends would have resulted in an increase of nearly 1,000), so the 1,800 job decrease is entirely due to regional disadvantages. The entire shift-share analysis for the region appears in Figure 20 below.

The shift-share analysis highlights the critical need for job creation in this 12-county region. The lack of jobs and the declining population form a spiral that will further injure the economic health of the region. Unless significant steps are taken to remedy the regional disadvantages, employment growth in the region will continue to lag behind national trends across a wide range of industries.

Figure 20: Shift-Share Analysis for the 12-County Region – 1999-2009

12-COUNTY REGION	National Growth		Industrial Mix		Competitive Share	
Industry Sector	Share	# of Jobs	Share	# of Jobs	Share	# of Jobs
Manufacturing	1.3%	157	-33.4%	-3,919	10.5%	1,231
Public Administration	1.3%	83	9.3%	571	16.5%	1,018
Trade, Transportation, and Utilities	1.3%	239	-4.2%	-749	3.1%	553
Other Services	1.3%	31	5.5%	128	3.6%	85
Information	1.3%	16	-17.2%	-199	-8.3%	-97
Professional and Business Services	1.3%	55	2.0%	80	-2.6%	-106
Financial Activities	1.3%	40	-0.3%	-8	-4.6%	-137
Natural Resources and Mining	1.3%	16	2.5%	31	-30.4%	-370
Construction	1.3%	60	-8.1%	-360	-10.7%	-478
Leisure and Hospitality	1.3%	170	12.5%	1,586	-18.3%	-2,313
Education and Health Services	1.3%	232	22.1%	3,829	-19.1%	-3,307
		1,099		990		-3,921

Source: University of Georgia (http://www.georgiastats.uga.edu/sshare1.html)

Conclusion and Summary

Construction and operation of an iron mine in the region would produce significant economic benefits in a region that has suffered job loss and population decline over the last several decades. The overall economic impact of operating the mine at a production level of 8 million tons would be $604,000,000. The mine operation would also create 2,853 jobs in the region and would produce an annual state and local tax yield of over $17,000,000.

If the mine were expanded to 16 million tons of annual capacity, the economic benefits to the region would double. The overall economic impact of operating the mine at a production level of 16 million tons would be $1,208,000,000. The mine operation would also create 5,668 jobs in the region and would produce an annual state and local tax yield of over $34,000,000.

In addition to the operation of the mine, there would be economic benefits associated with the construction of the mine. These benefits would be short term benefits that occur while the mine is being built or expanded. The overall one-time economic impact of the construction of the mine would be more than $2 billion. This economic activity would create 6,350 jobs and would yield over $20 million in one-time state and local sales and income taxes.

A review of the regional economic and demographic data serves to illustrate the need for a significant economic driver in the region. The 12-county region suffers from an aging, declining population, high unemployment, below-average income, stagnant business growth, and a need for employment opportunities for workers who have not graduated from college. This proposed mine project in the context of the economic situation in the twelve-county region would have significant economic benefits in terms of overall economic impact, payroll, jobs created and taxes derived.