

12 West Central I Region

12.1 Introduction

Driver industry and industry cluster analyses were conducted for each of the seven economic regions in the State of Wisconsin. This section provides a summary of the findings from the analysis for the West Central I Region, as well as, detailed information related to each of the regional driver industries identified. For the purposes of this analysis, the West Central I Region is defined to include the counties of Barron, Buffalo, Chippewa, Dunn, Eau Claire, Pepin, Pierce, Polk, and St. Croix.

The next sub-section provides an overview and summary of the findings from the analyses conducted. This is followed by detailed descriptions of each of the regional driver industries and their associated industry cluster. Next, perspectives on the state of manufacturing in the region appear in tabular form. And, finally, Wisconsin's manufacturing executives identify key issues affecting them in the region.

12.2 Summary of Regional Driver Industries & Industry Clusters

The driver analysis for the West Central I Region identified 16 regional driver industries. These industries include:

- 3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing
- 3115 Dairy Product Manufacturing
- 3162 Footwear Manufacturing
- 3211 Sawmills and Wood Preservation
- 3212 Veneer, Plywood, and Engineered Wood Product Manufacturing
- 3222 Converted Paper Product Manufacturing
- 3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing
- 3272 Glass and Glass Product Manufacturing
- 3321 Forging and Stamping
- 3322 Cutlery and Handtool Manufacturing
- 3324 Boiler, Tank, and Shipping Container Manufacturing
- 3325 Hardware Manufacturing
- 3332 Industrial Machinery Manufacturing
- 3333 Commercial and Service Industry Machinery Manufacturing
- 3353 Electrical Equipment Manufacturing
- 3359 Other Electrical Equipment and Component Manufacturing

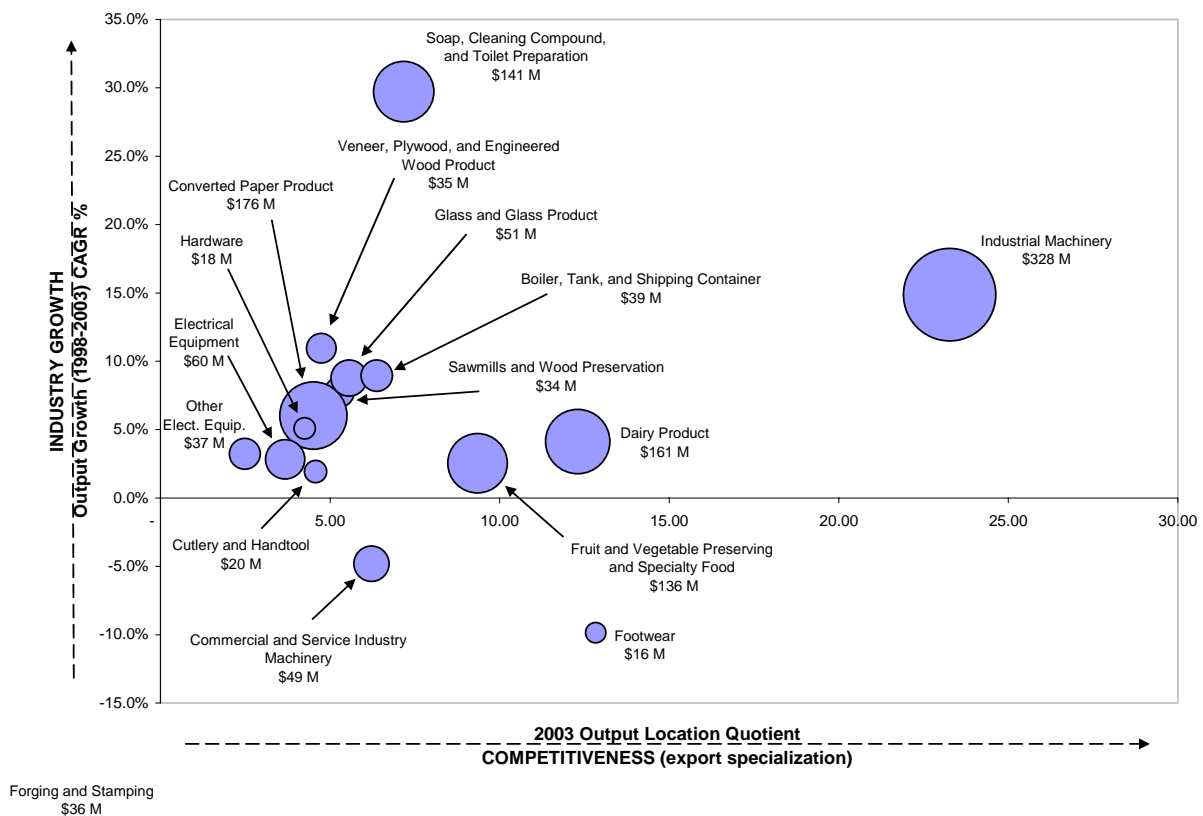
12.2.1 How Are the West Central I Driver Industries Doing?

This chart shows the relative economic health of driver industries measured by two factors – their “competitiveness” in terms of export orientation or specialization on the X axis (horizontal), and their “growth” on the Y axis (vertical). Competitiveness is measured in terms of the output location quotients which is a ratio of the industry's concentration in the region compared to the industry's concentration nationally. In general, a location quotient above 1 indicates that the industry is more concentrated in the region than it is nationally. This concentration suggests that the industry exports its product from the region and that the region offers competitive advantages

to the industry over other areas throughout the country. An industry is increasingly more competitive as it moves to the right on the X axis. And the more competitive it is, the more it sells goods outside of its own region, thereby generating money for the region in which it operates.

Industry growth is measured in terms of compound annual growth rates over the last five years and is shown on the Y axis. An industry is growing faster as it moves upward from zero; it is declining if it is below zero. The area (size) of each circle represents the gross product of each industry and indicates the industry's relative size as compared to the other industries. Through this picturing of all of the region's drivers in one perspective, a sense of the overall strategies and services that will be needed in that region begins to emerge.

Figure 12-1 Overview of the West Central Region I's Drivers



Interpretation: Industrial Machinery in West Central I, unlike its counterparts in other regions shows stellar performance, with a very competitive advantage and steady growth. Soap, Cleaning Compound, and Toilet Preparation exhibits unusually rapid growth. Most other industries are exporting product and growing slowly, but their position in this region should be compared to those of their like industries in other regions to learn if there are benefits from working more closely across regions.

12.2.2 Driver and Industry Cluster Relationships in the West Central I Region

For the Study, an industry cluster analysis was conducted for each of the driver industries. Tables 12-1 and 12-2 provide a summary of the results from these analyses and identify regional and national supplier industries that are common to multiple regional driver industries.

The supplier industries identified in Table 12-1 are found in the regional economy and provide goods or services to multiple driver industries. Many, in fact, are driver industries themselves. The importance of these industries to the overall competitiveness of the driver industries can not be overstated. By providing quality goods and services to the driver industries, these supplier industries help the regional driver industries produce and deliver the products their consumers demand. Attempts to impact the competitiveness of the industries that supply inputs to multiple regional driver industries can indirectly impact the competitiveness of those driver industries.

Table 12-1 Regional & National Supplier Industries Common to Regional Driver Industries

NAICS	Title	Regional Driver**	Count of Drivers	
			Regional Suppliers	National Suppliers
42*	Wholesale Trade		16	16
484*	Truck Transportation		16	16
3261	Plastics Product Manufacturing		12	13
4931	Warehousing and Storage		5	6
3251	Basic Chemical Manufacturing		5	6
3314	Nonferrous Metal (except Aluminum) Production and Processing		5	5
3353	Electrical Equipment Manufacturing	X	4	4
3255	Paint, Coating, and Adhesive Manufacturing		4	9
3219	Other Wood Product Manufacturing		4	6
3344	Semiconductor and Other Electronic Component Manufacturing		4	4
3341	Computer and Peripheral Equipment Manufacturing		3	2
3327	Machine Shops, Turned Product, and Screw, Nut, & Bolt Manufacturing		2	7
3324	Boiler, Tank, and Shipping Container Manufacturing	X	2	5
3259	Other Chemical Product and Preparation Manufacturing		2	8
1133	Logging		2	2
3211	Sawmills and Wood Preservation	X	2	2
3335	Metalworking Machinery Manufacturing		2	3
5111	Newspaper, Periodical, Book, and Directory Publishers		2	1
3115	Dairy Product Manufacturing	X	2	2
5413	Architectural, Engineering, and Related Services		2	2
2380	Specialty Trade Contractors		2	1

NAICS	Title	Regional Driver**	Count of Drivers	
			Regional Suppliers	National Suppliers
5417	Scientific Research and Development Services		2	3
FR	Farms		2	2
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	X	2	2
<p>*An explanation of the NAICS codes with asterisks is included in the Methodology section of the Appendices. **Not all of a Region's drivers are also suppliers. Those marked with an X are suppliers.</p>				

Table 12-2 is similar to Table 12-1 in that it shows industries that supply inputs to multiple driver industries. The difference is that the industries identified in Table 12-2 either do not exist in the region or they are smaller industries that are not likely to be able to provide inputs at a sufficient scale to meet the needs of the driver industries. Attempts to attract or grow these industries within the region may help reduce the import of goods and services by the region's driver industries.

Table 12-2 National Supplier Industries Common to Regional Driver Industries
Count of Drivers

NAICS	Title	National Suppliers
3222	Converted Paper Product Manufacturing	14
3321	Forging and Stamping	11
5419	Other Professional, Scientific, and Technical Services	11
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	9
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Mfg.	8
3311	Iron and Steel Mills and Ferroalloy Mfg.	8
3313	Alumina and Aluminum Production and Processing	8
3241	Petroleum and Coal Products Manufacturing	7
3315	Foundries	7
3329	Other Fabricated Metal Product Mfg.	7
3312	Steel Product Manufacturing from Purchased Steel	6
3323	Architectural and Structural Metals Mfg.	6
517*	Telecommunications	6
5418	Advertising and Related Services	6
3221	Pulp, Paper, and Paperboard Mills	5
3262	Rubber Product Manufacturing	5
3272	Glass and Glass Product Manufacturing	5

<u>Count of Drivers</u>		
NAICS	Title	National Suppliers
4821	Rail Transportation	5
5411	Legal Services	5
3359	Other Electrical Equipment and Component Manufacturing	4
3231	Printing and Related Support Activities	3
3279	Other Nonmetallic Mineral Product Mfg.	3
3322	Cutlery and Handtool Manufacturing	3
3326	Spring and Wire Product Manufacturing	3
3339	Other General Purpose Machinery Mfg.	3
5151	Radio and Television Broadcasting	3
3112	Grain and Oilseed Milling	2
3116	Animal Slaughtering and Processing	2
3119	Other Food Manufacturing	2
3132	Fabric Mills	2
3271	Clay Product and Refractory Manufacturing	2
3328	Coating, Engraving, Heat Treating, and Allied Activities	2
3332	Industrial Machinery Manufacturing	2
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Mfg.	2
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	2
483*	Water Transportation	2
5415	Computer Systems Design and Related Services	2
FH	Fishing, Hunting, Etc.	2

*An explanation of the NAICS codes with asterisks is included in the Methodology section of the Appendices.

12.2.3 Filtering & Refinement of Quantitative Results

The analysis used to identify driver industries is a quantitative analysis based on secondary data and captures industries that exhibit some form of competitive advantage. While the model is extremely good at identifying regional driver industries, certain results often require qualitative insight to filter and refine the results. One way in which to identify industries either to remove or add as driver industries is to receive local perspectives on the lists of driver industries identified by the model. The following are responses to some of the comments related to the driver industries identified by the quantitative analysis for the West Central I Region.

First, “Industry 3116: Animal Slaughtering and Processing,” which includes poultry processing, was identified as an important industry in the region. After some decline between 1993 and

1998, the industry has maintained a fairly constant level of employment, and the gross product for the industry has slowly but consistently increased over time. The industry was not identified as a driver industry because some of its characteristics relative to the nation as a whole did not suggest that the region offered the industry competitive advantages as compared to other locations. One of the problems with data for this industry is the fact that they are not specific to poultry processing but, rather, they include other types of meat processing as well. This lack of detailed information results in the industry's relative concentration in the region being understated.

The second industry identified was "Industry 3261: Plastics Products Manufacturing." As with industry 3116, this is an important industry for the region because of its size. However, it was not identified as a regional driver industry due to the industry's characteristics in the region relative to those in the nation as a whole. It is likely that this industry is primarily a supplier to other driver industries in the region.

Finally, industries that produce circuit boards and electronics were identified. In particular, two firms: Hutchinson Technology, Inc., and Cray, Inc. Although both of these companies operate in "Industry 3341: Computer and Peripheral Equipment Manufacturing," the primary industry for Hutchinson Technology, Inc. is "Industry 3332: Industrial Machinery Manufacturing," which was identified as a regional driver industry. "Industry 3341: Computer and Peripheral Equipment Manufacturing" was not identified as a driver industry because it is a small regional industry.

12.3 Detailed Descriptions of the Regional Driver Industries

12.3.1 Driver Industry Definitions

3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing

This industry group includes (1) establishments that freeze food and (2) those that use preservation processes, such as pickling, canning, and dehydrating. Both types begin their production process with inputs of vegetable or animal origin.

31141 Frozen Food Manufacturing

31142 Fruit and Vegetable Canning, Pickling, and Drying

3115 Dairy Product Manufacturing

This industry group comprises establishments that manufacture dairy products from raw milk, processed milk, and dairy substitutes.

31151 Dairy Product (except Frozen) Manufacturing

31152 Ice Cream and Frozen Dessert Manufacturing

3162 Footwear Manufacturing

This industry comprises establishments primarily engaged in manufacturing footwear (except orthopedic extension footwear).

321 Wood Product Manufacturing (Partial)

Industries in the Wood Product Manufacturing subsector manufacture wood products, such as lumber, plywood, veneers, wood containers, wood flooring, wood trusses, manufactured homes

(i.e., mobile home), and prefabricated wood buildings. The production processes of the Wood Product Manufacturing subsector include sawing, planing, shaping, laminating, and assembling of wood products starting from logs that are cut into bolts, or lumber that then may be further cut, or shaped by lathes or other shaping tools. The lumber or other transformed wood shapes may also be subsequently planed or smoothed, and assembled into finished products, such as wood containers. The Wood Product Manufacturing subsector includes establishments that make wood products from logs and bolts that are sawed and shaped, and establishments that purchase sawed lumber and make wood products. With the exception of sawmills and wood preservation establishments, the establishments are grouped into industries mainly based on the specific products manufactured.

3211 Sawmills and Wood Preservation

This industry group comprises establishments whose primary production process begins with logs or bolts that are transformed into boards, dimension lumber, beams, timbers, poles, ties, shingles, shakes, siding, and wood chips. Establishments that cut and treat round wood and/or treat wood products made in other establishments to prevent rotting by impregnation with creosote or other chemical compounds are also included in this industry group.

3212 Veneer, Plywood, and Engineered Wood Product Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing veneer and/or plywood; (2) manufacturing engineered wood members; and (3) manufacturing reconstituted wood products. This industry includes manufacturing plywood from veneer made in the same establishment or from veneer made in other establishments, and manufacturing plywood faced with nonwood materials, such as plastics or metal.

3222 Converted Paper Product Manufacturing

This industry group comprises establishments primarily engaged in converting paper or paperboard without manufacturing paper or paperboard.

3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing

This industry comprises establishments primarily engaged in manufacturing and packaging soap and other cleaning compounds, surface active agents, and textile and leather finishing agents used to reduce tension or speed the drying process and establishments primarily engaged in preparing, blending, compounding, and packaging toilet preparations, such as perfumes, shaving preparations, hair preparations, face creams, lotions (including sunscreens), and other cosmetic preparations.

3272 Glass and Glass Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass

332 Fabricated Metal Product Manufacturing (Partial)

Industries in the Fabricated Metal Product Manufacturing subsector transform metal into intermediate or end products, other than machinery, computers and electronics, and metal

furniture or treating metals and metal formed products fabricated elsewhere. Important fabricated metal processes are forging, stamping, bending, forming, and machining, used to shape individual pieces of metal; and other processes, such as welding and assembling, used to join separate parts together. Establishments in this subsector may use one of these processes or a combination of these processes.

3321 Forging and Stamping

3322 Cutlery and Handtool Manufacturing

3324 Boiler, Tank, and Shipping Container Manufacturing

3325 Hardware Manufacturing

333 Machinery Manufacturing

Industries in the Machinery Manufacturing subsector create end products that apply mechanical force, for example, the application of gears and levers, to perform work. Some important processes for the manufacture of machinery are forging, stamping, bending, forming, and machining that are used to shape individual pieces of metal. Processes, such as welding and assembling are used to join separate parts together. Although these processes are similar to those used in metal fabricating establishments, machinery manufacturing is different because it typically employs multiple metal forming processes in manufacturing the various parts of the machine. Moreover, complex assembly operations are an inherent part of the production process.

3332 Industrial Machinery Manufacturing

3333 Commercial and Service Industry Machinery Manufacturing

335 Electrical Equipment, Appliance, and Component Manufacturing (Partial)

Industries in the Electrical Equipment, Appliance, and Component Manufacturing subsector manufacture products that generate, distribute, and use electrical power. Electric Lighting Equipment Manufacturing establishments produce electric lamp bulbs, lighting fixtures, and parts. Household Appliance Manufacturing establishments make both small and major electrical appliances and parts. Electrical Equipment Manufacturing establishments make goods, such as electric motors, generators, transformers, and switchgear apparatus. Other Electrical Equipment and Component Manufacturing establishments make devices for storing electrical power (e.g., batteries), for transmitting electricity (e.g., insulated wire), and wiring devices (e.g., electrical outlets, fuse boxes, and light switches).

3353 Electrical Equipment Manufacturing

3359 Other Electrical Equipment and Component Manufacturing

12.3.2 Industry Clusters

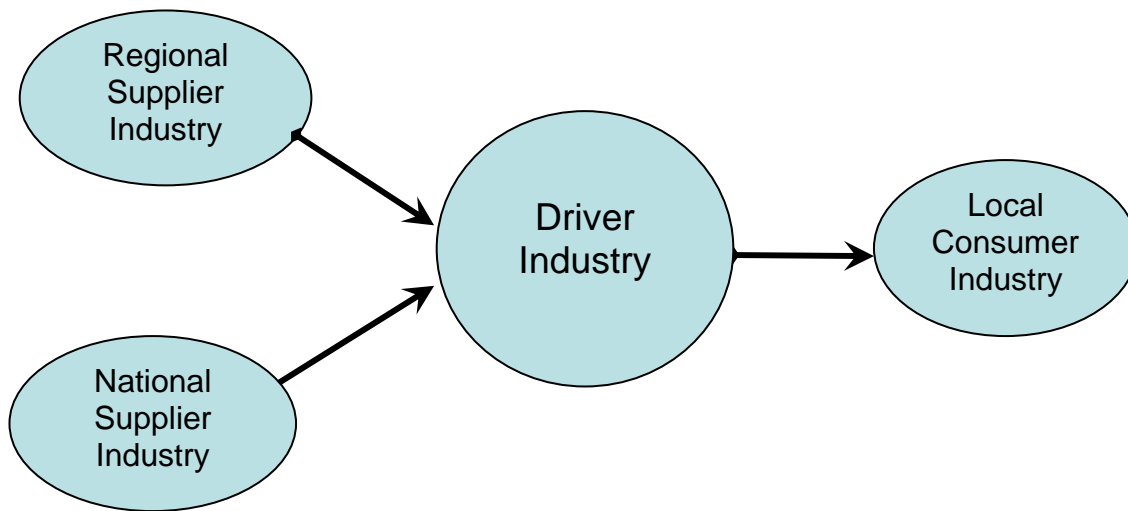
Industries contained within an industry cluster are related to driver industries in three ways, two supplier relationships and one consumer relationship.

Supplier relationships are defined by the backward linkages that a driver industry has with either (1) other regional industries (Regional Suppliers) or (2) industries not located within the region (National Supplier). Both types of supplier relationships are based on linkages identified using information from input-output tables from the IMPLAN model. For supplier relationships with other regional industries, the IMPLAN model is “regionalized” to reflect the industries that exist within the region. For supplier relationships with industries not located within the region, the national IMPLAN model is used.

For both types of supplier relationships, only the most significant supplier industries are listed. The significance of the supplier industry is based on the relative amount of the driver industry’s total outlay that is used to purchase goods or services from the supplier industry. In the case where supplier industries appear in the lists for both types of supplier industries, the specific industry is removed from the list of national supplier industries.

The consumer industries are identified by reversing the relationship used to identify supplier industries. The consumer industries are those industries to which a driver industry sells a significant portion of its total output.

Figure 12-2 Industry Clusters



Industry Clusters

NB: An explanation of the NAICS codes with asterisks is included in the Methodology section of the Appendices.

3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing

<u>Supplier Industries - Typical Regional Industry</u>	<u>Supplier Industries – Typical National Industry</u>
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Supplier Industries - Typical Regional Industry

FR	Farms
42*	Wholesale Trade
484*	Truck Transportation
3115	Dairy Product Manufacturing
3116	Animal Slaughtering and Processing
3261	Plastics Product Manufacturing
3324	Boiler, Tank, and Shipping Container Manufacturing
4931	Warehousing and Storage

Supplier Industries – Typical National Industry

3222	Converted Paper Product Manufacturing
3272	Glass and Glass Product Manufacturing
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3119	Other Food Manufacturing
3231	Printing and Related Support Activities
3112	Grain and Oilseed Milling
3221	Pulp, Paper, and Paperboard Mills
5419	Other Professional, Scientific, and Technical Services

Consumer Industries - Typical Regional Industry

722*	Food services and drinking places
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
622*	Hospitals
623*	Nursing and residential care facilities
3111	Animal Food Manufacturing
3119	Other Food Manufacturing
3115	Dairy Product Manufacturing
3118	Bakeries and Tortilla Manufacturing
3323	Architectural and Structural Metals Manufacturing

3115 Dairy Product Manufacturing

Supplier Industries - Typical Regional Industry

FR	Farms
3115	Dairy Product Manufacturing
42*	Wholesale Trade
3261	Plastics Product Manufacturing
484*	Truck Transportation
4931	Warehousing and Storage

Supplier Industries – Typical National Industry

3332	Industrial Machinery Manufacturing
3222	Converted Paper Product Manufacturing
3119	Other Food Manufacturing
3324	Boiler, Tank, and Shipping Container Manufacturing
3112	Grain and Oilseed Milling
5411	Legal Services
3113	Sugar and Confectionery Product Manufacturing
481*	Air Transportation
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
5419	Other Professional, Scientific, and Technical Services

Consumer Industries - Typical Regional Industry

3115	Dairy Product Manufacturing
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Consumer Industries - Typical Regional Industry

722*	Food services and drinking places
622*	Hospitals
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing

3162 Footwear Manufacturing

Supplier Industries - Typical Regional Industry

42*	Wholesale Trade
3261	Plastics Product Manufacturing
484*	Truck Transportation
5111	Newspaper, Periodical, Book, and Directory Publishers
3219	Other Wood Product Manufacturing
5151	Radio and Television Broadcasting

Supplier Industries – Typical National Industry

3161	Leather and Hide Tanning and Finishing
3262	Rubber Product Manufacturing
3222	Converted Paper Product Manufacturing
5418	Advertising and Related Services
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
3132	Fabric Mills

Consumer Industries - Typical Regional Industry

3162	Footwear Manufacturing
624*	Social assistance, except child day care services

3211 Sawmills and Wood Preservation

Supplier Industries - Typical Regional Industry

1133	Logging
3211	Sawmills and Wood Preservation
42*	Wholesale Trade
484*	Truck Transportation
3219	Other Wood Product Manufacturing
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing
3251	Basic Chemical Manufacturing

Supplier Industries – Typical National Industry

FH	Fishing, Hunting, Etc.
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
3259	Other Chemical Product and Preparation Manufacturing
4821	Rail Transportation

Consumer Industries - Typical Regional Industry

3211	Sawmills and Wood Preservation
2360	Construction of Buildings

3219 Other Wood Product Manufacturing

4821 Rail Transportation

Consumer Industries - Typical Regional Industry

2380	Specialty Trade Contractors
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
2211	Electric Power Generation, Transmission and Distribution
2370	Heavy and Civil Engineering Construction
3372	Office Furniture (including Fixtures) Manufacturing

3212 Veneer, Plywood, and Engineered Wood Product Manufacturing

Supplier Industries - Typical Regional Industry

1133	Logging
3211	Sawmills and Wood Preservation
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing
3219	Other Wood Product Manufacturing
42*	Wholesale Trade
484*	Truck Transportation
3255	Paint, Coating, and Adhesive Manufacturing

Supplier Industries – Typical National Industry

3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
3323	Architectural and Structural Metals Manufacturing
FH	Fishing, Hunting, Etc.
3241	Petroleum and Coal Products Manufacturing
3321	Forging and Stamping
3261	Plastics Product Manufacturing
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance

Consumer Industries - Typical Regional Industry

2360	Construction of Buildings
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing
2380	Specialty Trade Contractors
3372	Office Furniture (including Fixtures) Manufacturing
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
3211	Sawmills and Wood Preservation
3219	Other Wood Product Manufacturing
3366	Ship and Boat Building

3222 Converted Paper Product Manufacturing

Supplier Industries - Typical Regional Industry

484*	Truck Transportation
42*	Wholesale Trade

Supplier Industries – Typical National Industry

3132	Fabric Mills
3313	Alumina and Aluminum Production and Processing

Supplier Industries - Typical Regional Industry

3261	Plastics Product Manufacturing
3255	Paint, Coating, and Adhesive Manufacturing
3279	Other Nonmetallic Mineral Product Manufacturing
3221	Pulp, Paper, and Paperboard Mills

Supplier Industries – Typical National Industry

3251	Basic Chemical Manufacturing
3222	Converted Paper Product Manufacturing
3259	Other Chemical Product and Preparation Manufacturing
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
3329	Other Fabricated Metal Product Manufacturing
4821	Rail Transportation
5418	Advertising and Related Services
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance

Consumer Industries - Typical Regional Industry

622*	Hospitals
3115	Dairy Product Manufacturing
8121	Personal Care Services
722*	Food services and drinking places
3261	Plastics Product Manufacturing
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
42*	Wholesale Trade
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3272	Glass and Glass Product Manufacturing
621a*	Offices of physicians, dentists, and other health practitioners

3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing

Supplier Industries - Typical Regional Industry

3251	Basic Chemical Manufacturing
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing
42*	Wholesale Trade
3261	Plastics Product Manufacturing
484*	Truck Transportation
4931	Warehousing and Storage
3255	Paint, Coating, and Adhesive Manufacturing
5417	Scientific Research and Development Services

Supplier Industries – Typical National Industry

3222	Converted Paper Product Manufacturing
3241	Petroleum and Coal Products Manufacturing
3324	Boiler, Tank, and Shipping Container Manufacturing
5418	Advertising and Related Services
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
3272	Glass and Glass Product Manufacturing
5151	Radio and Television Broadcasting
3231	Printing and Related Support Activities

Supplier Industries - Typical Regional Industry

8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
3259	Other Chemical Product and Preparation Manufacturing

Consumer Industries - Typical Regional Industry

FR	Farms
622*	Hospitals
3119	Other Food Manufacturing
3261	Plastics Product Manufacturing
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing
623*	Nursing and residential care facilities
5617	Services to Buildings and Dwellings
3251	Basic Chemical Manufacturing
3115	Dairy Product Manufacturing
8123	Drycleaning and Laundry Services

Supplier Industries – Typical National Industry

5411	Legal Services
5111	Newspaper, Periodical, Book, and Directory Publishers

3272 Glass and Glass product Manufacturing

Supplier Industries - Typical Regional Industry

3272	Glass and Glass Product Manufacturing
42*	Wholesale Trade
484*	Truck Transportation
3261	Plastics Product Manufacturing
3251	Basic Chemical Manufacturing
3255	Paint, Coating, and Adhesive Manufacturing

Supplier Industries – Typical National Industry

3222	Converted Paper Product Manufacturing
3271	Clay Product and Refractory Manufacturing
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
2123	Nonmetallic Mineral Mining and Quarrying
3335	Metalworking Machinery Manufacturing
3219	Other Wood Product Manufacturing
3279	Other Nonmetallic Mineral Product Manufacturing
2380	Specialty Trade Contractors
8112	Electronic and Precision Equipment Repair and Maintenance
4821	Rail Transportation

Consumer Industries - Typical Regional Industry

3272	Glass and Glass Product Manufacturing
3323	Architectural and Structural Metals Manufacturing
3261	Plastics Product Manufacturing
722*	Food services and drinking places

Consumer Industries - Typical Regional Industry

622*	Hospitals
8111	Automotive Repair and Maintenance
3366	Ship and Boat Building
5417	Scientific Research and Development Services
3219	Other Wood Product Manufacturing
2360	Construction of Buildings

3321 Forging and Stamping

Supplier Industries - Typical Regional Industry

42*	Wholesale Trade
484*	Truck Transportation
3363	Motor Vehicle Parts Manufacturing
3314	Nonferrous Metal (except Aluminum) Production and Processing
3335	Metalworking Machinery Manufacturing

Supplier Industries – Typical National Industry

3311	Iron and Steel Mills and Ferroalloy Manufacturing
3323	Architectural and Structural Metals Manufacturing
3312	Steel Product Manufacturing from Purchased Steel
3321	Forging and Stamping
3313	Alumina and Aluminum Production and Processing
3327	Machine Shops, Turned Product, and Screw, Nut, & Bolt Manufacturing
3329	Other Fabricated Metal Product Manufacturing
3222	Converted Paper Product Manufacturing
5419	Other Professional, Scientific, and Technical Services
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance

Consumer Industries - Typical Regional Industry

8111	Automotive Repair and Maintenance
3325	Hardware Manufacturing
3353	Electrical Equipment Manufacturing
3331	Agriculture, Construction, and Mining Machinery Manufacturing
3363	Motor Vehicle Parts Manufacturing
484*	Truck Transportation
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing
3341	Computer and Peripheral Equipment Manufacturing
3261	Plastics Product Manufacturing

Consumer Industries - Typical Regional Industry

3327 Machine Shops, Turned Product, and Screw, Nut, & Bolt Manufacturing

3322 Cutlery and Handtool Manufacturing

Supplier Industries - Typical Regional Industry

42* Wholesale Trade
 484* Truck Transportation
 3261 Plastics Product Manufacturing
 3219 Other Wood Product Manufacturing
 5111 Newspaper, Periodical, Book, and Directory Publishers
 2380 Specialty Trade Contractors

Supplier Industries – Typical National Industry

3311 Iron and Steel Mills and Ferroalloy Manufacturing
 3313 Alumina and Aluminum Production and Processing
 3329 Other Fabricated Metal Product Manufacturing
 3321 Forging and Stamping
 3222 Converted Paper Product Manufacturing
 483* Water Transportation
 3315 Foundries
 3322 Cutlery and Handtool Manufacturing
 3241 Petroleum and Coal Products Manufacturing
 3312 Steel Product Manufacturing from Purchased Steel

Consumer Industries - Typical Regional Industry

3325 Hardware Manufacturing
 FR Farms
 8111 Automotive Repair and Maintenance
 3339 Other General Purpose Machinery Manufacturing
 2360 Construction of Buildings
 3261 Plastics Product Manufacturing
 3222 Converted Paper Product Manufacturing
 484* Truck Transportation
 8113 Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
 3329 Other Fabricated Metal Product Manufacturing

3324 Boiler, Tank, and Shipping Container Manufacturing

Supplier Industries - Typical Regional Industry

42* Wholesale Trade
 484* Truck Transportation

Supplier Industries – Typical National Industry

3311 Iron and Steel Mills and Ferroalloy Manufacturing
 3313 Alumina and Aluminum Production and Processing

Supplier Industries - Typical Regional Industry

3324	Boiler, Tank, and Shipping Container Manufacturing
3314	Nonferrous Metal (except Aluminum) Production and Processing

Supplier Industries – Typical National Industry

3329	Other Fabricated Metal Product Manufacturing
3321	Forging and Stamping
3255	Paint, Coating, and Adhesive Manufacturing
3323	Architectural and Structural Metals Manufacturing
3312	Steel Product Manufacturing from Purchased Steel
3315	Foundries
3339	Other General Purpose Machinery Manufacturing
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance

Consumer Industries - Typical Regional Industry

3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3331	Agriculture, Construction, and Mining Machinery Manufacturing
3115	Dairy Product Manufacturing
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
3121	Beverage Manufacturing
3111	Animal Food Manufacturing
2360	Construction of Buildings
3324	Boiler, Tank, and Shipping Container Manufacturing
3323	Architectural and Structural Metals Manufacturing
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing

3325 Hardware Manufacturing

Supplier Industries - Typical Regional Industry

42*	Wholesale Trade
3353	Electrical Equipment Manufacturing
3261	Plastics Product Manufacturing
484*	Truck Transportation
3325	Hardware Manufacturing
3314	Nonferrous Metal (except Aluminum) Production and Processing

Supplier Industries – Typical National Industry

3311	Iron and Steel Mills and Ferroalloy Manufacturing
3321	Forging and Stamping
3222	Converted Paper Product Manufacturing
3315	Foundries
3322	Cutlery and Handtool Manufacturing
3327	Machine Shops, Turned Product, and Screw, Nut, & Bolt Manufacturing
3326	Spring and Wire Product Manufacturing

Supplier Industries - Typical Regional Industry

Supplier Industries – Typical National Industry

Consumer Industries - Typical Regional Industry

3325	Hardware Manufacturing
3362	Motor Vehicle Body and Trailer Manufacturing
3323	Architectural and Structural Metals Manufacturing
2360	Construction of Buildings
8111	Automotive Repair and Maintenance
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3366	Ship and Boat Building
3219	Other Wood Product Manufacturing
3261	Plastics Product Manufacturing
3372	Office Furniture (including Fixtures) Manufacturing

3312	Steel Product Manufacturing from Purchased Steel
3313	Alumina and Aluminum Production and Processing
5419	Other Professional, Scientific, and Technical Services

3332 Industrial Machinery Manufacturing

Supplier Industries - Typical Regional Industry

Supplier Industries – Typical National Industry

42*	Wholesale Trade
3332	Industrial Machinery Manufacturing
3261	Plastics Product Manufacturing
3344	Semiconductor and Other Electronic Component Manufacturing
3327	Machine Shops, Turned Product, and Screw, Nut, & Bolt Manufacturing
3251	Basic Chemical Manufacturing
3328	Coating, Engraving, Heat Treating, and Allied Activities
5415	Computer Systems Design and Related Services
3341	Computer and Peripheral Equipment Manufacturing
3353	Electrical Equipment Manufacturing
484*	Truck Transportation
3335	Metalworking Machinery Manufacturing
3339	Other General Purpose Machinery

3311	Iron and Steel Mills and Ferroalloy Manufacturing
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
3322	Cutlery and Handtool Manufacturing
3321	Forging and Stamping
3279	Other Nonmetallic Mineral Product Manufacturing
3315	Foundries
3255	Paint, Coating, and Adhesive Manufacturing
3359	Other Electrical Equipment and Component Manufacturing
3329	Other Fabricated Metal Product Manufacturing
3326	Spring and Wire Product Manufacturing

Supplier Industries - Typical Regional Industry

Manufacturing

Consumer Industries - Typical Regional Industry

3231	Printing and Related Support Activities
3332	Industrial Machinery Manufacturing
3344	Semiconductor and Other Electronic Component Manufacturing
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
722*	Food services and drinking places
2360	Construction of Buildings
5414	Specialized Design Services
3335	Metalworking Machinery Manufacturing
3261	Plastics Product Manufacturing
3221	Pulp, Paper, and Paperboard Mills

Supplier Industries – Typical National Industry

3333 Commercial and Service Industry Machinery Manufacturing

Supplier Industries - Typical Regional Industry

42*	Wholesale Trade
3344	Semiconductor and Other Electronic Component Manufacturing
3353	Electrical Equipment Manufacturing
484*	Truck Transportation
3261	Plastics Product Manufacturing
3333	Commercial and Service Industry Machinery Manufacturing
3327	Machine Shops, Turned Product, and Screw, Nut, & Bolt Manufacturing

Supplier Industries – Typical National Industry

5415	Computer Systems Design and Related Services
3311	Iron and Steel Mills and Ferroalloy Manufacturing
3272	Glass and Glass Product Manufacturing
3328	Coating, Engraving, Heat Treating, and Allied Activities
3359	Other Electrical Equipment and Component Manufacturing
3255	Paint, Coating, and Adhesive Manufacturing
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
3222	Converted Paper Product Manufacturing
3329	Other Fabricated Metal Product Manufacturing
5411	Legal Services

Consumer Industries - Typical Regional Industry

2370	Heavy and Civil Engineering Construction
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Consumer Industries - Typical Regional Industry

2360	Construction of Buildings
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
3333	Commercial and Service Industry Machinery Manufacturing
8111	Automotive Repair and Maintenance

3353 Electrical Equipment Manufacturing

Supplier Industries - Typical Regional Industry

42*	Wholesale Trade
3344	Semiconductor and Other Electronic Component Manufacturing
3261	Plastics Product Manufacturing
484*	Truck Transportation
3353	Electrical Equipment Manufacturing
3314	Nonferrous Metal (except Aluminum) Production and Processing
3359	Other Electrical Equipment and Component Manufacturing
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing
4931	Warehousing and Storage
5413	Architectural, Engineering, and Related Services
2380	Specialty Trade Contractors
3341	Computer and Peripheral Equipment Manufacturing
5417	Scientific Research and Development Services

Supplier Industries – Typical National Industry

3255	Paint, Coating, and Adhesive Manufacturing
3311	Iron and Steel Mills and Ferroalloy Manufacturing
3321	Forging and Stamping
3315	Foundries
3241	Petroleum and Coal Products Manufacturing
3271	Clay Product and Refractory Manufacturing
3329	Other Fabricated Metal Product Manufacturing
3323	Architectural and Structural Metals Manufacturing
3312	Steel Product Manufacturing from Purchased Steel
3221	Pulp, Paper, and Paperboard Mills

Consumer Industries - Typical Regional Industry

3339	Other General Purpose Machinery Manufacturing
3351	Electric Lighting Equipment Manufacturing
3325	Hardware Manufacturing
3261	Plastics Product Manufacturing
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
2360	Construction of Buildings
8111	Automotive Repair and Maintenance

Consumer Industries - Typical Regional Industry

3353	Electrical Equipment Manufacturing
3331	Agriculture, Construction, and Mining Machinery Manufacturing
484*	Truck Transportation

3359 Other Electrical Equipment and Component Manufacturing

Supplier Industries - Typical Regional Industry		Supplier Industries – Typical National Industry	
3344	Semiconductor and Other Electronic Component Manufacturing	3272	Glass and Glass Product Manufacturing
42*	Wholesale Trade	3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
3251	Basic Chemical Manufacturing	3241	Petroleum and Coal Products Manufacturing
3341	Computer and Peripheral Equipment Manufacturing	3359	Other Electrical Equipment and Component Manufacturing
3314	Nonferrous Metal (except Aluminum) Production and Processing	3221	Pulp, Paper, and Paperboard Mills
484*	Truck Transportation	3279	Other Nonmetallic Mineral Product Manufacturing
3259	Other Chemical Product and Preparation Manufacturing	3311	Iron and Steel Mills and Ferroalloy Manufacturing
4931	Warehousing and Storage	3321	Forging and Stamping
3261	Plastics Product Manufacturing	484*	Truck Transportation
5413	Architectural, Engineering, and Related Services	3222	Converted Paper Product Manufacturing

Consumer Industries - Typical Regional Industry

3353	Electrical Equipment Manufacturing
3341	Computer and Peripheral Equipment Manufacturing
3314	Nonferrous Metal (except Aluminum) Production and Processing
3344	Semiconductor and Other Electronic Component Manufacturing
8111	Automotive Repair and Maintenance
3261	Plastics Product Manufacturing
3325	Hardware Manufacturing
2360	Construction of Buildings
3331	Agriculture, Construction, and Mining Machinery Manufacturing

**Consumer Industries - Typical Regional
Industry**

3334 Ventilation, Heating, Air-Conditioning, and
Commercial Refrigeration Equipment
Manufacturing

12.3.3 Firms by Driver Industry in the West Central I Region

3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
McCain Snack Foods	400	4,124	Branch	Private	50MM-99.9MM	1956
Seneca Foods Corp	400	6,695	Branch	Public	50MM-99.9MM	1983
Silver Spring Gardens Inc	210	420	Branch	Private	50MM-99.9MM	1925
Choice Products USA LLC	130	155	Parent	Private		1991
Bush Brothers & Co	120	645	Branch	Private	25MM-49.9MM	1908
Bookbinder Foods	70	420	Branch	Private	10MM-24.9MM	1929
Huntsinger Farms Inc	70	420	Parent	Private		1929
Silver Spring Gardens	70	420	HQs	Private		1929

3115 Dairy Product Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site Sites	All				
Swiss Miss	365	51,284	Branch	Public	100MM-499.9MM	1941
AFP Advanced Food Products LLC	200	-	Single	Private	100MM-499.9MM	1937
AMPI	150	1,796	Branch	Private	50MM-99.9MM	
Saputo Cheese USA Inc	130	1,745	Branch	Private	50MM-99.9MM	1928
Humko Specialty Powders	65	1,320	Branch	Private	10MM-24.9MM	1982
Foremost Farms USA Cooperative	60	1,467	Branch	Private	25MM-49.9MM	1963
Ellsworth Cooperative Creamery	58	-	Single	Private	25MM-49.9MM	1910
Comstock Dairy Enterprises Inc	50	-	Single	Private	25MM-49.9MM	1956
F & A Dairy Products Inc	50	150	Parent	Private		1971
Foremost Farms USA	43	1,467	Branch	Private	10MM-24.9MM	1920
Eau Galle Cheese Factory Inc	30	-	Single	Private	10MM-24.9MM	1945

3162 Footwear Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Mason Shoe Manufacturing Co	350	570	Branch	Private	25MM-49.9MM	1904
Mason Shoe Manufacturing Co	200	570	Parent	Private		1904

3211 Sawmills and Wood Preservation

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
St Croix Valley Hardwoods Inc	100	135	Parent	Private		1985
Banks Hardwoods Inc	40	140	Branch	Private	5MM-9.9MM	1985
Woods Run Forest Products Inc	30	-	Single	Private	5MM-9.9MM	1978
Bee Forest Products Inc	25	-	Single	Private	5MM-9.9MM	1985
Northern Crossarm Co Inc	25	-	Single	Private	5MM-9.9MM	1922
Northwest Hardwoods	23	43,346	Branch	Public	1MM-4.9MM	1983
Schlosser Lumber Inc	23	-	Single	Private	1MM-4.9MM	1941

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Brunkow Hardwood Corp	20	-	Single	Private	1MM-4.9MM	1975

3212 Veneer, Plywood, and Engineered Wood Product Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Automated Building Components	170	677	Branch	Private	10MM-24.9MM	1976
Wisconsin Truss Inc	125	-	Single	Private	10MM-24.9MM	1972
Woodmaster Foundations Inc	35	-	Single	Private	1MM-4.9MM	1985

3222 Converted Paper Product Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
3M Multi Divisional Products	500	71,847	Branch	Public	100MM-499.9MM	1974
Cascade Tissue Group	250	-	Single	Private	100MM-499.9MM	1882
Kell Container Corp	200	-	Single	Private	25MM-49.9MM	1964
AmTec Inc	120	-	Single	Private	25MM-49.9MM	1984
Presto Absorbent Products Inc	80	84	Parent	Public		1982

3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Jennico2 Inc	75	-	Single	Private	25MM-49.9MM	2001

3272 Glass and Glass Product Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Cardinal FG	250	4,124	Branch	Private	50MM-99.9MM	1992
Cardinal DGP/LG	150	4,124	Branch	Private	10MM-24.9MM	1991
Lunde Inc	20	-	Single	Private	1MM-4.9MM	1972

3321 Forging and Stamping

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Polaris Industries Inc	800	3,725	Branch	Public	100MM-499.9MM	1976
Tenere Inc	130	360	Parent	Private		1994
SOS Prescott Inc	30	-	Single	Private	1MM-4.9MM	1965
Phillips Metal Injection	25	-	Single	Private	1MM-4.9MM	1964

3322 Cutlery and Handtool Manufacturing

*No firms were identified in database. (This study used the Harris Infosource database. Harris is a fully owned subsidiary of Dun & Bradstreet. Companies providing data to D&B for the Harris database do so voluntarily. Therefore, the information is incomplete for this item because eligible firms chose not to participate.)

3324 Boiler, Tank, and Shipping Container Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Silgan Containers Mfg Corp	125	6,190	Branch	Public	10MM-24.9MM	1993

3325 Hardware Manufacturing

*No firms were identified in database. (This study used the Harris Infosource database. Harris is a fully owned subsidiary of Dun & Bradstreet. Companies providing data to D&B for the Harris database do so voluntarily. Therefore, the information is incomplete for this item because eligible firms chose not to participate.)

3332 Industrial Machinery Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Hutchinson Technology Inc	1,000	5,290	Branch	Public	100MM-499.9MM	1996
McDonough Manufacturing Co	55	-	Single	Private	5MM-9.9MM	1888
Brandtjen & Kluge Inc	50	-	Single	Private	5MM-9.9MM	1919

3333 Commercial and Service Industry Machinery Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Nedland Industries Inc	50	-	Single	Private	5MM-9.9MM	1981
Foley United	40	135	Branch	Private	5MM-9.9MM	1993

3353 Electrical Equipment Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Rockwell Automation Co	100	16,905	Branch	Public	10MM-24.9MM	1902
Automation Displays Inc	22	-	Single	Private	1MM-4.9MM	1971

3359 Other Electrical Equipment and Component Manufacturing

Company	Employment		Location Type	Ownership	Sales Range	Year Estab.
	Site	All Sites				
Ardisam Inc	200	-	Single	Private	25MM-49.9MM	1960
Northwire Inc	115	-	Single	Private	10MM-24.9MM	1972
Graphic Display Systems Inc	50	-	Single	Private	5MM-9.9MM	1992
Dynatronix Inc	40	-	Single	Private	5MM-9.9MM	1971

12.3.4 Detailed Employment, Gross Product, & Gross Product per Employee, West Central I Region

Table 12-3 Employment in the West Central I Region's Driver Industries, 1993-2008

NAICS	Title	1993	1998	2000	2001	2002	2003	2004	2008
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	1,169	1,914	1,990	1,826	1,761	1,602	1,578	1,592
3115	Dairy Product Manufacturing	990	1,166	1,313	1,290	1,247	1,140	1,117	1,039
3162	Footwear Manufacturing	1,289	997	796	675	544	452	402	427
3211	Sawmills and Wood Preservation	480	498	577	556	534	501	519	563
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	300	449	557	605	703	737	794	660
3222	Converted Paper Product Mfg.	1,269	1,176	975	953	861	934	853	971
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	190	399	388	397	426	1,061	1,784	2,515
3272	Glass and Glass Product Mfg.	250	668	706	814	901	943	1,019	1,272
3321	Forging and Stamping	50	279	159	139	139	79	69	58
3322	Cutlery and Handtool Mfg.	290	419	259	228	238	236	255	233
3324	Boiler, Tank, and Shipping Container Manufacturing	160	349	438	467	485	482	539	602
3325	Hardware Manufacturing	320	508	408	367	406	442	490	515
3332	Industrial Machinery Manufacturing	390	1,784	4,019	4,983	5,255	6,643	7,428	7,447
3333	Commercial and Service Industry Machinery Manufacturing	140	219	219	218	178	138	137	126
3353	Electrical Equipment Manufacturing	350	927	796	715	614	442	392	408
3359	Other Electrical Equipment and Component Manufacturing	360	468	487	486	356	255	216	184

Table 12-4 CAGR* for Employment in the West Central I Region's Driver Industries, 1993-2008

NAICS	Title	1993-1998	1998-2003	2003-2008
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	8.6%	-2.9%	-0.1%
3115	Dairy Product Manufacturing	2.8%	-0.4%	-1.5%
3162	Footwear Manufacturing	-4.2%	-12.3%	-0.9%
3211	Sawmills and Wood Preservation	0.6%	0.1%	2.0%
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	6.9%	8.6%	-1.8%
3222	Converted Paper Product Mfg.	-1.3%	-3.8%	0.7%
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	13.2%	17.7%	15.5%
3272	Glass and Glass Product Mfg.	17.8%	5.9%	5.1%
3321	Forging and Stamping	33.2%	-19.0%	-4.9%
3322	Cutlery and Handtool Mfg.	6.3%	-9.1%	-0.2%
3324	Boiler, Tank, and Shipping Container Mfg.	13.9%	5.5%	3.8%
3325	Hardware Manufacturing	8.0%	-2.3%	2.6%
3332	Industrial Machinery Manufacturing	28.9%	24.5%	1.9%
3333	Commercial and Service Industry Machinery Manufacturing	7.8%	-7.5%	-1.4%
3353	Electrical Equipment Manufacturing	17.6%	-11.6%	-1.3%
3359	Other Electrical Equipment and Component Mfg.	4.5%	-9.6%	-5.3%

***Compound Annual Growth Rate—CAGR.** An average annual growth rate over a specified period of time. It is calculated as: $CAGR = (\text{present value} / \text{base value})^{(1 / n \text{ number of years})} - 1$

Table 12-5 Labor Location Quotients*—West Central I Region's Driver Industries, 1993-2003

NAICS	Title	1993	1998	2001	2002	2003
3114	Fruit and Vegetable Preserving and Specialty Food Mfg.	4.44	7.15	6.72	6.72	6.07
3115	Dairy Product Manufacturing	5.71	6.74	6.72	6.39	5.82
3162	Footwear Manufacturing	15.48	19.19	19.04	17.47	16.10
3211	Sawmills and Wood Preservation	2.94	2.80	3.12	3.09	3.00
3212	Veneer, Plywood, and Engineered Wood Product Mfg.	2.63	3.02	3.70	4.25	4.51
3222	Converted Paper Product Manufacturing	2.54	2.14	1.70	1.58	1.76
3256	Soap, Cleaning Compound, and Toilet Preparation Mfg.	1.21	2.32	2.23	2.47	6.24
3272	Glass and Glass Product Manufacturing	1.42	3.56	4.24	5.08	5.66

NAICS	Title	1993	1998	2001	2002	2003
3321	Forging and Stamping	0.33	1.45	0.79	0.86	0.50
3322	Cutlery and Handtool Manufacturing	3.20	3.99	2.26	2.58	2.66
3324	Boiler, Tank, and Shipping Container Manufacturing	1.24	2.44	3.21	3.54	3.68
3325	Hardware Manufacturing	4.89	7.20	5.66	6.74	7.74
3332	Industrial Machinery Manufacturing	2.25	7.97	23.71	28.11	37.31
3333	Commercial and Service Industry Machinery Manufacturing	0.84	1.11	1.09	0.96	0.80
3353	Electrical Equipment Manufacturing	1.34	3.27	2.58	2.46	1.92
3359	Other Electrical Equipment and Component Manufacturing	1.67	1.93	1.92	1.65	1.28

* The location quotient (LQ) technique is the calculated ratio between the local economy and the economy of some reference unit – in our case the national economy. A location quotient greater than one suggests that there is a concentration or specialization of an industry within a region, while a location quotient less than one suggests an industry is not concentrated in the region.

Table 12-6 Gross Product in the West Central I Region's Driver Industries, 1993-2008

NAICS	Title	1993	1998	2000	2001	2002	2003	2004	2008
3114	Fruit and Vegetable Preserving and Specialty Food Mfg.	\$ 58,946,132	\$ 117,355,697	\$ 133,574,987	\$ 142,488,232	\$ 139,417,376	\$ 136,350,415	\$ 141,512,307	\$ 160,613,049
3115	Dairy Product Manufacturing	\$ 90,237,422	\$ 126,175,542	\$ 146,593,393	\$ 162,572,877	\$ 163,126,116	\$ 160,817,494	\$ 164,978,591	\$ 179,764,346
3162	Footwear Manufacturing	\$ 31,281,381	\$ 30,590,725	\$ 23,954,659	\$ 18,458,317	\$ 17,709,181	\$ 16,414,362	\$ 15,773,799	\$ 19,057,724
3211	Sawmills and Wood Preservation	\$ 17,141,840	\$ 21,830,608	\$ 26,889,502	\$ 29,732,857	\$ 31,285,555	\$ 34,146,815	\$ 36,907,116	\$ 45,362,166
3212	Veneer, Plywood, and Engineered Wood Product Mfg.	\$ 13,128,866	\$ 18,714,794	\$ 21,079,307	\$ 26,150,946	\$ 31,425,311	\$ 34,908,837	\$ 39,124,485	\$ 38,344,182
3222	Converted Paper Product Mfg.	\$ 165,691,245	\$ 123,895,920	\$ 134,050,908	\$ 139,285,465	\$ 143,350,531	\$ 175,996,145	\$ 179,890,663	\$ 248,311,850
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	\$ 11,929,928	\$ 29,615,167	\$ 47,235,098	\$ 79,500,472	\$ 105,945,626	\$ 141,087,308	\$ 206,457,061	\$ 309,976,531
3272	Glass and Glass Product Mfg.	\$ 15,833,908	\$ 31,008,821	\$ 38,995,726	\$ 39,690,371	\$ 44,692,223	\$ 51,323,198	\$ 57,777,711	\$ 84,558,903
3321	Forging and Stamping	\$ 11,285,871	\$ 30,481,224	\$ 25,630,296	\$ 40,698,095	\$ 44,163,144	\$ 36,020,977	\$ 38,178,688	\$ 34,466,097
3322	Cutlery and Handtool Mfg.	\$ 7,431,434	\$ 17,480,414	\$ 18,055,230	\$ 18,069,196	\$ 18,188,347	\$ 19,606,615	\$ 21,721,813	\$ 24,069,084
3324	Boiler, Tank, and Shipping Container Manufacturing	\$ 7,698,965	\$ 23,184,445	\$ 28,912,163	\$ 31,458,959	\$ 34,410,117	\$ 38,739,541	\$ 44,715,199	\$ 57,703,419
3325	Hardware Manufacturing	\$ 5,251,546	\$ 13,369,132	\$ 14,465,997	\$ 14,008,366	\$ 15,003,889	\$ 18,000,191	\$ 21,364,512	\$ 27,416,922
3332	Industrial Machinery Mfg.	\$ 28,051,185	\$ 142,700,307	\$ 175,475,811	\$ 218,017,671	\$ 249,405,966	\$ 327,834,138	\$ 387,240,976	\$ 457,884,431
3333	Commercial and Service Industry Machinery Manufacturing	\$ 43,647,287	\$ 66,387,746	\$ 57,735,091	\$ 62,848,076	\$ 53,736,484	\$ 49,346,061	\$ 50,442,527	\$ 51,953,872
3353	Electrical Equipment Mfg.	\$ 21,749,329	\$ 50,957,996	\$ 41,484,393	\$ 78,023,806	\$ 70,307,646	\$ 60,220,318	\$ 59,248,952	\$ 72,539,956
3359	Other Electrical Equipment and Component Manufacturing	\$ 19,103,739	\$ 30,969,003	\$ 28,783,268	\$ 55,913,735	\$ 49,743,433	\$ 37,462,640	\$ 35,299,260	\$ 37,959,493

Table 12-7 CAGR* for Gross Product in the West Central I Region's Driver Industries, 1993-2008

NAICS	Title	1993-1998	1998-2003	2003-2008
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	12.2%	2.5%	2.8%
3115	Dairy Product Manufacturing	5.7%	4.1%	1.9%
3162	Footwear Manufacturing	-0.4%	-9.9%	2.5%
3211	Sawmills and Wood Preservation	4.1%	7.7%	4.8%
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	6.1%	10.9%	1.6%
3222	Converted Paper Product Manufacturing	-4.7%	6.0%	5.9%
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	16.4%	29.7%	14.0%
3272	Glass and Glass Product Manufacturing	11.9%	8.8%	8.7%
3321	Forging and Stamping	18.0%	2.8%	-0.7%
3322	Cutlery and Handtool Manufacturing	15.3%	1.9%	3.5%
3324	Boiler, Tank, and Shipping Container Mfg.	20.2%	8.9%	6.9%
3325	Hardware Manufacturing	16.9%	5.1%	7.3%
3332	Industrial Machinery Mfg.	31.1%	14.9%	5.7%
3333	Commercial and Service Industry Machinery Mfg.	7.2%	-4.8%	0.9%
3353	Electrical Equipment Manufacturing	15.2%	2.8%	3.2%
3359	Other Electrical Equipment and Component Mfg.	8.4%	3.2%	0.2%

***Compound Annual Growth Rate—CAGR.** An average annual growth rate over a specified period of time. It is calculated as: $CAGR = (\text{present value} / \text{base value})^{(1 / \text{number of years})} - 1$

Table 12-8 Output Location Quotients*—West Central I Region's Driver Industries, 1993-2003

NAICS	Title	1993	1998	2001	2002	2003
3114	Fruit and Vegetable Preserving and Specialty Food Mfg.	4.76	8.29	10.21	9.95	9.35
3115	Dairy Product Manufacturing	8.17	10.44	13.03	12.47	12.30
3162	Footwear Manufacturing	12.77	16.79	13.64	13.31	12.83
3211	Sawmills and Wood Preservation	2.38	2.86	4.49	4.68	5.28
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	2.20	2.60	3.77	4.35	4.74
3222	Converted Paper Product Manufacturing	6.82	3.96	3.78	3.78	4.51
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	0.93	1.63	4.50	5.95	7.17
3272	Glass and Glass Product Manufacturing	1.99	2.78	4.05	4.70	5.57
3321	Forging and Stamping	1.46	2.61	3.98	4.51	3.61
3322	Cutlery and Handtool Manufacturing	1.92	3.44	3.92	4.27	4.58
3324	Boiler, Tank, and Shipping Container Manufacturing	1.28	3.17	4.96	5.62	6.38
3325	Hardware Manufacturing	1.49	2.91	3.21	3.58	4.25
3332	Industrial Machinery Manufacturing	2.82	8.88	14.50	18.32	23.27
3333	Commercial and Service Industry Machinery Manufacturing	5.93	7.90	7.19	6.57	6.22
3353	Electrical Equipment Manufacturing	1.72	2.87	4.60	4.26	3.68
3359	Other Electrical Equipment and Component Manufacturing	1.42	1.81	3.32	3.18	2.49

* The location quotient (LQ) technique is the calculated ratio between the local economy and the economy of some reference unit – in our case the national economy. A location quotient greater than one suggests that there is a concentration or specialization of an industry within a region, while a location quotient less than one suggests an industry is not concentrated in the region.

Table 12-9 Manufacturing Productivity (Gross Product per Employee) of Driver Industries, West Central I Region, 1993-2008

NAICS	Title	1993	1998	2000	2001	2002	2003	2004	2008
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	\$ 50,406	\$ 61,319	\$ 67,136	\$ 78,016	\$ 79,148	\$ 85,125	\$ 89,689	\$ 100,866
3115	Dairy Product Manufacturing	\$ 91,194	\$ 108,189	\$ 111,634	\$ 125,987	\$ 130,827	\$ 141,079	\$ 147,670	\$ 173,032
3162	Footwear Manufacturing	\$ 24,261	\$ 30,689	\$ 30,099	\$ 27,347	\$ 32,537	\$ 36,312	\$ 39,257	\$ 44,609
3211	Sawmills and Wood Preservation	\$ 35,730	\$ 43,801	\$ 46,603	\$ 53,490	\$ 58,546	\$ 68,135	\$ 71,057	\$ 80,551
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	\$ 43,785	\$ 41,722	\$ 37,838	\$ 43,190	\$ 44,727	\$ 47,366	\$ 49,287	\$ 58,076

NAICS	Title	1993	1998	2000	2001	2002	2003	2004	2008
3222	Converted Paper Product Manufacturing	\$ 130,530	\$ 105,334	\$ 137,499	\$ 146,169	\$ 166,504	\$ 188,525	\$ 210,989	\$ 255,743
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	\$ 62,820	\$ 74,276	\$ 121,747	\$ 200,231	\$ 248,977	\$ 132,939	\$ 115,752	\$ 123,264
3272	Glass and Glass Product Mfg.	\$ 63,367	\$ 46,431	\$ 55,210	\$ 48,763	\$ 49,629	\$ 54,404	\$ 56,689	\$ 66,480
3321	Forging and Stamping	\$ 225,829	\$ 109,211	\$ 161,024	\$ 292,864	\$ 318,770	\$ 458,199	\$ 556,536	\$ 591,626
3322	Cutlery and Handtool Mfg.	\$ 25,638	\$ 41,754	\$ 69,805	\$ 79,146	\$ 76,582	\$ 83,134	\$ 85,250	\$ 103,289
3324	Boiler, Tank, and Shipping Container Manufacturing	\$ 48,142	\$ 66,454	\$ 66,052	\$ 67,432	\$ 70,964	\$ 80,454	\$ 82,959	\$ 95,855
3325	Hardware Manufacturing	\$ 16,419	\$ 26,298	\$ 35,467	\$ 38,142	\$ 36,980	\$ 40,705	\$ 43,601	\$ 53,278
3332	Industrial Machinery Mfg.	\$ 71,962	\$ 79,977	\$ 43,661	\$ 43,753	\$ 47,463	\$ 49,351	\$ 52,129	\$ 61,485
3333	Commercial and Service Industry Machinery Mfg.	\$ 311,920	\$ 302,732	\$ 263,800	\$ 287,799	\$ 301,677	\$ 358,685	\$ 367,654	\$ 411,605
3353	Electrical Equipment Mfg.	\$ 62,172	\$ 54,970	\$ 52,126	\$ 109,173	\$ 114,592	\$ 136,182	\$ 151,144	\$ 177,883
3359	Other Electrical Equipment and Component Mfg.	\$ 53,092	\$ 66,103	\$ 59,047	\$ 114,959	\$ 139,630	\$ 146,627	\$ 163,724	\$ 205,766

12.4 Wisconsin Executive Perspectives in the West Central I Region

West Central I Region Responses to the WMEP Study Questionnaire's "Open Ended" Questions

(NB: Incomplete answers are due to the space limits of the online questionnaire. In some cases, a partial word or intended meaning has been inferred and, therefore, completed. In such cases, the extrapolation appears in brackets. Where an inference could not be made, ellipses indicate the omission. Where provided by the respondent, job title and industry sector are included.)

As you consider your industry and business for the next 5 to 10 years, what are the most prominent workforce-related concerns?

Availability of a workforce interested in manufacturing positions with strong work ethic.
--President, Electric Motors

Availability of educated and motivated workers.
--President, Laser Marking Job Shop

Employee Insurance and Benefits.
--Owner, GM, Commercial Printing

Health insurance costs. Productivity. Environmental laws. Foreign competition for resources.
--Owner, Grey and Ductile Iron Castings

Hiring qualified personnel.
--Operation Manager, Electronic Wire and Cable Assemblies

Labor and Benefit costs very high compared to our operations in Mexico and China.
--Plant Manager, Air Filtration Equipment

Maintaining competitive compensation to minimize attrition of key resources.
--Injected Molded Plastic Parts

With an average age for workers currently employed at our company of 54, concerns with hiring enough qualified workers to fill the gaps.
--Logistics/Distribution, Consumer Paper Products

As you consider your industry and business for the next 5 to 10 years, what are the most prominent advantages that the Wisconsin workforce can offer?

Dedicated loyal hard working.....
--Operation Manager, Electronic Wire and Cable Assemblies

Fairly good work ethic.

-- *Owner, Grey and Ductile Iron Castings*

Generally, a good pool of workers to draw from who have good work ethics, and tend to stay on the job.

--*President, Laser Marking Job Shop*

In general, a higher quality individual with a strong work ethic.

--*President, Electric Motors*

Sincere, hard-working employees who understand that a customer's satisfaction equates to job security.

--*Owner, GM, Commercial Printing*

Strong work ethic, good education and related skills.

--*Injection Molded Plastic Parts*

We can respond quickly to orders.

--*Parts Manager, Air Filtration Equipment*

Work ethics in the Midwest/Wisconsin tend to be exceptional compared to other regions of the country.

--*Logistics/Distribution, Consumer Paper Products*

What changes, if any, would you like to see in the Wisconsin higher education system to better meet the long-term needs of your industry and firm in the state?

I would like to see more interactive collaborations between schools and commercial business. More internships, more class tours of business. The Junior Achievement program is an excellent start . . .

--*Owner, GM, Commercial Printing*

Keep up to date on manufacturing technologies.

--*Plant Manager, Air Filtration Equipment*

None.

--*President, Laser Marking Job Shop*

None. The employees that I typically hire are not very skilled but normally have a high school education.

--*Owner, Grey and Ductile Iron Castings*

Strong emphasis on preparing students for work in manufacturing processes. Many of the individuals applying for work today do not have mechanical aptitude or high levels of work ethic.

--*President, Electric Motors*

Students need more exposure to Lean Manufacturing and by that I mean more than an introduction to it. They really need to understand the concepts and be equipped with the tools and desire to make . . . [a difference].

--Injection Molded Plastic Parts

We are a manufacturing facility looking into a lean future.

--Logistics/Distribution, Consumer Paper Products

Describe any innovative workforce attraction or development programs that you would like to see expanded in Wisconsin.

Cannot think of any.

--Owner, Grey and Ductile Iron Castings

I think Wisconsin is a great place to live. I'm not sure it's a great place to work.

--Injection Molded Plastic Parts

Lower property taxes. Readily available and reasonably priced healthcare.

--President, Laser Marking Job Shop

More of a focus on students in high school who do not intend go on to college.

--President, Electric Motors

Tax credits for any business investing in technology...not only for what is arbitrarily determined to be "high tech" businesses. Our printing firm has installed state of the art Computer to Plate . . .

..

--Owner, GM, Commercial Printing

What are the business challenges that your organization faces – what most keeps you up at night?

Cash flow, productivity.

--President, Laser Marking Job Shop

Customers asking for lower prices while manufacturing costs continue to increase.

--Injection Molded Plastic Parts

Improving Profitability.

--Owner, GM, Commercial Printing

Low cost operations in Mexico, India and China.

--Plant Manager, Air Filtration Equipment

Making a profit. Pressures of remaining competitive. Medical costs for employees.

--Owner, Grey and Ductile Iron Castings

Nothing keeps me up at night.....business is a risky game we all love to play.....challenges are staying ahead of the industry curve on product development.

--Operation Manager, Electronic Wire and Cable Assemblies

The uneven playing field concerning exporting to China (duties and VAT) versus the much lower cost for China to export to the US. For instance, if we ship motors into China, it costs us 9% tariff . . .

--President, Electric Motors

What are the business strengths and/or advantages your organization has by being located in Wisconsin?

Close to the markets we serve.

--Plant Manager, Air Filtration Equipment

Good infrastructure and fairly low business taxes.

--President, Electric Motors

Having people who care.

--Owner, GM, Commercial Printing

I cannot think of any.

--Owner, Grey and Ductile Iron Castings

Stable workforce. Nice place to live.

--President, Laser Marking Job Shop

The strengths are our people. Not sure this is related to Wisconsin. This would be true if located in another state.

--Injection Molded Plastic Parts

Workforce, leadership and history.

--Operation Manager, Electronic Wire and Cable Assemblies