

Mitigating Boom and Bust: Creating a Sustainable Economy

R. Barickman & C. Lessard
Eagle Mine, Champion, Michigan, USA

S. McFaul
SEF Canada Ltd., Vancouver, British Columbia, Canada

ABSTRACT: In an attempt to break the boom and bust cycle historically associated with the mining industry, Eagle Mine, a subsidiary of Lundin Mining located in the Upper Peninsula of Michigan, is working with the community to bolster the local economy outside of extractive industries through programs like Accelerate UP.

Accelerate UP is a nonprofit organization offering business coaching within Marquette County. A Facilitator and Community Resource Team work with entrepreneurs to create, expand, or maintain their business ventures independent of the mining industry. It focuses on assisting individuals who have energy, ideas, and motivation but who lack the skills necessary to transform their dreams into rewarding and satisfying enterprises. Accelerate UP works with community organizations by introducing clients to traditional economic development partners when they are ready and in need of those services. This case study analyzes the progress, successes, and challenges that Accelerate UP has encountered in its first two dynamic years of existence.

KEY WORDS: Accelerate UP, Eagle Mine, Corporate Social Responsibility

1 INTRODUCTION

Ever since tumbleweeds cascaded through abandoned ghost towns, mining companies have been fighting a reputation of creating a booming economy which proves unsustainable once mining ends in that area. Pictures of dilapidated buildings and vacant, dusty streets overwhelm an internet search for “Mining Towns”. While most of these images are in black and white from the nineteenth and early twentieth centuries, they represent the present-day perception of towns left in the wake of mining activity.

Mining and other extractive industries are inherently finite. The resources removed from the earth’s crust are nonrenewable, but does this have to mean that the local economies surrounding these mining projects are nonrenewable, as well? Today, in order to be a better corporate neighbor and maintain a social license to operate, a mining company must address the impact on the local community after mine closure in early stages of the mine life.

1.1 *Background*

Eagle Mine is located in the Upper Peninsula of Michigan. The mine, an underground Nickel and Copper longhole stoping operation, and the Humboldt Mill are the two principle sites owned by Lundin Mining. The mine and mill have an estimated 8-year operating life and are expected

to produce 300 million pounds of nickel and 250 pounds of copper. The area has a rich mining history, but Eagle is the first Greenfield mine to be permitted in the region in decades. The mill site was used in the mid-1900s for mining and processing iron ore and later for processing gold ore. In 2002, the former owner, Rio Tinto, discovered the orebody. The land and mineral rights purchasing and permitting process, including related litigation, took place over the next seven years. Surface construction began at the mine site in 2010, followed by underground construction and development in 2011. Lundin Mining purchased Eagle Mine from Rio Tinto in Q2 of 2013. The mine began producing ore in Q3 of 2014 and is expected to continue until 2022.

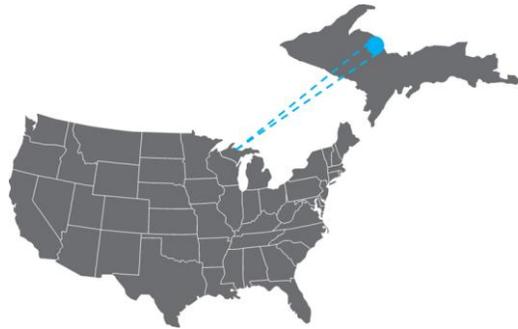


Figure 1. Location of Eagle Mine and Humboldt Mill in Michigan, USA

The Upper Peninsula account for only about 3% of Michigan’s total population. Residents of Marquette County, and the Upper Peninsula of Michigan as a whole, are very proud of their culture and associate themselves very little with Lower Michigan. In fact, the affectionately coined the term “Yooper,” used to describe a native or resident of the Upper Peninsula, was added to the Merriam-Webster dictionary in 2013. There is no shortage of outdoor activities in the area, regardless of season—hunting, fishing, snowmobiling, and skiing are just a few examples of quintessential Yooper hobbies.

While not a stereotypical “rural” community, Marquette County is relatively isolated with an economy that has depended heavily on logging and mining activity in the past. In 2013, approximately 4.5% of jobs in the county were mining related, which is a far cry from the peak of 14% in 1978, but still 5 times higher than the national average and 10 times higher than the rest of Michigan (Fig. 2, Note: data interpolated for years 1989, 1998-1999, and 2003). The largest mining employer in the area is Cliffs Natural Resources, with two surface iron ore operations—Empire and Tilden mines. Other major non-mining employers include UP Health systems, Northern Michigan University (NMU) and the Department of Corrections (DOC) (UPEDA). The service and retail industries have grown in recent years to accommodate an increase in tourism. Figure 3 shows a breakdown of jobs by industry in Marquette County in 2013. The ten industries illustrated represent approximately 75% of all full- and part-time jobs in Marquette County. Note: employment at NMU and the DOC are included in “Government” jobs.

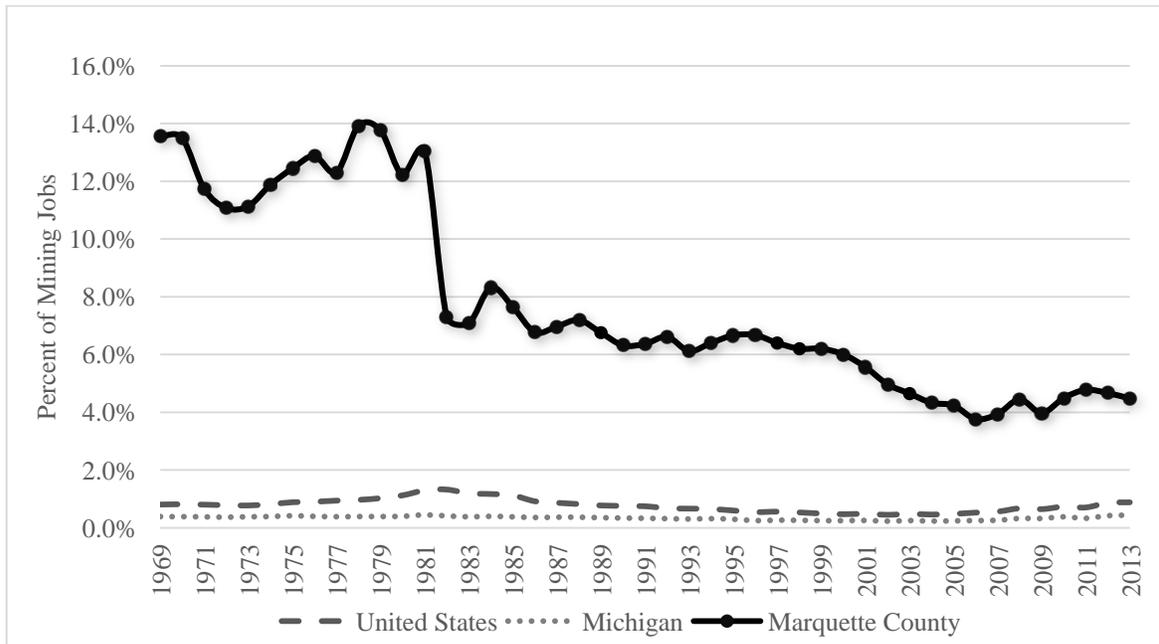


Figure 2. Mining Industry Jobs by Year (Source: Bureau of Economic Analysis)

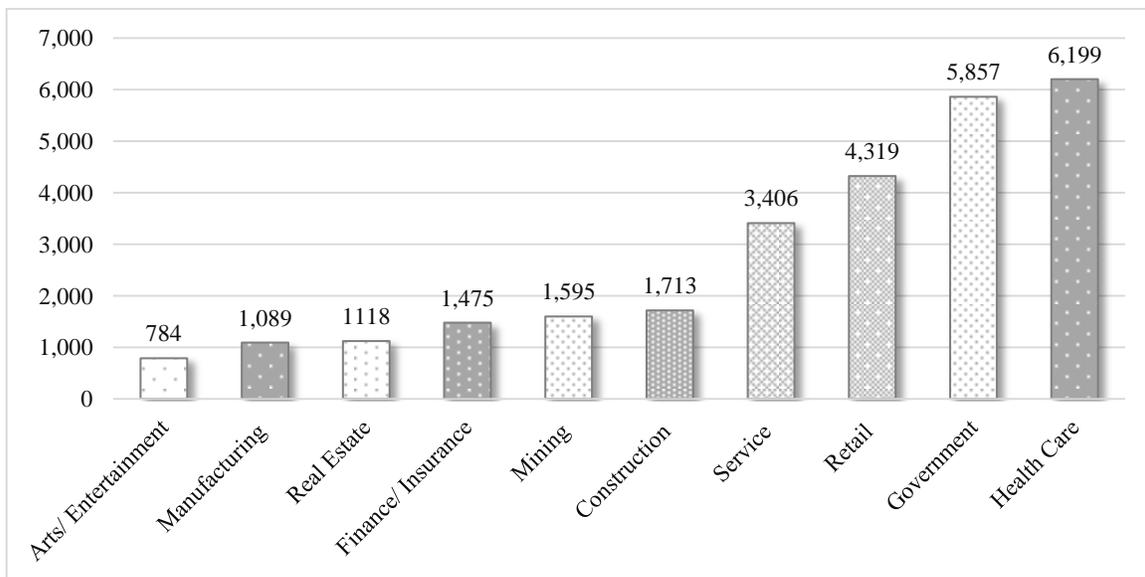


Figure 3. 2013 Marquette County Jobs by Industry (Source: Bureau of Economic Analysis)

The Economic Impact Analysis estimated the direct and indirect economic effects of Eagle Mine. While direct impacts (employment and salaries, local goods and services purchased, tax payments, etc.) are easy to calculate, the indirect impacts are “less obvious but no less significant” (Malhotra et al., 2013). Indirect impacts include, but is not limited to, money spent in the community by Eagle employees, an increase in employment by local supply chain firms, and reinvestment of tax revenue. To capture the total effects of Eagle Mine to the local economy, a multiplier is calculated based on the assumption that “money spent in the economy is re-spent in the economy” (Malhotra et al., 2013). A 5x multiplier was calculated for Eagle Mine, implying that for every one employee, five local jobs are supported. The model used for

the original EIA used an average of 250 employees during operations; however, there are over 300 employees and contracts working between the mine and the mill sites today.

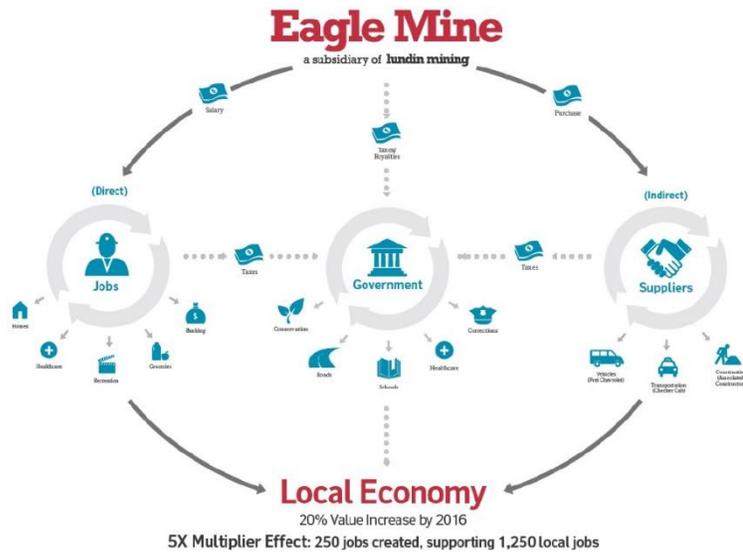


Figure 4. Graphic Illustration of the Multiplier Effect (Malhotra et al., 2013)

1.2 Corporate Social Responsibility

Mining Companies have invested millions of dollars in recent years into Corporate Social Responsibility. External pressures, gaining a competitive advantage, creating a stable work environment, and improving public relations are among the reasons why companies choose to invest in these CSR programs (Frynas, 2005). Unfortunately, when companies focus on “building physical structures, rather than developing the social capability of communities, [it] is likely to increase the communities’ dependence on the company” (Jenkins & Obara, 2008). Philanthropic models, such as those implemented by many mining companies world-wide, create a “donor-recipient relationship” that is unsustainable, as they do not focus on fostering the local community’s ability to sustain itself following mine closure (McFaul et al., 2014).

Eagle Mine is a major contributor to many community programs in Marquette County and around the Upper Peninsula—several funds exist to financially support a variety of local projects. For example, the Cliffs Natural Resources/Eagle Mine Marquette County Community Fund consists of donations to support “community based, long-term, legacy projects” (Cliffs/Eagle Mine Fund, 2014). More than \$2.2 million to-date has been allocated from this fund. While generous, it is clear that this direct community support will be unavailable following mine closure. Therefore, in order to break the boom and bust cycle historically associated with the mining industry, Eagle Mine is also providing resources for the community to bolster the local economy outside of extractive industries through innovative programs, such as Accelerate UP.

2 ACCELERATE UP

Accelerate UP is a nonprofit organization offering business coaching within Marquette County. The facilitation model used, developed by Dr. Ernesto Sirolli, has an underlying philosophy that encourages personal fulfillment through good work—doing your best at your vocation of choice. Accelerate UP’s mission is to “transform passionate people into successful entrepreneurs” (SEF, 2014). Anywhere, at any given time, there are individuals who have energy, ideas, and

motivation but who often lack the skills necessary to transform their dreams into rewarding and satisfying enterprises. Accelerate UP is there to help these individuals organize their thoughts, test their dreams, and build a successful team. Accelerate UP works with community organizations by introducing clients to traditional economic development partners when they are ready and in need of those services. A Facilitator, Management Team, and Community Resource Team work with entrepreneurs to create, expand, or maintain their business ventures. These enterprises are completely independent of the mining industry. The program is funded by Eagle Mine for an initial three years. The goal of Accelerate UP is to create “as many jobs as Eagle Mine directly produced so that when Eagle Mine closes, a similar number of jobs will have been created elsewhere in the community” (Malhotra et. al, 2013).

2.1 Entrepreneurial Development model

The Entrepreneurial Development (ED) model that is the foundation for Accelerate UP is based on the belief that “an empowered and engaged community will create a sustainable economy” (McFaul et. al, 2014). The program works bottom-up and top-down to optimize new and existing local economic development programs and infrastructure. The entrepreneur must be the one who reaches out to the program, signifying they are ready to use these resources. Small businesses are products of innovation and passion, but the statistics surrounding business failure rates are staggering—nearly 85% of US firms less than 5 years old closed their doors in 2012 (US Census Bureau). This rate is slightly lower for Michigan firms at approximately 80%. Conversely, more than 80% of businesses in over 300 communities that have participated in ED programs are successful (McFaul et. al, 2014). The Facilitator, Management Team, and Community Resource Team are integral to ensuring the success of an ED program.

The Facilitator interacts with clients and potential clients at a grassroots level. He is the first point of contact with the entrepreneur that wants to start or grow a business. These meetings must be initiated by the entrepreneur and are held at a location that is convenient for the entrepreneur, such as a coffee shop, as the Facilitator does not have an office. The Facilitator links clients to existing programs and resources available in the area. He also assists the entrepreneurs with tasks such as preparing a business plan, searching for a location, securing financing, and filing and fast-tracking applications. Continued assistance after a business opens is also available, as needed. The services provided are free and confidential for the entrepreneur (SEF, 2013). The Facilitator advocates for clients to create a team to support the new venture. The diversity of a team, as opposed to a single person, will increase the business’s chance of success (McFaul et. al, 2014). The four aspects of the business that the team should master are management & leadership, product & services, sales & marketing, and financial controls.

The Management Team is comprised of a group of volunteers that are tasked with integrating the ED program into the community. Each member should represent a group that has a vested interest in the economic development of the community. The essential function of this group is to “initiate collaboration and networking” (McFaul et. al, 2014).

The Community Resource Team works to help integrate the Facilitator into the community. The 30-50 volunteers should be comprised of local community members that are willing to introduce the Facilitator to their large networks and meet approximately once a month. Buy-in and commitment to the program are important to create a “core group” of Resource Team members.

3 PROGRESS AND SUCCESSES

In its first two years, Accelerate UP has made steady headway in the community. Six new businesses and 23 new jobs have been created since its inception. More than \$639,000 of capital have been spent in Marquette County. Today, there are 29 clients actively participating in the program. Accelerate UP clients, broken down by industry, are shown in Figure 5. Nearly 50% of these clients are comprised of entrepreneurs in the service and retail/whole sale industry. Of these clients, approximately two-thirds of them were starting a new business venture, while one-third were seeking help regarding their existing businesses.

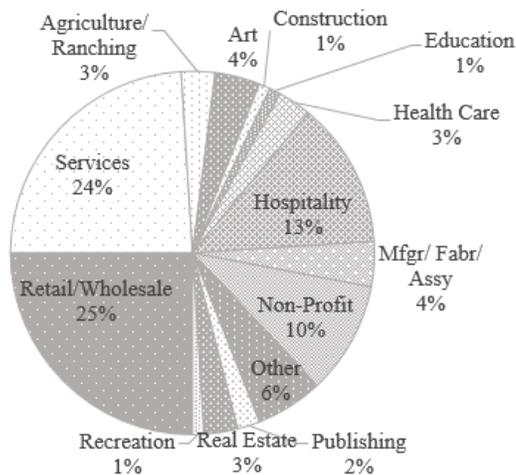


Figure 5. Accelerate UP Clients by Industry

3.1 Revolutions

Of the existing clients, 51% are female. In Michigan, just over 31% of firms are wholly female owned. Nationwide, however, this figure falls to less than 30% (US Census Bureau). The high female participation in Accelerate UP could be attributed to the women on the Resource Team and their active involvement in making introductions and volunteering to assist clients, both in person and through referrals.

Revolutions is an independent non-profit organization in Marquette County with a mission of “empowering youth through bicycles, skis and practical work experience”. Revolutions offers free bike repair programs where kids learn to build and repair bicycles at no cost. As a main funding source, they run a used and new outdoor gear and bike shop. Lindsey Bean, the Executive Director, is one of the women that has taken advantage of Accelerate UP. She has a Bachelor’s Degree in Outdoor Recreation Leadership and Management from NMU and a Master’s Degree in Adventure Education from Prescott College in Arizona. While never inspired to become an “entrepreneur”, Lindsey had never been content in any job for very long, as she would get bored and needed to feel like she was contributing to the “greater good” to be satisfied. Lindsey has never been risk adverse, though. She has paddled a canoe all the way around Lake Superior and spent two years living in an off-the-grid “tiny house”. Starting Revolutions, therefore, was just one more risk. Since there are no start-up loans available for NPOs, Lindsey was personally responsible for the start-up funding.

Lindsey and her partner, Mark, worked with the Facilitator to write a business plan, even though they weren't starting a traditional business. To Lindsey, this plan was an essential building block that got them going. Since she was starting a 501(c)3 non-profit organization, she would have liked Accelerate UP to have more information about starting an NPO and what resources might be available. More so, she thought that setting follow-up meetings, every 6 months for example, could be useful for new entrepreneurs.

3.2 *No free lunches*

The first lesson taught in Economics 101 is that there is no such thing as a free lunch. This may be a reason why some entrepreneurs are hesitant to reach out to Accelerate UP. In a world where everything and nothing is "free," some potential clients may not believe that there will be value in a service that does not cost. Entrepreneurs are encouraged to share their stories with friends, family, and even social and local media. Positive word of mouth has greatly increased the credibility of Accelerate UP in the area.

3.3 *Northern Initiatives and Eagle Emerging Entrepreneur Fund*

The Eagle Emerging Entrepreneur Fund is the product of a partnership between Eagle Mine, Lundin Foundation, and Northern Initiatives. Over the last 20 years, Northern Initiatives has lent over \$45 million to businesses in the Upper Peninsula. While not directly related to Accelerate UP, this Fund is one of many resources available to new and existing businesses in Marquette County. The \$750,000 fund provided by Eagle Mine and the Lundin Foundation is managed by Northern Initiatives. The Fund provides loans ranging from \$5,000-\$50,000 to new and existing businesses in Marquette County that may not have qualified for traditional financing in the past. These loans have repayment periods of up to five years and replenish the fund for future entrepreneurs (Emerging Entrepreneur Fund, 2014). Funding opportunities, such as this one, complement ED programs so that combined, they are greater than the sum of their parts. It also discourages the donor-recipient relationship by providing recyclable funding.

4 CHANGES AND CHALLENGES

4.1 *Change of ownership*

In July 2013, Rio Tinto sold Eagle Mine to Lundin Mining, a Canadian-based base metal mining company. While Lundin is a sizably smaller company than the former owner, the company adamantly upheld all commitments to the community pledged by previous management. Fortunately, most of the Eagle Communities team tasked with the Accelerate UP rollout remained Eagle employees throughout the transition from Rio Tinto to Lundin. The transition was smooth, and the passion and dedication to the program remained intact.

4.2 *Change in geographic scope*

The original plan for the project was to serve both Marquette and Baraga counties. Baraga, with a population of less than 9,000 people, is located adjacent to Marquette County. The 2013 unemployment rate in the county was 14.7% (Bureau of Labor Statistics). One risk identified early in the project life was the large geographic area by including both Marquette and Baraga counties. Marquette is the largest county in land area in Michigan, and the combined area of Marquette and Baraga is greater than 2,700 square miles (UPEDA). In 2014, it was determined that focusing solely on Marquette County would establish a more effective program. The large area hindered meeting consistency, as the travel time required to attend Resource and

Management Team meetings was too long for some volunteers. Three very valuable Management Team members were lost by reducing the geographic area of Accelerate UP.

4.3 *Staff stability and the “right” Facilitator*

Accelerate UP has experienced turnover in the role of the Facilitator. The turnover prevented the program from gaining early traction in the community. While this has been a challenge, there have been many lessons learned, which has made the current Facilitator more effective. He has aimed to reboot Accelerate UP and recreate excitement for the program. The Facilitator must be committed to the program and able to forge and maintain mutually beneficial relationships with potential entrepreneurs, current clients, and the Resource Team, alike. A successful Facilitator must align, professionally and personally, with the position. While there is no recipe or checklist to guarantee a good fit, the following traits are important:

Personal Traits	Professional Traits
<ul style="list-style-type: none">• Approachable and relatable• Local “Yooper”• Energetic• Genuine• Unbiased and open-minded• Good listener• Genuine	<ul style="list-style-type: none">• Business background• Credible in community• Experience implementing management principles• Familiarity with local market and financial feasibility• Ability to identify strengths and weaknesses in business models

“By having a person [with a] vast amount of business, education and government relationships [to bring] to the table and then connects the pieces together is no doubt of value to the local economy. There is value in having a person who ‘knows a little bit about everything’ when it comes to economic development and is good at connecting people.” –*Lance Wolfe, Business Consultant, Michigan Small Business Development Center, Michigan Works!*

4.4 *Funding after initial three years*

Eagle Mine committed to funding Accelerate UP for its initial three years. This commitment is fulfilled at the beginning of 2016. While the Management and Community Resource Teams are filled by volunteers, the Facilitator position is paid. Other expenses include travel and administrative costs. More so, Eagle Mine has a full-time employee spending approximately 15% of her time on Accelerate UP related items. Because Eagle Mine believes in this program and in its responsibility to help build the capacity of the community, they intend to fund Accelerate UP for an additional three years, through 2018.

4.5 *Bending the “rules”*

A survey was emailed to a handful of local economic developers regarding their opinions of Accelerate UP. Respondents from Michigan Works!, Northern Initiatives, and the Michigan Small Business Development Center all had a similar suggestions on how to make the program

more success. The constructive criticism was that there were some program rules that limited the ability to completely align with other services in the area. In essence, they would prefer that Accelerate UP be flexible and willing to deviate from the prescribed model in order to customize it to the area. Marquette County is unique in that there are already many well-established economic development groups in the area. Since there is already an economic “infrastructure”, Accelerate UP has been able to focus on ventures in their earliest stages. In the opinion of a local Resource Board member, “if [there wasn’t] the supporting infrastructure of the Small Business Development Centers, Northern Initiatives, Michigan Works!, the University, etc., to be successful [the program would have to appeal to] established businesses that were interested in growing.” Localizing an ED model to better fit an area can only enhance the program’s success.

5 CONCLUSION

Mining companies can no longer afford to exclusively pursue philanthropic relationships with the communities in which they operate. Volatile metal prices, rising operating costs, and uncertain global markets are disturbing the stability of mining projects worldwide. The mining industry is inherently cyclical, but that does not mean that surrounding communities must follow the same trajectory.

The initial challenges encountered in the first two years of Accelerate UP are not unique to this program, and tend to be common occurrences in extractive industry-heavy communities:

- Change in ownership of the local mining project and principle funding source
- Rural communities with low population density and a large geographic footprint
- Turnover in management (volunteer and remunerated)
- Requirement of funding source to see a return on community investment as soon as possible.

No new program is implemented without its fair share of growing pains and lessons learned. Despite any setbacks, slow but steady progress has been made. The local economy is stronger today than it was two years ago. Buy-in, especially from the Resource and Management teams, is essential to successfully implement this type of program. Collaboration with the existing economic development efforts in the area in order to integrate into the community is also vital. This type of program, when run correctly, empowers the community and eliminates the donor-recipient relationship. Entrepreneurial Development programs are becoming essential additions to modern-day Corporate Social Responsibility in regions that rely heavily on extractive industries. Patience and perseverance in finding the right formula to best-fit each community and adjusting these programs accordingly will encourage local ownership. Mining companies cannot guarantee that they will operate in a region forever; however, proactively preparing a community for life post-mine closure should be the new standard in Corporate Social Responsibility.

REFERENCES

Eagle Mine 2014. Cliffs/Eagle Mine Fund Announces Contributions in Marquette County [Press Release]. Retrieved from <http://eaglemine.com/media/news-media/2014-media-releases/>

- Eagle Mine 2014. Emerging Entrepreneur Fund Demonstrates Early Success [Press Release]. Retrieved from <http://eaglemine.com/media/news-media/2014-media-releases/>
- Frynas, J.G. 2005. The false developmental promise of Corporate Social Responsibility: evidence from multinational oil companies, *International Affairs*, 81(3): 581-598.
- Malhotra, A. & Johnson, M. 2013. Eagle Mine: Economic Impact Assessment
- McFaul, S., Xavier, A. & Meech, J. 2014. Development of Sustainable Small Businesses in Mining-Affected Communities. Shechtman International Symposium
- Jenkins, H. & Yakovleva, N. 2006. Corporate social responsibility in the mining industry: Exploring trends in social and environmental disclosure. *Journal of cleaner production*, 14(3), 271-284.
- SEF Canada 2014. Accelerate UP Facilitation Project: Lundin Eagle Mine
- SEF Canada 2013. Accelerate UP Facilitation Project: First Phase, Rio Tinto Eagle Mine
- Upper Peninsula Economic Development Alliance www.upeda.org "Baraga County, MI"
- Upper Peninsula Economic Development Alliance www.upeda.org "Marquette County, MI"
- US Census Bureau 2013. [Interactive time series showing Establishment Birth and Exit Rates by firm age]. *Business Dynamics Statistics*. Retrieved from <http://thedataweb.rm.census.gov>
- US Department of Commerce 2014. [Interactive data showing Jobs by Industry]. *Bureau of Economic Analysis*. <http://www.bea.gov/itable/>
- US Department of Labor 2014. [Interactive data showing Unemployment Rate by county]. *Bureau of Labor Statistics*. Retrieved from <http://www.bls.gov/data/>
- US Census Bureau 2007. [Statistics for All US Firms by Industry, Gender, Ethnicity, and Race for the US, States, Metro Areas, Counties, and Places: 2007]. *2007 Survey of Business Owners*. Retrieved from <http://factfinder.census.gov/>