

# RESEARCH PROJECT:

## Hibbing Business Retention and Expansion Survey and Report Series

### Report #4: Hibbing Industries' Trends

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## Executive Summary

This report follows the outline of Michael Porter's conditions for economic development. These include the following: (1) Factor Conditions, (2) Demand Conditions, (3) Firm Strategy, and (4) Related and Supporting Industries in the Community. Each is briefly summarized with supporting Hibbing employment data. While not used in the narrative, the Appendix to this report also contains data on Output, Value Added, and Earnings. The reader is encouraged to review these data for the details they provide. Much of these data constitute a situational audit for Hibbing's economy which could be used in a strategic planning effort for the community.

### **Factor Conditions:**

It appears that both the workforce and workforce needs of the Taconite Relief Area are in more traditional occupation classifications based on a 1998 survey of the Taconite Relief Area. Nurses, cooks, and store managers lead the list of needed occupations. However, Northeast Minnesota is catching up to the rest of the State in possible labor shortages. This could be an area of concern in Hibbing's development planning efforts.

### **Demand Conditions:**

This section of the report goes a long way towards answering the questions, "Who are we?" and "Where are we going?" State and Local Government lead the list of employers in the Hibbing area. Most of the spin-off effects from these enterprises come from employee earnings and expenditures. Iron Ore Mining represents the largest exporter from the region. The industry was relatively stable between 1993 and 1996, the latest year for which data are available. Recent concerns about steel dumping are not reflected in these data and could be the subject of further scrutiny. Like State and Local Government, Iron Mining's indirect effect on Hibbing's economy comes mostly out of the earnings of its employees resulting in household expenditures. Manufacturing is important to the Hibbing community led by Electronic Components. Since this industry was not present in 1993, all of the jobs can be considered as industrial growth. This industry is growing nationally, which bodes well for this portion of Hibbing's economy. Several other industries classified as being a part of manufacturing also contribute to the strength of Hibbing's economy. Health Care in various forms is also over-represented in Hibbing relative to both the State of Minnesota and the rest of Northeast Minnesota. However, there are some early signs of difficulty in this important industry. Absolute declines in both employment and in output were registered between the years 1993 and 1999. In a

closer look at the data, much of this decline can be seen as losing out to other regions. This industry bears watching and, where possible, community support. Most trade sectors are under-represented in Hibbing when compared to the State of Minnesota and to Northeast Minnesota. Employment in many trade sectors declined in absolute terms between 1993 and 1996. Much of this decline can be linked to gains in other Northeast Minnesota regions. Of particular note is the decline in Wholesale Trade and in General Merchandise Stores. Further research on Hibbing's retail industry may be warranted.

### **Firm Strategy:**

Surveys and focus groups would be needed to fully address this issue. The report simply outlines some of the elements involved in assessing firm competition and cooperation levels in the interest of Hibbing's economic development efforts.

### **Related and Supporting Industries:**

Affordable housing is important to those regions offering jobs at the lower wage levels. An analysis of Housing Construction employment shows Hibbing to be under-represented relative to the State and to the broader Taconite Relief Area region. However, concentrating on Hibbing alone may miss outside construction firms coming into the community to build new housing. An analysis of housing beyond these generalizations is outside the scope of this project.

An analysis of the supply chain towards the basic industries was undertaken. For example, Electrical Components is seen to interact with other industries in the region to a significant extent. Business Services was another sector that brings with it significant demand for other local industrial outputs.

### **RECOMMENDATIONS:**

Several recommendations stem from the data and generalizations contained in the report. These include:

- Local firms should be involved in assuring an adequate workforce for the future. This includes becoming more involved in the education and training process. At a minimum, we recommend that local firms and prospective employees take greater advantage of the Minnesota Workforce Center network than has previously been the case.
- The first place to look for future development is in those industries supplying Hibbing's economic

base. Import replacement possibilities should be explored and encouraged. Also, attention should be paid to manufacturing concerns that plan to expand or re-locate from the Twin Cities area. Routine manufacturing concerns have been moving towards more rural areas in recent times and could constitute a key development strategy for the community. Attention should be paid to the community's health care industries and to the possibility of expanding Wholesale and General Merchandise store retail opportunities.

- If it is deemed to be a problem, a detailed analysis of Hibbing's current and projected housing needs might be undertaken. Specifically, an analysis of income structure of local households leading to the need for affordable housing may aid in future workforce development and attraction efforts.
- The Chamber is encouraged to go beyond the narrative of this report and delve into the numbers contained in the Appendix. Opportunities for further development are often suggested by such a detailed look at the data.
- The community may want to begin to identify industrial targets for future development. This involves, formally or informally, the development of a strategic, economic-development oriented plan for the community. Targeting specific areas avoids the hit or miss "shotgun" approach to economic development. However, the element of chance does exist. The community should also be flexible enough to take advantage of unforeseen opportunities when they arise.
- Hibbing should consider working with other, nearby communities in assessing regional opportunities and advantages. While competition between communities is often healthy, areas of cooperation and mutual advantage can also be a strong development tool for the region and for the community.

# Hibbing Business Retention and Expansion Survey and Report Series Report #4: Hibbing's Industries' Trends

## Report

### Introduction

Based on best available data, this report provides a preliminary look at industries that might be targeted to fit into the community. A situation audit such as this constitutes an important first step in any development oriented strategic planning effort that might be undertaken. However, a complete industrial targeting effort is beyond the scope of this project. Previous studies of Hibbing's economy in this series have been limited to discussions of Hibbing's past and present economic base as well as detailed analyses of base and supporting industries.<sup>1</sup>

At the national level, projects of industrial targeting have been following the suggested paradigm of Michael Porter.<sup>2</sup> Porter asserts that economic development depends upon the following elements:

1. **Factor** conditions—such as the character and availability of a suitable workforce in the region.
2. **Demand** conditions—such as the nature of exports from the region or the need for intermediate inputs to the community's production currently imported from outside the region.

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<sup>1</sup>See Hibbing Business Expansion and Retention Survey Report, and Hibbing Economic Base 1997, 1998, (1999 *forthcoming*) at <http://sbe.d.umn.edu/ced/bber.htm>

<sup>2</sup>Michael Porter, *The Competitive Advantage of Nations*, Free Press, New York, 1990.

3. **Firm strategy**,—meaning the ability of firms to work together for the collective good while still maintaining a competitive posture.
4. **Related and supporting industries** in the community—such as local suppliers, industries providing infrastructure requirements, and industries that provide development leadership to the community.

But in addition to these primary categories, there is always the element of chance. While the community cannot control chance as a development strategy, it can provide the business climate where positive (if serendipitous) outcomes can result.

Another side element that can have an influence listed by Porter is government; and how much government can really do has been a long standing source of debate in the economics profession.

How does Porter's paradigm relate to a study such as this? It comes down to the location and expansion decisions of firms. Questions come to mind such as: Which industries can be brought to the region most efficiently, in other words, at the least cost to the firm and to the region? Which industries are most likely to find the region to be attractive? Which industries fit with what is already there? Which industries are likely to bring the most benefits to the region?

While it is beyond the scope of this project to conduct a relative cost analysis for the industry and community, and it is also beyond the project's scope

to try to identify specific firms for industrial targeting efforts, what we are able to offer relates to the question dealing with industries that might fit into the existing economy and to the question dealing with the impact such industries might have on the community. Both of these questions concern Porter's "demand conditions" as well as related and supporting industries in the community, and are identified as key components to Porter's analysis.

The following report will discuss Hibbing's economic development and attempt to assist Hibbing's strategic planning effort in terms of the following questions: Who are we? Where are we going? What niches are implied by our current structure and trends?

It should be understood that the concept of economic development has many dimensions. Which dimension is chosen for a particular development effort depends on elements in a development-oriented strategic plan, as adopted and accepted by the community. For example, a plan that emphasizes new value added activity in the region may look different from a plan that emphasizes levels of export activity. A plan that emphasizes employment may differ from a plan that emphasizes worker or household income.

We assume that level of employment is the emphasis for Hibbing, and this is consistent with our earlier reports for the community. We recognize that other possibilities may also be consistent with Hibbing's vision. The data used are taken from IMPLAN,<sup>3</sup> a software system with data purchased specifically for this analysis. The data year is 1996, the latest for which IMPLAN data are available.

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<sup>3</sup>Minnesota IMPLAN Group, Inc., IMPLAN System (1996 data and software), 1940 South Greeley Street, Suite 101, Stillwater, MN 55082, www.implan.com, 1999.

## **Porter Element #1: Factor Conditions**

While an analysis of factor conditions are not a part of this study, we can draw on other research for Hibbing's region for a few comments. In 1998, firm and household surveys were administered for the Taconite Relief Area and the Twin Ports communities to determine workforce needs and availability.<sup>4</sup> Cost considerations prevented a sample size large enough to statistically separate Hibbing from the Relief Area. However, some generalizations for the region hold implications for Hibbing.

### **P The Regional Firm Perspective**

First, the surveys indicated that about a quarter of regional firms looking for workers were having difficulty finding workers. The firms also indicated that the skills for which they were looking were in the more traditional categories as opposed to high technical skills. Nurses were number one in these skill categories, followed closely by cooks and individuals having non-technical computer skills. Firms also expressed difficulty in finding workers with basic skills (showing up for work on time, being able to read a manual, being able to follow instructions, etc.). In many instances, the survey indicated that firms having the greatest difficulty were those paying wages below the state average for the skills they were seeking.

### **P The Regional Household Perspective**

The household survey indicated that the worker

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<sup>4</sup>See Northeast Minnesota Skills Assessment Project at [http://sbe.d.umn.edu/ced/northeast\\_skills/index.htm](http://sbe.d.umn.edu/ced/northeast_skills/index.htm)

skills in the region matched needed skills. Most household skills were also in the traditional categories. However, many of the households indicated that they were working in jobs that underutilized their skills and paid less than their skills would realize elsewhere in the state. Answers to these series of questions would indicate possible underemployment in the region. What is more, workers in the region are willing to commute reasonable distances to get to their jobs, should the job be right. Half indicated they would be willing to commute 15 to 60 miles for a suitable job. A significant number of individuals indicated they would accept a second job if the conditions were right. What is more, a quarter indicated they were planning to quit their current employment sometime in the coming year. *All of this implies that the current workforce is accepting jobs at lower pay and also accepting jobs that underutilize their skills in order to stay in the region.*

## P Finding Workers and Jobs

Both workers and employers indicated that they use informal methods (for example, word of mouth) in the process of seeking and finding work. The Internet is rarely used by firms or by employees in this job matching process. The newspaper and word of mouth is a much more common approach. There are strong indications that the Minnesota Workforce Centers in the region are underutilized by both employers and workers. Very few of the firms indicating difficulties in finding workers utilized the Workforce Center, for example.

## P

## P Training

Households indicated a strong propensity for training. Many were upgrading their skills at their own expense. Several indicated an interest in learning more about the computer and its applications to work.

## P Willing to Commute?

Finally, there were indications that individuals outside the region would be willing to commute to the region *should adequate employment be available*. Households in the region were asked if they had close relatives living outside the region. Approximately 40% responded in the affirmative. They were then asked whether these relatives would like to move back into the region. 40% of the 40% said yes. Interested in this result, the research team asked a question on the Minnesota Center for Survey Research's annual omnibus survey for the entire state. We asked where households would like to live should a suitable job be available. *Northeast Minnesota was the only region in the state where more people would like to move in than to move out.*

## RECOMMENDATIONS:

All of this indicates an adequate workforce for the region, at least in the near term. However, there are wage and skill utilization issues in the region that could serve to change this situation. It is also true that new approaches to seeking work and finding workers would make the regional labor picture more efficient. At a minimum, we recommend a program that encourages both prospective employers and

employees to better utilize the Workforce Centers that are already available in the region. Further, especially for management positions, prospective employers should learn to use the Internet to find employees. While the informal process is efficient in many ways, possible future worker shortages will make this approach increasingly difficult to maintain. Finally, current efforts underway to match high school and post secondary education training programs to the needs of the region should be encouraged. Firms need to become more involved in helping local educational institutions to provide a workforce for the future. Firms also have to be more involved in direct student contact through mentoring, internships, and apprentice programs to assure an adequate skill base for the region's economic future.

## **Porter Element #2: Demand Conditions**

The "demand conditions" portion of this report is the heart of what the UMD Bureau of Business and Economics Research contracted with the Hibbing Chamber to accomplish. This section will, therefore, constitute the largest portion of this report.

Demand conditions are measured by the demand for a region's goods and services. Export base theory states that external demand for regional outputs bring money into the region which is spent and re-spent in the region, generating income and jobs. The appendix to this report provides the data detail for many of the assertions being made here.

[The Appendix to this report also contains data on Output, Value Added, and Earnings. The reader is encouraged to review these data for the details they provide. Much of these data constitute a situational audit for Hibbing's economy which could be used in a strategic planning effort for the community.]

**P** Interestingly, **State and Local Government** represent the largest Hibbing employers. In both instances, government in Hibbing as a percentage of total employment is much larger than for the State as a whole. Over 1,700 employees work in this sector, 1,000 of which work in education. Education is identified as being an important part of Hibbing's base in this regard.

**P** It almost goes without saying that the leading private sector exporter in the region is **Iron Ore** mining and first stage processing. We can not over-emphasize the importance of this industry to Hibbing's economy. Maintaining a healthy business climate for this very key industry should be a priority of the region and of the community of Hibbing.

Related to mining is the exporting presence of the Iron and Steel Foundries sector. This industry employes 136 individuals in Hibbing, but is seen as basic when compared to other regions in the State. If a complete industrial targeting analysis were to be conducted, further analysis of this sector might be a first step.

**P** The **Electrical Components and Printed and Circuit Boards** industries are also seen as basic to the region. These industries are strongly represented in Hibbing when compared to the rest of the State. Approximately 400 individuals are employed in these industries. The two industries represent growing sectors in the nation and could be likely candidates for expansion or for attracting new firms into the community. The base that is already here, with adequate

workforce training programs, could serve as an attraction for other firms producing similar products.

**P** The medical community is also key to Hibbing's economy. **Hospitals, Doctors and Dentists, Nursing and Protective Care, and Other Medical and Health Services** are all identified as being basic to the region. Given the indication that nurses are among those skilled occupations in which firms are having difficulty attracting workers, additional training, better search processes, and improving compensation levels for this skill may be in order for the region. Other efforts aimed towards maintaining the viability of this important sector may also be in order.

**P** Other manufacturing industries basic to the region include: Blowers and Fans manufacturing, Boiler Shops, and Fabricated Rubber Products.

**P** **Trade sectors** are generally under-represented in the region. Eating and Drinking places employ over 500 individuals in Hibbing, but are under-represented when compared to the rest of the State. So too is the Wholesale Trade sector, employing over 450 individuals. General Merchandise Stores employ about 200 individuals, but are under-represented when compared to the rest of the State, as are Hotels and Lodging places.

A few trade sectors are over-represented when compared to the rest of Minnesota: Food Stores, for example, and Automotive Dealers & Service Stations, Automotive Repair and Services,

Laundry, Cleaning and Shoe Repair Shops, and Apparel & Accessory Stores. Of these, the areas where expansion could be in the offing are in the Wholesale Trade and in the General Merchandise Stores sectors. However, certain kinds of expansion in the latter of these two could change the relative position of some of the other sectors, such as Apparel & Accessory Stores.

**P** The construction sectors are always hard to analyze since they represent among the most volatile of industrial sectors. However, in 1996, **New Residential Construction** was under-represented in Hibbing when compared to the rest of the State. With affordable housing a concern throughout the State, this could be significant. However, it could also indicate that a significant number of construction firms are located outside of Hibbing but producing housing in Hibbing.

**P** A few service sectors are under-represented and could be candidates for *import replacement* (produce substitutes for imported essentials and reduce dependency on external markets). Legal Services are an example of this class of industry. Business Services, Repair Shops, Security and Commodity Brokers represent other possibilities.

This is who Hibbing is as an economic community. What are the absolute and relative trends applied to these important sectors? All of the following trend comparisons are for the years 1993 to 1996.

**State and Local Government** was the first

sector summarized above. In looking at the trends, we see little change for this sector in absolute terms. We do note that government is a slow growth sector nationally, when compared to other sectors, and a part of that lagging employment performance is reflected in Hibbing's change as well. We see little to be alarmed about in terms of the trends in this industry.

**Iron Ores** posted a modest absolute gain in employment during these years while posting a corresponding modest increase in gross output. The industry exhibits slower growth than other national industries, which is reflected in the local data. However, the trend in this industry from a data point of view is generally positive. Since the analysis presented here is data driven, issues such as foreign dumping of steel and projected future trends would require separate analysis. As things stand now, there is little to be concerned over regarding this important industry in the near term. The industry is so important, however, that constant monitoring would be prudent.

The **Electronic Components** industry shows a strong local trend in that it was not present in the economy in 1993. An absolute increase in this industry's employment of close to 300 individuals shows this to be a strong, new industry in the region.

The **Hospital** industry shows an absolute decline in employment over this period of 146 individuals. In looking at the national trends, it can be seen that Hospitals are growing at a slower pace than other national industries, and this is reflected in Hibbing's performance. However, Hibbing's hospitals declined at a faster pace than the national industry's performance would indicate. This reflects a possible loss of competitive position for Hibbing's industry

and could be the cause of some mild concern. Hibbing's Hospital output trends are also negative and reflective of the same causes. If the loss in employment is a trend that continues, effort to keep this industry viable could be an important retention effort for the community. The negative absolute employment trend for hospitals is also reflected in the Doctors and Dentists and Nursing and Professional Care industries.

Other **manufacturing** sectors all posted gains in employment and output. The gains in employment range from 50 to 80 individuals. The manufacturing sector of Hibbing's economy is doing relatively well. This broad classification could well hold the greatest prospect for further growth of the community.

The **trade** sectors are not doing as well. Wholesale Trade lost close to 300 people during this time period. Indications are that much of this loss was due to a loss in Hibbing's competitive position with respect to this industry. We do not know the reasons behind this loss, but further local scrutiny of this industry may be in order. Many of the other retail sectors also posted competitive losses, including Miscellaneous Retail (-158 jobs), Automotive Dealers and Service Stations (-24), and General Merchandise Stores (-72). Note that, in this accounting, a job is a job. Therefore, these losses cannot be interpreted as full time equivalents. A few retail sectors, such as Eating and Drinking Places and Food Stores, posted modest gains over this time period.

#### RECOMMENDATIONS:

State and Local Government Services, Iron Mining, various sectors involved in health care delivery, Electronic Components, and specialty

manufacturing enterprises comprise Hibbing's economic base. It is upon this base that future economic prospects build. Finding supporting industries, maintaining an adequate workforce specific to these industries, and exploring import replacement possibilities relative to these industries might all represent useful activities.

Manufacturing is an especially strong component in Hibbing's base. These are sectors with positive trends and strong performance. Without further analysis, this should be taken only as a possibility but routine manufacturing is moving out of urban towards more rural areas in search of reasonable wage levels. Exploring the possibility of attracting expanding or re-locating firms out of the Twin Cities metro or other urban areas may represent a very real opportunity in this regard. The selling point would then be Hibbing's existing orientation towards manufacturing activity, with firm expertise, workforce, and related availabilities. Of course, having adequate land available for such industrial activity is a minimum requirement for such development. (Analysis of land availability is beyond the scope of this project.)

There could be some reason for concern relative to the Hibbing's medical sectors. Exploring the reason for a negative competitive component in terms of both employment and output may suggest retention strategies for the future.

The trade sectors, both wholesale and retail, are also exhibiting sluggish performance. Further analysis of these sectors could very well be in order. Market area analysis and finding key retail sectors where development is possible or likely would be a good next step relative to this generally supporting industry.

### **Porter Element #3: Firm Strategy**

Very little can be said about this component of Porter's analysis without significant further research. The commissioning of this effort by the Hibbing Chamber indicates a willingness on the part of local firms to work together to bring about economic change. However, analysis is only the first part of a strategic plan. The strategic planning process itself requires strong effort on the part of all segments of the local community. In order for the strategic planning process to work, local industry and government personnel at the highest levels of management must, in conjunction with other community leaders, be willing to take the time to develop an effective plan.

As things are evolving at this time, a key element in this strategic planning process would center on workforce maintenance and development. Firms need to get involved in issues that support their own interests. An obvious area in need of this involvement is workforce development. As stated in the Factor Conditions portion of this report, direct relationships with local educational institutions and with students themselves could pay high dividends in this regard. Selling the local community as a place to work and live needs to be undertaken at early ages along with a plan for training and education that develops the skills needed to remain in the region.

This does not mean that local firms do not compete. (Competition is the driving force of capitalism that leads to new products, improved products, and improved production processes.) What it does mean is that issues concerning all players in the development process, such as workforce development, can be approached in a cooperative manner, to the advantage of all.

No specific recommendations beyond the above generalities can be offered in this section of the report.

### **Porter Element #4: Related and Supporting Industries**

One issue that comes up quite often in rural development oriented conversations is that of affordable housing. This relates strongly to the construction sector of the economy.

It should be understood that affordable housing is an infrastructure requirement for attracting and retaining traditionally skilled workers, earning a relatively low wage. If wages and income are sufficiently high in a region, the construction sector is among the most elastic of industries, in other words, the market will take care of the problem. It is when we are attempting to maintain traditional industries employing traditionally skilled employees, that housing becomes a potential problem.

Employment in the New Residential Structures sector is low in Hibbing relative to the State. This could easily mean that construction firms from outside of Hibbing are being used. It is interesting to note that New Residential Structures is also under-represented in Hibbing relative to Northeast Minnesota taken as a region, again indicating either the use of outside construction firms or limited housing development in the year 1996.

Another way to look at related and supporting industries is to look at the supply chain for the region. Exporting industries bring with them demand for locally produced goods and services and for labor supplied by local households. Households, in turn, spend their income in the locality while the supplying firms themselves buy locally and hire local talent. It

is these first and second round effects that create the often talked about “multiplier” process for a region.

For example, local industries that supply the Electronic Components sector were found to be Printed Circuit Boards, Instruments to Measure Electricity, Electrical Repair Services, Aircraft Services, and Mechanical Measuring Devices. Other local industries that depend at least in part on the Electronic Components sector include Eating and Drinking Establishments, Sausages and Other Prepared Meats products, and several medical sectors.

On the other hand, Iron Mining, as important a sector as it is, buys relatively little from the local community. This industry’s impact is mostly from the local income that is generated through employees at the various plants.

Local Business Services buys quite a bit locally, including from Hospitals, Legal Services, Social Services, Automotive Dealers & Service Stations, Apparel Accessory Shops, Nursing and Protective Care, Electronic Components, N.E.C., and several other lessor suppliers. ***This sector exerts a significant secondary impact on the region.***

Looking at multiplier values for the most important industries in the region can be instructive. ***One possibility for economic development would be to concentrate efforts on those industries that have the greatest potential secondary benefits for the region.*** The two ways in which this can come about are 1) the direct purchases from other industries in the region from the sector being analyzed, and 2) through employee purchases in the region the level of which is related, at least in part, to the level of income earned.

For example, State and local government

employment generates a 1.3 multiplier for the Hibbing economy. This means that .3 jobs are generated due to local purchases from other industries and due to employee income being spent in the region for every government job.

Iron Ores exerts a relatively low multiplier from purchasing from other Hibbing industries but a much larger multiplier because of the induced effects from employee purchases.

Hospitals generate .47 jobs in the region for every hospital job, with a relatively low direct effect and a much larger effect from employee earnings spent in the region.

Electronic Components has a multiplier comparable to that of Iron Mining, generating 1.2 jobs for every job in this industry. Much of the additional employment is due to the fact that this industry buys from other local industries although there is also significant employee spending impacts as well.

Retail and Wholesale sectors generally generate significantly fewer second round jobs than do the other sectors identified above. For example, General Merchandise Stores generate only .18 jobs in Hibbing for every job in Retail, both related to local purchases and employee purchases, for every direct job in the industry.

#### RECOMMENDATIONS:

Attention needs to be paid to Hibbing’s infrastructure. In a more complete study, similar industries in the State and National economies would be analyzed to see if there is a chance for import replacement. A survey of firms attempting to determine where they purchase intermediate products might also suggest import replacement opportunities.

Both are beyond the scope of this particular project.

In addition, an analysis of Hibbing's current structure of high, medium, and low cost housing could be undertaken. Included in any such analysis should be an analysis of the workforce issues that generate the need for housing in the region. Any strategic plan should include a situation audit of this type along with an analysis of the implications of these needs for the types of industries that can be encouraged in the community.

Of course, any time local industries can become competitive in supplying the export base of the region, new secondary impacts can be generated for the community. Looking for opportunities in the supply chain of the locality could enhance Hibbing's economic fortunes.

## **Further Notes**

The above observations represent an important first step to industrial complex analysis - the analysis of possible areas for future growth. All of the assertions above are data driven based on employment information. The appendix to this report presents the raw data.

When embarking on an industrial targeting program, the community must think about its economic goals. The types of industries you try to attract are based in large measure on the opportunities afforded by what is already there. The types of industries you try to attract are also based on your goals for the community. Possible goals include, employment, value added enterprises, household income, and export enhancements. While any community wants all of the above, there are often trade-offs in seeking one as opposed to other possibilities.

## RECOMMENDATIONS:

While numbers are often boring and difficult to interpret, they are the guts of any situational audit. We strongly recommend that Hibbing explore the numbers in the appendix to look for levels and trends in industries that are important to the community beyond those summarized in this report.

We also recommend the community begin to think about the type of industrial prospecting that it would like to pursue based on various measures of economic performance. A tracking system might be put in place to monitor advances and setbacks for these industries as well as the extent to which they contribute to Hibbing's economic goals. Occasional (expensive) forecasting conferences might be a good idea to get a handle on the future economic climate for the community.

While early elements of a strategic economic development plan are contained in the numbers of the data appendix, there are many other elements that need to be considered. Hibbing may want to embark on such a planning process for future development in the region. As recommended above, this planning process should include representatives from all stake holding groups in the region.

Finally, analysis of a broader geographic area surrounding Hibbing might be in order. Hibbing does not exist in a vacuum; regional trends should be monitored on a regular basis and the implications of these trends for Hibbing's plan should be determined. Just as Porter identified firm competition and strategy as important components to a locality's development, Hibbing's place in the broader region's economy requires competition at some points and cooperation elsewhere. Recognizing when to do which could be key to Hibbing's place in that regional economy.

## Sources:

For explanations of Shift-Share and Location Quotient Analysis please see previous reports in this series:

Hibbing Business Retention and Expansion Survey and Report Series:

Report #1: Hibbing's Economic Base <<http:sbe.d.umn.edu/ced/bber.htm>>

Hibbing Business Retention and Expansion Survey and Report Series:

Report #2: Survey Findings <<http:sbe.d.umn.edu/ced/bber.htm>>

Bureau of Business and Economic Research, UMD Center for Economic Development. *Minnesota Power Presents Economic Snapshots: Our Region Today and Tomorrow. Supporting Data* (MS Word 97 downloadable file: dataset.doc; Acrobat file: Executive Summary. <<http:sbe.d.umn.edu/ced/MPKeyimpact.htm>>)

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## Data Appendix

Table 1: Hibbing's Exporting and Supporting Industries,

Source: 1996 IMPLAN Data, Location Quotients (As Compared to the State)

Major Group	Hibbing's Exporting Industries (Ranked by location quotient.)
<b>Manufacturing</b>	Oil Field Machinery Plumbing Fixture Fittings Surface Active Agents Aircraft Plastic Material and Resins Iron and Steel Foundries Electronic Components, N.E.C. Blowers and Fans Fabricated Rubber Products Fabricated Plate Work Lubricating Oils and Greases Logging Camps and Logging Metal Doors Sash and Trims Canned and Cured Sea Foods Paving Mixtures and Blocks Pottery Products, N.E.C. Coated Products, Not Transformers Sausages and Other Prepared Secondary Nonferrous Metals Elevators and Moving Stairways Industrial Furnaces and Ovens Printed Circuit Boards Games, Toys, and Childrens Instruments to Measure Truck Trailers Machine Tools, Metal Forming Transportation Equipment, Metal Stampings, N.E.C. Macaroni and Spaghetti
<b>Services</b>	Electrical Repair Services Laundry, Cleaning and Shoe Other Medical and Health Colleges, Universities and Labor and Civic Organizations Other Business Services Advertising Hospitals Funeral Services and Nursing and protective Care Elementary and Secondary Doctors and Dentists Portrait and Photographic Automobile Repair and Services Child Day Care Services
<b>Retail</b>	Apparel & Accessory Stores Food Stores Automotive Dealers & Service Building Materials & Gardening
<b>Mining</b>	Iron Ore

## Suppliers to Hibbing's top exporting industries

Source: IMPLAN 1996 Hibbing Zipcode Data

**Hibbing User Matrix Top 10:** Column 1 purchases value in column 3 from column 2.

### Manufacturing

IMPLAN	Industry description	IMPLAN	Purchase Value	Industry description
			( )	
378	Electronic Components, N.E.C.	378	7.87	electronic components N.E.C.
378	Electronic Components, N.E.C.	376	0.56	printed circuit boards
191	Plastics, Materials and Resins	219	0.38	fabricated rubber products, N.E.C
191	Plastics, Materials and Resins	191	0.28	plastics, materials abd resins
191	Plastics, Materials and Resins	378	0.21	electronic components, N.E.C
59	Sausages and Other Prepared Meat	454	0.18	eating & drinking
59	Sausages and Other Prepared Meat	59	0.14	sausages and other prepared meat
191	Plastics, Materials and Resins	220	0.11	miscellaneous plastics products
378	Electronic Components, N.E.C.	404	0.08	instruments to measure electricity
378	Electronic Components, N.E.C.	480	0.08	electrical repair services
378	Electronic Components, N.E.C.	389	0.06	aircraft
378	Electronic Components, N.E.C.	403	0.06	mechanical measuring devices
259	Iron &Steel Foundries	28	0.05	iron ores
191	Plastics, Materials and Resins	280	0.04	plumbing fixture fittings and trim
378	Electronic Components, N.E.C.	373	0.03	radio & tv communication equipment
191	Plastics, Materials and Resins	389	0.02	aircraft
191	Plastics, Materials and Resins	376	0.01	printed circuit boards
191	Plastics, Materials and Resins	119	0.01	coated fabrics, not rubbeized
59	Sausages and Other Prepared Meat	491	0.01	nursing, protective care
59	Sausages and Other Prepared Meat	492	0.01	hospitals
191	Plastics, Materials and Resins	368	0.01	wiring devices
219	Fabricated Rubber Products, N.E.C.	219	0.01	fabricated rubber products N.E.C.

### Mining

28	Iron Ores	28	0.00	Iron Ores
28	Iron Ores	259	0.00	Iron & Steel Foundries
28	Iron Ores	263	0.00	Secondary Nonferrous Metals
28	Iron Ores	295	0.00	Plating and Polishing
28	Iron Ores	313	0.00	Oil Field Machinery

### Services

493	Other Medical and Health Services	490	0.88	Doctors and Dentists
470	Other Business Services	447	0.47	Wholesale Trade
470	Other Business Services	506	0.44	Engineering, Architectural Services
470	Other Business Services	490	0.33	Doctors, Dentists
496	Colleges, Universities, Schools	28	0.24	Iron Ores
470	Other Business Services	470	0.20	Other Business Services
470	Other Business Services	28	0.19	Iron Ores
470	Other Business Services	493	0.15	Other Medical and Health Services
470	Other Business Services	492	0.15	Hospitals
470	Other Business Services	494	0.13	Legal Services
470	Other Business Services	500	0.12	Social Services, N.E.C.
470	Other Business Services	451	0.12	Automotive Dealers & Services Stations
470	Other Business Services	452	0.10	Apparel Accessory Shops
470	Other Business Services	491	0.10	Nursing, Protective Care
470	Other Business Services	378	0.10	Electronic Components, N.E.C.
470	Other Business Services	460	0.09	Insurance Agents & Brokers
470	Other Business Services	463	0.09	Hotels & Lodging Places
470	Other Business Services	456	0.08	Banking
470	Other Business Services	504	0.08	Labor & Civic Organizations
470	Other Business Services	454	0.07	Eating &Drinking
470	Other Business Services	174	0.07	Newspapers
470	Other Business Services	462	0.07	Real Estate
470	Other Business Services	450	0.07	Food Stores

## Top Ten Output Producing Industries

### Top Ten Output Producing Industries: Hibbing 1996 (Output in Millions of 1996 Dollars)

Industry	Output
Iron Ores	\$198
State and Local Government	64
Electronic Components	51
Wholesale Trade	43
Doctors and Dentists	34
Hospitals	23
Plastic Materials and Resins	21
Maintenance and Repair Other Facilities	18
Iron and Steel Foundries	17
Eating and Drinking	16

## Top Ten Employing Industries

### Top Ten Employers: Hibbing 1996

Industry	Employment
State & Local Government	1,763
Iron Ores	858
Eating & Drinking	520
Wholesale Trade	453
Hospitals	404
Doctors and Dentists	379
Labor and Civic Organizations	332
Food Stores	313
Nursing and Protective Care	310
Electronic Components	294

## Top Ten Value-Added Industries

### Top Ten Value Added Industries: Hibbing 1996 (Output in millions of 1996 dollars)

Industry	Value
Iron Ores	52
State & Local Government	64
Wholesale Trade	30
Doctors and Dentists	30
Hospitals	22
Maintenance and Repair Other Facilities	15
Railroads and Related Services	10

Electronic Components	9
Real Estate	9
Food Stores	<b>8</b>