

Lock Haven Enterprise Zone

Industry Cluster Project

Final Report

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- A-Industry Cluster Interview Questions
- B-Summary of Interview Responses
- C-Summary of Interview Responses by Cluster
- D-Selected Cross Tabulation Information

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EXECUTIVE SUMMARY

Summary of Highlights, Methodology, and Recommendations

Summary of Highlights

SEDA-Council of Governments was retained by the City of Lock Haven to develop a plan of action to assist the economic development community in supporting and promoting industry clusters in and around the Lock Haven Enterprise Zone.

Industry clusters are comprised of companies that locate in close proximity because of shared linkages such as similar technologies, related products, shared customers, buyer-supplier relationships or a common labor pool that present the opportunity for competitive advantage.

The purpose of this project was to:

- ✦ Examine the industry clusters within Clinton County and the surrounding areas of Lycoming and Centre counties.
- ✦ Develop ways to improve economic conditions within and around the Lock Haven Enterprise Zone.

In an initiative started in 2002, the Central Pennsylvania Workforce Development Corporation (CPWDC) identified four (4) key industry clusters in a nine (9)-county Central Pennsylvania region that demonstrated a competitive advantage, offered opportunities to earn a family-sustaining wage, comprised a significant percentage of the local workforce, and generated wealth for the region. According to the CPWDC, these same clusters were also found to hold the same competitive advantage in the three-county study area included in this project. The competitive clusters that have been identified include diversified manufacturing, lumber/wood products, healthcare, and education. After consideration and discussion, it was determined that education (i.e. colleges, universities, and public and private primary institutions) is not an industry that could likely be impacted by the results of this project. For this reason, education was not among the industries selected for more detailed study.

The central focus of the project was to evaluate available industry cluster data and to conduct a survey of existing businesses in Clinton, Lycoming and Centre counties to assess strategic relationships and communication channels. The survey sample included a wide cross-section of companies in each of the chosen industry clusters. However, the participants were not selected using probability-based sampling methods and, therefore, no information is provided concerning margins of error or the statistical representation of the sample.

The owners or managers of 60 (sixty) companies identified within the target clusters were surveyed by skilled interviewers from local economic development groups. The interviews were primarily conducted on-site. However, due to scheduling conflicts, some were also conducted over the telephone. The interviewers asked each participant a standardized set of survey questions (see Attachment A).

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Brief Description of the Methodology

The five basic elements of the project included:

- ✦ Obtaining and understanding the industry cluster data available through the CPWDC.
- ✦ Refining the data based on county and local input.
- ✦ Interviewing companies within the identified cluster industries to further understand the data and to look for current economic trends, associations, and relationships among companies within the cluster(s).
- ✦ Incorporating cluster data and information available from other sources.
- ✦ Developing an action plan to assist the economic development community in promoting and supporting these industry clusters.

The survey revealed that, while more than one-half of the respondents (57%) believe their company is part of an industry cluster, few of these companies actually exhibit typical industry cluster behavior. Besides geographical proximity, interviewed companies exhibited few distinctive characteristics typically found in companies considered to be part of a strong industry cluster. However, data from this project suggests that there may be some potential to facilitate and nurture these emerging clusters in the three (3)-county study area. Cluster activity, on a lesser scale, is currently taking place across the study area in some capacity and the majority of companies interviewed believe that being part of an industry cluster would be beneficial.

It is important to note in geographically small rural areas, it is often impossible to find all components of a true industry cluster. Although CPWDC's initiative focused on a broader area, individual counties and sub-regions were analyzed to demonstrate their contributions to the regional economy, as well as identify their niche markets. Also, a key component of CPWDC's cluster initiative is to begin raising awareness regarding clusters and to begin stimulating mutually beneficial activity among companies within clusters. This effort will take time. While the mapping of the industries is being completed, there are several other regional efforts already underway to begin organizing companies into "industry partnerships" as a first step to strengthening broader industry clusters.

This project examines the social capital, marketing/sales, business climate, workforce, and awareness of economic development resources of the companies that were surveyed. The project also provides an action plan and marketing plan to assist the economic development community in promoting and supporting these industry clusters.

Summary of Recommendations

Based on the review of existing industry cluster data, the results of the study conducted as part of this project, and input from local and regional economic development professionals, a plan of action has been developed that encompasses the following recommendations:

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- Continue to promote the importance of and opportunities for increased collaboration among companies and organizations.
- Work with local companies to create a greater understanding of the benefits associated with cluster development.
- Encourage companies associated with emerging clusters to tap into underutilized business assistance services and other economic development resources in the study area. Increase awareness of these resources by improving outreach and marketing.
- Encourage partnerships between educational institutions and emerging clusters.
- Target entrepreneurial support and technical assistance towards emerging clusters.
- Consider expanding the Lock Haven Enterprise Zone to give more companies an opportunity to utilize economic development resources available under that program. There is a limited amount of space served by the appropriate infrastructure within the Enterprise Zone to accommodate the location of new companies.
- Develop a regional brand or identity for the area. Marketing or branding a region is one of the action items listed in Stuart Rosenfeld's, "A Guide to Cluster Strategies."

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FINAL REPORT

Background

The City of Lock Haven, with assistance from SEDA-Council of Governments and the Clinton County Economic Partnership, utilized existing industry cluster data for Clinton and two surrounding counties as the foundation from which to develop ways to improve economic conditions within and around the Lock Haven Enterprise Zone. Industry cluster analysis is one method of providing information on industry activity and identifying key industry sectors in a region or other defined area. This project was based in part on the Stuart A. Rosenfeld model titled, "Creating Smart Systems, A Guide to Cluster Strategies in Less Favored Regions." In addition, this project has led to the formulation of an action plan in an effort to focus resources on these clusters and promote economic growth within and around the enterprise zone.

Methodology

This project relied partially on existing industry cluster data available through the Central Pennsylvania Workforce Development Corporation (CPWDC). In 2002, CPWDC began extensive raw data analysis of Pennsylvania Department of Labor and Industry data to identify growth, emerging and declining industries across a nine (9)-county Central Pennsylvania region. Further evaluation by CPWDC of this data led to the analysis of key regional industry clusters at the sub-regional and individual county levels.

Census 2000 data indicates that of the nearly 17,000 employed individuals, 16 years or older in Clinton County, almost one-third of the workers travel to Lycoming or Centre counties for employment. These commuting patterns suggested that this project should not only include all of Clinton County, but also include the surrounding counties of Lycoming and Centre.

CPWDC's initial cluster work, augmented by extensive interviews, was the beginning of a process to identify and target growth and emerging industry clusters and develop appropriate strategies to guide future development, business attraction, and marketing efforts. This project utilized this data to develop a specific action agenda that will impact the Lock Haven Enterprise Zone and surrounding areas.

The five basic elements of the project included:

- *Obtaining and understanding the industry cluster analysis data available through the CPWDC.*

The CPWDC provided existing industry cluster data for Clinton, Lycoming, and Centre counties, along with a synopsis of the overall limitations associated with this data.

- *Refining the data based on county and local input.*

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This data was then presented to local economic development organizations for their review. A thorough review of the CPWDC data began, once it was determined the data was consistent with county and local trends. This review revealed the existing or emerging industry clusters in the study area that should be further evaluated through the interview process, which include diversified manufacturing, lumber/wood products, and healthcare.

- *Interview companies within the identified cluster industries to further understand the data and to look for current economic trends, associations, and relationships among companies within the cluster(s).*

The owners or managers of 60 (sixty) companies identified within the target clusters were surveyed by skilled interviewers from local economic development groups. The interviews were primarily conducted on-site. However, due to scheduling conflicts, some were also conducted over the telephone. The interviewers asked each participant a standardized set of survey questions. The survey instrument consisted of sample questions from “The Guide to Cluster Strategies” supplemented with questions developed by SEDA-COG, the Clinton County Economic Partnership, and the City of Lock Haven. Input into the design of the survey was also solicited from CPWDC and a professor of Business Administration at a local college who specializes in survey design and data analysis. See *Attachment A* for a copy of the interview questions. Interview results were then tabulated and analyzed.

This survey was not intended to be a statistically representative sampling, but rather a broad-based survey with observations based on results of the interviews. A Summary of Interview Responses and A Summary of Interview Responses By Cluster have been included as *Attachment B and C* respectively. Selected cross-tabulation information is included as *Attachment D*.

All of the companies surveyed in the three-county study area were classified as falling into the three clusters targeted in this project (diversified manufacturing, lumber/wood products, and healthcare). Since the main focus of the project is the Lock Haven Enterprise Zone, 30 companies, or one-half of the interviews, were allocated to Clinton County. The remaining 30 interviews were split equally between Lycoming and Centre County.

- *Incorporate cluster data and information available from other sources.*

Information and trends available from previously conducted Pennsylvania Business Retention and Expansion Program (PA BREP) interviews were compared with current cluster data and specific interview findings.

A review and analysis of the Pa SourceNet supplier database was also conducted to further understand and identify the full range of supplier relationships for future marketing and analysis. This additional data was incorporated into the analysis, action plan, and recommendations.

- *Develop an action plan and other specific deliverables to assist the economic development community in promoting and supporting these industry clusters.*

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An action plan that centers on communication, entrepreneurship, and marketing has been developed, based on the results of the interviews and review of the CPWDC industry cluster data. The information helped to identify existing formal channels of communication within the clusters and recommend new channels of communication needed to further enhance the development of these emerging clusters. Entrepreneurial assistance and related technical assistance resources should also be targeted towards the emerging clusters. The proposed marketing plan for the Enterprise Zone and surrounding areas will incorporate those industry clusters and supply chains identified as key industries into ongoing local and regional marketing efforts.

Company Overview

Diversified Manufacturing

Of the sixty (60) companies interviewed for this project, forty (40) (66%) were classified under the diversified manufacturing cluster. This cluster includes:

Food Mfg.	Primary Metal Mfg.
Textile Mills	Fabricated Metal Product Mfg.
Textile Product Mills	Machinery Mfg.
Apparel Mfg.	Computer and Electronic Product Mfg.
Paper Mfg.	Electrical Equipment, Appliance And Component Mfg.
Printing and Related Support Activities	Transportation Equipment Mfg.
Petroleum and Coal Products Mfg.	Metal Furniture and Related Product Mfg.
Chemical Mfg.	
Plastics and Rubber Products Mfg.	

Using 2003 data from the Pennsylvania Department of Labor and Industry, CPWDC found that industries in the diversified manufacturing cluster employ 14% of the total workforce in the three-county study area. The Location Quotient (LQ) for diversified manufacturing, which compares the concentration of employment from Clinton, Lycoming, and Centre counties to the state, is 1.38 and 1.66 compared to the nation. A LQ greater than one (1) for the three-county study area implies a higher concentration of employment in the diversified manufacturing cluster compared to the state and the nation as a whole. The higher concentration also implies that more of a good is produced locally than is used locally and, therefore, generates wealth by exporting the good outside of the study area.

Lumber/Wood Products

Thirteen (13) of the companies interviewed (approximately 22%) were in the lumber/wood products cluster. This cluster consists of:

Logging	Furniture Manufacturing
Sawmills	Lumber and Wood Wholesalers
Wood Product Manufacturing	Building Materials and Supplies Dealers

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The LQ for the lumber/wood products cluster is 2.04 (compared to the state) and 2.03 (compared to the nation). Again, this LQ indicates that the concentration of employment for this industry is greater in the three-county study area than the state and the nation. The high location quotient can be attributed to the abundance of hardwood resources in the region. This industry employs approximately three (3)% of the workforce in the study area.

Healthcare

The final industry cluster targeted in this study is healthcare. Seven (7) of the companies interviewed, or roughly 12%, were in this category. The LQ for healthcare is 0.76 (compared to the state) and 0.94 (compared to the nation) and the industry employs approximately 11% of the study area's workforce.

While the healthcare industry cluster LQ is relatively low compared to the other clusters, healthcare employment in the study area is comparatively high. This is especially evident from the survey data. Even though only 12% of the interviewed companies were in the healthcare sector, they comprise more than 40% of total employment for all interviewed companies.

It is possible that workforce shortages within the healthcare industry affected the location quotient or competitive advantage for healthcare. This is especially true in rural areas. It is more difficult to recruit healthcare workers in rural areas than it is in more densely populated areas.

Industries that comprise this cluster include:

Pharmaceutical and Medicine Mfg.	Offices of Other Health Practitioners
Medical Equipment and Supplies Mfg.	Outpatient Care Centers
Electronic Equipment Mfg.	Medical Laboratories
Medical Equipment Wholesalers	Home Health Services
Pharmacies and Drug Stores	Hospitals
Offices of Physicians	Nursing Care Facilities
Offices of Mental Health Physicians	Residential Care Facilities
Offices of Dentists	

Other Statistics

Five of the companies interviewed were established in the 1800's. Seven companies were founded between 1900 and 1949. The majority of the companies were started between 1950 and 1999. Only one company has been established since 2000.

Nearly one-half of the companies (45%) surveyed export and only one-quarter (25%) import. A relatively small number of companies are minority or women-owned enterprises. While the number of companies that participate in government sales as prime contractors is low (17%), almost one-third of the companies (30%) participate in government sales as subcontractors. The majority of companies have both manufacturing facilities (82%) and headquarters (70%) located in the study area.

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Results of the Survey

This survey was not intended to be a statistically representative sampling, but rather a broad-based survey with observations based on the interviews. The observations provided the basis to develop a plan of action to assist the economic development community in promoting and supporting industry clusters in and around the Lock Haven Enterprise Zone.

The project examines the social capital, marketing/sales, business climate, workforce, and awareness of economic development resources of the interviewed companies in the three (3) target clusters. The following pages contain those observations. Specific conclusions and recommendations have been provided at the end of this report.

Industry Cluster Information

The companies interviewed for this project were read a simplified definition for the term *industry cluster* and asked if they were aware that their industry might be classified as a cluster, both at the beginning and again at the end of the interview.

Pre-Survey Industry Cluster Question

Industry clusters are comprised of companies that co-locate in close proximity because of shared linkages such as similar technologies, related products, shared customers, buyer-supplier relationships or a common labor pool, that present the opportunity for competitive advantage. You have been selected to participate in this interview because a partnership of regional workforce, economic development, and educational entities have classified your industry as part of four (4) major industry clusters in Central Pennsylvania. Given this definition:

Were you aware that your industry might be classified as a cluster?

Pre-Survey Industry Cluster Question	Number	% Percentage of Total
No	42	70%
Yes	17	28%
Maybe	1	2%
Total	60	100%

Post Survey Industry Cluster Question

Having completed this survey, would you say that your company is part of an industry cluster?

Post-Survey Industry Cluster Question	Number	% Percentage of Total
Yes	34	57%
No	20	33%
Maybe	4	7%
Not sure	2	3%
Total	60	100%

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At the beginning of the interview, only 28% of the companies thought they were part of an industry cluster. However, by the end of the interview, significantly more companies (57%) believed they were part of a cluster. This seems to indicate that once companies understand what an industry cluster is and how it functions, they are more likely to feel they are part of the cluster. The design of the interview questions may have influenced the outcome of the post-survey industry cluster question.

Social Capital

Stuart Rosenfeld states in his book, “Creating Smart Systems, A Guide to Cluster Strategies in Less Favored Regions”, that social capital, a typical activity associated with clusters, is the existence of “systemic relationships” between companies within an industry sector that have shared linkages such as similar technologies, related products, shared customers, buyer-supplier relationships and/or a common labor pool. These shared linkages promote knowledge and innovation within that industry sector. The companies selected for interviews were given a list of seven (7) open-ended questions that are aimed at measuring the utilization of social capital in their industry sector.

Social Capital Questions
1. Name up to three individuals or organizations with which you have COLLABORATED in the recent past (for example, to bid on contracts together, attend trade shows together, help fill an order, share equipment or services, or participate in an industry education partnership), and the type of cooperation. Interviewer Note: Collaboration is defined as being beneficial to both parties.
2. Name up to three individuals or organizations (this may be, for example, a technical school, competitor, customer, supplier, or consultant) that have helped you recently in some way (such as gave advice, shared information, or loaned equipment) and form of help (advice, production, loan). Interviewer Note: Please have them indicate whether it was fee based or free.
3. Name up to three organizations and their locations, which YOU have recently helped out in some way (such as gave advice, shared information, or loaned equipment) and form of help (advice, production, loan).
4. Who do you consider to be leaders or innovators in your industry? (Probe for at least three (3).)
5. What are the most important business groups, affiliations, and/or professional organizations that your company belongs to? Why are they important to you? (Probe for at least three (3))
6. What are the most important advisory committees and/or boards that your company is involved in?
7. Do you think it would be important for your company to participate in more local/regional networking opportunities? If yes, please describe.

Collaboration

When companies were asked to identify individuals or organizations with which they have collaborated, helped in some way, or have themselves been helped, a common answer among every industry sector was “none.” Almost one-half of the companies interviewed (48%) said they do not participate in these types of networking opportunities.

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Innovators In Their Industry

Most of the companies (73%) consider competitors to be leaders or innovators in their industry. However, twenty-three percent (23%) of the companies considered *themselves* to be the leaders or innovators in their industry. Large companies, companies that conduct business online, and companies involved in exporting were twice as likely to consider themselves as a leader or innovator in their industry. On the other hand, companies that do not export were ten (10) times more likely, and companies that do not conduct business online were almost three times more likely to consider a local competitor as a leader or innovator. Since innovation is one of the traits required as a prerequisite for successful cluster-based development, one could argue that companies considering themselves an innovator in the industry could be a strong building block for future cluster development activities and overall growth.

Affiliations

National, regional, and local industry-related organizations were considered to be important affiliations for all of the companies in the healthcare, lumber/wood products, and diversified manufacturing cluster. While no one specific industry-related organization ranked high, most agreed that it was important for their company to be involved in an organization that catered to their specific industry sector. Reasons for belonging to these organizations include legislative assistance, political support, familiarity with the industry, and networking.

The second most important affiliation was with local economic development organizations such as chambers of commerce and industrial development corporations. Companies across all three-industry clusters felt that “local involvement in the community” and “business assistance” were the main reasons to be associated with these types of organizations. Large companies were more than twice as likely as small companies to consider economic development agencies to be among the most important groups to which they belong.

Networking

For companies that did participate in these types of networking opportunities, the forms of collaboration or assistance that were mentioned are diverse and include bidding on contracts with competitors, working with fee-based consultants, and sharing equipment and advice with local companies. Large companies (over \$5 million in annual sales) were four times more likely than small companies (\$5 million or less) to seek help from local organizations and twice as likely to seek help from local colleges. The survey also found that companies that anticipate an increase in employment over the next 12 months were three (3) times more likely than companies that don't anticipate employment growth to obtain help/assistance from a local college or other economic development resource provider.

Networking Opportunities

The responses were split down the middle when companies were asked if they thought it would be important to participate in more local/regional networking opportunities. Some companies felt their participation in networking opportunities was adequate. Other companies maintain that

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most of their sales come from outside of Pennsylvania and it isn't necessary to participate in more networking opportunities. On the other hand, there were a number of companies that believed they were not doing enough networking and felt they should do more.

The data collected from this section of the interview might imply that utilization of social capital resources, a typical activity associated with clusters, is taking place in a fairly limited capacity. Most companies recognize the need to tap into the social capital that exists in the region, but may not completely comprehend or appreciate the benefits of collaboration and networking and/or associate this activity with being part of a cluster.

Marketing & Sales

The study examined key marketing and sales characteristics to determine if there are cluster-related observations that can be made relative to a company's marketing or sales activity. Patterns and comparisons were observed in several areas that included: a company's annual sales, anticipated sales growth, online business capabilities, customer relationships, supplier relationships, and regional branding.

Annual Sales

As the table below indicates, almost one-third of the companies interviewed (30%) reported annual sales greater than \$15 million. One-quarter of the companies reported annual sales between \$1 million and \$5 million.

What are your annual sales?

Annual Sales	Number	% Percentage of Total
Confidential	9	15%
< \$250,000	1	2%
\$250,000-\$500,000	3	5%
\$500,001-\$999,999	7	11%
\$1 MM-\$5 MM	15	25%
\$5.1 MM- \$10 MM	6	10%
\$10.1 MM-\$15 MM	1	2%
> \$15 MM	18	30%
Total	60	100%

Cross tabulations were utilized to compare the characteristics of large companies to small companies. Interviewed companies were divided into two groups based on their annual sales so that there would be a roughly equal number of companies in each group. Companies were considered small if they had annual sales of \$5 million or less, while companies were considered large if they had annual sales greater than \$5 million. The nine companies that answered "Confidential" to the annual sales question were omitted from this analysis. Twenty-six (26) companies had annual sales of \$5 million or less. Twenty-five (25) companies reported annual sales greater than \$5 million. This division of sales for companies was used as a basis for comparison here and later in the report. Some interesting findings identified include:

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Larger companies were more likely to:

- Engage in exporting activities
- Have a website or online directory

Smaller companies were more likely to:

- Indicate that workforce was one of the top issues they face in their industry
- Expect their employment to grow over the next 12 months

Sales Growth

As illustrated in the table below, the majority of companies across all industry sectors anticipate growth in their annual sales over the next 12 months. Only one company expected sales to decline. Those companies that project sales growth are more than twice as likely to engage in exporting activities and online buying and/or selling than their counterparts. They are also more than six times as likely to expect employment growth over the next 12 months.

Do you expect your sales to decline, grow, or remain status quo over the next 12 months?

Sales (over 12 months)	Number	% Percentage of Total
Growth	41	68%
Status Quo/No Growth	18	30%
Decline	1	2%
Total	60	100%

Online Business

While interviewed companies Internet market their products and services in many different ways, most companies indicated they use the to conduct business online in some capacity. Approximately 85% of the companies interviewed utilize email. Close to three-quarters of the companies use a website or online directories, and about one-quarter of the companies participate in online transactional based selling and/or purchasing. Not surprisingly, companies that export are more than twice as likely to engage in online buying and/or selling. The reverse of that statement is true as well. Companies that conduct business online are almost twice as likely to engage in exporting activities.

With the use of e-commerce so prevalent among all industry sectors, the availability of adequate broadband service or connection options is essential in supporting emerging industry clusters in the region.

Do you conduct any business online? If yes, which form of e-commerce do you use?

Online Business	Number	% Percentage
Electronic correspondence (Email)	51	85%
Website/online directories	41	68%
Online transactional based selling	17	28%
Online transactional based purchasing	13	22%

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Other	7	12%
None	6	10%
Online banking	5	8%
N/A	3	5%

Eighty-nine percent of the companies interviewed (89%) have some form of high speed Internet access (DSL, cable, wireless, T1, or higher) (*See table below*). The majority of companies felt their level of Internet connectivity was adequate for their needs. However, some companies (15%) indicated they needed more. When asked if they were aware of any other connection options available in their area with comparable or better service, most companies (73%) said they were not aware of other Internet options. This could indicate that better marketing of existing services is needed, or that competition simply does not exist.

Internet Connection	Number	% Percentage of Total
High Speed (DSL, Cable, Wireless)	34	57%
T1 or higher	19	32%
Dial Up	5	8%
None	2	3%
Total	60	100%

Only a few companies felt that broadband factored into their company's decision to locate/expand into the area, or felt that it would be a factor when they decided to expand in the future. A possible explanation for this may be due to the fact that the majority of companies had already located to this area prior to widespread usage of the Internet. Of the 60 companies interviewed for this project, 52 had been located in the study area prior to 1990.

Customers

The most important customers in the healthcare sector are local residents. Quality of care, service, and location were the top reasons cited by the healthcare sector for why customers buy from them.

The most important customers from the lumber/wood products industry come from within Pennsylvania. Price, quality, and location rank as the top three (3) reasons why these companies believe customers buy from them. The abundance of hardwood resources in the region is, without a doubt, critical for the successful operation and continued growth of these lumber/wood product companies.

The majority of customers who buy from manufacturers also come from within Pennsylvania. Quality, price, and service were listed as reasons their customers buy from them. However, very few companies in the diversified manufacturing cluster believe that local demand for their products is growing more rapidly within Central PA compared to the demand overall. Most companies felt local demand for their products was about the same or growing slower. In contrast, the lumber/wood products sector was split on this topic with one-third thinking it is growing more rapidly, one-third growing slower, and one-third about the same.

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Suppliers

The most important suppliers in all three of the clusters studied were located in Pennsylvania. Price, quality, and service were indicated as being the top three (3) reasons why they buy from those suppliers. Although most companies buy from within the state, a lack of suppliers is the top reason for not purchasing more services, products, or raw materials from Pennsylvania.

Regional Branding

Of the 50 companies that expressed an opinion, eighty-two percent (82%) felt the region could benefit from the development of a regional brand or identity. However, most companies could not agree on an accurate description. “*A Guide to Cluster Strategies...*” includes marketing or branding a region as one of the items listed in his Menu of Actions to support clusters. If future cluster development and growth is going to occur in this region, significant resources need to be allocated to develop and secure support for a regional brand or identity.

Business Climate

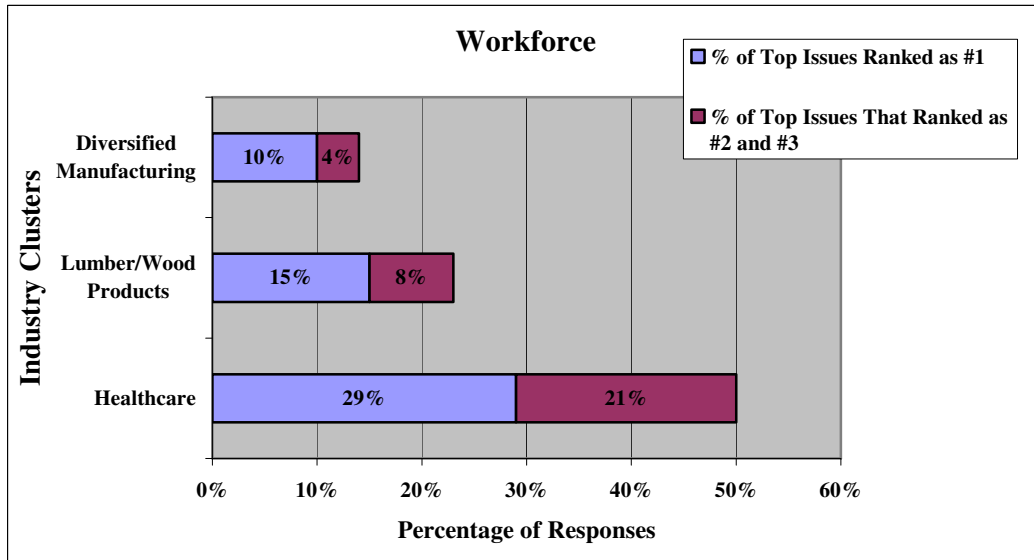
In an effort to better understand the clusters studied in this project, information was collected from the survey that measured the business climate in the three-county study area. Information was collected on several different topics, which included why a business located to the area, the top issues facing a business, and information on a business’s competitors.

Business Location

The reasons why companies located to this area vary depending on the industry cluster. Location and workforce were listed as the top reasons why diversified manufacturing companies located to the area. Most lumber/wood product companies are family-owned and located to the area because of the large quantity of hardwoods resources in the region. Reasons why the companies in the healthcare sector located to this area include workforce/work ethic and proximity to markets.

Even though healthcare lists workforce as being the top reason they located to the area, they also believe that workforce, or lack thereof, is a top issue facing their industry today. Forty-nine percent (49%) of the respondents in the healthcare industry cited workforce as a top issue. Twenty-nine percent (29%) ranked it as the number one issue, while twenty-one percent (21%) ranked it at number two or three. (*See chart below*) The shortage of nurses and physicians across the region has increased and is expected to rise over the next decade. This data suggests that additional training, education programs, and curriculum need to be developed to keep up with demand.

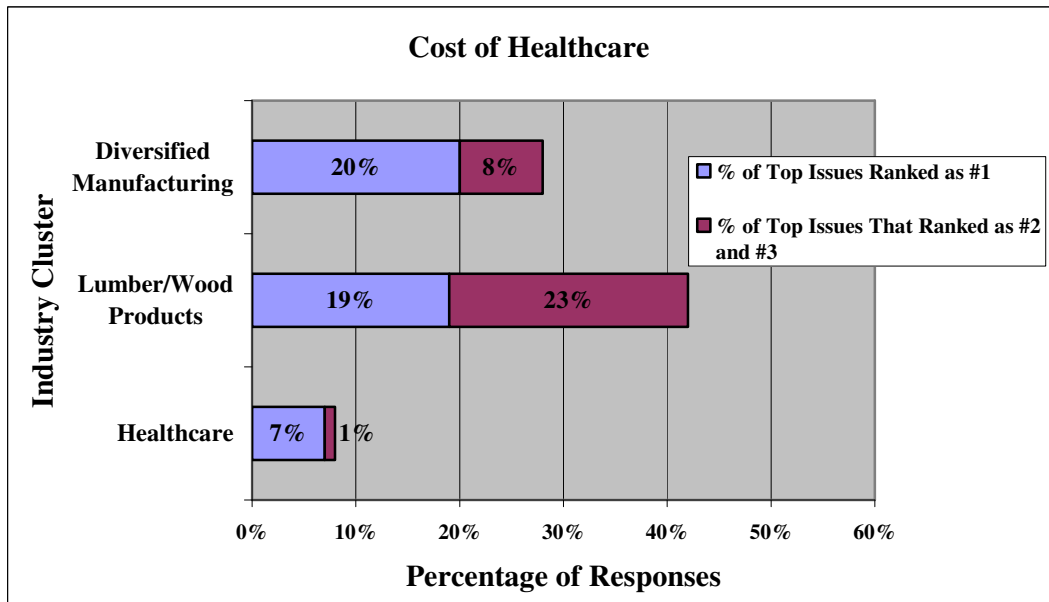
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Small companies were more than twice as likely as large companies to indicate workforce as one of the top issues they face in their industry. Companies that anticipate a steady or declining employment over the next 12 months are almost twice as likely to indicate that workforce was one of the top issues than those companies that expect employment growth.

Top Issues

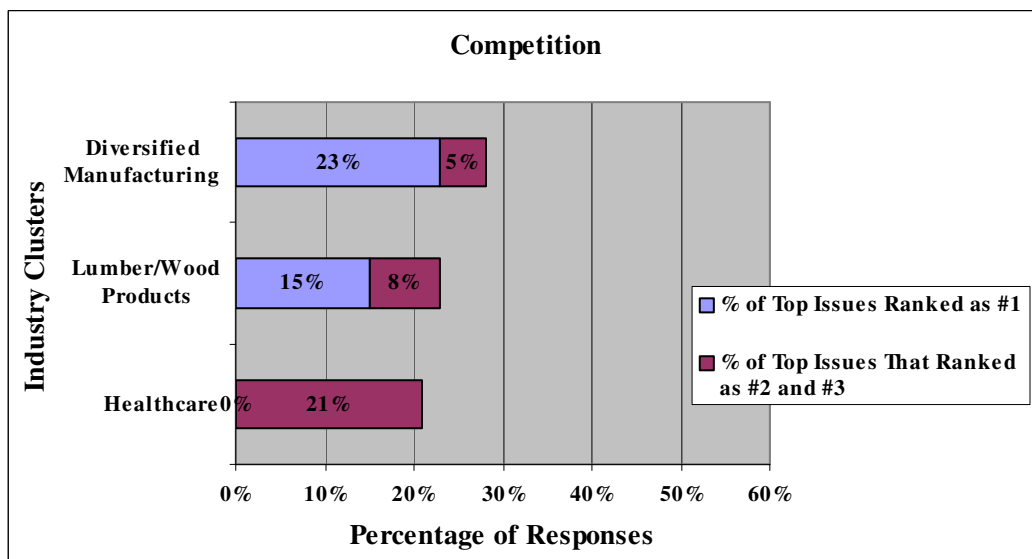
The rising cost of healthcare was considered to be a top issue in both the diversified manufacturing and lumber/wood products clusters. (See chart below). This national problem has taken a toll locally, especially with small companies.



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Competitors

Competition was listed as a top concern by most diversified manufacturing companies. (See chart below). One-third of the competitors listed for diversified manufacturing reside in Pennsylvania, while 13% were listed as overseas competitors. The main competitors for both the healthcare industry and the lumber/wood products industry are located in Pennsylvania. Large companies (more than \$5 million in annual sales) were twice as likely as small companies (\$5 million or less in annual sales) to indicate that competition was one of the top issues they face in their industry. Since competition has been identified as a top concern for companies in this area, regional service providers might develop a workshop or seminar series that focuses on techniques and strategies that can be utilized by Enterprise Zone companies to mitigate the effects of competition on their business operations.



Workforce

Building a specialized workforce is another important element to developing strong industry clusters. The study examined business employment growth, job/skill requirements, and the use of educational institutions in building or maintaining a specialized workforce.

Employment Growth

Nearly one-half of all the companies interviewed (47%) expect their employment to grow over the next 12 months. Of the 30 diversified manufacturing companies interviewed, twenty-eight (28) of the companies in the cluster (93%) expect their employment to increase or remain the same. Only two companies anticipate a decrease in employment, citing rising production costs as the reason. Overall, this may be viewed as a rather positive finding given the number of plant closings that have been occurring throughout the rest of the region and the state.

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Do you expect your employment to decline, grow, or remain status quo over the next 12 months?

Employment Growth	Number	% Percentage of Total
Status Quo	30	50%
Growth	28	47%
Decline	2	3%
Total	60	100%

Exporting companies are more than twice as likely to expect their employment to grow over the next 12 months. Companies that have annual sales of greater than \$5 million were almost twice as likely as those companies with less than \$5 million in annual sales to have a positive employment outlook. Companies that anticipated sales growth over the next 12 months were more than six times as likely as companies that anticipated a decline in sales to forecast employment growth over the same 12 months, indicating a close correlation between sales and employment growth.

Job Categories

Production and management were listed as job categories that are likely to be filled over the coming year in lumber/wood products and diversified manufacturing clusters. Aside from positions in the healthcare cluster, most companies do not seem to have a problem filling jobs or retaining existing employees. Companies also indicated they didn't think there were any job skills lacking in this study area. This seems to temper somewhat the popular notion that our workforce cannot support these growing industries.

Which skills are most lacking in this region?

Skills Most Lacking in the Region		
Ranked #1	Ranked #2	Ranked #3
1-None (23x)	1- None (30x)	1-None (33x)
2- Writing (tie) (5x)	2- Programming (tie) (3x)	2- Troubleshooting (tie) (3x)
2-Critical Thinking (tie) (5x)	2- Decision Making (tie) (3x)	2- Decision Making (tie) (3x)
3- Science (3x)	2-Problem Solving (tie) (3x)	

**example: (23x) indicates how many times that option was selected under that ranking.

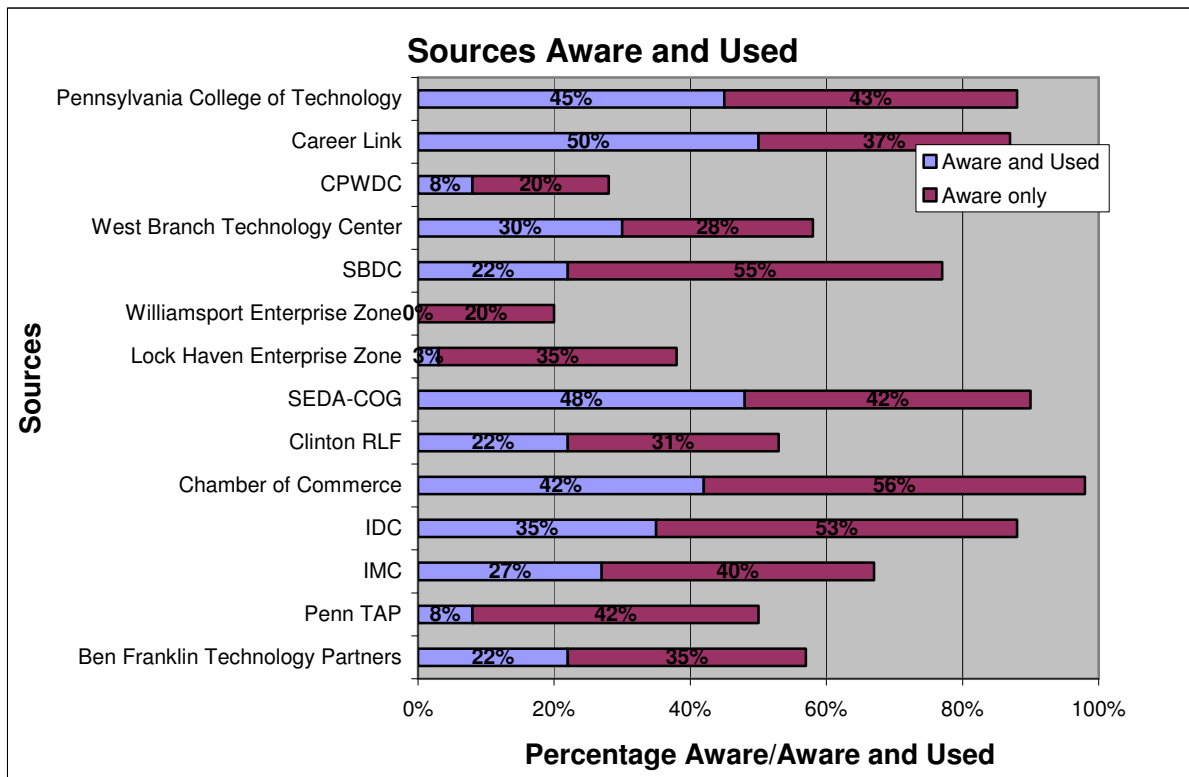
Educational Institutions

Pennsylvania College of Technology in Williamsport and Penn State University in State College, with its branch campuses located across Pennsylvania, were the most common educational institutions utilized for education or training in the study area. The most popular type of training received from these institutions was computer training. Common strengths among all of the institutions listed included the variety of courses offered and the quality of instructors for the courses.

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Economic Development Resources

Companies were given a list of resources in six areas of economic development and asked to indicate their level of awareness and their level of usage. Those areas consisted of technology, financing, marketing, manufacturing, workforce, and business development. The survey results indicate that the level of awareness for these economic development resources is mixed.



For example, very few of the companies that identified themselves as being aware of Penn TAP used their services. One-half of the companies (50%) indicated they were aware of Penn TAP's services, however, only eight percent (8%) of the companies have used Penn TAP's services. On the other hand, 98% of the companies are aware of their local chambers of commerce and 42% use their services.

Most companies are aware of and have used the Career Link services that are available in our area yet, for the most part, few companies are aware of the Central Pennsylvania Workforce Development Corporation, the organization that oversees the Career Link services. The Pennsylvania College of Technology was widely recognized by all three industry sectors as a workforce resource.

The awareness and utilization of business development resources throughout the area differ depending on the organization. At least 75% of the companies interviewed indicated an awareness of or have used the business development services offered each of the following

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organizations: Pennsylvania College of Technology, CareerLink, Small Business Development Centers, SEDA-COG, chambers of commerce, and the industrial development corporations.

Some reasons for varied levels of awareness among these economic development organizations may include:

- Some organizations provide specialized services that may only pertain to a selected group of companies. For example, PennTAP's services are often very specialized, which may help explain why a large percentage of those surveyed have not used their services.
- Companies are more likely to know the local "point of contact" or organization responsible for the service delivery rather than the regional organization providing oversight and administration. For example, CPWDC does not provide direct services to employers or job seekers. They oversee the CareerLink facilities that deliver these services, which may explain why companies are more aware of CareerLink than CPWDC.
- Some organizations have a very limited geographical service area. For example, the Williamsport Enterprise Zone only covers the companies in and around that Enterprise Zone, which may explain why companies outside the zone are not familiar with the Williamsport EZ.

Overall, it seems that increased outreach and awareness of economic development resources would benefit most companies and serve to further publicize the services available to help support industry clusters.

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CONCLUSIONS AND RECOMMENDATIONS

Having amassed a great deal of data and information about the potential for existing and emerging industry clusters operating in and around the Lock Haven Enterprise Zone, it has become apparent that the issue is not black and white. While classical industry cluster analysis and the corresponding quantitative data suggest the existence of a competitive advantage in certain industry clusters in the study area, the critical mass of businesses within these industries may not exist. It seems safe to say that most economic development professionals and private sector businesses, for that matter, might question the real existence of already-developed, meaningful clusters in this three-county area. That's why it may be important to look beyond the study area to determine linkages throughout Central Pennsylvania as future cluster work evolves.

The findings from this research project seem to support this hypothesis. For example, while healthcare is identified as an existing industry cluster, employment in this industry within the study area is significantly lower than in other areas of the state. This may suggest future opportunities for growth as this area moves closer toward the statewide average. Likewise, lumber and wood products may also be perceived as an industry cluster (and with a good number of businesses), but these businesses are spread out over a large land area and employ only three (3)% of the study area's workers. Finally, when we look at diversified manufacturing, we see that while there are many manufacturers in the study area, they cover such a wide range of business types that it weakens their position as a true industry cluster.

There are other observations that can be made, as well. While formal channels of communication and supply chains exist among companies interviewed, they are not extensive or developed enough to indicate the presence of a strong industry cluster in this three-county area. Furthermore, even though more than one-half of the respondents for this project (57%) believe their company is part of an industry cluster, the results of the interviews reveal that few of these companies exhibit typical industry cluster behavior. Besides geographical proximity, interviewed companies exhibited few of the distinctive characteristics typically found in companies that make up an industry cluster.

With that said, it is important to note that this project has certain limitations and that the results are based largely on observation. The three-county geographical area to which this project was limited and the small number of companies surveyed for the project only show a snapshot at a certain point in time and may not be indicative of the cluster activity that may exist on a larger scale. In addition, within diversified manufacturing, the three counties in the study are not likely to exhibit strength in all types of manufacturing; rather there will likely be key niche markets or sub-sectors that are more prevalent. It is also critical to understand that the presence of one large company with a niche product can significantly skew the data, presenting a strong company, rather than an industry cluster. For these reasons, it is necessary to also look at this type of data on a regional or multi-regional level. Furthermore, while clusters are not yet functioning at the level they should be, the cluster process is still in its early stages in this region. Prior to the cluster work currently taking place, there was little comprehensive economic mapping in place. The efforts to define and study industry clusters have started the process of driving companies

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and public organizations to become more aware of the existence of competitive industries in the region and improve planning.

With these limitations in mind, data from this project may suggest the foundation for building industry clusters exists. Cluster activity, albeit on a lesser scale, is currently taking place across the three-county study area and the majority of companies interviewed believe that being part of an industry cluster would be beneficial. Given this foundation, there may be an opportunity to facilitate and nurture these emerging clusters by advancing some or all of the following recommendations:

- Continue to promote the importance of and opportunities for increased collaboration among companies and organizations.
 - Develop industry-specific partnerships through which companies will become more aware of others within their industry and of the resources and services available to them. These efforts should not happen unilaterally, but should connect with other regional activities including those currently underway by CPWDC and CareerLinks, IMC, Ben Franklin, Penn College, Penn State, The Pennsylvania Heartland Partnership, SEDA-COG, and others. For example, build upon the existing efforts currently occurring within the modular home and wood products industry groups.
 - Develop a regular series of articles for use in existing newsletters and other media opportunities that highlight recent collaborative efforts and/or the successful application of economic development services.

- Work with local companies to create a greater understanding of the benefits associated with cluster development.
 - Hold “mini” industry conferences bringing in experts in industry cluster development to help facilitate emerging clusters. Increasing collaboration and communication may help further develop these clusters.
 - Help to facilitate partnerships and collaborations among a small number of companies to demonstrate the effectiveness of these relationships. Work towards expanding the collaborations over time to include more companies.
 - In cooperation with the PA BREP, meet with or contact all companies in the Enterprise Zone at least once a year to inform them of the resources available as a result of being located in the zone. Provide information on existing opportunities for collaboration and existing economic development resources that may be applicable to their specific situation or industry group.
 - Seek media coverage opportunities to discuss cluster report findings.
 - Identify successful examples of local collaboration and widely publicize these successes.

- Encourage companies associated with emerging clusters to tap into underutilized business assistance services and other economic development resources in the study area. Increase awareness of these resources by improving outreach and marketing.
 - Create comprehensive information packets about available resources and distribute to targeted companies in the study area. Use this opportunity to communicate the importance of emerging industry clusters.
 - Collaborate with the PA BREP to market resources to targeted companies.

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- Create specialized resources and/or services for specific industry clusters.
- Encourage partnerships between educational institutions and emerging clusters.
 - Identify/develop industry-specific training resources to assist emerging clusters in acquiring a high-quality workforce. For example: support the expansion of those education and training programs relating to the healthcare industry.
 - Leverage the activities within the emerging Keystone Innovation Zones (KIZ) to encourage the inclusion of industry-specific resources targeted to emerging clusters.
 - Tap in to the expertise of institutional experts to provide technical assistance and support.
 - Utilize the proposed KIZ's as a recruiting incentive for companies that can enhance or further support existing identified clusters.
- Target entrepreneurial support and technical assistance towards emerging clusters.
 - Hold periodic presentations to inform companies of the available entrepreneurial resources and related activities.
 - Use the resources of the Central Pennsylvania Entrepreneurial Assistance Network (CPEAN) to provide intensified technical support to entrepreneurs starting or expanding a small business within the targeted cluster areas.
 - Create or expand a loan fund to target companies within a specific industry.
 - Create an “entrepreneurs club” to encourage the creation and growth of new companies with each industry cluster.
- Consider expanding the Lock Haven Enterprise Zone to give more companies an opportunity to utilize economic development resources available under that program. There is a limited amount of space served by the appropriate infrastructure within the Enterprise Zone to accommodate the location of new companies.
 - Incorporate the developing Lamar Township Business Park with its KOZ designation adjacent to the I99 corridor in order to provide additional incentives for recruiting and expansion efforts at growing and expanding companies that are likely to be competitive in the global marketplace.
- Develop a regional brand or identity for the area. Marketing or branding a region is one of the action items listed in Stuart Rosenfeld's, “A Guide to Cluster Strategies.” More than half the companies interviewed felt the region could benefit from the development of a regional brand or identity.
 - A regional brand has been developed and is currently being marketed throughout the broader “Central Pennsylvania” region, which encompasses the study area. Encourage companies in the study area to use this regional brand.
- Work with existing companies to encourage and support exporting activities and target exporters within the identified industry clusters when trying to recruit new business locations.
 - Target seminars/workshops on exporting to companies within the Enterprise Zone to inform them of the wide array of services offered by the state to assist companies interested in exporting.

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- Work with local economic development agencies to conduct export outreach services towards companies within the Enterprise Zone.
- Inform companies of the state-sponsored tradeshows and trade missions that will expose them to foreign markets in a cost effective way.
- Use the resources of the PA BREP to provide export referrals for companies within the Enterprise Zone.