## Economic Development Strategy for Greater Duluth-Superior and Mesabi Range Areas



Somewhere in the Boundary Waters Canoe Area Wilderness, Lake County Minnesota (Author's)

USP-572 Regional Economic Development
Andrew Lindstrom
Spring 2025

Blessed by among the most abundant iron ore deposits in the world, the furthest west deep water port in the eastern United States, and a vast boreal forest, the Duluth area has long been a key component of the US industrial economy. Aiding in the exploitation of local natural resources, the arrival of the railways in the late 1800s allowed western commodities access to the physically nearest deep-water port, thus signaling the beginning of Duluth as a bona fide industrial city. However, the reliance on primary industries of timber and mining has made the Duluth area very sensitive to macro-economic changes. The explosive growth – ten times faster than the state of Minnesota as a whole (Table 1) – at the turn of the 20<sup>th</sup> century heralded by the discovery of iron ore, the improvements in the port facilities, and the continued expansion of western-oriented railroads gave way to mere rapid growth (on par or slightly lower than Minnesota as a whole) until the 1980s, when population fell by nearly 10% (Table 1) as a direct result of a series of steel crises undermining the demand for iron ore causing widespread job loss.

The end result of the collapse of the steel industry coupled with widespread deindustrialization and automation in the upper Midwest permanently affecting demand (see Table 3) was a region left with a bad environmental situation just as major tax resources left town. However, since the 1990s, population has stabilized (Table 1), and is up slightly since 2000. But this growth has not been evenly distributed in the region – with population growth being concentrated in semi-suburban Carlton County, up 24% since 1990 compared to a 3% overall growth rate in the five county study area (Table 1). Interestingly, Duluth is not known for its urban sprawl, and the share of workers living in Carlton County and commuting to St. Louis or Douglas counties has been steady at 23.2% from 2002 to 2022¹, so the classical reasons for suburban county growth seem less relevant here. Still, changing land use and minor urban sprawl pressures even in a region with steady population is interesting in and of itself, and at least lightly points to challenges inherent to urban revitalization absent exogenous forces driving development.

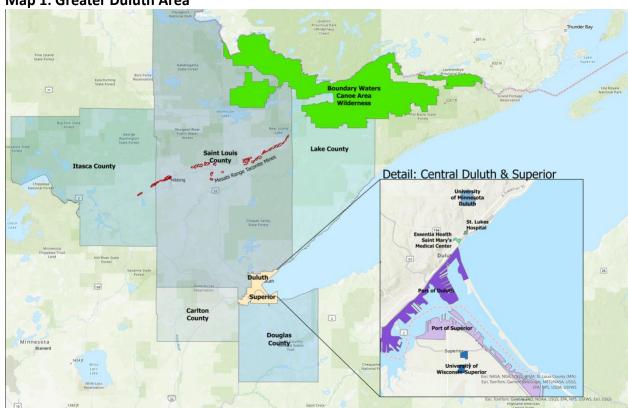
Table 1: Population of Five County Area, 1880 to 2020

Year	St. Louis, MN	Douglas, WI	Carlton, MN	Itasca, MN	Lake, MN	Total	% Change (% Change in MN)
1880	4,504	655	1,230	124	106	6,619	-
1900	82,932	36,335	10,017	4,573	4,654	138,511	+1,993% (+124%)
1920	206,391	49,771	19,391	23,876	8,251	307,680	+122% (+36%)
1940	206,917	47,119	24,212	32,996	6,956	318,200	+3% (+17%)
1960	231,588	45,008	27,932	38,006	13,702	356,236	+12% (+22%)
1980	222,229	44,421	29,936	43,069	13,043	352,698	-1% (+19%)
1990	198,213	41,758	29,259	40,863	10,415	320,508	-9% (+7%)
2000	200,528	43,287	31,671	43,992	11,058	330,536	+3% (+12%)
2020	200,231	44,295	36,207	45,014	10,095	335,842	+2% (+16%)

Source: US Census Bureau Decennial Census

<sup>&</sup>lt;sup>1</sup> US Census Bureau, "OnTheMap Tool."

The long term effects of faltering supply and demand for Minnesota iron ore has generally left urban parts of the area - the twin ports of Duluth and Superior - in a vulnerable situation. Pivoting to a knowledge-based economy has proved difficult, with a strong local healthcare being potentially the only notable example of "knowledge economy" kind of work. Despite widespread efforts to reinvigorate the mining industry, the physical reality of mining has meant diminishing returns even where returns can still be made. And the inherent conflict between the strong wilderness tourism industry, typically backed by politically influential hunting and conservation groups, and the resource extraction industry remains ever-present in national, state, and local policy. Finding a way to bridge the divide between resource extraction and reactionary environmentalism may prove difficult, but lays at the heart of the issues plaguing the region.



Map 1: Greater Duluth Area

Sources: US Census Bureau, OpenStreetMap, Esri, University of Minnesota, Duluth-Superior MIC

But in the rural parts of the region, the challenges are much more difficult than those faced by the urban centers. The mining industry which drove the regional economy faced an existential crisis in the years following WWII as the once abundant pure ore had been essentially depleted, ultimately leading to the transition from traditional iron mining into the now ubiquitous strip mining for taconite – a more environmentally damaging but less labor intensive

process<sup>2</sup>. But it wasn't until the various economic crises of the 1970s and 1980s - especially the decline of the steel industry in the US – which led to a widespread collapse of the remnants of the mining industry in northern Minnesota. This is evidenced by the population collapse in the string of communities in the Mesabi Range between 1980 and 1990, where the 13 communities between Coleraine in the west and Gilbert in the east lost 16.5% of their population<sup>3,4</sup>, nearly double the rate at which the economically depressed region as a whole lost population (Table 1).

The knock on effects of the faltering steel industry are also clear in the rise in poverty over the same time period in the five-county study area: the total number of people living in poverty rose 38%<sup>5,6</sup> while population declined by 9% (Table 1). And while the population decline was more severe in the iron ore oriented communities of the Mesabi Range, the larger centers of Duluth and Superior saw declines in the same decade of 7.9% and 8.2% respectively. But in all cases, these population declines brought on by the fall of steel in the US have been permanent, even if the drop hasn't worsened since. Employment in Agriculture, Forestry, Fishing, and Mining in the three Minnesota counties dominated by iron mining (Itasca, St. Louis, and Lake) dropped 50% from 1980 to 1990 (from 14,905 to 7,354)<sup>7,8</sup>, and has dropped a further 45% since 1990 (to 4,037)<sup>9</sup>. While Duluth and its surrounding communities are no longer suffering through steep declines in population, pivoting to a new economic base has had mixed results.

As previously mentioned, the non-resource extraction primary regional economic bases of note in the popular consciousness are tourism, centered on the Boundary Waters Canoe Area Wilderness (BWCA), and healthcare, centered Duluth's downtown. While the BWCA remains the busiest wilderness area in the US by many measures<sup>10</sup>, visitors have remained relatively steady over the last decade<sup>11</sup>. Additionally, wilderness tourism faces inherent challenges as a source of economic growth, as sensitive ecosystems need careful management to be successful (particularly relevant in the formerly clear cut Northwoods) and those who seek secluded trips in the outdoors can only bear so many fellow visitors. In addition, tourism based regions are often prone to acute housing shortages, as evidenced by places like the Oregon Coast<sup>12</sup>, bringing further questions about who stands to benefit most from the new status quo.

The history and continuation of mining activity in the area also poses threats to the wilderness tourism industry in the Minnesota Northwoods, bringing some uncertainty to the long-term prognosis for the BWCA. While it's easy to see headlines of the current Trump administration's focus on public land resource extraction and conclude that this is where the threat comes from, the reality of politics in northern Minnesota is more subtle. While the changing political winds have blown the white working class from their historic roots with the

<sup>&</sup>lt;sup>2</sup> Alex Tieberg, "A Brief History of Minnesota's Mesabi Iron Range."

<sup>&</sup>lt;sup>3</sup> US Census Bureau, "1980 Decennial Census."

<sup>&</sup>lt;sup>4</sup> US Census Bureau, "1990 Decennial Census."

<sup>&</sup>lt;sup>5</sup> US Census Bureau, "T49-Industry. Agriculture, Forestry, Fisheries, and Mining."

<sup>&</sup>lt;sup>6</sup> US Census Bureau, "T-39-Industry. Agriculture, Forestry, Fisheries, and Mining."

<sup>&</sup>lt;sup>7</sup> US Census Bureau, "T49-Industry. Agriculture, Forestry, Fisheries, and Mining."

<sup>&</sup>lt;sup>8</sup> US Census Bureau, "T-39-Industry. Agriculture, Forestry, Fisheries, and Mining."

<sup>&</sup>lt;sup>9</sup> US Census Bureau, "A17004-Industry. Agriculture, Forestry, Fishing, and Hunting."

<sup>&</sup>lt;sup>10</sup> National Wildlife Federation, "Protecting America's Most Popular Wilderness Area."

<sup>&</sup>lt;sup>11</sup> US Forest Service, "BWCAW Permit and Vistor Use Trends, 2009-2016."

<sup>&</sup>lt;sup>12</sup> Rebecca Hansen-White, "While Tourism Is Booming, Many Oregon Coast Residents Struggle to Stay Housed."

Democratic Party into Donald Trump's Republican Party, this effect has been much less pronounced in northern Minnesota specifically (St. Louis County hasn't voted for a Republican since Hoover in 1928). Instead, state representatives in the Mesabi Range area tend to support mining projects<sup>13</sup>, in spite of or because of the permanent loss of mining jobs in the region since 1980. Despite these losses, in Itasca and St. Louis counties, mining and resource extraction are still high location quotient industries at 6.19 and 5.40 respectively<sup>14</sup>. And with average weekly wages in the \$2,000 range (Table 2) – double of the overall average wage in the same counties, it's no wonder that it's a political focus.

In terms of economic opportunity for residents, mining represents an industry that promises a secure livelihood for its employees, even at the cost of potential health hazards and environmental damage. Contrasting this with the recreational tourism industry, and the residual political emphasis on mining starts to make even more sense. In St. Louis county, where many of the BWCA outfitters reside, the recreational goods rental business has a similar location quotient to mining (5.86), but pays just one-quarter of the weekly wage (~\$500)<sup>15</sup>. In addition, the Leisure & Hospitality industry that is also associated with tourism sees even lower wages at just \$449 per week. It's common to see economists tout the benefits of recreational tourism in former resource extraction regions, but anyone who has spent significant time in a place like this without top-flight income knows all too well that this is predicated on starvation wages for workers and less blue color work for the under-credentialed people who actually live in the area.

Table 2: Wages and Location Quotient by Industry, St. Louis County MN 2024

Industry	Weekly Wage	Location Quotient (St. Louis County)
Recreational Outfitters	\$526	5.86
Leisure & Hospitality	\$449	0.91
Hospitals	\$1,588	3.29
Natural Resources & Mining	\$2,079	5.40
Mining	\$2,303	41.90
Water Transportation	\$2,639	8.02
All Industries	\$1,174	0.97

Source: US Bureau of Labor Statistics, 2024<sup>16</sup>

And while healthcare has increasingly been a growth industry in Duluth, the American coupling of health insurance with employment makes relying on for-profit healthcare as a primary growth potentially problematic. That said, as population has stabilized in the greater Duluth area in the last 30 years, and as the healthcare industry has further consolidated (shifting from many scattered clinics to a few centralized ones), the city of Duluth has seen significant growth in this sector — enough so that the Duluth Economic Development Agency (DEDA) lists healthcare as a top priority. Even so, the weekly wages paid for hospital work lag

<sup>&</sup>lt;sup>13</sup> Sportsmen for the Boundary Waters, "2025 Boundary Waters Policy & Legislative Updates."

<sup>&</sup>lt;sup>14</sup> US Bureau of Labor Statistics, "Private, 1011 Natural Resources and Mining, All Counties in Minnesota."

<sup>&</sup>lt;sup>15</sup> US Bureau of Labor Statistics, "Private, NAICS 532284 Recreational Goods Rental, All Counties in Minnesota."

<sup>&</sup>lt;sup>16</sup> US Bureau of Labor Statistics, "Private, All Industry Aggregations, St. Louis County, Minnesota."

those paid for resource extraction by 50% in St. Louis County (Table 2). Still, that well outpaces St. Louis County's average weekly wage of \$1,174 (Table 2).

Also worth considering is the role of manufacturing, as the DEDA considers it to a place of focus. With Duluth's history as an entrepot for raw material, it may seem natural to expect a strong complementary manufacturing sector. However, distant control of these natural resources by financiers with ties to Cleveland or New York, alongside stronger manufacturing sectors in Great Lakes-accessible Milwaukee and Chicago, traditionally meant that local exploitation of said resources was of lesser importance. In 1980, just 10.36% of local jobs (9,171) were in manufacturing in St. Louis County – far fewer than in similar sized Upper Midwestern counties at the core of a small metro area (Table 3). Similar figures are observed in Douglas County, WI – home to Superior. Additionally, while the period from 1980 to present has been hugely challenging for manufacturing in the Upper Midwest, Duluth has lost manufacturing jobs at a similar pace to Janesville – a place rocked by a massive GM plant closure during the recession 17 – something that does not bode well for a future expansion into manufacturing as an economic base in the traditional sense (Table 3). Indeed, while the goal of manufacturing as a means to improve the livelihood of under-credentialed blue color workers in noble, absent serious changes in national economic policy, this will remain elusive. And all evidence points towards the Duluth region shedding, rather than adding, employment in manufacturing sectors.

Table 3: Manufacturing Jobs in Select US Counties, 1980 and 2023

County (Core City)	Jobs in Manufacturing,	Jobs in Manufacturing,	% Change, Number
	1980 [# (%)]	2023 (%, #)	of Jobs
St. Louis, MN (Duluth)	9,171 (10.36%)	7,498 (7.69%)	-18.2%
Douglas, WI (Superior)	2,571 (14.77%)	2,052 (9.29%)	-20.1%
Brown, WI (Green Bay)	20,570 (26.14%)	26,377 (18.55%)	+28.2%
Saginaw, MI (Saginaw)	27,782 (32.84%)	13,265 (16.31%)	-52.2%
Rock, WI (Janesville)	20,222 (35.15%)	16,375 (19.92%)	-18.2%

Source: US Census Bureau, 1980 Decennial Census, 2023 ACS 5 Year Estimates. Sourced via Social Explorer

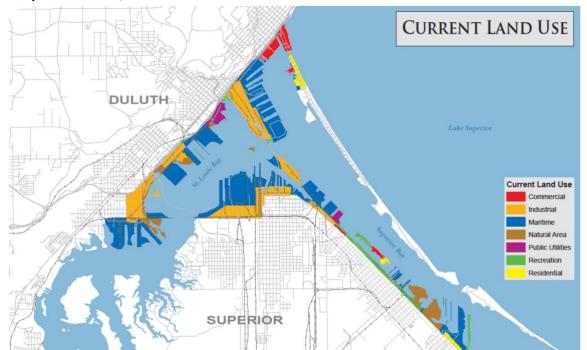
Given these challenges faced by the Greater Duluth area faces, a well-reasoned economic development strategy is necessary to help them leverage the specific context they operate in. The abundance of natural resources, convergence of transportation networks, and critical status as the Northwoods' pre-eminent metropolis mean that there are many ways to approach the problem of development in Greater Duluth, and even more solutions to be found. This paper will approach the issue from a context that could broadly be considered "developmentalist", modeling chiefly off the ways in which developed nations rose to prominence (as outlined by Ha-Joon Chang in his 2002 work, *Kicking Away the Ladder*). While this approach for a region spanning multiple states has obvious flaws, by adopting basic principles relating to protecting infant industries and technologies the intent is to provide Duluth with the future groundwork for strong growth. Recognizing that the Greater Duluth area

<sup>&</sup>lt;sup>17</sup> Sean Szymkowski, "General Motors Janesville, Wisconsin Plant Slated To Close Permanently."

is made up of many constituent parts, each forthcoming recommendation will be made with a particular subset of the region in mind. The recommendations are as follows:

- Leverage the Port of Duluth-Superior and other transportation links
- Create a mining + remediation policy for the Mesabi Iron Range
- Continue investing in healthcare
- Further develop public transportation links
- Empower local Native American tribes

The most important part of Greater Duluth is likely the Twin Ports themselves. As the busiest port complex on the Great Lakes, the port is crucial for the existence of the mining and manufacturing bases in the region, and as climate change closes in, will become even more vital. To this end, the Duluth Seaway Port Authority ("the Port") has in-depth plans and policy relating to land use as well as a laundry list of strategic goals. Most critical of these plans and policies are the Port land use plan and the policies relating to how to retain industrial uses within the broader port area that can broadly be summarized as "protecting industrial lands from commercial development, and protecting deep water accessible land from non-maritime uses". Within this context, there are limited options for specific interventions, but further development of intermodal facilities (particularly a rail-highway-ship facility) and strategic investment in transportation related industries via direct or indirect public involvement on port lands are warranted.



Map 2: Land Use, Twin Ports 2016

Source: Duluth-Superior Port Land Use Plan, Duluth-Superior Metropolitan Interstate Council<sup>18</sup>

<sup>&</sup>lt;sup>18</sup> Duluth-Superior Metropolitan Interstate Council, "Duluth-Superior Port Land Use Plan."

Intermodal shipping is something widely touted as the future for the Great Lakes ports<sup>19</sup>, but Duluth lacks a dedicated facility for transloading between truck, rail, and ship. While recent expansions at the Clure Public Marine Terminal made waves, the lack of full buy-in from the major railroads serving Duluth and a relatively difficult highway connection remains problematic. While Canadian National (CN) has been a partner on this project<sup>20</sup>, CN has not built much in the way of rail-truck transloading infrastructure that one sees at a more intensive intermodal facility, such as the Union Pacific Brooklyn Yard in Portland, OR. Indeed, despite ostensibly serving Duluth, CN does not advertise it as a "CN Served Port"<sup>21</sup>, with dedicated intermodal facilities outside of central Duluth at Proctor Yard. Other major railroads in the region – BNSF<sup>22</sup> and CPKC<sup>23</sup> – also do not feature Duluth as an intermodal target. Given that on the Superior side of the Port, various public agencies directly hold significant amounts of vacant land adjacent to the BNSF main line near the Grassy Point bridge directly adjacent to the foot of the Bong Bridge, this is a strategic location to invest in a truck-rail-ship intermodal facility (Map 3).



Map 3: Future Intermodal Facility Location, Superior WI

Source: Author's annotation of Douglas County OpenGIS<sup>24</sup>

<sup>&</sup>lt;sup>19</sup> Julian Hayda, "A Rising Tide of Infrastructure Funding Floats New Hope for Great Lakes Shipping."

<sup>&</sup>lt;sup>20</sup> Duluth Cargo Connect, "Duluth Cargo Connect Intermodal."

<sup>&</sup>lt;sup>21</sup> Canadian National, "CN Served Ports."

<sup>&</sup>lt;sup>22</sup> BNSF, "Intermodal Map."

<sup>&</sup>lt;sup>23</sup> CPKC, "Our Intermodal Facilities."

<sup>&</sup>lt;sup>24</sup> Douglas County, WI, "Parcels."

The specifics of the operation of this intermodal facility are beyond the scope of this paper, however, the Port should consider the relative benefits of a publicly owned "belt railroad" managing the facility. This is the case in Tacoma, where publicly-owned Tacoma Rail provides port-related switching for BNSF and UP at the Port of Tacoma<sup>25</sup>, and has been successful in its operations for a century. Additionally, given the historical tendency for Minneapolis-St. Paul and Chicago to attract this sort of rail facility, some consideration should be given to how likely a partner any of the major railroads in Duluth would be in practice. By remaining publicly owned, the Port can ensure the survival of an entity that will be key to providing the core of a strengthened transportation logistics industry. However, given that the cost of developing this facility (at least \$75 million based on similar projects) are very high relative to the Port's typical budget of ~\$5 million<sup>26</sup>, significant exogenous funding would be required – either from a private railroad company partner or the state or federal government.

Beyond the direct benefits to consumers and producers that a state of the art intermodal facility would bring, the impacts of increased shipping traffic to Duluth should not be understated. The marine transportation industry is a key aspect of the City of Duluth's economy and image, with a very high 8.02 location quotient and more than double the typical wage (Table 2), making it an attractive industry to further invest in. Ensuring that the Port remains economically viable via a modern intermodal facility will attract further shipping (particularly "salties" that head beyond the locks into the Atlantic Ocean) and will provide further high-wage employment in a critical industry. Indeed, experience in Portland shows that even when port operations fail to turn a profit, they still generate significant amounts of irreplicable economic activity<sup>27</sup>. Beyond St. Louis County's shipping industry, further direct Port investments will strongly benefit Douglas County's highly specialized trucking and truck-based logistics industry anchored by Cenovus Industry's Superior Refinery (Table 4). Even though the price tag may be high, the benefit to existing industries and the possibility for extending Duluth's lead in the Great Lakes shipping world is worth investing in.

Table 2: Wages and Location Quotient by Industry, Douglas County WI 2024

Industry	Weekly Wage	Location Quotient
Truck Transportation	\$1,314	8.01
Fuel Dealers	\$1,457	7.73
Motor Vehicle Part Wholesalers	\$1,501	3.46
All Industries	\$1,029	0.96

Source: US Bureau of Labor Statistics<sup>28</sup>

Outside the transportation infrastructure on the shores of Lake Superior, a key investment opportunity is in the taconite-rich Mesabi Range – but in working to remediate sites rather than just exploiting them. While the US steel industry has decidedly not fully recovered

<sup>&</sup>lt;sup>25</sup> Tacoma Rail, "Tidelands Division."

<sup>&</sup>lt;sup>26</sup> Duluth Seaway Port Authority, "Financial and Compliance Report Year Ended March 31, 2024."

<sup>&</sup>lt;sup>27</sup> The Portland Medium, "Port of Portland Requests \$10 Million For Financial Losses."

<sup>&</sup>lt;sup>28</sup> US Bureau of Labor Statistics, "Private, All Industry Aggregations, Douglas County, Wisconsin."

from its 1980s crash, Cleveland-Cliffs, the lynchpin of the Mesabi Range taconite mining, was doing well enough in 2023 to offer \$10 billion to acquire US Steel<sup>29</sup>, indicating that their financial situation is healthy enough to potentially partner in environmental remediation in the region. As evidenced by the steep declines in population in the Mesabi Range during the 1980s steel crisis, it is also evident that some level of diversification is needed in the area to ensure that the communities can weather the storms to come.

On the surface, touting environmental remediation as economic development policy may seem dubious, but given the long and damaging history of mining in the area there is hardly a lack of work to be done. While Minnesota has existing policy to link mining permits to trust funds or other financial instruments ensuring that remediation can be done<sup>30</sup>, this is linked only to the closure of mines. In the case of the Mesabi Range, the broader social issues have been employment losses relating to industry downturns, rather than full mine closure. As such, there is no existing mechanism to inject needed funds on behalf of workers, only a mechanism to ensure whoever remains behind once the mines close can live without a poisoned water supply. But there is no lack of work to be done in remediation, especially in such a heavily mined region, and finding a balance between the competing political interests of mining companies (likely to oppose paying more) and environmentalists (likely to oppose mining in general, or to favor policy making it uneconomical) will be crucial in finding ways to fund preemptive remediation as a pseudo make-work policy. In terms of wages, the closest existing industry in Itasca County to environmental restoration is likely landscaping (which consists of hard manual labor to change the physical environment as well), which while lacking the cultural appeal of mining, offers a fair days pay for a fair days work with a competitive weekly wage at \$1,288 to the county's average of  $$1,064^{31}$ .

This sort of direct investment in economic development is traditionally unpopular in American society, where the private sector is given primacy. However, given the existing policy relating to ensuring that mining operations set aside enough money to remediate their operations, and the generally understood need for more diverse employment opportunities in the Mesabi Range communities, there is good reason to believe a policy like this would be popular enough to pass muster. And unlike other needed investments, this could largely be done without direct spending - though depending on the specifics of the policy implemented, it still may be desirable to do some kind of in-kind match from the state or counties to ensure there's enough money to meaningfully impact the employment situation in the Mesabi Range communities.

Back in Duluth, the already strong local healthcare industry will be necessary to continue investment in. Recent investments in expansions at Essentia health (one of the two major hospitals in downtown Duluth) via the University of Minnesota have brough additional resources, and the industry is doing relatively well as a result. However, as there are deep structural issues in the US healthcare system which continue to impede healthcare access and equity, this economic development strategy relating to increased healthcare investment will be focused more on expanding healthcare access to more rural Minnesotans. According to the

<sup>&</sup>lt;sup>29</sup> Cleveland-Cliffs, "Cleveland-Cliffs Proposes to Acquire U.S. Steel."

<sup>&</sup>lt;sup>30</sup> Minnesota Department of Natural Resources, "Mineland Reclamation."

<sup>&</sup>lt;sup>31</sup> US Bureau of Labor Statistics, "Private, All Industry Aggregations, Itasca County, Minnesota."

Minnesota Department of Health, Minnesota residents living outside major urban areas are more likely to be uninsured, more likely to earn significantly less than the median income, and are less likely to have employer-provided insurance<sup>32</sup> - showing a strong need for increased affordable health care in rural parts of the state.

The "simple" solution to this is the direct public provision of healthcare to those who want it. Though there are strong economic reasons to have universal health insurance coverage on a cost basis (since the mandatory inclusion means that healthy users subsidize those who need more intensive care), this is unfortunately outside the scope of this report. Instead, relaxing eligibility requirements for MinnesotaCare would provide more people with insurance, allowing more patients to be served by Duluth's strong hospital sector. With approximately 6% of rural Minnesotans being uninsured<sup>33</sup>, extending coverage to all folks in the region would expand the patient body by 17,500 patients (derived from figures in Table 1, excluding Douglas County, WI). This influx of formerly uninsured, who tend to experience worse health outcomes and likely have many pressing needs, would necessitate expanded infrastructure and staffing particularly in rural parts of the region. In St. Louis County (Duluth), a 6% increase in hospital employment would mean 600 additional jobs paying 50% higher than the average wage in the county, something which would markedly improve the region's economic base (derived from Table 2).

This expanded infrastructure is likely to require some kind of public provision, as the private market has already failed to adequately provide healthcare in much of the region. In addition, the Minnesota Department of Health considers healthcare market in northeastern Minnesota to be highly concentrated and less competitive than other parts of the state<sup>34</sup>, indicating that prices are higher than they otherwise would be (further reducing the amount of care provided). By intervening to decrease costs for patients, further hospital investment is likely to be induced, but the degree to which this may occur in Greater Duluth is hard to estimate. Still, even a small effect of 1% more employment in the healthcare sector would further draw higher paying jobs to the region while simultaneously improving health outcomes for the poorest segments of society.

To ensure that the economic benefits of these investments are equitably distributed throughout the region, further investment in public transportation infrastructure and service will be vital. Without higher quality bus service, the people in Greater Duluth who cannot afford a car will be forced out of the job market, will lack the ability to pursue higher wage employment, and will generally be economically left behind. Public transit is currently provided by Duluth Transit Authority (DTA), who provide local and commuter buses, and by Jefferson Lines, a private company subsidized by the state of Minnesota to provide intercity service. Improving both intracity service with the DTA, as well as intercity service on Jefferson Lines and some expanded regional buses for the DTA will go a long way in connecting the region more closely. To do this, securing dedicated sources of local funding should be a top priority, as the DTA is currently funded exclusively through state and federal funds (a note – Duluth is small

<sup>&</sup>lt;sup>32</sup> Minnesota Department of Health, "Rural Health Care in Minnesota: Data Highlights."

<sup>&</sup>lt;sup>33</sup> Minnesota Department of Health.

<sup>&</sup>lt;sup>34</sup> Minnesota Department of Health.

enough to qualify for federal operations funding, and does not face a total loss of federal funding once Covid era exceptions expire)<sup>35</sup>.

In 2023, the state of Minnesota provided about \$11 million in funding to the DTA, and creating a property-tax based transit district covering the five-county study area would require an additional rate of just 0.2 cents per \$1,000 of assessed value (based on a total of \$46 billion in taxable property value<sup>36,37</sup>). With costs of about \$6 per vehicle mile<sup>38</sup>, this additional \$11 million from local sources could fund an additional 5,000 daily vehicle miles, distributed throughout the five county area. Highest priority service would on routes like Duluth-Cloquet (20 miles), Grand Rapids-Virginia (60 miles), and Duluth-Twin Harbors (27 miles) that have either no service or a single intercity bus per day. Secondary priority should be given to improving frequency on the route between Duluth and Superior (currently every 30 to 60 minutes), improved weekend service, and improved service within high density routes in Duluth. By connecting the 22.2% of renting households and 7.2% of households overall with no access to a car<sup>39</sup> in the study area with better transportation, the Duluth region will be able to provide greater access to jobs for workers, and greater access to workers for firms – a win/win if there ever was one.

In addition to these links between car-less Duluth residents and jobs, and between the rural towns in the Mesabi Range, particular care needs to be given to connections between Cloquet, Duluth, and the Fond du Lac Reservation just west of Cloquet. While deep water port access on the Great Lakes is foundational to Duluth's existence, it would not have been possible without forcibly removing the Anishinaabe people who now live on the Fond du Lac Reservation from the mouth of the Gichigami-ziibi (St. Louis River). Given Duluth's status as a healthcare center and the fact that Native Americans in Minnesota earn less than half of their White counterparts<sup>40</sup>, the intersection between low-cost transportation access and healthcare access is particularly vital, but the evergreen need to improve job access should not be understated either. While this falls outside the purview of Duluth's current economic development schemes, providing access and assistance to those who need it most is a hallmark of a healthy and functioning society. And given the historical context of unequal treaties with the Anishinaabe people in the region, there is a strong moral imperative for more tangible investments.

These investments could look like anything from co-management agreements for wildlife areas and other parklands to direct sale of public to tribal governments, but it is important to give careful consideration to the specific needs of the Native Americans in the region. Further investment in and protection of the habitat of key first foods such as manoomin (wild rice) will be vital to any such project, and the estuary of the Gichigami-ziibi will require the most immediate attention. Among the largest estuarine systems in the Great Lakes, it is also a key historical harvesting for manoomin and other first foods (particularly large fish like sturgeon and muskie), and has been deeply impacted by the industrial history of Duluth<sup>41</sup>. As is the case in

<sup>&</sup>lt;sup>35</sup> National Transit Database, "2023 Annual Agency Profile - Duluth Transit Authority."

<sup>&</sup>lt;sup>36</sup> Minnesota Department of Revenue, "County Property Tax Data."

<sup>&</sup>lt;sup>37</sup> Wisconsin Department of Revenue, "2024 Report Used for Apportionment of County Levy."

<sup>38</sup> National Transit Database, "2023 Annual Agency Profile - Duluth Transit Authority."

<sup>&</sup>lt;sup>39</sup> US Census Bureau, "B25044 Tenure by Vehicles Available."

<sup>&</sup>lt;sup>40</sup> US Census Bureau, "Median Income in the Past 12 Months, Minnesota."

<sup>&</sup>lt;sup>41</sup> Caitlin Looby, "Progress Seen at Great Lakes' Second-Largest Area of Concern, on Minnesota-Wisconsin Border."

the policy of environmental remediation in the mining towns of the Mesabi Range, the economic impact of remediation is felt through the stabilization of an under-employed workforce, in this case the Anishinaabe people. While fewer direct sources of funds exist (as tying historical pollution to specific polluters is more difficult than leveraging existing mining company resources), the ability to partner with two states, multiple tribal governments, as well as the federal government (who surely have a moral imperative for reparations, even now) means that there should be opportunities to create the kind of direct employment and subsequent benefit for the Native people of the Duluth area, while helping to further fragile yet invaluable cultural traditions.

There are no guarantees that the sorts of strategies outlined in this paper will bear fruit, but by directly investing in the people most affected by the degradation of the natural environment of Greater Duluth – particularly the Native people – the region can lay the groundwork for a more economically just future. While traditional economic development schemes like investing in an intermodal logistics facility are nothing new, coupling those investments with ongoing remediation work (with employment targeted towards those with the deepest roots in the area) is something worth getting behind. And by remembering that "growth in healthcare" can mean more than just "steeper profit margins for hospitals and higher pay for doctors", the Duluth region can be more than just another small-sized metropolitan area specializing in rural healthcare; it can be a place where everyone's basic need of a healthy, functioning body can be met. While Duluth can peg its long-term future on a socalled "climate-proof" environment<sup>42</sup>, in the near term the drivers for regional growth are still jobs, jobs, and jobs. Targeting public investment on the key industries of the past (shipping and logistics), present (healthcare), and future (environmental remediation) will help Duluth bridge the gap between steel-collapse driven economic bust and a future where Lake Superior provides the last refuge from a heat-struck world.

<sup>&</sup>lt;sup>42</sup> Kendra Pierre-Louis, "Want to Escape Global Warming? These Cities Promise Cool Relief."

## **Works Cited**

- Alex Tieberg. "A Brief History of Minnesota's Mesabi Iron Range." *Minn Post*, 2020. https://www.minnpost.com/mnopedia/2020/05/a-brief-history-of-minnesotas-mesabi-iron-range/.
- BNSF. "Intermodal Map." 2024. https://bnsf.com/bnsf-resources/pdf/ship-with-bnsf/maps-and-shipping-locations/BNSF-intermodal-map-8.5x11.pdf.
- Caitlin Looby. "Progress Seen at Great Lakes' Second-Largest Area of Concern, on Minnesota-Wisconsin Border." *Milwaukee Journal Sentinel*, 2023. https://www.jsonline.com/story/news/2023/09/07/wild-rice-sturgeon-rebound-in-lake-superiors-largest-tributary/70369521007/.
- Canadian National. "CN Served Ports." 2025.
  - https://www.cn.ca/en/repository/popups/maps/cn-intermodal-terminals-map.
- Cleveland-Cliffs. "Cleveland-Cliffs Proposes to Acquire U.S. Steel," 2023. https://www.clevelandcliffs.com/news/news-releases/detail/600/cleveland-cliffs-proposes-to-acquire-u-s-steel.
- CPKC. "Our Intermodal Facilities." 2025. https://www.cpkcr.com/en/our-markets/intermodal.
- Douglas County, WI. "Parcels." 2025.

  https://beacon.schneidercorp.com/Application.aspx?AppID=1201&LayerID=36183&Page
  TypeID=1&PageID=13715.
- Duluth Cargo Connect. "Duluth Cargo Connect Intermodal," 2025. https://duluthcargo.com/services/intermodal/.
- Duluth Seaway Port Authority. "Financial and Compliance Report Year Ended March 31, 2024," 2024. https://duluthport.com/wp-content/uploads/2024/09/Duluth-Seaway-Port-Authority\_24-FS\_Final.pdf.
- Duluth-Superior Metropolitan Interstate Council. "Duluth-Superior Port Land Use Plan," 2016. https://dsmic.org/wp-content/uploads/2019/07/2016-Port-Land-Use-Plan-Final-w-Maps.pdf.
- Julian Hayda. "A Rising Tide of Infrastructure Funding Floats New Hope for Great Lakes Shipping." NPR, 2024. https://www.npr.org/2024/01/19/1224263851/a-rising-tide-of-infrastructure-funding-floats-new-hope-for-great-lakes-shipping.
- Kendra Pierre-Louis. "Want to Escape Global Warming? These Cities Promise Cool Relief." *The New York Times*, 2019. https://www.environment.harvard.edu/news/want-escape-global-warming-these-cities-promise-cool-relief.
- Minnesota Department of Health. "Rural Health Care in Minnesota: Data Highlights," November 2024.
  - https://www.health.state.mn.us/facilities/ruralhealth/docs/summaries/rhcmn.pdf.
- Minnesota Department of Natural Resources. "Mineland Reclamation," 2025. https://www.dnr.state.mn.us/lands\_minerals/mineland\_reclamation/index.html.
- Minnesota Department of Revenue. "County Property Tax Data," 2024. https://www.mndor.state.mn.us/ReportServer/Pages/ReportViewer.aspx?/Property%20 Tax/PT\_History\_County.

- National Transit Database. "2023 Annual Agency Profile Duluth Transit Authority," 2023. https://www.transit.dot.gov/sites/fta.dot.gov/files/transit\_agency\_profile\_doc/2023/50 025.pdf.
- National Wildlife Federation. "Protecting America's Most Popular Wilderness Area," 2020. https://www.nwf.org/Latest-News/Press-Releases/2020/01-14-20-McCollum-Boundary-Waters.
- Rebecca Hansen-White. "While Tourism Is Booming, Many Oregon Coast Residents Struggle to Stay Housed," 2024. https://www.opb.org/article/2024/09/01/oregon-coast-housing-tourism-boom/.
- Sean Szymkowski. "General Motors Janesville, Wisconsin Plant Slated To Close Permanently." GM Authority (blog), 2015. https://gmauthority.com/blog/2015/10/general-motors-janesville-wisconsin-plant-slated-to-close-permanently/.
- Sportsmen for the Boundary Waters. "2025 Boundary Waters Policy & Legislative Updates." Sportsmen for the Boundary Waters (blog), 2025. https://sportsmenbwca.org/2025-boundary-waters-copper-nickel-mining-policy-updates/.
- Tacoma Rail. "Tidelands Division," 2025. https://www.tacomarail.com/service-area/tidelands-division/.
- The Portland Medium. "Port of Portland Requests \$10 Million For Financial Losses," 2024. https://theportlandmedium.com/local-news/port-of-portland-requests-10-million-for-financial-losses/.
- US Bureau of Labor Statistics. "Private, 1011 Natural Resources and Mining, All Counties in Minnesota," 2024.

  https://data.bls.gov/cew/apps/table\_maker/v4/table\_maker.htm#type=2&st=27&year= 2024&qtr=3&own=5&ind=1011&supp=0.
- ———. "Private, All Industry Aggregations, Douglas County, Wisconsin," 2024. https://data.bls.gov/cew/apps/table\_maker/v4/table\_maker.htm#type=11&year=2024& qtr=4&own=5&area=55031&supp=0.
- ———. "Private, All Industry Aggregations, Itasca County, Minnesota," 2024. https://data.bls.gov/cew/apps/table\_maker/v4/table\_maker.htm#type=11&year=2024&qtr=4&own=5&area=27061&supp=0.
- ———. "Private, All Industry Aggregations, St. Louis County, Minnesota," 2024. https://data.bls.gov/cew/apps/table\_maker/v4/table\_maker.htm#type=11&year=2024& qtr=4&own=5&area=27137&supp=0.
- ———. "Private, NAICS 532284 Recreational Goods Rental, All Counties in Minnesota," 2024. https://data.bls.gov/cew/apps/table\_maker/v4/table\_maker.htm#type=2&st=27&year=2024&qtr=3&own=5&ind=532284&supp=0.
- US Census Bureau. "1980 Decennial Census," 1980.
- ———. "1990 Decennial Census," 1990.
- ———. "A17004-Industry. Agriculture, Forestry, Fishing, and Hunting," 2023.
- ———. "B25044 Tenure by Vehicles Available," 2023. https://data.census.gov/table/ACSDT5Y2023.B25044?q=vehicles+available&g=050XX00 US27017,27061,27075,27137,55031.
- ———. "Median Income in the Past 12 Months, Minnesota," 2023. https://data.census.gov/table/ACSST5Y2023.S1903?q=income&g=040XX00US27.

- ———. "OnTheMap Tool," 2022.
  ———. "T-39-Industry. Agriculture, Forestry, Fisheries, and Mining," 1990.
  ———. "T49-Industry. Agriculture, Forestry, Fisheries, and Mining," 1980.
  US Forest Service. "BWCAW Permit and Vistor Use Trends, 2009-2016," 2016.
  https://web.archive.org/web/20230906051659/https://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/fseprd549672.pdf.
- Wisconsin Department of Revenue. "2024 Report Used for Apportionment of County Levy," 2024. https://www.revenue.wi.gov/Pages/EQU/coapprt.aspx.