

# UPDATING PROSPERITY

How mining can  
boost Minnesota's economy

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#### **COVER PHOTO: IRON RANGE TOURISM**

Center of the American Experiment's mission is to build a culture of prosperity for Minnesota and the nation. Our daily pursuit is a free and thriving Minnesota whose cultural and intellectual center of gravity is grounded in free enterprise, limited government, individual freedom, and other time-tested American virtues. As a 501(c)(3) educational organization, contributions to American Experiment are tax deductible.

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# Executive Summary

In 2018, Center of the American Experiment released the report “Unearthing Prosperity: How Environmentally Responsible Mining Will Boost Minnesota’s Economy.” This research was the first attempt to quantify the potential economic benefits of developing Minnesota’s vast resources of copper, nickel, cobalt, platinum, palladium, and titanium.

Since the 2018 report was published, new resource estimates have been made public showing the economic benefits of mining in Minnesota would be even greater than previously estimated.

Additionally, exciting new developments in the proposed PolyMet and Twin Metals mines have occurred, bringing our state one step closer to developing some of the largest undeveloped copper and nickel deposits in the world.

The progress on Minnesota’s copper nickel mining future is promising, but potential roadblocks exist that threaten the future of mining in our state. We offer this executive summary based on the findings of this report.

**Copper, Nickel, and Titanium Mining Could Support 14,850 New Jobs in Minnesota:** Developing these resources would create up to 4,667 direct jobs in the mining industry, which pay an average of \$98,000 per year, support 4,912 indirect jobs, and 5,271 induced jobs, for a total of 14,850 new jobs and \$5.9 billion generated in annual economic output, according to the economic modeling software IMPLAN.

**Tourism Jobs Pay Much Less than Mining Jobs:** According to the Bureau of Labor Statistics, the average wage for a miner in St. Louis County, Minnesota was nearly \$100,000 in 2019. These wages are more than twice the average wages for St. Louis County, and 5.6 times more than jobs in the tourism and hospitality industry.

**The “Harvard Study” Isn’t A Study, At All:** Opponents of copper-nickel mining in Minnesota often claim the industry will be a net loss to the region compared to tourism by citing Harvard Economist James Stock’s letter to the U.S. Forest Service. But this was a personal letter, not an official study. More importantly, it arrived at its conclusions by ignoring the economic benefits of mining and assuming costs that are not supported by empirical data.

**Tourism Jobs Increased in Marquette County, Michigan After the Eagle Mine Opened:** Tourism-related jobs increased in Marquette County, Michigan after the Eagle Mine began producing nickel and copper in 2014. This is the exact opposite of what mining opponents claim will occur.

**It’s About Much More Than Mining:** Mining supporters are obviously excited about the economic benefits that will accompany more mining, but examining jobs numbers does not tell the whole story. Mining is a part of the regional identity of northern Minnesota. People are proud of their mining heritage, and look forward to the prospect of providing our country with the metals we rely upon every day.

**Politicized Permitting Processes Threaten to Preempt the Industry:** Many of Minnesota’s copper-nickel deposits would have been “off limits” due to the actions of the Obama-Biden administration, which canceled mineral leases in the Superior National Forest in December 2016. These mineral leases were restored by the Trump administration, but the permitting process may well become politicized again in the future.

**High Electricity Prices Threaten the Industry:** Mining is one of the most electricity-intensive industries in Minnesota, and proposals to mandate 100 percent carbon-free electricity by 2050 would make it too expensive to mine in our state. ■

# Introduction

Northern Minnesota is home to a massive rock formation called the Duluth Complex, which contains some of the largest undeveloped deposits of copper, nickel, cobalt, platinum group elements, and ilmenite (the most important ore for titanium) in the world.

If you are interested in learning how these metals and minerals benefit you every day, and the environmental protections that are in place to minimize the impact of mining on the environment, we encourage you to read American Experiment's first paper on this topic, "Unearthing Prosperity: How

Environmentally Responsible Mining Will Boost Minnesota's Economy."

Section I of this "Updating Prosperity" paper discusses the updated economic outlook for copper, nickel, cobalt, and titanium mining in Minnesota. Section II compares the economic impacts of the mining and tourism industries. Section III explains why mining is so important to the cultural fabric of communities in northern Minnesota. Section IV explains the threats faced by the mining industry in Minnesota. Section V offers concluding thoughts. ■

TABLE 1

## Economic Impact of New Mining Opportunities

New mining opportunities could bring 14,850 new jobs to Minnesota and produce more than \$1 billion in wages annually.

Impact Type	Employment	Labor Income	Value Added	Output
<b>Direct</b>	4,667	\$422,807,103.43	\$1,679,614,389.93	\$3,954,469,280.27
<b>Indirect</b>	4,912	\$352,904,216.68	\$583,915,667.35	\$1,192,898,365.68
<b>Induced</b>	5,271	\$260,054,438.40	\$437,294,394.51	\$758,219,112.47
<b>Total</b>	<b>14,850</b>	<b>\$1,035,765,758.51</b>	<b>\$2,700,824,451.79</b>	<b>\$5,905,586,758.43</b>



# Section I: New Drilling Results Show Mining Minnesota's Minerals Will Generate Billions for the Economy and Create Up to 14,850 New Jobs

In 2018, American Experiment used the economic modeling software IMPLAN to determine that mining three of Minnesota's vast copper-nickel deposits, along with developing Minnesota's titanium ore deposits, would create up to 8,500 new jobs throughout the state of Minnesota.

Newly released drilling results show the economic benefits of mining in Minnesota will be even larger. American Experiment used IMPLAN to determine the economic impact of developing these additional resources.<sup>1</sup>

According to the model, up to 4,670 new direct jobs in the mining industry could be created, generating another 4,900 indirect jobs at businesses providing supplies and services to the mining industry. There would also be 5,270 induced jobs added to the economy as a result of miners and support workers spending their paychecks at local restaurants, hospitals, auto dealerships, department

stores, etc. In addition, expanded mining would produce nearly \$370 million in new state and local tax revenues every year.<sup>2</sup>

In total, expanded mining could create up to 14,850 jobs throughout the state and add \$5.9 billion to Minnesota's economy.

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These numbers are preliminary, and the number of direct mining jobs could be revised downward as specific mining plans are brought forth in the future, but the massive opportunity that environmentally responsible mining brings to our state is undeniable.

It is also important to remember that these figures do not count construction jobs created by the industry. Rather, they focus on the long-term employment benefits of mining. However,

a recent study from the University of Minnesota, Duluth found that the construction of a single non-ferrous mine would support more than 12,000 construction jobs in 2022.<sup>3</sup> ■





## Section II: Comparing the Economic Impacts of Mining and Tourism

Anti-mining activists, many of whom live in the Twin Cities region, have argued that Minnesota should focus on growing its tourism industry instead of allowing copper-nickel mining to occur.

Unfortunately, these mining opponents tend to see northeastern Minnesota as their summer playground, not as the home of the residents who live there year-round.

This section compares and contrasts the quality of mining jobs and tourism jobs, discusses why mining jobs are “essential” while tourism jobs are not, and refutes the claims made by Harvard Professor James Stock, in what is often erroneously characterized as “a Harvard Study.”

### Mining, Tourism, and the Multiplier Effect

Mining jobs are some of the best-paying jobs in the entire state of Minnesota. According to the Bureau of Labor Statistics (BLS), the average wage for a miner in St. Louis County, Minnesota was nearly \$100,000 in 2019 (see Figure 1).<sup>4</sup> These wages are more than twice the average wages for St. Louis County, and 5.6 times more than jobs in the tourism and hospitality industry.<sup>5</sup> The high wages paid by the mining industry and support industries leave these employees with much more income to spend

on other areas of the economy, which in turn creates more induced jobs than lower-paying sectors of the economy.

According to our analysis, each new mining job created in Minnesota would support another 1.13 “induced jobs” in the broader economy. In contrast, the tourism industry creates an additional 0.2 jobs for every job in the industry, meaning it would take five tourism jobs to support one additional job in the greater economy.<sup>6</sup>

This is known as the multiplier effect, and it is a key reason why the people of northern Minnesota support more mining opportunities and remain skeptical that an economy based heavily on tourism can provide the same standard of living as a strong mining economy.

### *Mining is Essential, Tourism is Not*

The “essential” nature of the mining industry is obvious: Every Minnesotan relies upon metals and minerals for daily life. These metals are as necessary to our modern lives as the food we eat and the air we breathe. In contrast, tourism is something we partake in if we are privileged enough to afford it.

The COVID-19 pandemic, which included travel restrictions and the government-mandated closure



of many hospitality-based businesses, also calls the wisdom of a tourism-based economy into question.

Data from the Minnesota Department of Employment and Economic Development (DEED) show that leisure and hospitality industries suffered many more job losses than extraction industries in the wake of COVID-19.

Workers in industries traditionally associated with tourism, such as food service workers and retail workers, saw 10,500 Minnesotans apply for unemployment insurance benefits in the northeastern region of the state. Jobs associated with mining, such as extraction, vehicle and mobile equipment mechanics, and plant and system operators, saw 1,919 unemployment claims (see Figure 2).<sup>7</sup>

Both the tourism and mining industries can be cyclical and subject to larger macroeconomic trends. The economy of northeastern Minnesota will be healthiest when both environmentally responsible mining and the tourism industry thrive.

### *The “Harvard Study” that Wasn’t*

Some mining opponents argue that it is not possible for mining and tourism to coexist, citing a letter written to the U.S. Forest Service by Harvard University economics professor James Stock to support their claim.<sup>8</sup> This letter argues the Twin Metals mine in the Rainy River watershed would be a net negative for the economy of the region by reducing tourism.

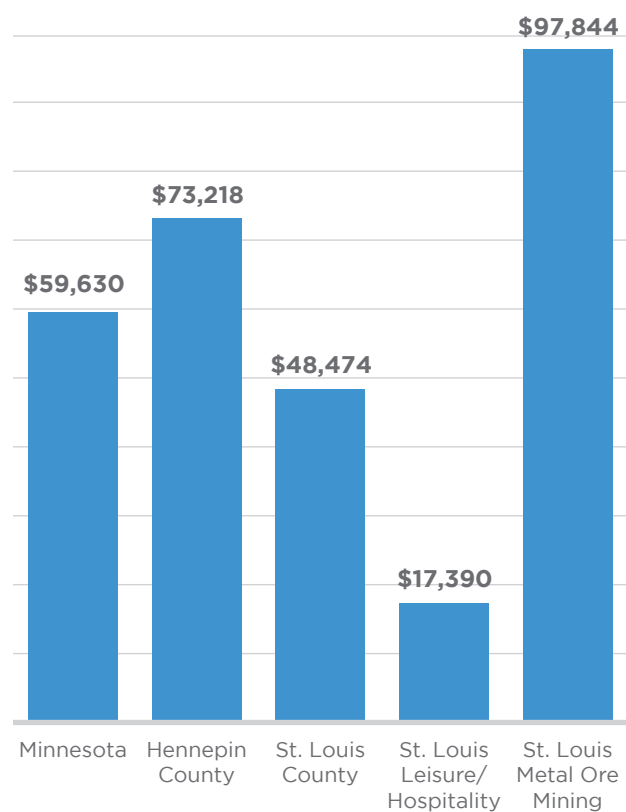
Although this document is often described as a study by Harvard University, it actually is a personal letter written by the author on Harvard letterhead, not an official study. As a result, we reference it as the Stock Letter, rather than a Harvard Study.

Despite the prestige of Harvard, there are several flaws in the logic of the letter that invalidate its findings. Among the most egregious aspects of the Stock Letter is that it omits the economic impact of induced jobs generated from mining operations. It also assumes that the recreational economy would decline by either 1.2 percent or 2.4 percent annually, but these assumptions are not supported by any empirical data.

FIGURE 1

## Annual Average Wages

Mining jobs in Minnesota, with average wages of \$97,844, are some of the highest paying jobs in the state.



**SOURCE:** U.S. BUREAU OF LABOR STATISTICS (2019)

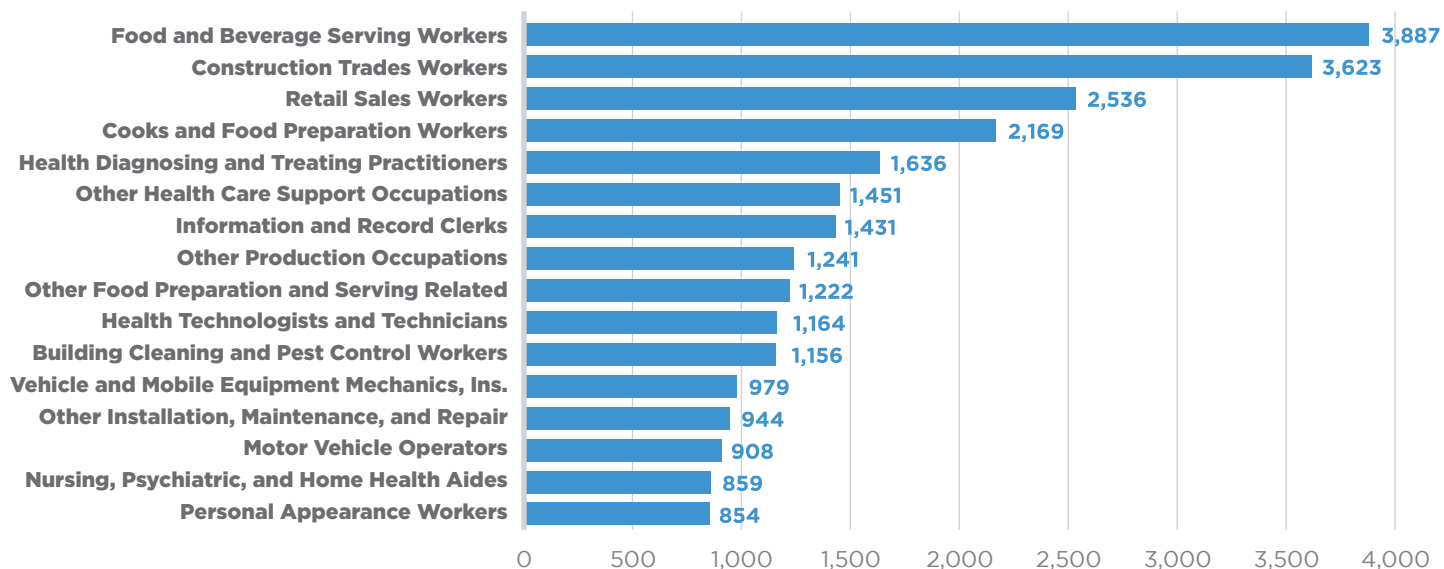
### *Omitting Induced Jobs Is Intellectually Dishonest*

As discussed earlier, American Experiment used IMPLAN to calculate the economic impact of non-ferrous mining and found the high wages paid in the mining and support industries would result in the creation of 1.13 induced jobs for every mining job created. These jobs are created as employees spend their paychecks in the broader economy on school supplies for their children, visits to the doctor’s office, eating at restaurants, tourism-related activities, and so on. In contrast, tourism jobs support just 0.2 induced jobs.

FIGURE 2

## Unemployment Applications by Occupation in Northeast Minnesota Since March 16, 2020

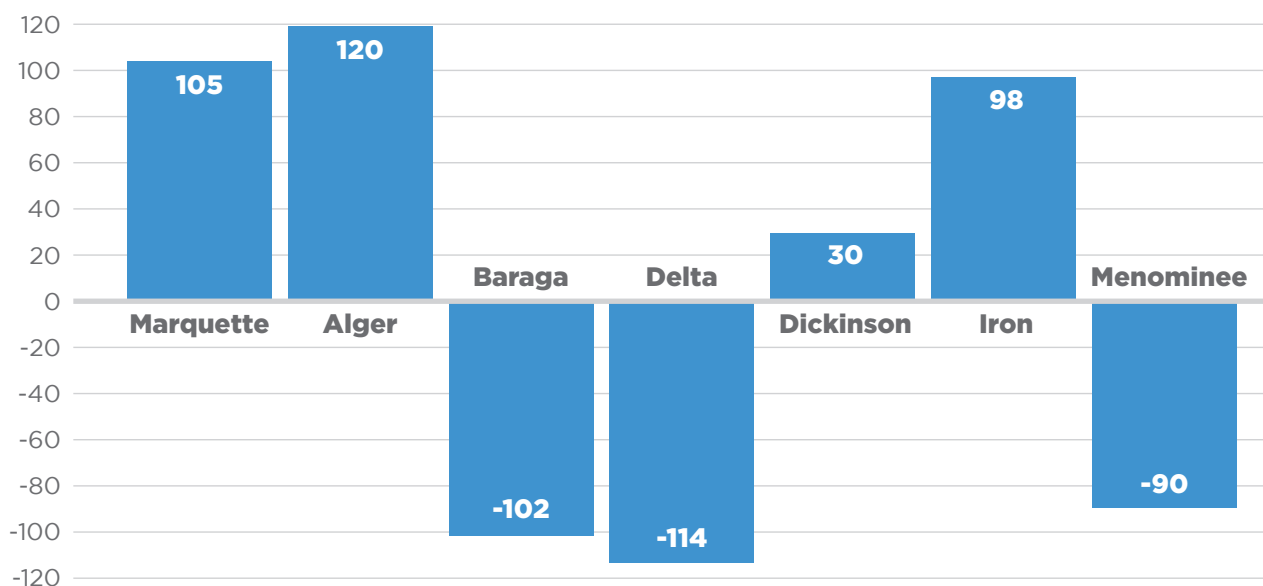
All industries were hit hard by the pandemic,  
but jobs related to the tourism industry were hit hardest.



SOURCE: MINNESOTA DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT

FIGURE 3

## Net Change in Leisure and Hospitality Employment, 2014-2019 in Select Michigan Counties



SOURCE: U.S. BUREAU OF LABOR STATISTICS

However, the Stock Letter omitted these induced jobs from its Twin Metals economic analysis. As a result, the letter vastly underrepresents the economic gains the mine would provide to the local community.

The Stock Letter attempted to obscure the importance of this omission by claiming: “There is in any event no reason to think induced effects would differ depending on the income source so they would be proportional to direct plus indirect income changes for both the mining and hospitality industry.”

However, John Phelan, an economist at Center of the American Experiment who holds an advanced degree from the London School of Economics, argues this logic is dreadfully wide of the mark because average annual pay for mining jobs is far higher than for tourism jobs.<sup>9</sup> As a result, jobs in the mining industry lead to many more induced jobs than jobs in the leisure and hospitality sector.

Excluding the effects mining and tourism will have on induced jobs will lower the expected employment benefits of both sectors, but because mining jobs pay much higher wages, it will disproportionately reduce the economic outlook for mining. In short, the Stock Letter presents a distorted picture of the wider impacts of employment in mining and leisure.

## No Basis For Reduced Tourism Employment

In addition to omitting induced jobs numbers, the Stock Letter assumes mining would result in a reversal of the projected growth in tourism in the Boundary Waters Canoe Area Wilderness and decline at a rate of 1.2 percent to 2.4 percent per year, or approximately 21.5 percent to 38.5 percent over 20 years. However, the author provides no empirical evidence to support this assumption.

Interestingly, the Stock Letter does not even

assume that mining will harm the environment. This raises the question: Why would anyone not eat in a restaurant, stay overnight in a motel, or go canoeing because an environmentally-responsible mine is located 25, 50, or 100 miles away?

The footnote supposedly supporting this claim is a study published in 1996 examining population growth in two counties in northwestern Montana from 1969 through 1992. It is hard to imagine how a study from 24 years ago examining even older trends in population growth from two counties in Montana would be applicable to the economic issues relating to modern mining in Minnesota.

It would have been appropriate for the author of the Stock Letter to seek a more relevant example of a modern mine with advanced environmental-protection technology and a modern regulatory regime.

Such an example exists in Upper Michigan, where the Eagle Mine, a nickel-copper mine, began operating in Marquette County in 2014.

Figure 3 shows the change in leisure and hospitality employment in Marquette County and six bordering counties: Baraga, Iron, Dickinson, Menominee, Delta, and Alger. Employment in the leisure and hospitality industry has increased in Marquette County since the Eagle Mine began operation.<sup>10</sup> In other words, mining was associated with more jobs in leisure and hospitality, not fewer.<sup>11</sup>

The growth in tourism jobs in Marquette County refutes the Stock Letter’s unsupported assumption that tourism and hospitality jobs will decrease by 1.2 or 2.4 percent per year if the Twin Metals mine comes to fruition.

In conclusion, the Stock Letter’s assertion that the Twin Metals mine will cause more economic harm than good was obtained by omitting benefits and assuming fictitious costs. Relevant examples of modern mines operating in the Midwest were available for comparison, but these examples were not used. ■





## Section III: The Social Fabric of Mining in Minnesota

In Section I, we discussed the role copper-nickel mining could play in supporting direct, indirect, and induced jobs, but these numbers cannot tell the whole story of what mining means to the people of northern Minnesota. For residents of the Iron Range, mining is part of the social fabric of the region. It is a source of pride in their past, an economically vital part of their present, and a source of hope for their future. Simply citing jobs numbers does not capture these feelings, nor does it do them justice.

### A Sense of Pride in the Past

A drive through the Iron Range quickly shows the impact mining has had on the cultural fabric and landscape of the region.

In Chisholm, a 36-foot-tall statue of the Iron Man celebrates the importance of mining in the area.<sup>12</sup> Additionally, many of the hills along Highway 169 are not really hills, they are mine tailings that have been overgrown with trees. Many of the lakes in the area are mine pits that have filled with water.

**There is a great sense of pride in the region for the importance that mining played in the Allied victory in World War II.**

There is also a great sense of pride in the region for the importance that mining played in the Allied victory in World War II. As American automobile factories and steel plants were converted into an enormous war machine—producing the tanks, fighter jets, ships, bombers, firearms and other supplies needed to win the war—70 percent of the iron ore needed to produce these essential items came from Minnesota’s Iron Range.<sup>13</sup>

Iron production on the Range increased dramatically, and so did morale. No longer was the average miner working for a paycheck, he was working for the United States. It was an act of patriotism to work six days a week with overtime.<sup>14</sup>

In 1942, the industry produced 8,059 warships, 760 merchant ships, 666,820 machine guns, 23,884 tanks, and 47,859 military airplanes. The total amount of iron mined during that year on the Iron Range was 188,310,000 tons of iron.<sup>15</sup>

The people of the Iron Range continue to feel a sense of pride for supplying the United States

with iron ore to this day, and they also embrace the opportunity to supply our country with copper, nickel, and other important metals in the near future.

## An Economic Engine For the Present

According to the University of Minnesota, Duluth study cited in Section I, mining, mostly iron mining, employs 4,028 people directly in the mining industry. An estimated 2,697 people work in indirect jobs in industries that support the mining industry, and 4,914 people work in induced jobs. But for the purposes of this section, it helps to look at the real-life impacts these jobs have on the people who live in the region.

The 4,028 people who work at Minnesota's iron mines produce 85 percent of the iron ore mined in the United States. This accounts for 1.6 percent of all the iron mined in the world.<sup>16</sup> This means Minnesota's iron industry must compete on a global scale with other producers. Because Minnesota accounts for a relatively small share of the global iron output, low iron prices, or other threats to mining, can cause mines to idle or shut down entirely, sending shockwaves throughout the entire region.

If too much mining activity is lost, it takes hospitals, schools, grocery stores, and other businesses with it. Losing these jobs and businesses means more than lost income, it means losing health insurance, longer drives to see the doctor or get groceries, and empty storefronts on Main Street. It also means parishioners have less money to support their churches. School enrollment falls and funding disappears when people move their families to other areas to find work, and local charities like Lions Clubs have fewer resources to help those in need.

The men and women who are included in the induced jobs category on the Range are fully aware

of this reality, which is why they are generally supportive of the industry. A good example of this understanding is Pep's Bake Shop, a bakery in downtown Virginia, Minnesota.

## Pep's Bake Shop: Induced Jobs Improve Regional Quality of Life

One afternoon in early 2020, just before COVID hit, my significant other and I visited Pep's Bake Shop. As you approach the entrance to the bakery, there is a sign on the door welcoming steel workers into the store. Resting on the counter past the glass cases filled with doughnuts is a tip jar with a sign reading, "You're never late if you bring donuts."

The young woman behind the counter seemed tired but happy. At first, I wasn't sure if the bakery was still open, or if my girlfriend and I had walked in as the staff was closing up shop for the day without yet locking the door.

After we asked if the shop was still open, the woman behind the counter smiled and said yes. She continued by telling us that she and her mother were just finishing up a large order for a wedding that evening, which included cookies and the all-important wedding cake.

My girlfriend and I chatted with the young woman as we browsed the doughnut selection. She told us Pep's Bake Shop has been in her family for three generations. Her mother has been working at this bakery for 24 years, and she has been helping her at the shop for the last twelve.

Then the daughter asked us where we were from and what had brought us into town. We told her that we lived in Minneapolis and that we were in town because I was writing a story on the mining industry.

When I said that, the daughter seemed to get nervous, as if she was expecting something bad to happen. I elaborated, "A lot of people in the Cities don't understand how important the mining industry is up here and what it means for the community

**The 4,028 people who work at Minnesota's iron mines produce 85 percent of the iron ore mined in the United States. This accounts for 1.6 percent of all the iron mined in the world.**



ALLISON AND LAURA COLLINS ARE THE MOM AND DAUGHTER TEAM WHO RUN PEP'S BAKE SHOP.

and local businesses.” She seemed to give a sigh of relief when I said this, and she told us how important the industry is to the area and how many of their customers are miners or the families of miners.

When the Stock Letter misleads Minnesotans on the impact of mining on the regional economy by omitting induced jobs from its analysis, it is omitting Pep’s Bake Shop. It is omitting three generations of hard work, and it is omitting three generations of cookies, wedding cakes, excuses to be late for work, and memories.

The mining industry is integral to the social fabric of the Range, but it is also delicate, and subject to global economic trends. This is why northern Minnesota residents look forward to a copper, nickel, and titanium mining future.

## **Optimism for a Copper, Nickel, and Titanium Mining Future**

The prospect of more economic opportunities from copper, nickel, and titanium mining on the Iron Range means much more than increases in direct, indirect, and induced jobs. It means a more diverse economy that doesn’t have to worry as much about low iron ore prices. It means more jobs and a higher economic baseline, which will strengthen the economic outlook of existing businesses and communities.

This stronger economic outlook provides opportunities for new economic growth and allows for more stability for local government budgets that can provide better public sector services, whether that be better police and fire departments, more teachers and smaller class sizes, or better access to county health care programs.

It isn’t simply about economic development, either. Many supporters of copper-nickel mining in Minnesota take a sense of pride in knowing that they will be producing metals that people depend upon every day, similar to the way that many farmers feel a sense of pride in their belief that they are helping to feed America. Rather than importing these metals from other countries, they want to do well for our country while also doing well for themselves. ■





## Section IV: Threats to More Mining in Minnesota

The biggest threat to copper-nickel mining in Minnesota does not come from a science-based assessment of the risks and rewards of modern mining, it comes from bad public policy.

Several mines currently operate in the Lake Superior watershed, and a Canadian gold mine operates just across the Minnesota border within the Rainy River watershed, which contains the Boundary Waters Canoe Area Wilderness. The existence of these mines dispels the notion that mining is unprecedented in this part of the world and that it cannot be done in an environmentally responsible way.

The three main threats to future mining in Minnesota are a politicization of the permitting process, a growing hostility toward expanded mining among legislators in the urban core, and bad energy policy that drives up the cost of doing business in Minnesota.

### **Politicizing the Permitting Process**

As we noted in “Unearthing Prosperity,” Minnesota’s mining regulations were designed to establish objective environmental standards for companies to meet. If a proposed project can meet these scientific standards, it can move forward. If state and

federal agencies conclude that a mine plan will not meet these protective standards, they will outline changes that must be made to the mine plan in order for it to move forward.

This back-and-forth was designed to produce the best outcomes for the environment while allowing for the development of our natural resources. However, actions at both the federal and state level have shown that politics often trumps process when it comes to mining and other vital infrastructure projects in Minnesota.

### **The Obama-Biden Administration Canceled Twin Metals Mineral Leases in 2016**

One example of politics overriding process was the Obama-Biden administration’s decision to cancel the mineral leases held by Twin Metals in the Superior National Forest. The former administration also sought to author a study that would lead to a 20-year moratorium on copper-nickel mining on these leased parcels.<sup>17</sup>

These mineral leases had been lawfully renewed by the U.S. Department of the Interior for decades, but on December 15, 2016—after Hillary Clinton

lost the 2016 presidential election—then-President Obama revoked the permits in what Kim Strassel of *The Wall Street Journal* called “an Obama extralegal classic.”<sup>18</sup> Strassel wrote:

*The opinion ignored precedent, existing rights and regular procedure.*

According to Strassel, even Minnesota Senator Amy Klobuchar (DFL) was “floored” by the decision:

*Ms. Klobuchar bluntly states that the decision not to renew the lease “just floored me. Trump will reverse this. When you guys leave and are out talking about a job message for rural America, I will be left with the mess and dealing with the actual jobs. But you guys sure got a good story in The New York Times.” She’s the one who has to run for re-election in a state that still values its mining industry.*

*She lectures Mr. Vilsack that this “should have been handled through the normal process. It wasn’t.” She notes that she’d asked written questions in July but got no response. She brutally observes that the failure to do this correctly is “most likely ... why we have the Trump administration to begin with.” She also snaps: “Who cares about answering some pesky questions from a woman senator from the Midwest when you guys and the White House and the activists have all the politics down, right?”*

*She notes that the company “had had the leases for years,” that the situation “will now end up in a lawsuit,” and that “Trump will reverse the decision or a court will.” She adds: “I am not for or against this project but I just wanted a fair process based on science that told us the truth.”*

The Trump administration did indeed reverse this decision and restored the mineral rights that were canceled by the lame-duck Obama-Biden administration. In late 2019, Twin Metals submitted a mine plan to state and federal agencies for review.<sup>19</sup>

If the Twin Metals project becomes fully permitted, it will create 750 direct full-time jobs and

1,500 new indirect and induced jobs for the residents of northeast Minnesota.<sup>20</sup> The prospect of these jobs simply would not exist if the Trump administration had not restored these mineral rights.

## What Would President Biden Do?

Candidate Biden did not formally reveal his position on copper-nickel mining in Minnesota. The Biden campaign’s seven-page factsheet on the Iron Range never mentioned copper or nickel mining, but it did mention iron mining several times.<sup>21</sup>

While the Biden campaign did not state a position on copper-nickel mining, *MinnPost* reported that U.S. Representative Betty McCollum (DFL) of St. Paul, a staunch opponent of copper-nickel mining in the Superior National Forest, appeared confident a change in administrations in Washington, D.C. would revert to the position taken by the previous Obama-Biden administration.<sup>22</sup>

“Since it was the Obama-Biden administration who withdrew those mineral leases, initiated the environmental review, and proposed a ban on new mining in the watershed, we have no reason to expect that a Biden administration would change course,” said McCollum’s political director, Charlie Hammond.

**One example of politics overriding process was the Obama-Biden administration’s decision to cancel the mineral leases held by Twin Metals in the Superior National Forest.**

## Politicizing the Permitting Process at the State Level

The permitting process for projects has also been politicized at the state level, most obviously with the continued delay of the Line 3 oil pipeline replacement project. Before he was elected Governor of Minnesota, Tim Walz told the *Star Tribune* that he was satisfied with the decision by the Public Utilities Commission (PUC) to allow the replacement project to move forward, stating: “The PUC did rule. We need to follow the process in place.”<sup>23</sup>

Despite his pre-election support, Governor Walz quickly changed his tune once elected to office. His

administration has now delayed the project twice, despite his claim that he would “follow the science” on Line 3.

Governor Walz has also said he will “follow the science” on copper-nickel mining, and to the administration’s credit, it has defended permits for PolyMet in the courts.<sup>24</sup> However, mining supporters worry Governor Walz could attempt to revoke or suspend permits for copper-nickel mining projects after they have passed environmental reviews, as he did with the Line 3 replacement project.

The most important thing to know about the Walz administration’s decision to delay the Line 3 replacement project is that it has nothing to do with the potential environmental impacts of the pipeline. In fact, the Minnesota PUC has reviewed the project and determined that the new pipeline would be safer and pose less risk to the environment than the current pipeline, which is corroded and operating at half-capacity to reduce the risk of an oil leak.<sup>25</sup>

Federal data show that corrosion was responsible for 20 percent of the oil spills from 2010 through 2019, which should make the replacement of this aging pipeline a top priority if we want to protect the environment.<sup>26</sup>

The Walz administration does not dispute the environmental merits of replacing Line 3. Instead, it is delaying the pipeline because it argues Minnesotans will not need the oil it would provide. However, this argument ignores the reality that oil is the single largest source of energy used by Minnesotans every year.<sup>27</sup>

The Walz administration’s inability to “follow the science” on Line 3 instills no confidence that his administration will allow copper-nickel mining to occur in Minnesota, even if projects obtain all the necessary permits to protect the environment.

Like oil, we rely on the copper, nickel, cobalt, and titanium in our appliances, cars, computers, iPhones, medical devices, and the wiring in our homes, and we will rely upon them for decades to come. The environment will be best served when we develop and deliver our natural resources in the most environmentally responsible way possi-

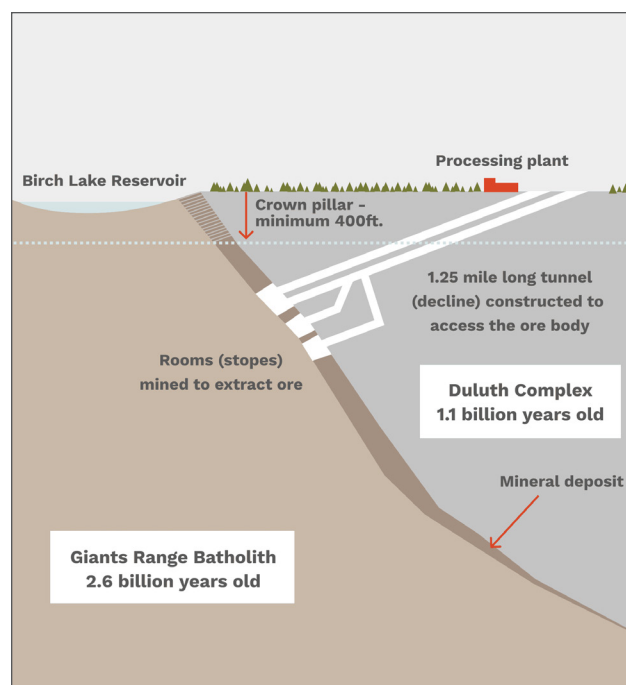


ILLUSTRATION OF THE PROPOSED TWIN METALS PROJECT IN NORTHEAST MINNESOTA.

ble. For metals, this means responsibly mining in Minnesota rather than importing these resources from other countries with fewer protections for the environment.

## Liberal Legislators Grow More Hostile Toward Mining

Mining in Minnesota has historically enjoyed broad bipartisan support, and the region where Minnesota’s world-class copper-nickel deposits are located was long a stronghold of the Democratic Farmer Labor (DFL) Party. However, adding to the pressure to politicize the permitting process—or ban copper-nickel mining in Minnesota entirely—is a growing hostility toward copper-nickel mining among the liberal environmentalists of the DFL base in the Twin Cities.

This trend was codified on August 29, 2020, when the DFL State Central Committee adopted a resolution calling for a moratorium on copper-nickel mining in the state. The *Duluth News Tribune* reported that the moratorium would ban



copper-nickel mining in northeastern Minnesota watersheds “until such mining is proven first to be safe in water-rich environments.”<sup>28</sup>

However, the Eagle Mine has been safely producing nickel and copper since the fall of 2014. Additionally, the Flambeau Mine in Wisconsin also responsibly developed natural resources in a water rich environment.<sup>29</sup> If the DFL State Central Com-

mittee needed to see an example of a responsible mine in the Midwest before allowing projects to proceed in Minnesota, these projects would satisfy their demands.

Several DFL legislators from the Iron Range opposed the resolution, but it appears that on a statewide basis, pro-mining DFL legislators are an endangered species. ■



## Section V: Bad Energy Policy Undermines the Economics of Mining

Thus far, we have discussed how the politicization of environmental issues has affected mineral leases and the permitting process for other high-profile projects in the state. In addition, the underlying economics of Minnesota's mining industry are being harmed by policies that increase the cost of doing business in Minnesota. Energy policy is particularly important.

Mining is one of the most energy intensive industries in the state. In fact, the Minntac Mine is reported to use as much electricity and natural gas as the entire city of Minneapolis.<sup>30</sup> As a result, the price of energy is a large factor in determining whether a mining operation will be profitable.

The cost of energy constitutes roughly 25 percent of the cost of iron ore produced in Minnesota. Electricity costs for Minnesota's iron mines have increased more than 60 percent on average since 2007, when Minnesota enacted its 25 percent renewable energy mandate.<sup>31</sup> Unfortunately, Governor Tim Walz has proposed a mandate for 100 percent carbon-free electricity by 2050, which will further drive up electricity prices.<sup>32, 33</sup>

**A mandate requiring Minnesota to obtain only 50 percent of its electricity from wind and solar would increase the cost of electricity by 40 percent.**

According to Center of the American Experiment's award winning research paper, "Doubling Down on Failure: How a 50 Percent By 2030 Renewable Energy Standard Would Cost Minnesota \$80.2 Billion," a mandate requiring Minnesota to obtain only 50 percent of its electricity from wind and solar would increase the cost of electricity by 40 percent.<sup>34</sup>

A 100 percent carbon-free standard that does not legalize new nuclear plants or allow large hydroelectric generators and instead relies upon wind, solar, and battery storage technology, will cost exponentially more, according to the *Massachusetts Institute of Technology Review*.<sup>35</sup>

Even a 40 percent increase in the cost of electricity would inflict irreparable harm on Minnesota's mining industry. For example, iron ore mines and paper mills in northern Minnesota used 4.77 billion kilowatt hours (kWh) of electricity in 2016, which was 8 percent of the electricity used in the entire state that year.<sup>36</sup> As a result, rising electricity prices would cost these industries nearly \$200 million every year. This is the equivalent of losing

2,040 high-paying mining jobs, which have annual average wages of nearly \$98,000, according to the Bureau of Labor Statistics.

Because Minnesota's iron mines produce less than two percent of the global output, such an increase in costs could threaten their viability in a globally competitive marketplace. Increases in energy costs could also prevent Minnesota's copper-nickel mining industry from being financially viable.

As such, rising electricity prices threaten to erode the livelihoods of the approximately 11,600 Minnesotans who are supported by the iron

mining industry and could prevent the creation of 14,850 new jobs in Minnesota's copper, nickel, and titanium mining industries, for a total loss of 26,451 jobs in the state if energy policy makes it too expensive to mine in Minnesota.

In many respects, Minnesota mines are already at a disadvantage to mines in other countries where there are few protections for the environment and where wages for miners are low. To ensure the viability of the mining industry here, policymakers should avoid saddling the industry with more disadvantages in the global marketplace. ■

## Conclusion

Developing Minnesota's world-class mineral resources holds tremendous promise for the state, creating up to 14,850 new jobs. Jobs in the mining industry are some of the highest paying jobs in the state, and the operation of an environmentally responsible mine can help, not harm, the tourism industry.

The residents of northeastern Minnesota derive

a sense of cultural identity from the industry that transcends jobs numbers. Minnesota's political and business climate will be the deciding factors on whether copper-nickel mining will occur in our state. These factors will determine if we reap the rewards of responsible mining or whether these resources, and the opportunities that accompany them, are kept in the ground. ■



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